McGraw-Hill Higher Education empowers instructors to help students succeed academically now and into the future by providing flexible, superior-quality solutions that serve the needs of instructors and students end to end - from textbooks and digital instructional content and tools to innovate subject mastery, experiential learning and assignment/assessment solutions.

- **Connect.**
  We connect instructors and students to valuable course content and resources - and we connect instructors and students to each other - with the best traditional and digital teaching tools.

- **Learn.**
  We enable greater learning and deeper comprehension with the highest-quality tools and content that let students engage with their coursework when, where and however they learn best.

- **Succeed.**
  We provide the learning resources students need to connect success in the classroom with success in the world that awaits.

**Preparing Students for the World That Awaits**
Welcome to McGraw-Hill’s *2012 Computer Science & Electrical Engineering* Catalog. Inside this catalog, you will find a wide selection of McGraw-Hill latest academic publications. Apart from those published from the US, we have also included publications from Asia as well as from our subsidiaries in Australia, India and United Kingdom. For the benefit of students, widely adopted textbooks are made available as low-priced McGraw-Hill International Editions (see titles in this catalog tagged with “International Edition”).

**REVIEW COPY REQUEST**

Teaching professionals who wish to consider McGraw-Hill titles for textbook adoption may request for a review copy. To request for a review copy:

- contact your local McGraw-Hill Representatives or,
- fax the Review Copy Request Form found in this catalog or,
- e-mail to mghasia_sg@mcgraw-hill.com or,
- submit online at www.mheducation.asia

*(Note: All requests for review copies are subject to approval. McGraw-Hill reserves the right to refuse any requests that do not relate to teaching).*

**HOW TO ORDER**

McGraw-Hill books and International Editions are easily available through your local bookstores. In case of difficulty in purchasing our publications, please contact the local McGraw-Hill office (see inside back cover) or send your orders to:

**McGraw-Hill Education (Asia)**
60 Tuas Basin Link
Singapore 638775
Tel: (65) 6863 1580
Tel: (65) 6868 8188 (Customer Service Hotline)
Fax: (65) 6862 3354
Email: mghasia_sg@mcgraw-hill.com

**A NOTE TO LIBRARIANS**

Please place your orders through your regular local Library Supplier/Contractor. For further assistance, kindly contact your local McGraw-Hill Education (Asia) representative.

**INVITATION TO PUBLISH**

McGraw-Hill is continuously sourcing for quality manuscript for the academic and professional markets in Asia for inclusion in our global publishing program. Please contact your local McGraw-Hill office or email us directly in Singapore at asiapub@mcgraw-hill.com if you are planning to write a book.

**MAILING LIST**

If you wish to receive up-to-date information on McGraw-Hill’s new publications regularly, please submit your particulars on the mailing list form (see back pages) and return to us by fax or mail.
# CONTENTS

## Computer Science ................. 1

### Introduction to Computer Science
- Introduction to Computer Science ........................................ 5
- Introduction to Computing Systems ..................................... 5

### Programming - General
- Programming Languages .................................................... 6
- Parallel Programming ......................................................... 7
- Systems Programming ....................................................... 7

### Programming
- C: Intro to Programming/CS1 ............................................. 8
- C Programming for Engineers .............................................. 10
- Java Programming/CS1 ..................................................... 11
- C# Programming .............................................................. 18
- C++ Programming/CS1 ...................................................... 19
- FORTRAN Programming .................................................... 21
- Python Programming ....................................................... 21

### Algorithms and Data Structures
- Algorithms ........................................................................... 21
- Data Structures in Java ...................................................... 22
- Data Structures in C .......................................................... 23
- Data Structures in C++ ...................................................... 23

### Mathematics and Logic
- Numerical Methods ........................................................... 24
- Discrete Mathematics ........................................................ 26
- Digital Logic / Logic Design .............................................. 28
- Theory of Computation ..................................................... 32
- Simulation and Modeling ................................................... 33

### Computer Organisation & Architecture
- Assembly Languages ......................................................... 34
- Computer Organization and Architecture ............................ 35
- Embedded Systems ............................................................ 38
- Advanced Computer Architecture ...................................... 38
- Advanced Microprocessors & Microcomputers ...................... 38
- Microprocessors & Microcontrollers .................................... 39

### Operating Systems
- LINUX ................................................................................. 39
- Operating Systems (OS) ....................................................... 40
- UNIX .................................................................................. 41

### Software Engineering
- Software Engineering ......................................................... 42
- Software Engineering (Advanced) ....................................... 47
- Unified Modeling Language (UML) ..................................... 48
- System Analysis & Design .................................................. 48
- Object Oriented Design ..................................................... 49
- Software Project Management ............................................ 50

### Networking and Telecommunications
- Local Area Networks ......................................................... 51
- Computer Networks .......................................................... 52
- TCP/IP .............................................................................. 53
- Network Security .............................................................. 53
- Wireless Communications and Networking ....................... 54

### Database Systems
- SQL Programming ............................................................. 56
- Database Management and Design .................................... 56
- Database Systems ............................................................. 57

### Computer Graphics
- ........................................................................................ 58

### Artificial Intelligence
- Artificial Intelligence (AI) .................................................... 59
- Neural Networks and Fuzzy Systems ................................... 59

### Internet/Multimedia
- Multimedia ................................................................. 60

### Bioinformatics
- ........................................................................................ 60

### Software Testing
- ........................................................................................ 60

### Professional References
- ....................................................................................... 61
## Computer Information Technology

**Application Software**
- Access Brief .................................................. 82
- Access Complete ........................................... 83
- Access Intro .................................................... 82
- Excel Complete ............................................. 81
- Excel Intro ..................................................... 80
- Office Intro .................................................... 73
- Operating Systems ........................................ 86
- Outlook Intro .................................................. 87
- PowerPoint Complete .................................... 85
- PowerPoint Intro ............................................. 84
- Training & Assessment ..................................... 86
- Word Complete ............................................... 78
- Word Intro ...................................................... 77

**Computer Concepts**
- Brief Computer Concepts ................................ 67
- Comprehensive Computer Concepts .................. 69

**Game Design and Development** ....................... 91

**Networking**
- Information Security ....................................... 92
- Networking Essentials .................................... 92
- Wireless Networking ....................................... 93

**Professional References** ................................ 94

**Programming**
- Visual Basic .................................................. 88

**Web Programming/Design**
- HTML ............................................................. 90

## Management Information Technology

**Advanced MIS** .................................................. 169
**Computers in Society / Computer Ethics** ............... 170
**Database Management** ..................................... 164
**Data Communications / Telecommunications / Office Systems** ................................................. 167
**Data Mining** ................................................. 171
**Decision Support Systems** ............................... 168
**Enterprise Resource Planning** ......................... 171
**Introduction to Information Systems** .................. 155
**Management Information Systems** ..................... 159
**Object-Oriented System Analysis & Design** .......... 166
**Professional References** ................................... 172
**Project Management** ....................................... 168
**System Analysis & Design** ............................... 165

## Electrical Engineering

**Introduction to Electrical Engineering** ................. 123
**Basic Electricity** .......................................... 124
**Basic Electronics** .......................................... 129

**Circuits and Electronics**
- Circuit Analysis ............................................... 132
- Analog Integrated Circuits ................................ 135
- Digital Integrated Circuits ................................ 136
- Electronics Principles ..................................... 137
- Analog OP Amps ............................................. 138

**Devices and Materials**
- Microelectronics ............................................. 138
- Physics of Semiconductor Devices ...................... 140
- Solid State/Electronic Materials ......................... 141
# CONTENTS

<table>
<thead>
<tr>
<th>Fields and Waves</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electromagnetics</td>
<td>142</td>
</tr>
<tr>
<td>Microwaves</td>
<td>143</td>
</tr>
<tr>
<td>Antennas and Radar</td>
<td>144</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signals and Systems</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signals and Systems</td>
<td>175</td>
</tr>
<tr>
<td>Digital Signal Processing</td>
<td>177</td>
</tr>
<tr>
<td>Digital Image Processing</td>
<td>179</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digital</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Electronics</td>
<td>145</td>
</tr>
<tr>
<td>Digital Design/Logic</td>
<td>147</td>
</tr>
<tr>
<td>Programmable Logic Controller</td>
<td>151</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controls</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Systems</td>
<td>152</td>
</tr>
<tr>
<td>Digital Control</td>
<td>153</td>
</tr>
<tr>
<td>Generators, Motors, Compressors</td>
<td>154</td>
</tr>
<tr>
<td>Neural Networks/Fuzzy Systems</td>
<td>154</td>
</tr>
<tr>
<td>Electrical Instrumentation</td>
<td>155</td>
</tr>
<tr>
<td>Mechatronics</td>
<td>155</td>
</tr>
<tr>
<td>Advanced Systems</td>
<td>156</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power and Machines</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Machines</td>
<td>156</td>
</tr>
<tr>
<td>Power Electronics</td>
<td>158</td>
</tr>
<tr>
<td>Power Systems</td>
<td>159</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Computer Engineering</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Organization &amp; Architecture</td>
<td>161</td>
</tr>
<tr>
<td>Embedded Systems</td>
<td>164</td>
</tr>
<tr>
<td>Advanced Computer Architecture</td>
<td>164</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Networking and Communications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Systems</td>
<td>165</td>
</tr>
<tr>
<td>Digital Communication</td>
<td>167</td>
</tr>
<tr>
<td>Electronic Communications</td>
<td>168</td>
</tr>
<tr>
<td>Fiber Optic Communications</td>
<td>170</td>
</tr>
<tr>
<td>Wireless Communications</td>
<td>171</td>
</tr>
<tr>
<td>Computer Networks</td>
<td>172</td>
</tr>
<tr>
<td>Local Area Networks</td>
<td>174</td>
</tr>
<tr>
<td>Circuits and Networks</td>
<td>174</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Numerical Methods</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerical Methods</td>
<td>182</td>
</tr>
<tr>
<td>Probability &amp; Random Processes</td>
<td>183</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Microcomputers. Microprocessors and Chips</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Microprocessors</td>
<td>184</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Reference</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Design in Electrical Engineering</td>
<td>184</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional References</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>185</td>
</tr>
</tbody>
</table>

**Indexes**

<table>
<thead>
<tr>
<th>Indexes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Author Indexes</td>
<td>202</td>
</tr>
<tr>
<td>Title Indexes</td>
<td>193</td>
</tr>
</tbody>
</table>
Productivity | Efficiency | Simplicity

An unrivaled, total course solution—McGraw-Hill and Blackboard have partnered to deliver content and tools directly inside your learning management system.*

Manage your course content, assignments, and assessments...all from within your existing Blackboard® environment.

Pair Your Course
Just pair your Connect course with your Blackboard course to create a seamless experience for you and your students.

Deploy Assignments
Once paired, you can import all your Connect assignments with a couple of clicks, and you can also build new Connect assignments—right from within your Blackboard system.

Single Sign On with a Single Integrated Gradebook
Students access all of their assignments right within the Blackboard platform without ever logging on to another site, and their grades are automatically recorded in the Blackboard gradebook.

* Compatible with Blackboard Learn™, Releases 9.1, 9.0 and 8.0

Visit DoMoreNow.com
McGraw-Hill Connect® and McGraw-Hill Create™ are now fully integrated into the Blackboard Learn platform.

Enjoy simplified access to the highest quality, media-rich content and adaptive learning and assessment engines for faculty, students and institutions.

Key Features
- **Single Sign-On**
  A single login and single environment provide seamless access to all course resources – all McGraw-Hill’s resources are available within the Blackboard Learn platform.

- **One Gradebook**
  Automatic grade synchronization with Blackboard gradebook. All grades for McGraw-Hill assignments are recorded in the Blackboard gradebook automatically.

- **100% FERPA compliant solution protects student privacy.**

- **Deep Integration**
  One click access to a wealth of McGraw-Hill content and tools – all from within Blackboard Learn™.

A Total Course Solution
This unprecedented integration of publisher-provided content and tools into a learning management system offers the enhanced experience of all course resources in a single online environment.

Locally Hosted
All hosted within your institution’s Blackboard instance, students now have the means to better connect with their coursework, instructors, and the important concepts that they will need to master for success now and in the future.

Visit DoMoreNow.com
**Drawing Tool Problems**
- The power to electronically assign conceptual drawing problems.
- Students are able to interactively draw free body diagrams onscreen teaching them core concepts of understanding forces.

**Answer Palette Problems**
- Students symbolically solve-and-show an entire solution with an easy-to-use palette of control buttons.
- No special syntax or programming is necessary for the student to learn, allowing them to focus on problem solving.
- Students solve problems symbolically without numbers, building an understanding of various physics interactions occurring in the equations.

**Ranking Problems**
- Challenge student thinking on an entirely new level.
- Various choices or situations are presented, and the student must rank by simply clicking and dragging them into the proper order.
- Analyze critical-thinking skills undercover further potential learning opportunities.

**Dependent Multipart Problems**
- Allow students conceptual learning opportunities to work through problems step-by-step, and the reward of partial credit for all parts that they understand.
- Assign multiple learning concepts with various learning tools.
Learning is more than memorizing concepts. It’s figuring out how to apply them. And no other web-based solution gives you the power to turn learning into success than Connect.

Students Take Rich, Interactive Assignments & Receive Instant Feedback
Engage students with labeling, sequencing, art exploration, classification, and composition problems. Once an assignment is completed, students can see immediately how they’ve performed and receive feedback on each question.

Easily Create Assignments & Presentations
Quickly set up classroom presentations or activities for your students. Assign full-book coverage, including all topics and every relevant figure from the textbook. If you wish, you can customize your Connect content: labels, hints, feedback, and more.

Impressive Reporting Solutions
With Connect’s detailed reporting, you can quickly assess how students are doing in regards to overall class performance; specific objectives; individual assignments; and each question!
McGraw-Hill reinvents the textbook learning experience for the modern student with Connect Plus. A seamless integration of an eBook and Connect, Connect Plus provides all of the Connect features plus the following:

- An integrated, printable eBook, allowing for anytime, anywhere access to the textbook.
- Dynamic links between the problems or questions you assign to your students and the location in the eBook where that problem or questions is covered.
- Assign sections of the eBook to your students as readings with engaging audio files, animations and videos embedded within the eBook.
- Instructors have the ability to share notes, highlights, bookmarks, figures and animations with their students.
- A powerful search function to pinpoint and connect key concepts in a snap!
- Pagination that exactly matches the printed text, allowing students to rely on Connect Plus as the complete resource for your course.

Learn and View Connect Demo at [www.mcgrawhillconnect.com](http://www.mcgrawhillconnect.com)
Built around metacognition learning theory, LearnSmart provides your students with a GPS (Guided Path to Success) for your course. Using artificial intelligence, LearnSmart intelligently assesses a student’s knowledge of course content through a series of adaptive questions. It pinpoints concepts the student does not understand and maps out a personalized study plan for success.

- **Connect to Content:**
  Simulation allows students to practice course critical content.

- **Learn More Effectively:**
  Personal learning path is created based upon student knowledge level.

- **Anywhere, At Your Pace:**
  Students can access LearnSmart anytime and from anywhere that has internet access including the iPhone or iPod Touch.

LearnSmart is available as an integrated feature of McGraw-Hill’s Connect or separately. You can incorporate LearnSmart into your course in a number of ways to
- Gauge student knowledge before a lecture
- Reinforce learning after lecture
- Prepare students for assignments and exams

Discover for yourself how the LearnSmart diagnostic ensures students will **connect** with the content, **learn** more effectively, and **succeed** in your course.

Visit [www.mhhe.com/learnsmart](http://www.mhhe.com/learnsmart) to view a demo.
What is Connect?
McGraw-Hill Connect™ is an online assignment and assessment solution that connects your students with the tools and resources they’ll need to achieve success.

With Connect, enjoy simple course management so you can spend less time administering and more time teaching. You’ll have access to rich course resources and tools that drive performance like never before.

Connect Features:
McGraw-Hill Connect offers a number of powerful tools and features to make managing assignments easier, so you can spend more time teaching. With Connect, students can engage with their coursework anytime and anywhere, making the learning process more accessible and efficient.

- **Simple assignment management**
  With Connect, creating assignments is easier than ever, so you can spend more time teaching and less time managing.

- **Smart grading**
  When it comes to studying, time is precious. Connect helps students learn more efficiently by providing feedback and practice material when they need it, where they need it.

- **Student Progress Tracking**
  Staying informed about your students’ progress allows for targeted teaching. Connect keeps you updated on how your students are performing on an individual or course-wide level, so you can better help them succeed.
Large Selection of Customizable Exercises

- Customize to fit the needs of your course and your students.

Free-Body Diagram Answer Submission

- Students can use the Free Body Diagram tool to enter the answer to many exercises in Connect Engineering.
- Students will be able to graphically enter their answers just as an engineer would solve a problem by creating a visual representation of the solution rather than just raw numbers.

Flexible Presentation of Course Content

- Customize your assignments in whatever way that you like to fit the needs of your course.
Connect Math Hosted by ALEKS Corporation is an exciting, new assignment and assessment platform combining the strengths of McGraw-Hill Higher Education and ALEKS Corporation. Connect Math Hosted by ALEKS is the first platform on the market to combine an artificially-intelligent, diagnostic assessment with an intuitive ehomework platform designed to meet your needs.

Connect Math Hosted by ALEKS Corporation is the culmination of a one-of-a-kind market development process involving math full-time and adjunct Math faculty at every step of the process. This process enables us to provide you with a solution that best meets your needs.

Connect Math Hosted by ALEKS Corporation is built by Math educators for Math educators!

1 Your students want a well-organized homepage where key information is easily viewable.

Modern Student Homepage

- This homepage provides a dashboard for students to immediately view their assignments, grades, and announcements for their course. (Assignments include HW, quizzes, and tests.)
- Students can access their assignments through the course Calendar to stay up-to-date and organized for their class.

2 You want a way to identify the strengths and weaknesses of your class at the beginning of the term rather than after the first exam.

Integrated Aleks® Assessment

- This artificially-intelligent (AI), diagnostic assessment identifies precisely what a student knows and is ready to learn next.
- Detailed assessment reports provide instructors with specific information about where students are struggling most.

3 Your students want an assignment page that is easy to use and includes lots of extra help resources.

Efficient Assignment Navigation

- Students have access to immediate feedback and help while working through assignments.
- Students have direct access to a media-rich eBook for easy referencing.
- Students can view detailed, step-by-step solutions written by instructors who teach the course, providing a unique solution to each and every exercise.

4 You want a more intuitive and efficient assignment creation process because of your busy schedule.

Assignment Creation Process

- Instructors can select textbook-specific questions organized by chapter, section, and objective.
- Drag-and-drop functionality makes creating an assignment quick and easy.
- Choose your preferred method of feedback for your students—table or graphing calculator based stepped-out-solutions.

ALEKS is a registered trademark of ALEKS Corporation.
Your students want an interactive eBook with rich functionality integrated into the product.

Integrated Media-Rich eBook
- A Web-optimized eBook is seamlessly integrated within ConnectPlus Math Hosted by ALEKS Corp for ease of use.
- Students can access videos, images, and other media in context within each chapter or subject area to enhance their learning experience.
- Students can highlight, take notes, or even access shared instructor highlights/notes to learn the course material.

You want a flexible gradebook that is easy to use.

Flexible Instructor Gradebook
- Based on instructor feedback, Connect Math Hosted by ALEKS Corp’s straightforward design creates an intuitive, visually pleasing grade management environment.
- Assignment types are color-coded for easy viewing.
- The gradebook allows instructors the flexibility to import and export additional grades.

You want algorithmic content that was developed by math faculty to ensure the content is pedagogically sound and accurate.

Digital Content Development Story
The development of McGraw-Hill’s Connect Math Hosted by ALEKS Corp. content involved collaboration between McGraw-Hill, experienced instructors, and ALEKS, a company known for its high-quality digital content. The result of this process, outlined below, is accurate content created with your students in mind. It is available in a simple-to-use interface with all the functionality tools needed to manage your course.

1. McGraw-Hill selected experienced instructors to work as Digital Contributors.
2. The Digital Contributors selected the textbook exercises to be included in the algorithmic content to ensure appropriate coverage of the textbook content.
4. The Digital Contributors provided detailed instructions for authoring the algorithm specific to each exercise to maintain the original intent and integrity of each unique exercise.
5. Each algorithm was reviewed by the Contributor, went through a detailed quality control process by ALEKS Corporation, and was copyedited prior to being posted live.

Lead Digital Contributors
Tim Chappell, Metropolitan Community College, Penn Valley • Jeremy Coffelt, Blinn College • Nancy Ikeda, Fullerton College • Amy Naughten

Digital Contributors
Al Bluman, Community College of Allegheny County
John Coburn, St. Louis Community College, Florissant Valley
Vanessa Coffelt, Blinn College
Donna Gerken, Miami-Dade College
Kimberly Graham
J.D. Herdlick, St. Louis Community College, Meramec
Vickie Flanders, Baton Rouge Community College
Nic LaHue, Metropolitan Community College, Penn Valley
Nicole Lloyd, Lansing Community College
Jackie Miller, The Ohio State University
Anne Marie Mosher, St. Louis Community College, Florissant Valley
Reva Narasimhan, Kean University
David Ray, University of Tennessee, Martin
Kristin Stoley, Blinn College
Stephen Toner, Victor Valley College
Paul Vroman, St. Louis Community College, Florissant Valley
Michelle Whitmer, Lansing Community College

www.connectmath.com
What did thousands of students tell us was the most valued part of the course?

**Your Class Lecture!**

Research with over 6600 students revealed that your lecture is valued above all instructional material. Tegrity Campus, allows you to make your lectures available to your students to search, replay and review outside of class.

Tegrity Campus records your lectures, automatically capturing, storing, and indexing everything presented in class. It’s a simple click to start recording, everything is done for you and you can lecture exactly as you have before.

**Why Instructors LOVE Tegrity Campus.**

- No hardware needed or IT assistance.
- Using Tegrity Campus to record your lectures saves you time, serving as a 24-7 teaching assistant.
- Instructors using lecture capture consistently receive better course ratings from their students

**Why Students LOVE Tegrity Campus.**

- Your recorded lectures help your students review for tests, finish homework and complete notes.
- Students use Tegrity Campus but not other lecture capture services, because it is the only service that offers students a keyword search feature. Students can search in a lecture or across lectures to get only the information they need.

For more information visit us at http://tegritycampus.mhhe.com

“The course evaluations and student feedback indicated that Tegrity greatly improved the students’ learning experiences. The students were unanimous in viewing Tegrity as a valuable resource.”

*Dr. Darrell Brann, professor and associate director of the Institute of Neuroscience - John Meyer*

“During class I pay more attention and participate more; I don’t have to take up my instructor’s time after class.”

*Elizabeth Williams - Calhoun Community College*
McGraw-Hill’s ARIS
The Smart Solution.

Whether you’re looking for a ready-to-use system or one you can customize to fit your specific course needs, ARIS is your smart solution.

Exclusive to McGraw-Hill, ARIS – Assessment, Review, and Instruction System – gives you the power and freedom to achieve those goals that are most important to you, goals such as:

- **Standardizing your curriculum** – across class, grade, school, and district.

- **Easily test and assess** your students’ understanding and achievement.

- **Provide a central, secure, electronic resource** accessible anytime and anywhere you or your students have internet connectivity.

- **Assign homework, quizzing and self-study material**, which may be graded automatically to provide immediate student feedback. ARIS allows you to use pre-built, text-specific assignments, or provides the tools so you can create your own.

- **Enhance your students’ learning experience**. ARIS content is tied directly to your McGraw-Hill textbook, which allows your students to spend time outside of class mastering curricular goals with unlimited practice and smart tutorial feedback.

For more information, contact your McGraw-Hill representative, or visit online:

www.mharis.com

**standardize your curriculum**

**assign problems, animations, videos, and simulations online**

**easily measure and share results**

Managing this class with students and my colleagues has never been easier.

I received the homework scores for all my sections, and I’m confident my students know where they stand on the material.

This is actually fun! I feel ready for my exam.

For more information, contact your McGraw-Hill representative, or visit online:

www.mharis.com
Why MathZone?

McGraw-Hill’s MathZone is an electronic homework and course management system designed for greater flexibility, power, and ease of use than any other system. Whether you are looking for a “ready-to-use, straight-out-of-the-box” system or one you can customize to fit your specific course needs, MathZone is your smart solution.

**Flexibility**
- Set Mathematical tolerance standards for flexibility in accepting alternative versions of a student’s correct answer.
- Choose pre-built assignments or create your own custom content and assignments.
- Use the “Print” feature to create hard-copy versions of algorithmically generated quizzes and tests to hand out in class.
- Allow students to print algorithmic assignments; work the math at their own pace using pencil and paper; and enter their answers at a later date.
- Administer and share course sections with peers, adjuncts, part-timers and TAs.
- Integrate MathZone with third-party course management systems, including Blackboard/WebCT™.

**Power**
- Know exactly where your students stand with robust gradebook reporting and individualized, assignable assessment powered by ALEKS®.
- Assign problems, videos, and other learning aids as homework. Choose algorithmic problems from an entire library of McGraw-Hill titles.

**Ease of Use**
- Save yourself and your students time and stress by enjoying the industry’s most intuitive user interface for electronic homework.
- Help from our online technical support 24-hours a day, seven days a week.

MathZone is available for the subjects in
Mathematics & Statistics

**For More Information**
- Contact your local McGraw-Hill Higher Education sales representatives.
- Visit www.mathzone.com & click on the technical support tab.
Imagine being able to create and access your test anywhere, at any time without installing the testing software. Now, with the newest release of EZ Test Online, instructors can select questions from multiple McGraw-Hill test banks, author their own and then either print the test for paper distribution or give it online.

Features and Functions
- Test Creation
- Online Test Management
- Online Scoring and Reporting
  - EZ Test is designed to make it simple for you to select questions from McGraw-Hill test banks. You can use a single McGraw-Hill test bank, or easily choose questions from multiple McGraw-Hill test banks.
  - EZ Test supports the use of following question types:
    - True or False
    - Fill In the Blank
    - Yes or No
    - Numeric Response
    - Multiple Choice
    - Match All That Apply
    - Short Answer
    - Matching
    - Essay
    - Ranking
  - Uses variables to create *algorithmic* questions for any question type.
  - You can create multiple versions of the same test.
  - You can scramble questions to create different versions of your test.
  - Automated scoring for most of EZ test’s numerous questions types.

How do you get it?
To learn if it is available with your book, contact your local McGraw-Hill Education Representatives or email mghasia_sg@McGraw-Hill.com.
## COMPUTER SCIENCE

### 2013

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Unix/Linux: The Ultimate Guide, 3e</td>
<td>Das</td>
<td>9780073376202</td>
<td>41</td>
</tr>
<tr>
<td>Data Communications and Networking, 5e (Global Edition)</td>
<td>Forouzan</td>
<td>9780071326285</td>
<td>54</td>
</tr>
</tbody>
</table>

### 2012

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Numerical Methods with MatLab for Engineers and Scientists, 3e</td>
<td>Chapra</td>
<td>9780073401102</td>
<td>24</td>
</tr>
<tr>
<td>Computer Networks: A Top Down Approach</td>
<td>Forouzan</td>
<td>9780073523262</td>
<td>52</td>
</tr>
<tr>
<td>Computer Organization, 6e</td>
<td>Hamacher</td>
<td>9780073380650</td>
<td>35</td>
</tr>
<tr>
<td>Simulation Using ProModel, 3e</td>
<td>Harrell</td>
<td>9780073401300</td>
<td>33</td>
</tr>
<tr>
<td>Computer Networks: An Open Source Approach</td>
<td>Lin</td>
<td>9780073376240</td>
<td>52</td>
</tr>
<tr>
<td>Discrete Mathematics and Its Applications, 7e (Global Edition)</td>
<td>Rosen</td>
<td>9780073383095</td>
<td>26</td>
</tr>
<tr>
<td>Fundamentals of Digital and Computer Design with VHDL</td>
<td>Sandige</td>
<td>9780073380698</td>
<td>28</td>
</tr>
<tr>
<td>C Programming: A Concise Q&amp;A Approach, 2e [Asia Adaptation Title]</td>
<td>Tan</td>
<td>9780071311168</td>
<td>8</td>
</tr>
</tbody>
</table>

### 2011

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object-Oriented Programming with C++, 5e [MH India Title]</td>
<td>Balagurusamy</td>
<td>9780071072830</td>
<td>19</td>
</tr>
<tr>
<td>Object-Oriented Systems Analysis, 4e [MH UK Title]</td>
<td>Bennett</td>
<td>9780077125363</td>
<td>48</td>
</tr>
<tr>
<td>Systems Programming [MH India Title]</td>
<td>Dhamdhere</td>
<td>9780071333115</td>
<td>7</td>
</tr>
<tr>
<td>Data Communications and Networks, 2e [MH India Title]</td>
<td>Godbole</td>
<td>9780071077705</td>
<td>55</td>
</tr>
<tr>
<td>Database Management Systems [MH India Title]</td>
<td>Gupta</td>
<td>9780071072731</td>
<td>56</td>
</tr>
<tr>
<td>Software Quality Assurance [MH UK Title]</td>
<td>Limaye</td>
<td>9780071072526</td>
<td>47</td>
</tr>
<tr>
<td>Microprocessors and Microcontrollers</td>
<td>Mandal</td>
<td>9780071329200</td>
<td>39</td>
</tr>
<tr>
<td>Object-Oriented Technology, 2e [Asian Publication]</td>
<td>Tsang</td>
<td>9780071269216</td>
<td>42</td>
</tr>
<tr>
<td>Java Programming: A Practical Approach</td>
<td>Xavier</td>
<td>9780070702097</td>
<td>12</td>
</tr>
</tbody>
</table>
# New Titles

## COMPUTER INFORMATION TECHNOLOGY

### 2013

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computing Now</td>
<td>McGraw-Hill</td>
<td>9780073516851</td>
<td>69</td>
</tr>
<tr>
<td>Computing Essentials 2013, Introductory Edition</td>
<td>O'Leary</td>
<td>9780077538989</td>
<td>67</td>
</tr>
<tr>
<td>Computing Essentials 2013, Complete Edition</td>
<td>O'Leary</td>
<td>9780073516820</td>
<td>70</td>
</tr>
<tr>
<td>Using Information Technology, Introductory Edition, 10e</td>
<td>Williams</td>
<td>9780077470678</td>
<td>67</td>
</tr>
<tr>
<td>Using Information Technology, Complete Edition, 10e</td>
<td>Williams</td>
<td>9780073516837</td>
<td>71</td>
</tr>
</tbody>
</table>

### 2012

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Operating Systems, 3e</td>
<td>Holcombe</td>
<td>9780073518176</td>
<td>86</td>
</tr>
<tr>
<td>Making Microsoft Outlook 2010 Work For You</td>
<td>Nordell</td>
<td>9780073519289</td>
<td>87</td>
</tr>
<tr>
<td>Computing Essentials 2012, Complete Edition, 22e</td>
<td>O'Leary</td>
<td>9780073516806</td>
<td>71</td>
</tr>
<tr>
<td>Microsoft Office 2010 Now: A Skills Approach</td>
<td>Triad Interactive</td>
<td>9780073516479</td>
<td>73</td>
</tr>
</tbody>
</table>

### 2011

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Communications and Networks, 2e [MH India Title]</td>
<td>Godbole</td>
<td>9780071077705</td>
<td>92</td>
</tr>
</tbody>
</table>
# MANAGEMENT INFORMATION SYSTEMS

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Business Driven Technology, 5e</td>
<td>Baltzan</td>
<td>9780073376844</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>M: Information Systems, 2e</td>
<td>Baltzan</td>
<td>9780073376868</td>
<td>101,106</td>
</tr>
<tr>
<td></td>
<td>Annual Editions: Technologies, Social Media and Society, 18e</td>
<td>De Palma</td>
<td>9780073528731</td>
<td>111, 116</td>
</tr>
<tr>
<td></td>
<td>Management Information Systems for the Information Age, 9e</td>
<td>Haag</td>
<td>9780073376851</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>Introduction to Information Systems, 16e</td>
<td>Marakas</td>
<td>9780073376882</td>
<td>102,107</td>
</tr>
<tr>
<td>2012</td>
<td>Business Driven Information Systems, 3e</td>
<td>Baltzan</td>
<td>9780073376820</td>
<td>102,107</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Enterprise Resource Planning</td>
<td>Goyal</td>
<td>9780071077972</td>
<td>117</td>
</tr>
</tbody>
</table>
# New Titles

## Electrical Engineering

### 2013

<table>
<thead>
<tr>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Electric Circuits, 5e</td>
</tr>
<tr>
<td>Data Communications and Networking, 5e [Global Edition]</td>
</tr>
<tr>
<td>Electricity Principles &amp; Applications with Student Data CD-Rom, 8e</td>
</tr>
<tr>
<td>Contemporary Communication Systems</td>
</tr>
<tr>
<td>Applied Circuit Analysis</td>
</tr>
<tr>
<td>Electronics Principles and Applications with Student Data CD-Rom, 8e</td>
</tr>
<tr>
<td>Introduction to Mechatronics and Measurement Systems, 4e</td>
</tr>
<tr>
<td>Electric Machinery Fundamentals, 5e</td>
</tr>
<tr>
<td>Applied Numerical Methods with MatLab for Engineers and Scientists, 3e</td>
</tr>
<tr>
<td>Computer Organization and Embedded Systems, 6e</td>
</tr>
<tr>
<td>Engineering Circuit Analysis, 8e</td>
</tr>
<tr>
<td>Engineering Electromagnetics, 8e</td>
</tr>
<tr>
<td>Electrical Principles for the Electrical Trades, Volume 2, 6e [MH Australia Title]</td>
</tr>
<tr>
<td>Semiconductor Physics and Devices, 4e</td>
</tr>
<tr>
<td>Electrical Wiring Practice, Volume 2, 7e [MH Australia Title]</td>
</tr>
<tr>
<td>Signals and Systems, 2e</td>
</tr>
<tr>
<td>Fundamentals of Digital and Computer Design with VHDL</td>
</tr>
</tbody>
</table>

### 2012

<table>
<thead>
<tr>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern Power System Analysis, 4e [MH India Title]</td>
</tr>
<tr>
<td>HVDC Transmission [MH India Title]</td>
</tr>
<tr>
<td>Basic Electrical Engineering, Revised 1st Edition [MH India Title]</td>
</tr>
<tr>
<td>Principles of Electromagnetics [MH India Title]</td>
</tr>
<tr>
<td>Computer Architecture: An Embedded Approach [Asian Publication]</td>
</tr>
<tr>
<td>Power System Protection and Switchgear, 2e [MH India Title]</td>
</tr>
<tr>
<td>Analog Communication [MH India Title]</td>
</tr>
<tr>
<td>Digital Communication [MH India Title]</td>
</tr>
<tr>
<td>Digital Signal Processing, 2e [MH India Title]</td>
</tr>
</tbody>
</table>

### 2011

<table>
<thead>
<tr>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Mechatronics and Measurement Systems, 4e</td>
</tr>
<tr>
<td>Electric Machinery Fundamentals, 5e</td>
</tr>
<tr>
<td>Applied Numerical Methods with MatLab for Engineers and Scientists, 3e</td>
</tr>
<tr>
<td>Computer Organization and Embedded Systems, 6e</td>
</tr>
<tr>
<td>Engineering Circuit Analysis, 8e</td>
</tr>
<tr>
<td>Engineering Electromagnetics, 8e</td>
</tr>
<tr>
<td>Electrical Principles for the Electrical Trades, Volume 2, 6e [MH Australia Title]</td>
</tr>
<tr>
<td>Semiconductor Physics and Devices, 4e</td>
</tr>
<tr>
<td>Electrical Wiring Practice, Volume 2, 7e [MH Australia Title]</td>
</tr>
<tr>
<td>Signals and Systems, 2e</td>
</tr>
<tr>
<td>Fundamentals of Digital and Computer Design with VHDL</td>
</tr>
</tbody>
</table>

### Authors

- Alexander
- Forouzan
- Fowler
- Mesiy\a
- Sadiku
- Schuler
- Alciatore
- Chapman
- Chapra
- Hamacher
- Hayt
- Hayt
- Jenneson
- Neamen
- Pethebridge
- Roberts
- Sandige
- Kothari
- Kamakshaiah
- Kulshreshtha
- Mahapatra
- McLoughlin
- Ram
- Rao
- Rao
- Salivahanan
**Introduction to Computer Science**
- Introduction to Computer Science ................................................................. 5
- Introduction to Computing Systems ............................................................... 5

**Programming - General**
- Programming Languages ........................................................................... 6
- Parallel Programming .................................................................................. 7
- Systems Programming ................................................................................. 7

**Programming**
- C: Intro to Programming/CS1 .................................................................. 8
- C Programming for Engineers .................................................................. 10
- Java Programming /CS1 .......................................................................... 11
- C# Programming ....................................................................................... 18
- C++ Programming/CS1 ............................................................................ 19
- FORTRAN Programming ........................................................................... 21
- Python Programming ................................................................................. 21

**Algorithms and Data Structures**
- Algorithms .................................................................................................. 21
- Data Structures in Java ............................................................................... 22
- Data Structures in C .................................................................................... 23
- Data Structures in C++ ............................................................................... 23

**Mathematics and Logic**
- Numerical Methods ................................................................................... 24
- Discrete Mathematics ................................................................................ 26
- Digital Logic / Logic Design ..................................................................... 28
- Theory of Computation ............................................................................. 32
- Simulation and Modeling ........................................................................... 33

**Computer Organisation & Architecture**
- Assembly Languages ................................................................................ 34
- Computer Organization and Architecture .................................................. 35
- Embedded Systems ..................................................................................... 38
- Advanced Computer Architecture ............................................................. 38
- Advanced Microprocessors & Microcomputers .......................................... 38
- Microprocessors & Microcontrollers .......................................................... 39

**Operating Systems**
- LINUX ........................................................................................................... 39
- Operating Systems (OS) ............................................................................ 40
- UNIX ............................................................................................................ 41
Software Engineering
Software Engineering ................................................................. 42
Software Engineering (Advanced) ............................................... 47
Unified Modeling Language (UML) ............................................ 48
System Analysis & Design .......................................................... 48
Object Oriented Design ............................................................... 49
Software Project Management ................................................... 50

Networking and Telecommunications
Local Area Networks ................................................................. 51
Computer Networks ................................................................... 52
TCP/IP ......................................................................................... 53
Network Security ........................................................................ 53
Wireless Communications and Networking ................................ 54

Database Systems
SQL Programming ....................................................................... 56
Database Management and Design .......................................... 56
Database Systems ...................................................................... 57

Computer Graphics .................................................................... 58

Artificial Intelligence
Artificial Intelligence (AI) .......................................................... 59
Neural Networks and Fuzzy Systems ........................................ 59

Internet/Multimedia
Multimedia .................................................................................. 60

Bioinformatics ............................................................................ 60

Software Testing ......................................................................... 60

Professional References ............................................................. 61
# COMPUTER SCIENCE

## 2013

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Unix/Linux: The Ultimate Guide, 3e</td>
<td>Das</td>
<td>9780073376202</td>
<td>41</td>
</tr>
<tr>
<td>Data Communications and Networking, 5e (Global Edition)</td>
<td>Forouzan</td>
<td>9780071326285</td>
<td>54</td>
</tr>
</tbody>
</table>

## 2012

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Numerical Methods with MatLab for Engineers and Scientists, 3e</td>
<td>Chapra</td>
<td>9780073401102</td>
<td>24</td>
</tr>
<tr>
<td>Computer Networks: A Top Down Approach</td>
<td>Forouzan</td>
<td>9780073523262</td>
<td>52</td>
</tr>
<tr>
<td>Computer Organization, 6e</td>
<td>Hamacher</td>
<td>9780073380650</td>
<td>35</td>
</tr>
<tr>
<td>Simulation Using ProModel, 3e</td>
<td>Harrell</td>
<td>9780073401300</td>
<td>33</td>
</tr>
<tr>
<td>Computer Networks: An Open Source Approach</td>
<td>Lin</td>
<td>9780073376240</td>
<td>52</td>
</tr>
<tr>
<td>Fundamentals of Digital and Computer Design with VHDL</td>
<td>Sandige</td>
<td>9780073380698</td>
<td>28</td>
</tr>
<tr>
<td>C Programming: A Concise Q&amp;A Approach, 2e [Asia Adaptation Title]</td>
<td>Tan</td>
<td>9780071311168</td>
<td>8</td>
</tr>
</tbody>
</table>

## 2011

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object-Oriented Programming with C++, 5e [MH India Title]</td>
<td>Balagurusamy</td>
<td>9780071072830</td>
<td>19</td>
</tr>
<tr>
<td>Object-Oriented Systems Analysis, 4e [MH UK Title]</td>
<td>Bennet</td>
<td>9780077125363</td>
<td>48</td>
</tr>
<tr>
<td>Systems Programming [MH India Title]</td>
<td>Dhamdhere</td>
<td>9780071333115</td>
<td>7</td>
</tr>
<tr>
<td>Data Communications and Networks, 2e [MH India Title]</td>
<td>Godbole</td>
<td>9780071077705</td>
<td>55</td>
</tr>
<tr>
<td>Database Management Systems [MH India Title]</td>
<td>Gupta</td>
<td>9780071072731</td>
<td>56</td>
</tr>
<tr>
<td>Software Quality Assurance [MH UK Title]</td>
<td>Limaye</td>
<td>9780071072526</td>
<td>47</td>
</tr>
<tr>
<td>Microprocessors and Microcontrollers</td>
<td>Mandal</td>
<td>9780071329200</td>
<td>39</td>
</tr>
<tr>
<td>Object-Oriented Technology, 2e [Asian Publication]</td>
<td>Tsang</td>
<td>9780071269216</td>
<td>42</td>
</tr>
<tr>
<td>Java Programming: A Practical Approach</td>
<td>Xavier</td>
<td>9780070702097</td>
<td>12</td>
</tr>
</tbody>
</table>
Introduction To Computer Science

SCHAUM’S OUTLINE OF PRINCIPLES OF COMPUTER SCIENCE
by Paul Tymann, Rochester Inst Of Technology, Carl Reynolds, Rochester Inst Of Technology
2008 / Softcover / 384 pages
ISBN: 9780071460514
(A Schaum’s Publication)

Schaum’s Outline of Principles of Computer Science provides a concise overview of the theoretical foundation of computer science. It also includes focused review of object-oriented programming using Java.

CONTENTS
Introduction to Computer Science
Definition
Algorithms
A Brief History Lesson
A Roadmap
Algorithms
What are they, what are they good for?
Developing an algorithm
Efficiency
Formal models of computation
Hardware
Binary and other number systems
Boolean Logic
Gates
Computer Organization
The VonNeumann Model
Control Unit
Registers
ALU
Memory
Software
Languages
Compiled, interpreted
Virtual machines
OOP, Scripting
Programming in Java
Types, operators, identifiers
Classes, objects
Basic control structures
Methods
Operating Systems
What are they?
Multi-tasking, multi-user
Scheduling
Networking
Basic Concepts
The Internet
TCP/IP
The world wide web
Social Issues
Privacy
Viruses
Hacking
Encryption
Can computers kill?

SCHAUM’S OUTLINE OF INTRODUCTION TO COMPUTER SCIENCE
by Ramon Mata-Toledo and Pauline K Cushman, James Madison University in Harrisonburg, Virginia
2000 / 240 pages / softcover
ISBN: 9780071345455 (Out-of-Print)
ISBN: 9780071165969 [IE]
(A Schaum’s Publication)

(International Edition is not for sale in Japan.)

Illustrates key computing concepts using examples in the most popular programming languages. This is an essential guide for the hundreds of thousands of students studying Introduction to Computer Science or Introduction to Programming, presenting the basic concepts of computer science and illustrating them with examples in C/C++, and Java. More than 285,000 college majors and 11,000 high school Advanced Placement candidates are enrolled in required Computing Science courses. Explains algorithm development and data abstraction. Supplements leading computer science textbooks.
Computer Science

7 Assembly Language.
8 I/O.
9 TRAP Routines and Subroutines.
10 And, Finally...

Part II:
11 Introduction to Programming in C.
12 Variables and Operators.
13 Control Structures.
14 Functions.
15 Debugging.
16 Recursion.
17 Pointers and Arrays.
18 I/O in C.
19 Data Structures.
Appendix A The LC-3 ISA.
Appendix B From LC-3 to x86.
Appendix C The Microarchitecture of the LC-3.
Appendix D The C Programming Language.
Appendix E Extending C to C++.
Appendix F Useful Tables

Programming Languages

INTRODUCTION TO LANGUAGES AND THE THEORY OF COMPUTATION
4th Edition
by John Martin, North Dakota State University-Fargo
2011 (February 2010) / Hardcover / 488 pages
ISBN: 9780073191461
ISBN: 9780071289429 [IE]
www.mhhe.com/martin

Introduction to Languages and the Theory of Computation helps students make the connection between the practice of computing and an understanding of the profound ideas that define it. The book's organization and the author's ability to explain complex topics clearly make this introduction to the theory of computation an excellent resource for a broad range of upper level students. The author has learned through many years of teaching that the best way to present theoretical concepts is to take advantage of the precision and clarity of mathematical language. In a way that is accessible to students still learning this language, he presents the necessary mathematical tools gently and gradually which provides discussion and examples that make the language intelligible.

CONTENTS
Preface
Introduction
Chapter 1: Mathematical Tools and Techniques
Chapter 2: Finite Automata and the Languages They Accept
Chapter 3: Regular Expressions, Nondeterminism, and Kleene's Theorem
Chapter 4: Context-Free Languages
Chapter 5: Pushdown Automata
Chapter 6: Context-Free and Non-Context-Free Languages
Chapter 7: Turing Machines

Chapter 8: Recursively Enumerable Languages
Chapter 9: Undecidable Decision Problems
Chapter 10: Computable Functions
Chapter 11: Introduction to Computational Complexity

Index

INTERNATIONAL EDITION

PROGRAMMING LANGUAGES
2nd Edition
by Allen B. Tucker, Bowdoin College, and Robert Noonan, College of William and Mary
2006 / Hardcover
ISBN: 9780072866094
ISBN: 9780071254397 [IE]
www.mhhe.com/tucker

Most current programming language text that provides a balanced mix of explanation and experimentation. Opening chapters present the fundamental principals of programming languages, while optional companion chapters provide implementation-based, hands-on experience that delves even deeper. This edition also includes a greatly expanded treatment of the four major programming paradigms, incorporating a number of the most current languages such as Perl and Python. Special topics presented include event-handling, concurrency, and an all-new chapter on correctness. Overall, this edition provides both broad and deep coverage of language design principles and the major paradigms, allowing users the flexibility of choosing what topics to emphasize.

CONTENTS
1 Overview
2 Syntax
3 Lexical and Syntactic Analysis
4 Names
5 Types
6 Type Systems
7 Semantics
8 Semantic Interpretation
9 Functions
10 Function Implementation
11 Memory Management
12 Imperative Programming
13 Object-Oriented Programming
14 Functional Programming
15 Logic Programming
16 Event-Driven Programming
17 Concurrent Programming
18 Program Correctness
A. Definition of Cite
B. Discrete Math Review
Glossary
Bibliography
Parallel Programming

PART IV

Contents

I. Introduction to Parallel Computing:
1. Motivation and History.
2. Parallel Architectures.
3. Parallel Algorithm Design.

II. Introduction to MPI:
6. The Sieve of Eratosthenes.
7. Floyd’s Algorithm.
8. Matrix-vector Multiplication I.
9. Matrix-vector Multiplication II.

III. Parallel Algorithms:
12. Matrix Multiplication.
15. Sorting.
17. Exhaustive Search.

IV. Programming Multiprocessor Clusters:
18. Getting Started with OpenMP.
19. Combining MPI and OpenMP.

Systems Programming

NEW

SYSTEMS PROGRAMMING

Contents

1. Introduction
Part I: Language Processors
2. Overview of Language Processors
3. Assemblers
4. Macros and Macro Preprocessors
5. Linkers and Loaders
6. Scanning and Parsing
7. Compilers
8. Interpreters
9. Software Tools
Part II: Operating Systems
10. Overview of Operating Systems
11. Program Management
12. Memory Management
13. File Systems
14. Security and Protection
This book was developed to address the difficulty beginning students often find reading computer language texts. Tan and D’Orazio aim to make the process of learning a first language easier and fun, by involving readers in their text, holding their interest, and getting them to think about the meaning and uses of C code. The authors accomplish this goal by using a question and answer style, where the reader's thought processes are stimulated by the same questions about code that students themselves often ask. Tan and D’Orazio answer these questions clearly and directly, focusing the reader's attention on the important issues of C programming. The new co-authors, Or and Choy have further enhanced this book by "condensing" the book by focusing on the essential programming content. The end product is a book which arouses the student's interest and guides the student along as he / she learns the necessary programming concepts. The new edition will feature an improved layout in 2 colors and a supporting website for instructors and students. Instructors using this book will also be well supported with solutions, teaching slides and testbank. Students will also find useful resources such as additional practice questions in the text website.

FEATURES

1 Question and Answer (Q&A) Approach

By structuring each topic with Source Code, Output, Explanation and Further Exploration, the authors aim to clarify questions that students have on C Programming.

- Explanation containing a list of questions and answers is used to explain and clarify “what” and “why” the program is doing. The value of this approach lies in the authors' ability to craft the "questions" based on what the students often ask and tailoring the answers in a manner which is easily understood. The authors suggest that student treats the questions as a puzzle and try to answer some of it.

- Further Exploration is where more advanced concepts are covered.

2 Pedagogical Tools

- Structured Program Development Method. The authors emphasise a structured program development method demonstrated in

3 Topics covered

- Debugging. Students often struggle with debugging because the process is new and foreign to them. Recognising this, we have included an example of debugging very early in the text (Chapter 1). This text focuses on loops and illustrates how values change as loops are executed as students often find debugging loops challenging. Students learn to trace loops and find errors. In addition, common beginners' errors are noted at appropriate locations throughout the text.

- Pointers. To understand pointers, students need to be able to visualise. By using tables and grid-like sketches of memory, we have taken much of the mystery out of pointers.

- C++. Chapter 9 An Introduction to C++ is available online. Because of the thorough coverage of C, we are able to describe many of the core issues of object oriented programming with C++. Classes, encapsulation and polymorphism are described in simple terms. This chapter is richly illustrated. The simple language and illustrations provide students the background to use many of the fundamental C++ features.

CONTENTS

1 Programming Fundamentals
2 The Basics of C—Math Functions, and Input/Output
3 Beginning Decision Making and Looping
4 Functions
5 Numeric Arrays
6 File Input/Output, Strings and Pointers
7 Structures and Large Program Design
8 Introduction to C++
PROGRAMMING IN ANSI C
5th Edition
by E Balagurusamy, Member, Union Public Commission, Dholpur House, Shahjahan Road, New Delhi
2010 (August 2010) / Softcover / 568 pages
ISBN: 9780070681828 [with CD]
(McGraw-Hill India Title)
www.mhhe.com/balagurusamy/ansic5e

This book gives a simple and lucid presentation of the C programming concepts. It helps the beginners in better understanding of the implementation and applications of C language through sample programs, case-studies, programming problems and projects. The book is developed including the new features of C99 standards.

CONTENTS
Chapter 1: Overview of C
Chapter 2: Constants, Variables, and Data Types
Chapter 3: Operators and Expressions
Chapter 4: Managing Input and Output Operations
Chapter 5: Decision Making and Branching
Chapter 6: Decision Making and Looping
Chapter 7: Arrays
Chapter 8: Character Arrays and Strings
Chapter 9: User-defined Functions
Chapter 10: Structures and Unions
Chapter 11: Pointers
Chapter 12: File Management in C
Chapter 13: Dynamic Memory Allocation and Linked Lists
Chapter 14: The Preprocessor
Chapter 15: Developing a C Program: Some Guidelines
Appendix I: Bit-level Programming
Appendix II: ASCII Values of Characters
Appendix III: ANSI C Library Functions
Appendix IV: Projects
Appendix V: C99 Features
Bibliography
Index

TEST YOUR SKILLS IN C
2nd Edition
by S Thamarai Selvi, M S University - Tirunelveli and R Murugesan, Tiruvalluvar College, Tamil Nadu
2009 (June 2009) / Softcover
ISBN: 9780071458586
(McGraw-Hill India Title)

The revised edition of Test your Skills in C retains its appeal as a complete self-taught and handy text to students as well as a guide for aspiring IT professionals. This book refreshes C programming knowledge of readers in a short span, thereby equipping them to thoroughly prepare for various screening tests and campus interviews.

CONTENTS
Chapter 1. Elements of C Language
Chapter 2. C operators and Expressions
Chapter 3. Simple Input/Output
Chapter 4. Control Flow Constructions
Chapter 5. Storage Classes of Variables
Chapter 6. Arrays
Chapter 7. Functions
Chapter 8. Pointers
Chapter 9. Strings
Chapter 10. Structures and Unions
Chapter 11. Files and Preprocessors
Chapter 12. Model Test Papers
Chapter 13. Crack the Tough Nuts

Chapter 14. Additional Programs
Chapter 15. ASCII table
Chapter 16. Precedence and Associativity of Operators
Chapter 17. Timing of Basic C Operations in Our Host Machine
Chapter 18. ANSI C Library Functions

APPLIED C
An Introduction and More
by Alice Fischer and Stephen M Ross, both of the University of New Haven
2000 / 1136 pages / softcover
ISBN: 9780070217485 - (Out of Print)
ISBN: 9780071184595 [IE]
www.mhhe.com/fischer/

Applied C: An Introduction and More provides an introduction to C programming from a "hands on" perspective. With this book both Computer Science and Engineering students learn the C language and how to program through the reading and writing of basic programs early in the book. After introducing students to the basics, the authors use a spiral approach to build on concepts incrementally so that by the end students are able to write longer programs that require multiple functions. The teaching of these programming concepts is accompanied by a focus on sound program design that emphasizes the need for complete and accurate program specification as well as careful testing from the beginning.

CONTENTS
I Introduction.
Chapter 1: Computers and Systems.
Chapter 2: Programs and Programming.
Chapter 3: Fundamental Concepts.
II Computation.
Chapter 4: Writing Sentences in C.
Chapter 5: Using Functions and Libraries.
Chapter 6: More Repetition and Decisions. III Basic Data Types.
Chapter 7: Integers and Integer Operations.
Chapter 8: Real Numbers and Computation.
Chapter 9: Program Design.
Chapter 10: An Introduction to Arrays.
Chapter 11: Character Data and Enumerations.
Chapter 12: An Introduction to Pointers. IV Structured Data Types.
Chapter 13: Strings.
Chapter 14: Structured Types.
Chapter 15: Streams and Files.
Chapter 16: Simple Array Algorithms.
Chapter 17: Two Dimensional Arrays.
Chapter 18: Calculating with Bits. V Advanced Techniques.
Chapter 19: Dynamic Arrays.
Chapter 20: Working With Pointers.
Chapter 21: Recursion.
Chapter 22: Making Programs General.
Chapter 23: Modular Organization.
VI Appendix.
Appendix A: The ASCII Code.
Appendix B: The Precedence of Operators in C.
Appendix C: The Tools Library.
Appendix D: A Simple Makefile For the Tools Library.
Appendix E: Advanced Aspects of C Operators.
Appendix F: Glossary and Alphabet Soup.

Computer Science
SCHAUML’S OUTLINE OF PROGRAMMING WITH C
2nd Edition
by Byron Gottfried, University of Pittsburgh
1996 / 544 pages / Softcover
ISBN: 978007204353
(A Schaum’s Publication)
The broad, yet in-depth coverage of C programming language, within the context of today's C programming style, makes this book as useful for practicing professionals as it is for beginning programmers. This study guide solves many sample problems using other programming languages so readers can compare several popular languages. It also includes clear explanations of most of the features in the current ANSI standard. The emphasis

CONTENTS
Introductory Concepts.
C Fundamentals.
Operators and Expressions.
Data Input and Output.
Preparing and Running a Complete C Program.
Control Statements.
Functions.
Program Structure.
Arrays.
Pointers.
Structure and Unions.
Data Files.
Low-Level Programming.
Some Additional Features of C.
Appendices: A: Number Systems.
B: Escape Sequences.
C: Operator Summary.
D: Data Types and Data Conversation Rules.
E: The ASCII Character Set.
F: Control Statement Summary.
G: Commonly used scanf and printf Conversion Characters.

C Programming for Engineers

INTERNATIONAL EDITION

C FOR ENGINEERS AND SCIENTISTS WITH COMPANION CD
by Harry H. Cheng, University Of California Davis
2010 (March 2009) / Softcover / 928 pages
ISBN: 9780077290467
ISBN: 9780071078696 [IE]

www.mhhe.com/cheng

C for Engineers and Scientists is a complete and authoritative introduction to computer programming in C, with introductions to object-oriented programming in C++, and graphical plotting and numerical computing in C/C++ interpreter Ch@ and MATLAB® for applications in engineering and science. This book is designed to teach students how to solve engineering and science problems using C. It teaches beginners with no previous programming experience the underlying working principles of scientific computing and a disciplined approach for software development. All the major features of C89 and C99 are presented with numerous engineering application examples derived from production code. The book reveals the coding techniques used by the best C programmers and shows how experts solve problems in C. It is also an invaluable resource and reference book for seasoned programmers.

C for Engineers and Scientists focuses on systematic software design approach in C for applications in engineering and science following the C99, the latest standard developed by the ANSI and ISO C Standard Committees which resolved many deficiencies of C89 for applications in engineering and science. The book includes a companion CD which contains the C/C++ interpreter Ch for use as an instructional tool as well as Visual C++ and gcc/g++ compilers to help teaching and learning of C and C++. Ch presents a pedagogically effective user-friendly interactive computing environment for the simplest possible teaching/learning computer programming in C so that the students can focus on improving their program design and problem solving skills.

CONTENTS
Part 1: Programming in C
Chapter 1 Getting Started
Chapter 2 Scalar Types
Chapter 3 Operators and Expressions
Chapter 4 Statements and Control Flow
Chapter 5 Functions
Chapter 6 Preprocessing Directives
Chapter 7 Storage Classes and Program Structure
Chapter 8 Formatted Input and Output
Chapter 9 Arrays
Chapter 10 Pointers
Chapter 11 Characters and Strings
Chapter 12 Structures, Enumerations, Unions and Bit Fields
Chapter 13 File and Directory Processing
Chapter 14 Scientific Computing in the Entire Real Domain
Chapter 15 Programming with Complex Numbers
Part 2: Introduction to C++
Chapter 16 Some Features in C++
Chapter 17 Classes and Object-Based Programming in C++
Part 3: Introduction to Ch
Chapter 18 Getting Started with Ch
Chapter 19 Computational Arrays and Matrix Computations
Chapter 20 Two and Three-Dimensional Plotting
Chapter 21 Advanced Numerical Analysis
Part 4: Introduction to MATLAB®
Chapter 22 Introduction to MATLAB®
Part 5: Introduction to Fortran 90
Chapter 23 Introduction to Fortran
This book was developed to address the difficulty beginning students often find reading computer language texts. Tan and D'Oraziio aim to make the process of learning a first language easier and fun, by involving readers in their text, holding their interest, and getting them to think about the meaning and uses of C code. The authors accomplish this goal by using a question and answer style, where the reader's thought processes are stimulated by the same questions about code that students themselves often ask. Tan and D'Oraziio answer these questions clearly and directly, focusing the reader's attention on the important issues of C programming.

CONTENTS
1 Computers and Computing Fundamentals
2 Getting Started with C
3 The Basics of C
4 Beginning Decision Making and Looping
5 Functions
6 Arrays and Index Variables
7 Character Arrays and Strings
8 Pointers, Addresses, and Special Variable Types
9 Introduction to C++

Java Programming/CSI

JAVA PROGRAMMING
A Comprehensive Introduction
by Herbert Schildt, Dale Skrien, Colby College

2013 (January 2012) / Softcover / 1216 pages
ISBN: 9780078022074 (IE)
www.mhhe.com/schildt

Java Programming: A Comprehensive Introduction is designed for an introductory programming course using Java. This text takes a logical approach to the presentation of core topics, moving step-by-step from the basics to more advanced material, with objects being introduced at the appropriate time. The book is divided into three parts:

- Part One covers the elements of the Java language and the fundamentals of programming. An introduction to object-oriented design is also included.
- Part Two introduces GUI (Graphical User Interface) programming using Swing.
- Part Three explores key aspects of Java's API (Application Programming Interface) library, including the Collections Framework and the concurrency API.

Herb Schildt has written many successful programming books in Java, C++, C, and C#. His books have sold more than three million copies.

Dale Skrien is a professor at Colby College with degrees from the University of Illinois-Champaign, the University of Washington, and St. Olaf College. He’s also authored two books and is very active in SIGCSE.

CONTENTS
PART ONE: The Java Language
1. Java Programming Fundamentals
2. Introducing Data Types and Operators
3. Program COntrol Statements
4. Introducing Classes, Objects, and Methods
5. More Data Types and Operators
6. A Closer Look at Methods and Classes
7. Inheritance
8. Interfaces
9. Packages
10. Exception Packages
11. Using I/O
12. Multithreaded Programming
13. Enumerations, Autoboxing, and Annotations
14. Generics
15. Applets and the Remaining Java Keywords
16. Introduction to Object-Oriented Design
PART TWO: GUI Programming with Swing
17. Swing Fundamentals
18. Exploring Swing Controls
19. Working with Menus
20. Dialogs
21. Threading, Applets, and Painting
PART THREE: Exploring the Java API Library
22. String Handling
23. Exploring java.lang
24. Exploring java.util
25. Using the Data Structures in the Collections Framework
26. Networking with java.net
27. The Concurrency Utilities
Appendix A: Using Java's Documentation Comments
Appendix B: An Introduction to Regular Expressions
Appendix C: Answers to Selected Exercises
Java Programming, From The Ground Up, with its flexible organization, teaches Java in a way that is refreshing, fun, interesting and still has all the appropriate programming pieces for students to learn. The motivation behind this writing is to bring a logical, readable, entertaining approach to keep your students involved. Each chapter has a Bigger Picture section at the end of the chapter to provide a variety of interesting related topics in computer science. The writing style is conversational and not overly technical so it addresses programming concepts appropriately. Because of the flexible organization of the text, it can be used for a one or two semester introductory Java programming class, as well as using Java as a second language.

The text contains a large variety of carefully designed exercises that are more effective than the competition.

CONTENTS
Part I: The Fundamental Tools
1. An Introduction to Computers and Java
2. Expressions and Data Types
3. Variables and Assignment
4. Selection and Decision: if Statements
5. Repetition
6. Methods
7. Arrays and Lists: One Name for Many Data
8. Recursion
Part II: Principles of Object Oriented Programming
9. Objects and Classes I: Encapsulation, Strings, and Things
10. Objects and Classes II: Writing Your Own Classes
11. Designing With Classes and Objects
12. Inheritance
13. Polymorphism
Part III: More Java Classes
14. More Java Classes: The Wrapper Classes and Exceptions
15. Stream I/O and Random Access Files
16. Data Structures and Generics
17. The Java Collections Framework
Part IV: Basic Graphics, GUIs, and Java's Event-Driven Model
18. Graphics: AWT and Swing
19. Event Driven Programming
20. A Case Study: Video Poker Revisited
Appendix A: Java Keywords
Appendix B: The ASCII Character Set
Appendix C: Operator Precedence
Appendix D: Javadoc
Appendix E: Package

JAVA IN TWO SEMESTERS
3rd Edition
by Quentin Charatan, and Aaron Kans, University of East London
2009 (October 2009) / 600 pages / Softcover
ISBN: 9780077122676
(McGraw-Hill UK Title)
www.mcgraw-hill.co.uk/textbooks/charatan

The third edition of the successful textbook, Java in Two Semesters, provides a comprehensive treatment of object-oriented programming, covering both introductory material and the more advanced topics of a second level course.

Thoroughly revised and updated to reflect the latest release of Java language, the new edition covers the most recent developments in Java programming.

The book’s comprehensive coverage allows it to be tailored to suit a range of Java modules of differing lengths and levels and can also serves as an excellent student reference text.

Part One takes the student through simple programming concepts, such as variables, control structures and arrays before moving on to focus on classes and objects, inheritance and polymorphism.

Part Two introduces topics such as advanced graphics programming, exceptions, threads, file handling, network programming and programming for mobile devices.

CONTENTS
Preface to third edition
Guided tour Technology to enhance learning and teaching
Semester One
The first step
Building blocks
Selection
Iteration
Methods
Arrays
Classes and objects
Implementing classes
Inheritance
Graphics
Case study--part 1
Case study--part 2
Semester Two
Interfaces and adapters
Exceptions
The Java Collections Framework
Advanced graphics programming
Enhancing the user interface
Working with files
Multi-threaded programs
Packages
Advanced Case Study
Java in a network environment
Mobile Java
Java in context
OBJECT ORIENTED PROGRAMMING WITH JAVA
by Raj Kumar Buyya, Department of Computer Science & Software, Engineering, The University of Melbourne, Australia.
2009 / Softcover
ISBN: 9780070669086
(McGraw-Hill India Title)

This book provides a detailed discussion on Object Oriented Programming with Java. It covers the complete spectrum from basic JAVA programming to the advanced concepts. Replete with numerous solved examples and practical problems, it offers a balanced treatment of theory and practice for developing desktop, enterprise, and web applications.

CONTENTS
Chapter 1. Software Development and Object-Oriented Programming Paradigms
Chapter 2. Java Platform and Program Structure
Chapter 3. Lexical Elements of Java
Chapter 4. Operators and Expressions
Chapter 5. Control Flow Statements
Chapter 6. Arrays
Chapter 7. Classes and Objects
Chapter 8. Inheritance
Chapter 9. Interfaces and Packages
Chapter 10. Exception Handling
Chapter 11. Strings and Collections
Chapter 12. Streams and I/O Programming
Chapter 13. Socket Programming
Chapter 14. Multithreaded Programming
Chapter 15. Graphical Programming
Chapter 16. Advanced GUI Programming and Applets
Chapter 17. RMI Programming
Chapter 18. JDBC Programming
Chapter 19. Java Servlet Programming
Chapter 20. JavaServer Pages and Java Beans

PROGRAMMING WITH JAVA: A PRIMER
4th Edition
by E. Balagurusamy
2009 (October 2009) / Softcover / 470 pages
ISBN: 9780070141698
(McGraw-Hill India Title)
www.mhhe.com/balagurusamy/java4

This book gives an excellent account of the fundamentals of JAVA programming. The language concepts are aptly explained in simple and easy-to-understand style, supported with examples, illustrations and programming & debugging exercises.

CONTENTS
Chapter 1: Fundamentals of Object-Oriented Programming
Chapter 2: Java Evolution
Chapter 3: Overview of Java Language
Chapter 4: Constants, Variable and Data types
Chapter 5: Operators and Expressions
Chapter 6: Decision Making and Branching
Chapter 7: Decision Making and Looping
Chapter 8: Classes, Objects and Methods
Chapter 9: Arrays, Strings and Vectors
Chapter 10: Interfaces: Multiple Inheritance
Chapter 11: Packages: Putting Classes Together
Chapter 12: Multithreading Programming
Chapter 13: Managing Error and Exceptions
Chapter 14: Applet Programming
Chapter 15: Graphics Programming
Chapter 16: Managing Inputs/Output Files in Java
Chapter 17: Java Collections

Appendices
Appendix A: Java Language Reference
Appendix B: Java Keywords
Appendix C: Difference between Java C/C++
Appendix D: Bit-level Programming
Appendix E: Java API Packages
Appendix F: Java Classes and Their Packages
Appendix G: Assertion and Design by Contract
Appendix H: Java Version History
Appendix I: Deprecated Classes and Methods
Appendix J: Statistics of Java Packages
Appendix K: SCJP Exam Model Questions
Appendix L: Points to Remember
Appendix M: Common Coding Errors
Appendix N: Glossary of Java Terms
Appendix O: Projects
Bibliography
Index

OBJECT-ORIENTED DESIGN USING JAVA
by Dale Skrien, Colby College
2009 (January 2008) / 416 pages / Hardcover
ISBN: 9780072974164
ISBN: 9780071263870 [IE]
www.mhhe.com/skrien

The primary strength of Object-Oriented Design Using Java is that it has one of the best presentations of problem solving using patterns available. It has received rave reviews from instructors, and has been class tested at a number of schools where the response from both professors and students has been extremely positive. This book is intended for the object-oriented programming design course where UML is used extensively for design and notation. It has been especially designed to be accessible to students and is full of real-world examples, case studies, and other aids to assist student understanding.

CONTENTS
Chapter 1: Elegance in Object-Oriented Design and Implementation
Chapter 2: Fundamentals of Object Orientation
Chapter 3: Elegance and Implementation Inheritance
Chapter 4: Elegance and Methods
Chapter 5: Elegance and Classes
Chapter 6: Simple Case Study of a Money Class
Chapter 7: Introduction to Design Patterns
Chapter 8: Figure-Drawing Application Case Study
Chapter 9: Language Parser Case Study
Appendix A: An Introduction to UML
Appendix B: Coding Conventions and Javadoc comments
INTRODUCTION TO PROGRAMMING WITH JAVA: A Problem Solving Approach
by John Dean, Park University-Parkville, and Ray Dean, University Of Kansas-Lawrence
2008 / Hardcover / 840 pages
ISBN: 9780073047027
ISBN: 9780071269674 [IE]
www.mhhe.com/dean

This book teaches the reader how to write programs using Java. It does so with a unique approach that combines fundamentals first with objects early. The book transitions smoothly through a carefully selected set of procedural programming fundamentals to object-oriented fundamentals. During this early transition and beyond, the book emphasizes problem solving. For example, Chapter 2 is devoted to algorithm development, Chapter 8 is devoted to program design, and problem-solving sections appear throughout the book. Problem-solving skills are fostered with the help of an interactive, iterative presentation style: Here’s the problem. How can we solve it? How do we improve the solution? Some key features include: • A conversational, easy-to-follow writing style. • Many executable code examples that clearly and efficiently illustrate key concepts. • Extensive use of UML class diagrams to specify problem organization. • Simple GUI programming early, in an optional standalone graphics track. • Well-identified alternatives for altering the book’s sequence to fit individual needs. • Well-developed projects in six different academic disciplines, with a handy summary. • Detailed customizable Power-PointTM lecture slides, with icon-keyed hidden notes. The authors have done a superb job of organizing the various chapters to allow the students to enjoy programming in Java from day one. I am deeply impressed with the entire textbook. I would have my students keep this text and use it throughout their academic career as an excellent Java programming source book. — Benjamin B. Nystuen, University of Colorado at Colorado Springs The authors have done a great job in describing the technical aspects of programming. The authors have an immensely readable writing style. I have an extremely favorable impression of Dean and Dean’s proposed text. — Shyamal Mitra, University of Texas at Austin The overall impression of the book was that it was “friendly” to read. I think this is a great strength, simply because students reading it, and especially students who are prone to reading to understand, will appreciate this approach rather than the regular hardcore programming mentality. — Andree Jacobson, University of New Mexico

CONTENTS
Chapter 1. Introduction to Computers and Programming
Chapter 2. Algorithms and Design
Chapter 3. Java Basics
Chapter 4. Control Statements
Chapter 5. Using Pre-Built Methods
Chapter 6. Object-Oriented Programming
Chapter 7. Object-Oriented Programming-Additional Details
Chapter 8. Software Engineering
Chapter 9. Classes with Class Members
Chapter 10. Arrays and Array Lists
Chapter 11. Type Details and Alternate Coding Mechanisms
Chapter 12. Composition and Inheritance
Chapter 13. Inheritance and Polymorphism
Chapter 14. Exception Handling
Chapter 15. Files
Chapter 16. GUI Programming Basics
Chapter 17. GUI Programming-Component Layout, Additional GUI Components
Appendix 1. Unicode/ASCII Character Set with Hexadecimal Codes
Appendix 2. Operator Precedence
Appendix 3. Java Reserved Words
Appendix 4. Packages
Appendix 5. Java Coding-Style Conventions
Appendix 6. Javadoc
Appendix 7. UML Notations Used in this Book
Appendix 8. Recursion
Appendix 9. Multithreading
Java 5.0 Program Design is about the fundamentals of programming and software development using Java. It is targeted for a first programming course and has been designed to be appropriate for people from all disciplines. The authors assume no prior programming skills and use mathematics and science at a level appropriate to first-year college students. The breadth of coverage and the arrangement of the chapters provide flexibility for the instructor in what and when topics are introduced. Key to Java 5.0 Program Design is an introduction to problem solving. The basics of problem-solving techniques are introduced in chapter one and then reinforced during the explanations of Java programming and design. In addition, software engineering design concepts are introduced via problem studies and software projects.

**CONTENTS**

1 Background
2 Java Basics
3 Using Objects
4 Being Classy
5 Decisions
6 Iteration.
    Graphics Interlude 1: GUI-Based Programming
7 Programming with Methods and Classes
8 Arrays and Collections
9 Inheritance and Polymorphism
Graphics Interlude 2: GUI-Based Programming
10 Exceptions
11 Recursive Problem Solving
12 Threads
13 Testing and Debugging.
Appendix A: Tables and Operators.
Appendix B: Number Representation.
Appendix C: Formatted I/O.
Appendix D: Applets.
Appendix E: Standard Java Packages

An Introduction to Computer Science Using Java by Kamin and Mickunas is designed for a CS1/Intro to Programming course in which Java is used. The authors emphasize the process of programming, which teaches students how to develop correct, efficient, well-structured and stylish programs. In this new edition, the authors put more emphasis on object-oriented programming, greatly expanding their coverage and using a more graphical approach. At the same time, the text has retained its coverage of the traditionally fundamental computer science topics such as the development of correct programs, iteration, arrays, recursion, and algorithm analysis. This blend prepares students to become sophisticated computer programmers, not simply Java programmers.

**CONTENTS**

1 What Is Programming?
2 Classes and Methods I.
3 Fundamental Data Types of Java.
4 Decision Making.
5 Classes and Objects II: Classes with Multiple Methods.
6 Iteration. 7 Classes and Methods III: Working with Objects.
8 One-Dimensional Arrays.
9 Nested Loops and Two-Dimensional Arrays.
10 Classes and Methods IV: Static Methods and Variables.
11 The Java AWT Part I: Mouse Events (Optional).
12 Inheritance and Exceptions.
13 Java AWT Part II (Optional).
14 Recursion.
15 Text Processing and File Input/Output.
16 Case Study: The Game of Reversi.
Appendix A Other Java Features.
Appendix B Precedence Rules.
Appendix C Classes in the Java API.
Appendix D Class Diagrams
OBJECTS HAVE CLASS
An Introduction to Programming with Java with CD-ROM and OLC
by David A. Poplawski, Michigan Technological University
2002
ISBN: 9780071124065 [IE]
www.mhhe.com/poplawski

Objects Have Class!: An Introduction to Programming with Java is intended for the CS1 course on computer programming. It assumes no prior programming skills and takes an intuitive, user-friendly approach to getting students started writing their own object-oriented programs. The philosophy the book espouses is that programming ought to be fun. In keeping with this, the author uses a graphically driven presentation to quickly engage the student. The graphical approach facilitates a very early introduction to the definition and use of objects, so students have the opportunity to work from within an object-oriented paradigm for the entire semester. The author's conversational style and pedagogically sound presentation combine with his graphical approach to produce an innovative and attractive invitation to learning basic programming skills.

CONTENTS
1 Computers, Programs, and Java.
2 Writing Programs.
3 Getting Started.
4 Variables, Expressions, and Assignment.
5 Defining and Creating Multiple Objects.
6 Interacting Objects and Events.
7 Making Decisions.
8 Program Testing.
9 Simple Class Extension.
10 Repetition.
11 Arrays.
12 Application Programs.
13 Input and Output.
14 Graphical User Interface Classes.
15 Class Hierarchies.
16 Abstract Data Types and Linked Data Structures.
17 Introduction to Recursion.
Appendix A Java Reserved Words.
Appendix B Java Primitive Types.
Appendix C The Java Development Kit.
Appendix D The Animator

JAVA
An Object-Oriented Language
by Michael Smith, University of Brighton
1999 / 450 pages / softcover
ISBN: 9780071169141 [IE]
(McGraw-Hill UK Title)

This book teaches an object-oriented approach to program development using the programming language Java. It provides complete coverage, beginning with an introduction to programming for those with no programming experience and progressing to a full and comprehensive treatment of object oriented software design and implementation. There are numerous examples to illustrate programming ideas and concepts. These examples represent complete programs which readers may run for themselves. The examples provide a practical illustration of how the language may be used. At the conclusion of each chapter, a set of self-assessment exercises and programming exercises are provided to allow the reader to review and practice the material presented.

CONTENTS
Introduction to Programming.
Introductory Concept.
Fundamentals of Program Instructions.
Solving a Simple Problem Using Java.
The Full Language: Introduction to Design Using an OO Methodology.
Introduction - Part 1 Introduction - Part 2 The Class: Class Variables and Methods.
Wrapper Classes.
Parameters to Methods.
Windowed Programming.
Arrays. Inheritance.
Polymorphism.
The Game of Checkers.
Exceptions.
Cloneable Objects.
File I/O.
Object Serialization

LEARN MORE
McGraw-Hill is interested in reviewing your textbook proposals for publication.
Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com.
Visit McGraw-Hill Education (Asia)
Website: http://www.mheducation.asia/publish/
SCHAUM'S OUTLINE OF PRINCIPLES OF
COMPUTER SCIENCE
by Paul Tymann, Rochester Inst Of Technology, Carl Reynolds, Rochester Inst Of Technology
2008 (January 2008) / Softcover / 384 pages
ISBN: 9780071460514
(A Schaum’s Publication)
Schaum’s Outline of Principles of Computer Science provides a concise overview of the theoretical foundation of computer science. It also includes focused review of object-oriented programming using Java.

CONTENTS
Introduction to Computer Science
Definition
Algorithms
A Brief History Lesson
A Roadmap
Algorithms
What are they, what are they good for?
Developing an algorithm
Efficiency
Formal models of computation
Hardware
Binary and other number systems
Boolean Logic
Gates
Computer Organization
The VonNeumann Model
Control Unit
Registers
ALU
Memory
Software
Languages
Compiled, interpreted
Virtual machines
OOP, Scripting
Programming in Java
Types, operators, identifiers
Classes, objects
Basic control structures
Methods
Operating Systems
What are they?
Multi-tasking, multi-user
Scheduling
Networking
Basic Concepts
The Internet
TCP/IP
The world wide web
Social Issues
Privacy
Viruses
Hacking
Encryption
Can computers kill?

SCHAUM'S OUTLINE OF PROGRAMMING WITH JAVA
2nd Edition
by John R Hubbard, University of Richmond
2004 / Softcover / 352 pages
ISBN: 9780071420402
(A Schaum’s Publication)

Introduction
Sun Microsystems introduced Java in 1995, Java transformed the way people use the Internet. This up-to-the-minute study guide on programming with Java simplifies and demonstrates the central concepts of the computer through examples and solved problems. Updated to reflect the newest version of Java, Schaum’s Outline of Programming with Java, Second Edition addresses the program’s new data structures and language additions. The book supports the major computer textbooks being used in college classrooms across the country.

C# Programming

PROGRAMMING IN VISUAL C# 2008
3rd Edition
by Julia Case Bradley, Mt San Antonio College, and Anita C. Millspaugh, Mt San Antonio College
2010 (January 2009) / Softcover / 704 pages
ISBN: 9780073517216
ISBN: 9780070712814 [IE]
www.mhhe.com/c#2008

Be sharp. Learn C#. Programming in Visual C# 2008 gives you a fresh and easily accessible approach to learning programming concepts using Visual C# for 2008, one of the most pervasive programming languages in the job market today. Best-selling authors Bradley and Millspaugh apply their proven pedagogy, incorporating basic concepts of programming, problem solving, and programming logic and design techniques to teach a mastery of Visual C# at an introductory level. A hands-on approach, Programming in Visual C# 2008 lets you begin programming in the very first chapter. Thought-provoking feedback questions and in-chapter tips are dispersed throughout so students can reflect on a topic introduced and evaluate their understanding of the details. Comprehensive Hands-On Programming Examples found in each chapter reinforce the programming logic and techniques learned in the chapter.

CONTENTS
Chapter 1 Introduction to Programming and Visual C# 2008 1
Chapter 2 User Interface Design 67
Chapter 3 Variables, Constants, and Calculations 107
Chapter 4 Decisions and Conditions 157
Chapter 5 Menus, Common Dialog Boxes, and Methods 217
Chapter 6 Multiform Projects 259
Chapter 7 Lists, Loops, and Printing 293
Chapter 8 Arrays 331
Chapter 9 Web Applications 369
Chapter 10 Database Applications 411
Chapter 11 Data Files 451
Chapter 12 OOP: Creating Object-Oriented Programs 481
Chapter 13 Graphics, Animation, Sound, and Drag-and-Drop 535
Chapter 14 Additional Topics in C# 571
Appendix A Answers to Feedback Questions 613
Appendix B Methods for Working with Dates, Mathematics, and String Operations 627
Appendix C Tips and Shortcuts for Mastering the Environment 635
Appendix D Security 653
Glossary 657
Index 668

PROGRAMMING IN C#
3rd Edition
E Balagurusamy, Member, Union Public Commission, Dholpur House, Shahjahan Road, New Delhi
2010 (June 2010) / Softcover / 550 pages
ISBN: 9780070702073
(McGraw-Hill India Title)

This revised edition maintains the lucid flow and continuity that have been hallmarks of this book. This book takes the student through a step-by-step process, starting from simple programming problems to more complex and difficult ones. The content of this new edition has been enriched with the inclusion of new topics, projects and sample programs and offers hands-on practice to students at developing real-life C# applications.

CONTENTS
1. Introducing C#
2. Understanding .NET: The C# Environment
3. Overview of C#
4. Literals, Variables and Data Types
5. Operators and Expressions
6. Decision Making and Branching
7. Decision Making and Looping
8. Methods in C#
9. Handling Arrays
10. Manipulating Strings
11. Structures and Enumerations
12. Classes and Objects
13. Inheritance and Polymorphism
14. Interface: Multiple Inheritance
15. Operator Overloading
16. Delegates and Events
17. Managing Console I/O Operations
18. Managing Errors and Exceptions
19. Multithreading in C#
20. Window Forms and Web-based Application Development on .NET
Appendix A: Minor Project 1: Project Planner
Appendix B: Minor Project 2: Task Actions
Appendix C: Major Project: Voting Control for Asp.Net
Appendix D: The CLR and the .NET Framework
Appendix E: Building C# Applications

C++ Programming/CS1

OBJECT ORIENTED PROGRAMMING WITH C++
5th Edition
by E Balagurusamy, Chairman, EBG Foundation, Coimbatore, India
2011 (June 2011) / Softcover / 584 pages
ISBN: 9780071072830
(McGraw-Hill India Title)

www.mhhe.com/balagurusamy/oop5

Designed for novice programmers, the book in its fifth edition continues to maintain its simplicity and lucid presentation of C++ concepts using object-oriented programming. This edition is refreshed with enhanced topical coverage, and new solved programs, exercises and projects.

FEATURES
- Topical inclusions—Recursion, Preprocessor, Virtual Constructors and Destructors, Exceptions in Constructors and Destructors, Exceptions in Operator Overloaded Functions
- Topical elaborations—Dynamic Memory Management, Overloading, Structure and Union, Storage Classes, Abstract classes, Type casting and RTTI
- Includes two projects—Telephone Billing System (Major) and Typing Tutor (Minor) to provide hands-on approach
- Offers an updated and refreshed C++ Proficiency Test along with answers based on technical interview question pattern

CONTENTS
1. Principles of Object-Oriented Programming
2. Beginning with C++
3. Tokens, Expressions and Control Structures
4. Functions in C++
5. Classes and Objects
6. Constructors and Destructors
7. Operator Overloading and Type Conversions
8. Inheritance: Extending Classes
9. Pointers, Virtual Functions and Polymorphism
10. Managing Console I/O Operations
11. Working with Files
12. Templates
13. Exception Handling
15. Manipulating Strings
16. New Features of ANSI C++ Standard
17. Object-Oriented Systems Development
Appendix D: Glossary of ANSI C++ Keywords
Appendix E: C++ Operator Precedence
Appendix F: Points to Remember
Appendix G: Glossary of Important C++ and OOP Terms
Appendix H: C++ Proficiency Test
Bibliography
Index
D'Orazio's Programming in C++: Lessons and Applications provides an accessible introduction to programming in C++. It teaches the C++ language and object-oriented design to students with no previous programming experience. The focus is on developing programs for solving a variety of problems. Each chapter of the book is divided into two parts—Lessons and Applications. The Lessons teach C++ language elements and simple programming techniques, and the Applications teach program design. A step-by-step methodology for program development is presented early in the text and reinforced throughout with the help of the application examples and over thirty case studies.

CONTENTS
1 Computers and Computing Fundamentals.
2 Getting Started - Program Structure, Printing, and Comments.
4 Decision Making.
5 Loops.
6 Functions.
7 One-Dimensional Numeric Arrays.
8 Multi-Dimensional Numeric Arrays, Arrays as Data Members, Arrays of Objects.
9 Strings.
10 The C++ String Class.
11 More About Classes, Objects, and Object-Oriented Design.
12 Inheritance, Virtual Functions, and Polymorphism.
13 Data Structures, Recursion, and Other Topics.
14 Templates and the C++ Standard Template Library.

Chapter 9: Standard C++ Strings.
Chapter 10: Classes.
Chapter 11: Overloading Operators.
Chapter 12: Composition and Inheritance.
Chapter 13: Templates and Iterators.
Chapter 14: Standard C++ Vectors.
Chapter 15: Container Classes.
Appendices:
A: Character Codes.
B: Standard C++ Keywords.
C: Standard C++ Operators.
D: Standard C++ Container Classes.
E: Standard C++ Generic Algorithms.
F: The Standard C Library.
G: Hexadecimal Numbers.
H: References.

SCHAUM'S OUTLINE OF FUNDAMENTALS OF COMPUTING WITH C++
by John Hubbard, University of Richmond, Virginia
1998 / 368 pages / softcover
ISBN: 9780070308688
(A Schaum's Publication)

This Schaum's Outline will cover all the material and topics usually taught in the first-year, two-semester survey course in computer science required of all Computer Science majors. It also covers the syllabus of AP Computer Science courses for secondary school students. Standard textbook devote most of their text to theory, the emphasis on examples and solved problems in the Outline will make it a valuable supplementary product.

CONTENTS
Introduction to Computing.
Logic.
Control Structures.
Algorithms.
Text Processing.
Arrays.
Data Abstraction.
Inheritance.
Polymorphism.
Containers.
Recursion.
Mathematical Induction.
Sorting.
Complexity Analysis.
Hash Tables.
Linked Lists.
Trees.
External Structures.
Graphs.
Simulation.
Appendices: A: C++ Syntax.
B: Standard C++ Libraries.
C: C++ Syntax.
D: Logarithms.
E: Factorials, Permutations, and Combinations.
F: Stirling's Formula.
G: Catalan Numbers.
H: Counting Principles.
I: Recurrence Relations.
J: References.
FORTRAN Programming

SCHAUM’S OUTLINE OF PROGRAMMING WITH FORTRAN 77
by William Mayo and Martin Cwiakala, Rutgers University
1995 / 352 pages / softcover
ISBN: 9780070411555
(A Schaum’s Publication)

Students can master FORTRAN 77 programming in less time with this powerful study aid. They’ll learn plenty of example code and debugging shortcuts and find clear explanations of algorithm development, program design, control structures, loops, arrays, subprograms and data files. They’re sure to find this book the perfect tool for preparing for graduate or professional exams.

Python Programming

EXPLORING PYTHON
by Timothy A. Budd, Oregon State University
2010 (February 2009) / Softcover / 288 pages
ISBN: 9780073523378
ISBN: 9780071267533 [IE]
www.mhhe.com/buddpython

Exploring Python takes an active learning approach which engages the student as an equal partner in the process of learning the fun, educational, and powerful programming language. This approach instills habits that students will carry with them throughout their programming career and helps them retain and use the information they have learned.

Tim Budd is one of the best-known authors in Computer Science and has a reputation for producing writing texts along the leading edge of the discipline. Exploring Python provides an accessible and reliable introduction into programming with the Python language.

CONTENTS
Part I. Basic features of Python
1. Interactive Execution
2. Programs in Python
3. Functions
4. Strings
5. Dictionaries
6. Files
7. Classes
8. Functional Programming
9. Object-Oriented Programming
10. Modules
11. Advanced Features
Part II.
12. GUI programming with Tkinter
13. Web-based Applications
14. A Blog
15. A Wiki web
16. A Sudoku Solver
17. XML parsing with the iTunes database
18. Data Structures

Algorithms and Data Structures

Algorithms

INTERNATIONAL EDITION

ALGORITHMS
by Sanjoy Dasgupta, University of California–San Diego, Christos H. Papadimitriou, University of California–Berkeley, and Umesh Vazirani, University of California–Berkeley
2008 (September 2006) / Softcover / 336 pages
ISBN: 9780073523408
ISBN: 9780071259750 [IE]
www.mhhe.com/dasgupta

An alternative to the comprehensive algorithm text in the market. This text, extensively class-tested over a decade at UC Berkeley and UC San Diego, explains the fundamentals of algorithms in a story line that makes the material enjoyable and easy to digest. Emphasis is placed on understanding the crisp mathematical idea behind each algorithm, in a manner that is intuitive and rigorous without being unduly formal. Features include: The use of boxes to strengthen the narrative: pieces that provide historical context, descriptions of how the algorithms are used in practice, and excursions for the mathematically sophisticated. Carefully chosen advanced topics that can be skipped in a standard one-semester course, but can be covered in an advanced algorithms course or in a more leisurely two-semester sequence. An accessible treatment of linear programming introduces students to one of the greatest achievements in algorithms. An optional chapter on the quantum algorithm for factoring provides a unique peephole into this exciting topic. “Algorithms” is an outstanding undergraduate text, equally informed by the historical roots and contemporary applications of its subject. Like a captivating novel, it is a joy to read. Tim Roughgarden Stanford University

CONTENTS
0 Prologue.
1 Algorithms with Numbers.
2 Divide-and-conquer algorithms.
3 Decompositions of graphs.
4 Paths in graphs.
5 Greedy algorithms.
6 Dynamic Programming.
7 Linear Programming and Reductions.
8 NP-complete Problems.
9 Coping with NP-completeness.
10 Quantum Algorithms.

Appendices
A. Python Reference Manual
B. How to Learn a Second Programming Language
INTRODUCTION TO THE DESIGN AND ANALYSIS
OF ALGORITHMS
by R. C. T. Lee, Shian-Shyong Tseng, Ruei-Chuan Chang, and Y. T. Toai
2005 / 752 pages / Softcover
ISBN: 9780071243469

Communication network design, VLSI layout and DNA sequence analysis are important and challenging problems that cannot be solved by naive and straightforward algorithms. Thus, it is critical for a computer scientist to have a good knowledge of algorithm design and analysis.

This book presents algorithm design from the viewpoint of strategies. Each strategy is introduced with many algorithms designed under the strategy. Each algorithm is presented with many examples and each example with many figures.

In recent years, many approximation algorithms have been developed. Introduction to the Design and Analysis of Algorithms presents two important concepts clearly: PTAS and NPO-complete. This book also discusses the concept of NP-completeness before introducing approximation algorithms. Again, this is explained through examples which make sure that the students have a definite idea about this very abstract concept.

In addition, this book also has a chapter on on-line algorithms. Each on-line algorithm is introduced by first describing the basic principle behind it. Amortized analysis is a new field in algorithm research. In this book, detailed descriptions are given to introduce this new and difficult-to-understand concept.

This book can be used as a textbook by senior undergraduate students or master level graduate students in computer science.

CONTENTS
Preface.
1 Introduction.
2 The complexity of algorithms and the lower bounds of problems.
3 The greedy method.
4 The divide-and-conquer strategy.
5 Tree searching strategies.
6 Prune-and-search.
7 Dynamic programming.
8 The theory of NP-completeness.
9 Approximation algorithms.
10 Amortized analysis.
11 Randomized algorithms.
12 On-line algorithms.
Bibliography.
Author index.
Subject index.

SCHAUER'S OUTLINE OF DATA STRUCTURES
WITH JAVA
2nd Revised Edition
by John R. Hubbard, University Of Richmond
2009 (May 2009) / Softcover / 333 pages
ISBN: 9780071611619

Fortunately for you, there’s Schaum’s Outlines. More than 40 million students have trusted Schaum’s to help them succeed in the classroom and on exams. Schaum’s is the key to faster learning and higher grades in every subject. Each Outline presents all the essential course information in an easy-to-follow, topic-by-topic format. You also get hundreds of examples, solved problems, and practice exercises to test your skills.

CONTENTS
Chapter 1. Advanced Java
Chapter 2. Object-Oriented Programming
Chapter 3. Abstract Data Types
Chapter 4. Generics in java
Chapter 5. Linked Structures
Chapter 6. Stacks
Chapter 7. Queues
Chapter 8. Collections
Chapter 9. Lists
Chapter 10. Hash Tables
Chapter 11. Recursion
Chapter 12. Trees
Chapter 13. Binary Trees
Chapter 14. Search Trees
Chapter 15. Heaps and Priority Queues
Chapter 16. Sorting
Chapter 17. Sets
Chapter 18. Graphs

Invitation to Publish
McGraw-Hill is interested to review your textbook proposals for publication. Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com.

Visit McGraw-Hill Education (Asia)
Website: http://www.mheducation.asia/publish/
The famous mathematician, physician, theologian and philosopher Sir Isaac Newton (1642–1727) once wrote, "If I had seen further [than certain other people], it is by standing on the shoulders of giants." This is very true in computer programming as well. Imagine if all programmers had to discover for themselves by trial and error how to solve common problems in programming. It is much better to learn the solutions that other programmers have already discovered and build upon that foundation.

This book is about those foundational solutions. It describes how to structure data and build algorithms to solve common programming tasks. Some of these techniques have names that come from ordinary non-computer life – e.g. stacks, queues and sorting – and others have names that might be completely unfamiliar to a new student of programming – e.g. recursion, backtracking and arrays. Occasionally, a new tool is discovered, or at least, refined, but most of the techniques in this book are standards in the programmer's tool chest.

Unlike the majority of textbooks in the field, this book takes a "code first" approach. After a brief introduction of the concepts, a short complete ANSI-C program is presented for students to analyse. A number of questions arising from the code are then posed and answered in the Socratic format. In this way, the reader will not only become fluent in the concepts but also in the nuts and bolts of translating these concepts into functioning, efficient standard C code. Variable pointer diagrams are developed and used extensively to aid understanding of the more complex data structures and their manipulation.

"A picture is worth a thousand words," as the saying goes, and what more a movie? The animation movies on the accompanying CD-ROM illustrate different data structures and algorithms, making concepts which may be difficult to grasp on paper easier to understand.

CONTENTS
Part 1: Structuring Data
1 Structuring Data: Variables and Pointers
2 Structuring Data: Arrays and Records
3 Structuring Data: Linked Lists
4 Structuring Data: Trees
5 Structuring Data: Graphs and Sets
Part 2: Building Algorithms
6 Building Algorithms: Basic Techniques
7 Building Algorithms: Key Concept
Part 3: Algorithms and Data Structures in Action
8 Searching
9 Sorting
10 NP-hard Problems
Part 4: Theory of Computing
11 Finite State Automata
12 Turing Machines
Appendix: Annotated Bibliography
Answers to Problems
Index
INTERNATIONAL EDITION

SCHAUML'S OUTLINE OF DATA STRUCTURES WITH C++
by John R Hubbard, University of Richmond
2000 / 407 pages / Softcover
ISBN: 9780071183581 [IE]
(A Schaum's Publication)
(International Edition is not for sale in Japan.)

Over 119,000 computer science majors and advanced placement students enroll yearly in required Data Structures/Computer Science II classes, and C++ is the language they use. Adhering to the new ISO standard for C++ (which has rendered previous C++ guides obsolete) Schaum's presents the most up-to-date study guide on Data Structures, simplifying and demonstrating difficult concepts through solved problems and examples.

CONTENTS
Chapter 1: Review of C++.
Chapter 2: Pointers and Arrays.
Chapter 3: Class.
Chapter 4: Recursion.
Chapter 5: Stacks.
Chapter 6: Queues.
Chapter 7: Lists.
Chapter 8: Tables.
Chapter 9: Trees.
Chapter 10: Binary Trees.
Chapter 11: Search Tree.
Chapter 12: Heaps and Priority Queues.
Appendices. Index.

Mathematics and Logic

NUMERICAL METHODS WITH MATLAB FOR ENGINEERS AND SCIENTISTS
3rd Edition
by Steven C. Chapra, Tufts University

2012 (February 2011) / Hardcover / 640 pages
ISBN: 9780073401102
ISBN: 9780071086189 [IE]
www.mhhe.com/chapra

Steven Chapra's Applied Numerical Methods with MATLAB, third edition, is written for engineering and science students who need to learn numerical problem solving. Theory is introduced to inform key concepts which are framed in applications and demonstrated using MATLAB. The book is designed for a one-semester or one-quarter course in numerical methods typically taken by undergraduates.

The third edition feature new chapters on Numerical Differentiation, Optimization, and Boundary-Value Problems (ODEs) and is accompanied by an extensive set of m-files and instructor materials.

NEW TO THIS EDITION

- Updated Coverage Many new problems and examples have been added, and there are new explanations for certain MATLAB functions including: fzero, fminbnd, quad, & ODE23.
- Two New Chapters Chapter 13-Eigenvalues, and Chapter 16-Fast Fourier Transform have been added in response to instructor requests.

CONTENTS
Part One: Modeling, Computers, and Error Analysis
Chapter 1: Mathematical Modeling, Numerical Methods and Problem Solving
Chapter 2: MATLAB Fundamentals
Chapter 3: Programming with MATLAB
Chapter 4: Roundoff and Truncation Errors
Part Two: Roots and Optimization
Chapter 5: Roots: Bracketing Methods
Chapter 6: Roots: Open Methods
Chapter 7: Optimization
Part Three: Linear Systems
Chapter 8: Linear Algebraic Equations and Matrices
Chapter 9: Gauss Elimination
Chapter 10: LU Factorization
Chapter 11: Matrix Inverse and Condition
Chapter 12: Iterative Methods
Chapter 13: Eigenvalues
Part Four: Curve Fitting
Chapter 14: Linear Regression

REVIEW COPY
(available for course adoption only)
To request for a review copy,
• contact your local McGraw-Hill representatives or,
• fax the Review Copy Request Form found in this catalog or,
• e-mail your request to
mghasia_sg@mcgraw-hill.com or,
• submit online at www.mheducationasia

24
Chapter 15: General Linear Least-Squares and Nonlinear Regression
Chapter 16: Fast Fourier Transform
Chapter 17: Polynomial Interpolation
Chapter 18: Splines and Piecewise Interpolation
Part Five: Integration and Differentiation
Chapter 19: Numerical Integration Formulas
Chapter 20: Numerical Integration of Functions
Chapter 21: Numerical Differentiation
Part Six: Ordinary Differential Equations
Chapter 22: Initial-Value Problems
Chapter 23: Adaptive Methods and Stiff Systems
Chapter 24: Boundary-Value Problems
Appendix A: MATLAB Built-in Functions
Appendix B: MATLAB M-file Functions
Bibliography
Index

INTERNATIONAL EDITION
NUMERICAL METHODS FOR ENGINEERS
6th Edition
by Steven C. Chapra, Tufts University, and Raymond P. Canale, Emeritus University of Michigan
2010 (April 2009) / Hardcover / 960 pages
ISBN: 9780073401650
ISBN: 9780071267595 [IE]
www.mhhe.com/chapra

Instructors love Numerical Methods for Engineers because it makes teaching easy! Students love it because it is written for them—with clear explanations and examples throughout. The text features a broad array of applications that span all engineering disciplines. The sixth edition retains the successful instructional techniques of earlier editions. Chapra and Canale’s unique approach opens each part of the text with sections called Motivation, Mathematical Background, and Orientation. This prepares the student for upcoming problems in a motivating and engaging manner. Each part closes with an Epilogue containing Trade-Offs, Important Relationships and Formulas, and Advanced Methods and Additional References. Much more than a summary, the Epilogue deepens understanding of what has been learned and provides a peek into more advanced methods. Approximately 20% of the problems are new or revised in this edition. The expanded breadth of engineering disciplines covered is especially evident in the problems, which now cover such areas as biotechnology and biomedical engineering.

Users will find use of software packages, specifically MATLAB®, Excel® with VBA and Mathcad®. This includes material on developing MATLAB® m-files and VBA macros.

CONTENTS
Part 1 Modeling, Computers, and Error Analysis
1 Mathematical Modeling and Engineering Problem Solving
2 Programming and Software
3 Approximations and Round-Off Errors
4 Truncation Errors and the Taylor Series
Part 2 Roots of Equations
5 Bracketing Methods
6 Open Methods
7 Roots of Polynomials
8 Case Studies: Roots of Equations
Part 3 Linear Algebraic Equations
9 Gaussian Elimination
10 LU Decomposition and Matrix Inversion
11 Special Matrices and Gauss-Seidel
12 Case Studies: Linear Algebraic Equations
Part 4 Optimization
13 One-Dimensional Unconstrained Optimization
14 Multidimensional Unconstrained Optimization
15 Constrained Optimization
16 Case Studies: Optimization

Part 5 Curve Fitting
17 Least-Squares Regression
18 Interpolation
19 Fourier Approximation
20 Case Studies: Curve Fitting
Part 6 Numerical Differentiation and Integration
21 Newton-Cotes Integration Formulas
22 Integration of Equations
23 Numerical Differentiation
24 Case Studies: Numerical Integration and Differentiation
Part 7 Ordinary Differential Equations
25 Runge-Kutta Methods
26 Stiffness and Multistep Methods
27 Boundary-Value and Eigenvalue Problems
28 Case Studies: Ordinary Differential Equations
Part 8 Partial Differential Equations
29 Finite Difference: Elliptic Equations
30 Finite Difference: Parabolic Equations
31 Finite-Element Method
32 Case Studies: Partial Differential Equations
Appendix A The Fourier Series
Appendix B Getting Started with Matlab
Bibliography
Index

INTERNATIONAL EDITION
SCIENTIFIC COMPUTING
2nd Edition
by Michael T Heath, University of Illinois at Urbana-Champaign
2002 / 576 pages / hardcover
ISBN: 9780072399103
ISBN: 9780071244893 [IE]
www.mhhe.com/engcs/compsci/heath

Heath 2/e presents a broad overview of numerical methods for solving all the major problems in scientific computing, including linear and nonlinear equations, least squares, eigenvalues, optimization, interpolation, integration, ordinary and partial differential equations, fast Fourier transforms, and random number generators. The treatment is comprehensive yet concise, software-oriented yet compatible with a variety of software packages and programming languages. The book features more than 160 examples, 500 review questions, 240 exercises, and 200 computer problems. Changes for the second edition include: expanded motivational discussions and examples; formal statements of all major algorithms; expanded discussions of existence, uniqueness, and conditioning for each type of problem so that students can recognize "good" and "bad" problem formulations and understand the corresponding quality of results produced; and expanded coverage of several topics, particularly eigenvalues and constrained optimization. The book contains a wealth of material and can be used in a variety of one- or two-term courses in computer science, mathematics, or engineering. Its comprehensiveness and modern perspective, as well as the software pointers provided, also make it a highly useful reference for practicing professionals who need to solve computational problems.

CONTENTS
1 Scientific Computing.
2 Systems of Linear Equations. 3 Linear Least Squares.
4 Eigenvalues Problems.
5 Nonlinear Equations.
6 Optimization.
7 Interpolation.
8 Numerical Integration and Differentiation.
9 Initial Value Problems for ODEs.
10 Boundary Value Problems for ODEs.
11 Partial Differential Equations.
12 Fast Fourier Transform.
13 Random Numbers and Simulation
Discrete Mathematics

GLOBAL EDITION

Discrete Mathematics and Its Applications
7th Edition
by Kenneth H. Rosen, Visiting Research Professor, Monmouth University, New Jersey

2012 (June 2011) / Hardcover / 1072 pages
ISBN: 9780073383095
ISBN: 9780071317108 [GE]

www.mhhe.com/rosen

Discrete Mathematics and its Applications, Seventh Edition, is intended for one- or two-term introductory discrete mathematics courses taken by students from a wide variety of majors, including computer science, mathematics, and engineering. This renowned best-selling text, which has been used at over 500 institutions around the world, gives a focused introduction to the primary themes in a discrete mathematics course and demonstrates the relevance and practicality of discrete mathematics to a wide and varied range of real-world applications—from computer science to data networking, to psychology, to chemistry, to engineering, to linguistics, to biology, to business, and to many other important fields.

NEW TO THIS EDITION

- Improved Introduction and Organization - For the seventh edition the first part of the book has been restructured to present core topics in a more efficient, more effective, and more flexible way.
- Expanded and Improved Coverage - The seventh edition offers brand-new or expanded coverage in several key areas to present important topics with better care, detail, and flexibility.

CONTENTS

Chapter 1: The Foundations: Logic and Proofs
Chapter 2: Basic Structures: Sets, Functions, Sequences, Sums, Matrices
Chapter 3: Algorithms
Chapter 4: Number Theory
Chapter 5: Induction and Recursion
Chapter 6: Counting
Chapter 7: Discrete Probability
Chapter 8: Advanced Counting Techniques
Chapter 9: Relations
Chapter 10: Graphs
Chapter 11: Trees
Chapter 12: Boolean Algebra
Chapter 13: Modeling Computation
Appendices

All Global Editions are adapted to better meet the needs of courses outside the United States. Please contact your local sales representative for more details.
DISCRETE MATHEMATICS AND ITS APPLICATIONS
6th Edition
by Kenneth H. Rosen, AT&T Bell Laboratories
ISBN: 9780073229720 (with Mathzone)
ISBN: 9780071244749 [IE]
www.mhhe.com/rosen

Discrete Mathematics and its Applications, Sixth Edition, is intended for one- or two-semester introductory discrete mathematics courses taken by students from a wide variety of majors, including computer science, mathematics, and engineering. This renowned best-selling text, which has been used at over 500 institutions around the world, gives a focused introduction to the primary themes in a discrete mathematics course and demonstrates the relevance and practicality of discrete mathematics to a wide variety of real-world applications—from computer science to data networking, to psychology, to chemistry, to engineering, to linguistics, to biology, to business, and to many other important fields.

CONTENTS
Preface.
The MathZone Companion Website To the Student.
1 The Foundations: Logic and Proofs.
1.1 Propositional Logic
1.2 Propositional Equivalences
1.3 Predicates and Quantifiers
1.4 Nested Quantifiers
1.5 Rules of Inference
1.6 Introduction to Proofs
1.7 Proof Methods and Strategy
End-of-Chapter Material
2 Basic Structures: Sets, Functions, Sequences and Sums
2.1 Sets
2.2 Set Operations
2.3 Functions
2.4 Sequences and Summations
End-of-Chapter Material
3 The Fundamentals: Algorithms, the Integers, and Matrices
3.1 Algorithms
3.2 The Growth of Functions
3.3 Complexity of Algorithms
3.4 The Integers and Division
3.5 Integers and Algorithms
3.6 Applications of Number Theory
3.7 Matrices
End-of-Chapter Material
4 Induction and Recursion
4.1 Mathematical Induction
4.2 Strong Induction and Well-Ordering
4.3 Recursive Definitions and Structural Induction
4.4 Recursive Algorithms
4.5 Program Correctness
End-of-Chapter Material
5 Counting
5.1 The Basics of Counting
5.2 The Pigeonhole Principle
5.3 Permutations and Combinations
5.4 Binomial Coefficients
5.5 Generalized Permutations and Combinations
5.6 Generating Permutations and Combinations
End-of-Chapter Material
6 Discrete Probability
6.1 An Introduction to Discrete Probability
6.2 Probability Theory
6.3 Bayes’ Theorem
6.4 Expected Value and Variance

End-of-Chapter Material
7 Advanced Counting Techniques
7.1 Recurrence Relations
7.2 Solving Recurrence Relations
7.3 Divide-and-Conquer Algorithms and Recurrence Relations
7.4 Generating Functions
7.5 Inclusion-Exclusion
7.6 Applications of Inclusion-Exclusion
End-of-Chapter Material
8 Relations
8.1 Relations and Their Properties
8.2 n-ary Relations and Their Applications
8.3 Representing Relations
8.4 Closures of Relations
8.5 Equivalence Relations
8.6 Partial Orderings
End-of-Chapter Material
9 Graphs
9.1 Graph Terminology and Models
9.2 Special Graphs
9.3 Representing Graphs and Graph Isomorphisms
9.4 Connectivity
9.5 Euler and Hamilton Paths
9.6 Shortest-Path Problems
9.7 Planar Graphs 9.8 Graph Coloring
End-of-Chapter Material
10 Trees
10.1 Introduction to Trees
10.2 Applications of Trees
10.3 Tree Traversal
10.4 Spanning Trees
10.5 Minimum Spanning Trees
End-of-Chapter Material
11 Boolean Algebra
11.1 Boolean Functions
11.2 Representing Boolean Functions
11.3 Logic Gates
11.4 Minimization of Circuits
End-of-Chapter Material
12 Modeling Computation
12.1 Languages and Grammars.
12.2 Finite-State Machines with Output.
12.3 Finite-State Machines with No Output.
12.4 Language Recognition.
12.5 Turing Machines.
End-of-Chapter Material.
Appendixes.
A.1 Axioms for Real Numbers and Integers.
A.2 Exponential and Logarithmic Functions.
A.3 Pseudocode.
Suggested Readings.
Answers to Odd-Numbered Exercises.
Photo Credits.
Index of Biographies.
Index
Computer Science

**INTERNATIONAL EDITION**

**DISCRETE MATHEMATICS BY EXAMPLE**
*by Andrew Simpson, Oxford Brookes*

2002 / 450 pages  
ISBN: 9780077998407  
(McGraw-Hill UK Title)

Discrete Mathematics by Example is designed for an undergraduate course and provides many exercises and examples, enabling the development of students’ understanding of the principles of discrete mathematics through appropriate pedagogical methods. The text includes chapters on propositional and predicate logic; typed set theory; boolean algebra; relations; functions; sequences; induction and graph theory. Discrete Mathematics by Example is designed for an undergraduate course and provides many exercises and examples, enabling the development of students' understanding of the principles of discrete mathematics through appropriate pedagogical methods. The text includes chapters on propositional and predicate logic; typed set theory; boolean algebra; relations; functions; sequences; induction and graph theory.

**CONTENTS**
1 Introduction.  
2 Numbers.  
3 Propositional logic.  
4 Set theory.  
5 Boolean algebra.  
6 Typed set theory.  
7 Predicate logic.  
8 Relations.  
9 Functions.  
10 Sequences.  
11 Induction.  
12 Graph theory.  
13 Combinatorics.  
14 Modelling.  
15 Analysis

**SCHUAUM’S OUTLINE OF ESSENTIAL COMPUTER MATHEMATICS**
*by Seymour Lipschutz, Temple University*

1982 / 256 pages / Softcover  
ISBN: 9780070379909  
(A Schaum’s Publication)

The mathematical knowledge needed for computer and information sciences, including, particularly, the binary number system, logic circuits, graph theory, linear systems, probability and statistics, get clear and concise coverage in this invaluable study guide. Basic high school math is all that's needed to follow the explanations and learn from hundreds of practical problems solved step-by-step. Hundreds of review questions with answers help reinforce learning and increase skills.

**CONTENTS**
Binary Number System.  
Logic.  
Flowcharts.  
Sets and Relations.  
Boolean Algebra, Logic Gates.  
Simplifying Logic Circuits, Karnaugh Maps.  
Vectors, Matrices, Subscripted Variables.  
Linear Equations.  
Combinatorics.  
Probability.  
Statistics, Random Variables.

**Graph Theory.**
Trees, Directed Graphs, Machines.

**Digital Logic/Logic Design**

**INTERNATIONAL EDITION**

**FUNDAMENTALS OF DIGITAL AND COMPUTER DESIGN WITH VHDL**
*by Richard S. Sandige, California Polytechnic State University, and Michael L. Sandige*

2012 (September 2011) / Hardcover / 736 pages  
ISBN: 9780073380698  
ISBN: 9780071316392 [IE]  
www.mhhe.com/sandige

This text is intended for an introductory digital design course for students at the freshman level; it also is intended for an introductory computer design course with assembly language programming for students at the sophomore level. This text uses a spiral teaching approach by introducing a design problem and then, in the same chapter or a later chapter, either (1) reemphasizing the same concepts when a different design is presented, or (2) working the same problem using a different technique. This is done to increase the likelihood of retention.

**FEATURES**

- VHDL is introduced in the first chapter using just Boolean functions. This prepares students to use VHDL early in their laboratory experiments.
- Helpful information is provided following Figures, Tables, Listings (for VHDL code), and Waveforms in a bulleted section starting with "Things you should notice about..."
- Homework problems are keys to each section, for instructor and student convenience. Homework solutions will be made available to instructors via the web.
- Laboratory experiments are included in Appendix A, to connect the theory presented in the book with the real world of modern digital programmable logic devices. Experiment solutions will be made available to instructors via the web. For reviewers: to see examples of Experiments for Chapters 1 (Experiment 1) and Chapter 9 (Experiment 11), go to the author's website at http://www.ee.calpoly.edu/faculty/rsandige/.
- A Karnaugh Map Explorer program is provided to help students learn K-maps. The Karnaugh Map Explorer program will be made available to instructors via the web. For reviewers: see the program and use it, go to the author's website at http://www.ee.calpoly.edu/faculty/rsandige/.
- A special program called EASY1 (Editor/Assembler/Simulator for VBC1 (Very Basic Computer 1)) is provided to help students learn how to write and test assembly language for VBC1. EASY1 will be made available to instructors via the web. VBC1 is a very simple 4-bit Harvard type computer for students to design and learn how
Beginning in Chapter 12, Designing Input/Output Circuits, VHDL is used as a tool to teach students how to design VBC1.

The popular Xilinx ISE WebPACK software is used as the design tool for VHDL. This tool contains the ISE synthesizer and built-in ISE simulator to allow students to verify that their designs work prior to downloading them in the Spartan 3E on the Nexys 2 board. Xilinx ISE WebPACK is a free download from Xilinx via their web site.

In Chapter 18, VBC1-E is introduced. VBC1-E is an enhanced version of VBC1 with 25 instructions with 71 variations.

Contents
Chapter 1: Boolean Algebra, Boolean Functions, VHDL, and Gates
Chapter 2: Number Conversions, Codes, and Function Minimization
Chapter 3: Introduction to Logic Circuit Analysis and Design
Chapter 4: Combinational Logic Circuit Design with VHDL
Chapter 5: Bistable Memory Device Design with VHDL
Chapter 6: Simple Finite State Machine Design with VHDL
Chapter 7: Computer Circuits
Chapter 8: Circuit Implementation Techniques
Chapter 9: Complex Finite State Machine Design with VHDL
Chapter 10: Basic Computer Architectures
Chapter 11: Assembly Language Programming for VBC1
Chapter 12: Designing Input/Output Circuits
Chapter 13: Designing Instruction Memory, Loading Program Counter, and Debounced Circuit
Chapter 14: Designing Multiplexed Display Systems
Chapter 15: Designing Instruction Decoders
Chapter 16: Designing Arithmetic Logic Units
Chapter 17: Completing the Design for VBC1
Chapter 18: Assembly Language Programming for VBC1-E
Chapter 19: Designing Input/Output Circuits for VBC1-E
Chapter 20: Designing the Data Memory Circuit for VBC1-E
Chapter 21: Designing the Arithmetic, Logic, Shift, Rotate, and Unconditional Jump Circuits for VBC1-E
Chapter 22: Designing a Circuit to Prevent Program Execution During Manual Loading for VBC1-E
Chapter 23: Designing Extended Instruction Memory for VBC1-E
Chapter 24: Designing the Software Interrupt Circuits for VBC1-E
Chapter 25: Completing the Design for VBC1-E
Appendices
Fundamentals of Digital Logic with VHDL Design teaches the basic design techniques for logic circuits. It emphasizes the synthesis of circuits and explains how circuits are implemented in real chips. Fundamental concepts are illustrated by using small examples, which are easy to understand. Then, a modular approach is used to show how larger circuits are designed. VHDL is used to demonstrate how the basic building blocks and larger systems are defined in a hardware description language, producing designs that can be implemented with modern CAD tools. The book emphasizes CAD through the use of Altera’s Quartus II CAD software, a state-of-the-art digital circuit design package. This software produces automatic mapping of designs written in VHDL into Field Programmable Gate Arrays (FPGAs) and Complex Programmable Logic Devices (CPLDs).

CONTENTS
Chapter 1: Design Concepts
Chapter 2: Introduction to Logic Circuits
Chapter 3: Implementation Technology
Chapter 4: Optimized Implementation of Logic Functions
Chapter 5: Number Representation and Arithmetic Circuits
Chapter 6: Combinatorial-Circuit Building Blocks
Chapter 7: Flip-Flops, Registers, Counters, and a Simple Processor
Chapter 8: Synchronous Sequential Circuits
Chapter 9: Asynchronous Sequential Circuits
Chapter 10: Digital System Design
Chapter 11: Testing of Logic Circuits
Chapter 12: Computer Aided Design Tools
Appendix A VHDL Reference
Appendix B Tutorial 1—Using Quartus II CAD Software
Appendix C Tutorial 2—Implementing Circuits in Altera Devices
Appendix D Tutorial 3—Physical Implementations in a PLD
Appendix E Commercial Devices
Answers

Use of CAD software is well integrated into the book. A CD-ROM that contains Altera’s MAX+plusII CAD software comes free with every copy of the text. The CAD software provides automatic mapping of a design written in Verilog into Field Programmable Gate Arrays (FPGAs) and Complex Programmable Logic Devices (CPLDs). Students will be able to try, firsthand, the book’s Verilog examples (over 140) and homework problems.

Engineers use MAX+plusII for designing, simulating, testing and implementing logic circuits. The version included with this text supports all major features of the commercial product and comes with a compiler for the IEEE standard Verilog language. Students will be able to:

- enter a design into the CAD system
- compile the design into a selected device
- simulate the functionality and timing of the resulting circuit
- implement the designs in actual devices (using the school’s laboratory facilities)

Verilog is a complex language, so it is introduced gradually in the book. Each Verilog feature is presented as it becomes pertinent for the circuits being discussed. To teach the student to use the MAX+plusII, the book includes three tutorials.

CONTENTS
Chapter 1 Design Concepts
Chapter 2 Introduction to Logic Circuits
Chapter 3 Implementation Technology
Chapter 4 Optimized Implementation of Logic Functions
Chapter 5 Number Representation and Arithmetic Circuits
Chapter 6 Combinational-Circuit Building Blocks
Chapter 7 Flip-Flop, Registers, Counters, and a Simple Processor
Chapter 8 Synchronous Sequential Circuits
Chapter 9 Asynchronous Sequential Circuits
Chapter 10 Digital System Design
Chapter 11 Testing of Logic Circuits
Chapter 12 Computer Aided Design Tools
Appendix A Verilog Reference
Appendix B Tutorial 1—Using Quartus II CAD Software
Appendix C Tutorial 2—Implementing Circuits in Altera Devices
Appendix D Tutorial 3—Physical Implementation in a FPGA
Appendix E Commercial Devices
Answers
Index
Introduction to Logic and Computer Design by Alan Marcovitz takes the successful formula realized in the author’s previous books and makes it even better. With the inclusion of several chapters on computer design, Marcovitz now offers everything a fundamentals-oriented logic design course might include. Further, this new book is supported by an ARIS site - McGraw-Hill's electronic homework management systems - including 350 algorithmic problems and a host of new media supplements to make both the instructor’s and the student’s tasks easier. As with Marcovitz’s previous books, the clear presentation of concepts and well-paced writing style make Introduction to Logic and Computer Design the ideal companion to any first course in digital logic. Users rave about the book’s extensive set of examples — well integrated into the body of the text and included at the end of each chapter in sections of solved problems — that give students multiple opportunities to understand the topics being presented.

CONTENTS
1 Introduction
Part I Logic Design
2 Combinational Systems
3 The Karnaugh Map
4 Designing Combinational Systems
5 Analysis of Sequential Systems
6 The Design of Sequential Systems
7 Solving Larger Sequential Problems
Part II Computer Design
8 Computer Organization
9 Computer Design Fundamentals
10 The Design of a Central Processing Unit
11 Beyond the Central Processing Unit
COMPUTER ARCHITECTURE AND LOGIC DESIGN

by Thomas C. Bartee, IDA

1991 / 640 pages / Softcover

ISBN: 9780071125543 [IE]

Sound fundamental book on computer organization and architecture, hardware and logic design. 68030-68040-, 386-486-, cache and virtual memory, many other modern topics and latest advances in technology are covered.

CONTENTS
1. Introduction.
2. Number Systems.
3. Boolean Algebra and Gate Networks.
4. Logic Design.
5. The Arithmetic-Logic Unit.
6. The Memory Element.
7. Input-Output.
8. Buses and Interfaces.
9. The Control Unit.
11. Selected Architectures.
12. Logic Circuits Overview.

INTRODUCTION TO LANGUAGES AND THE THEORY OF COMPUTATION

by John Martin, North Dakota State University-Fargo

2011 (February 2010) / Hardcover / 448 pages

ISBN: 9780073191461
ISBN: 9780071289429 [IE]

www.mhhe.com/martin

Introduction to Languages and the Theory of Computation helps students make the connection between the practice of computing and an understanding of the profound ideas that defines it. The book’s organization and the author’s ability to explain complex topics clearly make this introduction to the theory of computation an excellent resource for a broad range of upper level students. The author has learned through many years of teaching that the best way to present theoretical concepts is to take advantage of the precision and clarity of mathematical language. In a way that is accessible to students still learning this language, he presents the necessary mathematical tools gently and gradually which provides discussion and examples that make the language intelligible.

CONTENTS
Preface
Introduction
Chapter 1: Mathematical Tools and Techniques
Chapter 2: Finite Automata and the Languages They Accept
Chapter 3: Regular Expressions, Nondeterminism, and Kleene’s Theorem
Chapter 4: Context-Free Languages
Chapter 5: Pushdown Automata
Chapter 6: Context-Free and Non-Context-Free Languages
Chapter 7: Turing Machines
Chapter 8: Recursively Enumerable Languages
Chapter 9: Undecidable Decision Problems
Chapter 10: Computable Functions
Chapter 11: Introduction to Computational Complexity
Index
Simulation and Modeling

2012 (February 2011) / Hardcover / 768 pages
ISBN: 9780073401300
ISBN: 9780071086448 [IE]

Simulation Using ProModel covers the art and science of simulation in general and the use of ProModel simulation software in particular. The text blends theory with practice. Actual applications in business, services and manufacturing and a hands-on approach to simulation, including real-world simulation projects, are emphasized.

The third edition of Simulation Using ProModel reflects the most recent version of the ProModel software in all the examples and labs as well as expanded coverage on generating random variates and design of experiments.

Additionally, the lead author is founder and Chief Technology Advisor for ProModel Corporation.

NEW TO THIS EDITION
- Updated Examples to reflect current version of ProModel.
- Expanded Random Variate Coverage
- Simulation Covered Earlier The material has been rearranged from the previous edition so students are introduced to actual simulation sooner. The text includes a complete account of a real-world simulation project.
- Expanded Coverage of Experiment Design to help students learn how to set up and run a meaningful experiment and document the results.
- Enhanced Website accompanies the text and allows users of the text to download the latest student version of ProModel as well as the current ProModel Tutorial and Basic Training course. In addition, instructors have access to the solutions manual, lab exercises, and PowerPoint lecture slides.

CONTENTS
Part 1
Chapter 1-Intro to Simulation
Chapter 2-System Dynamics
Chapter 3-Simulation Basics
Chapter 4-Discrete Event Simulation
Chapter 5-Data Collection and Analysis
Chapter 6-Model Building
Chapter 7-Model Verification and Validation
Chapter 8-Simulation Output Analysis
Chapter 9-Comparing Systems
Chapter 10-Simulation Optimization
Chapter 11-Modeling Manufacturing Systems

Chapter 12-Modeling Material Handling Systems
Chapter 13-Modeling Service Systems
Part 2
LABS
Lab 1 Introduction to ProModel
Lab 2 Building Your First Model
Lab 3 ProModel’s Output Module
Lab 4 Basic Modeling Concepts
Lab 5 Fitting Statistical Distributions to Input Data
Lab 6 Intermediate Model Building
Lab 7 Model Verification and Validation
Lab 8 Simulation Output Analysis
Lab 9 Comparing Alternative Systems
Lab 10 Simulation Optimization with SimRunner
Lab 11 Modeling Manufacturing Systems
Lab 12 Material Handling Systems
Lab 13 Modeling Service Systems

INTERNATIONAL EDITION
SIMULATION WITH ARENA
5th Edition
by W. David Kelton, University Of Cincinnati-Cincinnati, Randall P. Sadowski, and Nancy B. Swets, Rockwell Automation
2010 (July 2009) / Hardcover / 656 pages
ISBN: 9780073376288
ISBN: 9780071267717 [IE]

Simulation with Arena provides a comprehensive treatment of simulation using industry-standard Arena software. The text starts by having the reader develop simple high-level models, and then progresses to advanced modeling and analysis. Statistical design and analysis of simulation experiments is integrated with the modeling chapters, reflecting the importance of mathematical modeling of these activities. An informal, tutorial writing style is used to aid the beginner in fully understanding the ideas and topics presented. The academic version of Arena and example files are available through the book’s website. Verified instructors can also download a 30-seat site license of Arena for use in their course.

CONTENTS
1. What Is Simulation?
2. Fundamental Simulation Concepts
3. A Guided Tour Through Arena
4. Modeling Basic Operations and Inputs
5. Modeling Detailed Operations
6. Statistical Analysis of Output from Terminating Simulations
7. Intermediate Modeling and Steady-State Statistical Analysis
8. Entity Transfer
9. A Sampler of Further Modeling Issues and Techniques
10. Arena Integration and Customization
11. Continuous and Combined Discrete/Continuous Models
12. Further Statistical Issues
References
Index
Computer Science

SIMULATION MODELING AND ANALYSIS
4th Edition
by Averill Law, Averill M. Law & Associates
2007 / Hardcover / 792 pages
ISBN: 9780073294414 (with Expertfit Software)
ISBN: 9780071255196 [IE]
www.mhhe.com/law

CONTENTS
1 Basic Simulation Modeling.
2 Modeling Complex Systems.
3 Simulation Software.
4 Review of Basic Probability and Statistics.
5 Building Valid, Credible, and Appropriately Detailed Simulation Models.
6 Selecting Input Probability Distributions.
7 Random-Number Generators.
8 Generating Random Variates.
9 Output Data Analysis for a Single System.
10 Variance-Reduction Techniques.
11 Experimental Design, Sensitivity Analysis, and Optimization.
12 Simulation of Manufacturing Systems

Computer Organization & Architecture

ASSEMBLY LANGUAGE PROGRAMMING AND ORGANIZATION OF THE IBM PC
by Ytha Yu and Charles Marut, both of California State University, Hayward
1992 / 512 pages
ISBN: 9780071128964 [IE]

This introduction to the organization and programming of the 8086 family of microprocessors used in IBM microcomputers and compatibles is comprehensive and thorough. Includes coverage of I/O control, video/graphics control, text display, and OS/2. Strong pedagogy with numerous sample programs illustrates practical examples of structured programming.

CONTENTS
PART ONE: ELEMENTS OF ASSEMBLY LANGUAGE PROGRAMMING:
CHAPTER 1: Microcomputer Systems.
CHAPTER 2: Representation of Numbers and Characters.
CHAPTER 3: Organization of the IBM Personal Computers.
CHAPTER 4: Introduction to IBM PC Assembly Language.
CHAPTER 5: The Processor Status and the Flags Register.
CHAPTER 6: Flow Control Instructions.
CHAPTER 7: Logic, Shift, and Rotate Instructions.
CHAPTER 8: The Stack and Introduction to Procedures.
CHAPTER 9: Multiplication and Division Instructions.
CHAPTER 10: Arrays and Addressing Modes The String Instructions.
PART TWO: ADVANCED TOPICS
CHAPTER 12: Macros.
CHAPTER 13: Memory Management.
CHAPTER 14: Bios and DOS Interrupts.
CHAPTER 15: Color Graphics.
CHAPTER 16: Recursion.
CHAPTER 17: Advanced Arithmetic.
CHAPTER 18: Disk Operations.
CHAPTER 19: 80286/80386/80486 Microprocessors and OS/2

REVIEW COPY
(Available for course adoption only)
To request for a review copy,
- contact your local McGraw-Hill representatives or,
- fax the Review Copy Request Form found in this catalog or,
- e-mail your request to mghasia_sg@mcgraw-hill.com or,
- submit online at www.mheducation.asia
Computer Organization and Architecture

2012 (February 2011) / Hardcover / 736 pages
ISBN: 9780073380650
ISBN: 9780071089005 [IE]

The sixth edition of this book covers the key topics in computer organization and embedded systems. It presents hardware design principles and shows how hardware design is influenced by the requirements of software. The book is suitable for undergraduate electrical and computer engineering majors and computer science specialists. It is intended for a first course in computer organization and embedded systems.

NEW TO THIS EDITION
- Four Popular Processors are represented in the book. While the main explanations are generic, Altera's Nios II, Freescale's ColdFire, ARM, and Intel's IA-32 are covered in detail in separate appendices.
- More Coverage of Embedded Systems reflects the reality that many devices not thought of as computers do have computers in them. Microcontrollers and system-on-a-chip implementations are discussed and demonstrated.
- Graduated Difficulty Problems at the end of each chapter are classified as Easy, Medium, or Difficult. This allows instructors to easily assign problems based upon difficulty level.
- Companion Website contains PowerPoint slides and solutions.
http://www.mhhe.com/hamacher

CONTENTS
1 Basic Structure of Computers
2 Instruction Set Architecture
3 Basic Input/Output
4 Software
5 Basic Processing Unit
6 Pipelining
7 Input/output Organization
8 The Memory System
9 Arithmetic
10 Embedded Systems
11 System-On-A-Chip–A Case Study
Appendix A Logic Circuits
Appendix B The Altera Nios II Processor
Appendix C The ColdFire Processor
Appendix D The ARM Processor
Appendix E The Intel IA-32 Architecture

COMPUTER ARCHITECTURE

An Embedded Approach

by Ian Vince McLoughlin

2011 (January 2011) / Softcover / 544 pages
ISBN: 9780071311182
(An Asian Publication)

This textbook presents the subject of computer architecture in a modern light to match the needs of educational institutions and graduates for modern industry. The book reflects the fact that there are around 40 times as many embedded systems sold as desktop computers each year, and many more graduates will end up designing embedded systems hardware than will ever design a traditional desktop computer.

Without overlooking the historical perspective of computers, or the traditional topics in computer architecture, Computer Architecture: an embedded approach presents the subject in a readable and interesting format, and above all, provides the background and places emphasis on the increasingly important embedded systems that we all rely upon for our day-to-day living.

Whilst traditional computer engineering textbooks were fine resources for students needing to learn about computers, work on desktop or mainframe systems of the 1980s and 1990s, these older approaches are looking increasingly dated as technological progress marches on. Students of today tend to be more inspired by the iPod than by ENIAC, and working with such tiny, low power embedded devices is precisely what Computer Architecture: an embedded approach aims towards. This means that modern and interesting topics for embedded systems are included in this book. An embedded systems-relevant approach, this book addresses the needs of industry, inspires students in their studies, and interlinks with neighbouring electronics, computer engineering or computer science course within a typical curriculum. It is not just a computer architecture book with an extra chapter on embedded system, it looks at the computer architecture of today, which is built upon the foundation and history of bigger and older machines and drives toward greater levels of integration within embedded systems.

FEATURES
- A comprehensive textbook covering the main “Computer Architecture” sections of the IEEE Body of Knowledge in Computer Engineering.
- An embedded systems-relevant approach, the book includes topics that are current in industry, and issues and technologies that embedded systems engineers face these days, which is what industry increasingly demands and tomorrow’s graduates will need to be conversant in. Some of these topics, which are not found in traditional texts, are:
  1. Programming of memory in embedded systems, especially JTAG
  2. Overlays and pages in code contexts
  3. The different types of memory available, including parallel and serial flash (NOR/NAND)
  4. Power supply issues, how clocking and system design relates to low power
  5. System reset, testing and error checking (detection and
Preface
Acknowledgements
Chapter 1 Introduction
1.1 Book organisation
1.2 Evolution
1.3 Computer generations
1.4 Cloud, pervasive, grid and massively parallel computers
1.5 Where to from here?
1.6 Summary

Chapter 2 Foundations
2.1 Computer organisation
2.2 Computer fundamentals
2.3 Number formats
2.4 Arithmetic
2.5 Multiplication
2.6 Division
2.7 Working with fractional number formats
2.8 Floating point
2.9 Floating point processing
2.10 Summary

Chapter 3 CPU Basics
3.1 What is a computer?
3.2 Making the computer work for you
3.3 Instruction handling
3.4 Data handling
3.5 A top down view
3.6 Summary

Chapter 4 Processor Internals
4.1 Internal bus architecture

4.2 Arithmetic logic unit
4.3 Memory management unit
4.4 Cache
4.5 Co-processors
4.6 Floating point unit
4.7 Streaming SIMD Extensions (SSE) and Multimedia Extensions (MMX)
4.8 Co-processing in embedded systems
4.9 Summary

Chapter 5 Enhancing CPU Performance
5.1 Speedups
5.2 Pipelining
5.3 Complex and reduced instruction set computer
5.4 Superscalar architectures
5.5 Instructions per cycle
5.6 Hardware acceleration
5.7 Branch prediction
5.8 Parallel machines
5.9 Tomasulo’s algorithm
5.10 Summary

Chapter 6 externals
6.1 Interfacing using a bus
6.2 Parallel bus specifications
6.3 Standard interfaces
6.4 Real-time issues
6.5 Interrupts and interrupt handling
6.6 Wireless
6.7 Summary

Chapter 7 Practical Embedded CPUs
7.1 Introduction
7.2 Microprocessors are core plus more
7.3 Required functionality
7.4 Clocking
7.5 Clocks and power
7.6 Memory
7.7 Pages and overlays
7.8 Memory in embedded systems
7.9 Test and verification
7.10 Error detection and correction
7.11 Watchdog timers and reset supervision
7.12 Reverse engineering
7.13 Preventing reverse engineering
7.14 Summary

Chapter 8 CPU Design
8.1 Soft core processors
8.2 Hardware software co-design
8.3 Off-the-shelf cores
8.4 Making our own
8.5 CPU design specification
8.6 Instruction set
8.7 CPU implementation
8.8 CPU testing and operation
8.9 CPU programming and use
8.10 Summary

Chapter 9 The Future
9.1 Single bit architectures
9.2 Very long instruction word architectures
9.3 Parallel and massively-parallel machines
9.4 Asynchronous processors
9.5 Alternative number format systems
9.6 Optical computation
9.7 Science fiction or future reality?
9.8 Summary
A Standard Notation for Memory Size
B Open Systems Interconnection (OSI) Model
B.1 Introduction
B.2 The OSI layers
B.3 Summary
C Exploring Trade-offs in Cache Size and Arrangement
C.1 Introduction
C.2 Preparation
COMPUTER SYSTEM ORGANISATION
by Nardeep Jotwani, Director, School of Solar Energy, PDPU, Gandhinagar, Gujarat
2009 / Softcover / 372 pages
ISBN: 9780070087101
(McGraw-Hill India Title)

An introductory text that helps students in developing good understanding of a complete Computer System through an integrated approach to hardware, software and processor design. Numerous solved and unsolved problems as well as case studies on commercial processors enable users to be tune with the current developments.

CONTENTS
Chapter 1: Overview
Chapter 2: Representation of Data in Binary
Chapter 3: Hardware Building Blocks
Chapter 4: Processor Instruction Set-I
Chapter 5: Processor Instruction Set-II
Chapter 6: Processor Design
Chapter 7: Control Unit
Chapter 8: Computer Arithmetic
Chapter 9: Memory Organization
Chapter 10: Input and Output Organization
Chapter 11: User Interaction
Chapter 12: Secondary Storage and Other Devices
Chapter 13: Parallelism
Chapter 14: Multiprocessor Systems
Chapter 15: Software
Chapter 16: Case Studies
Appendix A: Binary Encoding of NICE Machine Instructions
Index

COMPUTER ARCHITECTURE AND ORGANIZATION
3rd Edition
by John P Hayes, University of Michigan
1998 / 624 pages / Softcover
ISBN: 9780071159975 [IE]

The third edition of Computer Architecture and Organization features a comprehensive updating of the material—especially case studies, worked examples, and problem sets—while retaining the book’s time-proven emphasis on basic principles. Reflecting the dramatic changes in computer technology that have taken place over the last decade, the treatment of performance-related topics such as pipelines, caches, and RISC’s has been expanded. Many examples and end-of-chapter problems have also been added.

CONTENTS
1 Computation and Computers.
2 Design Methodology.
3 Processor Design.
4 Datapath Design.
5 Control Design.
6 Memory Organization.
7 System Organization

COMPUTER ARCHITECTURE AND LOGIC DESIGN
by Thomas C. Bartee, IDA
1991 / 640 pages / Softcover
ISBN: 9780071125543 [IE]

Sound fundamental book on computer organization and architecture, hardware and logic design. 88030-68040, 386-486, cache and virtual memory, many other modern topics and latest advances in technology are covered.

CONTENTS
1. Introduction.
2. Number Systems.
3. Boolean Algebra and Gate Networks.
4. Logic Design.
5. The Arithmetic-Logic Unit.
6. The Memory Element.
7. Input-Output.
8. Buses and Interfaces.
9. The Control Unit.
11. Selected Architectures.
12. Logic Circuits Overview.
INTRODUCTION TO EMBEDDED SYSTEMS
by K. V. Shibu
2009 / Softcover
ISBN: 9780070145894
(McGraw-Hill India Title)

Meant for students and practicing engineers, this book provides a comprehensive introduction to the design and development of embedded hardware and firmware, their integration, and the management of Embedded System development process.

CONTENTS
Part 1: Embedded System: Understanding the Basic Concepts
1. Introduction to Embedded Systems
2. The Typical Embedded System
3. Characteristics and Quality Attributes of Embedded Systems
4. Embedded Systems—Application- and Domain-Specific
5. Designing Embedded Systems with 8bit Microcontrollers—8051
6. Programming the 8051 Microcontroller
7. Hardware Software Co-Design and Program Modelling
Part 2: Design and Development of Embedded Product
8. Embedded Hardware Design and Development
9. Embedded Firmware Design and Development
10. Real-Time Operating System (RTOS) based Embedded System Design
11. An Introduction to Embedded System Design with VxWorks and Micr0OS-II RTOS
12. Integration and Testing of Embedded Hardware and Firmware
13. The Embedded System Development Environment
14. Product Enclosure Design and Development
15. The Embedded Product Development Life Cycle (EDLC)
16. Trends in the Embedded Industry
Appendix I: Overview of PIC and AVR Family of Microcontrollers and ARM Processors
Appendix II: Design Case Studies Bibliography Index

Advanced Computer Architecture

ADVANCED COMPUTER ARCHITECTURE
Parallelism, Scalability, Programmability
by Kai Hwang, University of Southern California
1993 / 672 pages / Softcover
ISBN: 9780071247139 [IE]

CONTENTS
Part One—Theory of Parallelism
1 Parallel Computer Models
2 Program and Network Properties
3 Principles of Performance and Scalability
Part Two—Hardware Technologies
4 Processors and Memory Hierarchy
5 Bus/Cache and Shared-Memory
6 Pipelining and Superscalar Techniques
Part Three—Parallel and Scalable Architectures
7 Multiprocessors and Multi-computers
8 Multivector and SIMD Supercomputers
9 Scalable, Multi-threaded, and Dataflow Architectures
Part Four—Software for Parallel Programming
10 Parallel Models, Languages and Compilers
11 Development of Parallel Programs
12 Unix Extensions for Parallel Computers
Bibliography

Advanced Microprocessors & Microcomputers

SCHAUM’S OUTLINE OF COMPUTER ARCHITECTURE
by Nick Carter, University of Illinois - Champaign
2002 / Softcover / 304 pages
ISBN: 9780071362078
(A Schaum’s Publication)

A problem/solution manual, integrating general principles and laboratory exercises, that provides students with the hands-on experience needed to master the basics of modern computer system design. Features more than 200 detailed problems, with step-by-step solutions; many detailed graphics and charts; chapter summaries with additional “rapid-review” questions; and expert sidebar tips. Describes analytical methods for quantifying real-world design choices regarding instruction sets, pipelining, cache, memory, I/O, and other critical hardware and software elements involved in building computers. An ideal educational resource for the more than 70,000 undergraduate and graduate students who, each year, enroll in computer architecture and related courses.
MICROPROCESSORS AND MICROCONTROLLERS
Architecture, Programming & Interfacing Using 8085, 8086 And 8051
by Soumitra Kumar Mandal, Dept of Electrical Engineering, NITTTR, Kolkata

2011 (July 2011) / Softcover / 896 pages
ISBN: 9780071329200
(A McGraw-Hill India Title)

This book provides coverage on basic concepts of Microprocessors and Microcontrollers. It offers in-depth treatment of architecture, programming and interfacing concepts related to Microprocessors and Microcontrollers. Examples of assembly-language programs and a variety of theoretical and multiple-choice questions give students a chance to check and enhance their conceptual understanding. This book can be used as a textbook for undergraduate and postgraduate courses offered on Microprocessors and Microcontrollers at degree and diploma levels.

FEATURES
- Architecture, Programming, Interfacing of Microprocessors and Microcontrollers explained in lucid language
- Detailed coverage of Advanced Microprocessors
- Hands-on approach through applications such as Traffic Control, Keyboard Interfacing, Stepper Motor Control, Seven-Segment Display, Control of Firing Circuit of a Thyristor
- Large number of assembly-language programs incorporated from examination papers of different universities and competitive examinations like IES, UPSC and GATE
- Strong pedagogy:
- 100 Solved examples and programs
- 258 MCQs
- 130 Short-Answer Questions
- 339 Review Questions

CONTENTS
1. Introduction to Microprocessors and Microcontrollers
2. Architecture of the 8085 Microprocessor
3. Instruction Set and Addressing Modes of 8085 Microprocessor
4. Assembly – Language Programs of the 8085 Microprocessor
5. Architecture of 8086 and 8088 Microprocessors
6. Instruction Set and Addressing Modes of the 8086 Microprocessor
7. Assembly-Language Programs of the 8086 Microprocessor and 8087, 80287 and 80387 Numeric Data Processors
8. I/O and Memory Interfacing Using 8085/8086
9. Communication and Bus Interfacing with the 8085/8086 Microprocessor
10. Applications of 8085/8086 Microprocessors
11. 80186, 80286, 80386 and 80486 Microprocessors
12. Pentium and RISC Processors
13. Introduction to 8051 Microcontroller
14. Instruction Set and Programming of the 8051 Microcontroller
Computer Science

SCHAUM'S OUTLINE OF OPERATING SYSTEMS
by J. Archer Harris, James Madison University
2002 / Softcover / 256 pages
ISBN: 9780071364355
(A Schaum's Publication)

Schaum's Outline of Operating Systems is intended for use as a problem-solved approach text in courses taken in the second and third years in Computer Science, and as graduate course review. This book covers the fundamental design principles common in modern operating systems, including UNIX and DOS. The emphasis is on the system principles in abstract, not how they are implemented in an one particular operating system. It is designed to supplement traditional operating systems courses and can be used by professionals familiar with a particular operating system who desire knowledge of the abstract principles underlying that operating system.

INTERNATIONAL EDITION
OPERATING SYSTEMS: A SPIRAL APPROACH
by Ramez Elmasri, University Of Texas Arlington, A G. Carrick, and David Levine, University Of Texas Arlington
2010 (February 2009) / Hardcover / 544 pages
ISBN: 9780072449815
ISBN: 9780070164543 [IE]
www.mhhe.com/elmarsri

Elmasri, Levine, and Carrick's "spiral approach" to teaching operating systems develops student understanding early and helps students approach the more difficult aspects of operating systems with confidence.

While operating systems have changed dramatically over the years, the authors of most operating systems books use a linear approach that is difficult for students to follow and requires instructors to constantly put materials in context. Elmasri, Levine, and Carrick do things differently by following an integrative or "spiral" approach to explaining operating systems. The spiral approach alleviates the need for an instructor to "jump ahead" when explaining processes by helping students "completely" understand a simple, working, functional system as a whole in the very beginning. This is more effective pedagogically, and it inspires students to continue exploring more advanced concepts with confidence.

CONTENTS
PART 1: Operating Systems Overview and Background
1 Getting Started
2 Operating System Concepts, Components, and Architectures
PART 2: Building Operating Systems Incrementally: A Breadth-Oriented Spiral Approach
3 A Simple, Single Process Operating System
4 A Single User Multi-tasking Operating System
5 An Advanced Single User Multi-tasking Operating System
6 A Multiple-User Operating System—Linux
7 Parallel and Distributed Computing, Clusters and Grids
PART 3: In Depth—Processes and Memory
8 Process Management: Concepts, Threads, and Scheduling
9 More Process Management: Inter-process Communication, Synchronization, and Deadlocks
10 Basic Memory Management
11 Advanced Memory Management
PART 4: In Depth—Files and Input/Output
12 File Systems—Basics
13 File Systems--Examples and More Features
14 Disk Scheduling and Input/Output Management
PART 5: In Depth—Networks and Distributed Processing
15 Introduction to Computer Networks
16 Protection and Security
17 Introduction to Distributed Systems
PART 6: Case Studies
18 Windows Vista
19 Linux
20 The Palm OS
Appendices
Appendix A: Overview of Computer System and Architecture Concepts

INTERNATIONAL EDITION
OPERATING SYSTEMS: A CONCEPT-BASED APPROACH
2nd Edition
by D. M. Dhamdhere, Indian Institute of Technology, Bombay
2006 / Softcover
ISBN: 9780070611948
ISBN: 9780071264365 [IE]
(McGraw-Hill India Title)
www.mhhe.com/dhamdhere/os

This edition of the book involves extensive revision by way of restructured and rewritten content. Elaborate chapter overviews and introductions have been added in order to improve the effectiveness of the content and to make it more user friendly. Chapters and sections have been rewritten to improve their presentation and flow. Like the previous edition, the major emphasis of this edition too is on the fact that the study of operating systems must be based on a sound understanding of the concepts.

CONTENTS
PART I: FUNDAMENTAL CONCEPTS
1 Introduction
2 Overview of Operating Systems
3 Processes and Threads
4 Scheduling
5 Memory Management
6 Virtual Memory
7 File Systems
8 Security and Protection
PART II: ADVANCED TOPICS
9 Process Synchronization
10 Message Passing
11 Deadlocks
12 Implementation of File Operations
13 Synchronization and Scheduling in Multiprocessor Operating Systems
14 Structure of Operating Systems
PART III: DISTRIBUTED OPERATING SYSTEMS
15 Distributed Systems
16 Theoretical Issues in Distributed Systems
17 Distributed Control Algorithms
18 Recovery and Fault Tolerance
19 Distributed File Systems
20 Distributed System Security
YOUR UNIX/LINUX: THE ULTIMATE GUIDE
3rd Edition
by Sumitabha Das, Faculty Consultant, PDSIT, Bengal Engineering College, Howrah

2013 (January 2012) / Hardcover / 832 pages
ISBN: 9780073376202
ISBN: 9780071086295 [IE]

www.mhhe.com/das

Your UNIX/Linux: The Ultimate Guide, written with both users and programmers in mind, is the ultimate UNIX/Linux text. Both pedagogical tool and exhaustive reference, it is well-suited to any course that includes UNIX or Linux. A strong pedagogical framework sets it apart from similar texts and allows beginning students to gain a firm grasp of fundamental concepts, while chapters on advanced topics inspire the more experienced reader to move beyond the basics. Nearly a thousand exercises and self-test questions provide a way for students to test and reinforce their understanding of the material.

NEW TO THIS EDITION

- While the chapter on vi/vim has been retained, the one on emacs has been condensed and relegated to an appendix. To make the transition to vi easier for beginners, Chapter 3 features the pico editor.
- A separate chapter on the essentials of C programming has been added. The treatment, though brief, is just adequate to understand the two chapters on Systems Programming that follow.
- Chapter 15 now includes the popular Concurrent Version System (CVS), which is found on all Linux systems. SCCS and RCS continue to find place in this edition, but at least one of them would be removed in the next edition.
- The GNU debugger (gdb) has been included in this edition since it is superior to dbx, even though the latter has been retained.

CONTENTS

Part II--User UNIX
Chapter 1 Introducing UNIX
Chapter 2 Getting familiar with UNIX Commands
Chapter 3 The File System
Chapter 4 File Attributes
Chapter 5 The vi/vim Editor
Chapter 6 The Shell
Chapter 7 The Process
Chapter 8 The Shell--Customizing the Environment
Chapter 9 Simple Filters
Chapter 10 Filters Using Regular Expressions--grep and sed
Chapter 11 Networking and Internet Tools
Part II--Programmer UNIX
Chapter 12 Filtering and programming with awk
Chapter 13 Shell Programming
Chapter 14 A C Programming Primer
Chapter 15 Program Development Tools

Chapter 16 Systems Programming I--Files
Chapter 17 Systems Programming II--Process Control
Chapter 18 perl--The Master Manipulator
Part III--System Administration
Chapter 19 System Administration

HARLEY HAHN’S GUIDE TO UNIX AND LINUX
by Harley Hahn
2009 (February 2008) / Softcover / 960 pages
ISBN: 9780073133614

www.mhhe.com/harleyhahn

“Harley Hahn’s Guide to Unix and Linux” is a modern, comprehensive text for anyone who wants to learn how to use Unix or Linux. The book is suitable as a primary or secondary textbook for classroom use, as well as for readers who want to teach themselves. The text covers all the basic concepts and tools Unix/Linux users need to master: Unix vs Linux, GUIs, the command line interface, the online manual, syntax, the shell, standard I/O and redirection, pipes and filters, vi and Emacs, the Unix file system, and job control. Hahn offers a thoroughly readable approach to teaching Unix & Linux by emphasizing core ideas and carefully explaining unfamiliar terminology. The book walks readers through Unix & Linux systems from the very beginning, assuming no prior knowledge, and laying out material in a logical, straightforward manner. An experienced author, Hahn writes in a clear, engaging, and student-friendly style, resulting in a text that is both easy and entertaining to read. Motivating pedagogy, such as “What’s in a Name?” boxes and highlighted Hints provide readers with interesting background and helpful tips. For additional resources, readers can visit the author’s website at www.harley.com

CONTENTS

A Personal Note from Harley Hahn
Walkthrough for Students and Teachers
List of Figures
Glossary
Chapter 1 Introduction to Unix
Chapter 2 What is Unix? What is Linux?
Chapter 3 The Unix Connection
Chapter 4 Starting to Use Unix
Chapter 5 GUIs: Graphical Users Interfaces
Chapter 6 The Unix Work Environment
Chapter 7 Using the Keyboard with Unix
Chapter 8 Programs to Use Right Away
Chapter 9 Documentation: The Unix Manual and Info
Chapter 10 Command Syntax
Chapter 11 The Shell
Chapter 12 Using the Shell: Variables and Option
Chapter 13 Using the Shell: Commands and Customization
Chapter 14 Using the Shell: Initialization Files
Chapter 15 Standard I/O, Redirection and Pipes
Chapter 16 Filters: Introduction and Basic Operations
Chapter 17 Filters: Comparing and Extracting
Chapter 18 Filters: Counting and Formatting
Chapter 19 Filters: Selecting, Sorting, Combining, and Changing
Chapter 20 Regular Expressions
Chapter 21 Displaying Files
Chapter 22 The vi Text Editor
Chapter 23 The Unix File System
Chapter 24 Working with Directories
Chapter 25 Working with Files
Chapter 26 Processes and Job Control
Appendix A Summary of Unix Commands: Alphabetical
Appendix B Summary of Unix Commands: By Category
Appendix C Summary of vi Commands
Computer Science

JUST ENOUGH UNIX
5th Edition
by K Paul Andersen, New Mexico State University - Las Cruces
2006 / Softcover / 608 pages
ISBN: 9780072952971
ISBN: 9780071244183 [JE]
www.mhhe.com/andersen

Just Enough UNIX provides a quick and gentle introduction to the UNIX operating system. The fifth edition of this highly successful text reflects changes and updates to the UNIX curriculum that have taken place since the publication of the fourth edition. The book is written in a clear, straightforward style that avoids unnecessary jargon. This short, yet comprehensive text covers the basics of UNIX. It can be used in both a freshman engineering course or to supplement other courses where the student needs to learn UNIX for the first time. The book is enhanced by strong pedagogical tools that will be very useful to those in the classroom, as well as those engaged in self-study.

CONTENTS
Part I: Introduction to UNIX:
1 Tutorial: Introduction to UNIX.
2 Tutorial: Your UNIX Account.
3 Tutorial: Getting Started.
4 Tutorial: Getting Started (X/Motif).
5 Tutorial: Getting Started (CDE).
Part II: UNIX File System:
6 Tutorial: The UNIX File System.
7 Tutorial: Working with Files.
8 Tutorial: Working with Directories.
9 Tutorial: Using File Manager.
Part III: UNIX Shells:
10 UNIX Shells.
11 Tutorial: Working with the Shell.
12 Tutorial: Using Additional Shell Features.
Part IV: Text Editors:
13 Text Editors.
14 Tutorial: Editing with vi.
15 Tutorial: Editing with emacs.
16 Tutorial: Editing with pico.
17 Tutorial: Editing with Text Editor.
Part V: UNIX Networking:
18 UNIX Networking.
19 Tutorial: Using mail and mailx.
20 Tutorial: Processing Mail with pine.
21 Tutorial: Processing Mail with Mailer.
22 Tutorial: Logging in Remotely.
23 Tutorial: Transferring Files.
Part VI: Secure Computing:
24 Computer Security.
27 Tutorial: Protecting Privacy with PGP.
Part VII: Startup Files: 28 Startup Files.
29 Tutorial: Using sh and ksh Startup Files.
30 Tutorial: Using csh and tcsh Startup Files.
31 Tutorial: Using bash Startup Files.
Part VIII: Scripting: 32 Scripting Languages.
33 Tutorial: Creating Shell Scripts.
34 Tutorial: Scripting with awk.
35 Tutorial: Scripting with Perl.
Part IX: Programming Under UNIX:
36 Programming Under UNIX.
37 Tutorial: Programming in C.
38 Tutorial: Programming in C++.
39 Tutorial: Programming in Fortran.
40 Tutorial: Programming in Java.
Appendices:

Appendix A: Taming Your Terminal.
Appendix B: The UNIX Manual.
Appendix C: Regular Expressions.
Appendix D: write and talk.
Appendix E: Using dbx.
Appendix F: Using make.

Software Engineering

OBJECT-ORIENTED TECHNOLOGY
From Diagram to Code with Visual Paradigm for UML
2nd Edition
by Curtis HK Tsang, Clarence SW Lau and Ying K Leung

2011 (September 2010) / 456 pages
ISBN: 9780071269216
(An Asian Publication)

This book introduces students and software developers to some basic concepts in object-oriented technology by examining the structural, use case and dynamic modeling and analysis techniques supported by the Unified Modeling Language (UML). These concepts are extensively illustrated with Visual Paradigm for UML (VP-UML) – an award-winning CASE tool which allows readers to put theory into practice immediately – as well as comprehensive case studies at the end of various chapters.

This second edition includes a chapter on UML 2.0, the first major update to the standard since 1997.

CONTENTS
Preface
Acknowledgments
Chapter 1 Introduction
Overview
What You Will Learn
Software Engineering Approaches
Visual Modeling
Software Development Methods
Representation, Process, Techniques and Tool
Organization of the Book
Summary
Chapter 2 Structural Modeling and Analysis
Overview
What You Will Learn
What Is an Object?
What Is a Class and What Are Instances?
Structural Modeling Techniques
Structural Models: Examples
Summary of UML Notation for Structural Modeling
Structural Analysis Techniques
Domain Modeling and Analysis Process
Tricks and Tips in Structural Modeling and Analysis
Domain Modeling and Analysis with VP-UML
Summary
Exercise
Chapter 3 Use Case Modeling and Analysis
Overview
What You Will Learn
Requirements Elicitation
Use Case Modeling Techniques
Use Case Models: Examples
Use Case Analysis Techniques
Use Case Modeling and Analysis Process
Tricks and Tips in Using Use Case Analysis
Use Case Modeling and Analysis with VP-UML
Summary
Exercise: Chapter 4 Dynamic Modeling and Analysis
Overview
What You Will Learn
Scenario Modeling Techniques: Interaction Diagram
Examples of Scenario Modeling
Dynamic Modeling Techniques Using Statechart Diagrams
Dynamic Modeling Techniques Using Activity Diagrams
Dynamic Analysis Techniques
Dynamic Modeling and Analysis Process
Tricks and Tips in Dynamic Modeling and Analysis
Dynamic Modeling and Analysis with VP-UML
Summary
Exercise: Chapter 5 Implementing UML Specification
Overview
What You Will Learn
Software Development Methods
Why Traditional Software Methods Didn’t Work Miracles
Unified Modeling Language versus Software Methods
Hurdles in Applying the Object-oriented Approach
Current Object-oriented Development Approaches
View Alignment Techniques
Method Creation or Customization Using View Alignment Techniques
Method Creation: A Case Study
Summary
Exercises
Chapter 6 View Alignment Techniques and Method Customization
Overview
What You Will Learn
Software Development Methods
Why Traditional Software Methods Didn’t Work Miracles
Unified Modeling Language versus Software Methods
Hurdles in Applying the Object-oriented Approach
Current Object-oriented Development Approaches
View Alignment Techniques
Method Creation or Customization Using View Alignment Techniques
Method Creation: A Case Study
Summary
Exercises
Chapter 7 A Case Study: Applying the Activity Analysis Approach
Overview
What You Will Learn
The Case Study
Business Modeling
Requirements
Analysis
Design
Applying the Activity Analysis Approach with VP-UML
Summary
Chapter 8 UML 2 – A Brief Notation Update
Overview
What You Will Learn
Introduction
UML 2 Diagram Types
UML 2 New Structure Diagram
UML 2 New Interaction Diagrams
Other UML 2 Update on Behavior Diagrams
Summary
Appendix A Getting Started with VP-UML
Installing VP-UML

Appendix
Overview
What You Will Learn
Overview
Implementing the Lift Control System in Chapter 5
References
Index.

GLOBAL EDITION

OBJECT-ORIENTED AND CLASSICAL SOFTWARE ENGINEERING
Eighth Edition
by Stephen R. Schach, Vanderbilt University - Nashville
2011 (February 2010) / Hardcover / 672 pages
ISBN: 9780073376189
ISBN: 9780071081719 (GE)

Building on seven strong editions, the eighth edition maintains the organization and approach for which Object-Oriented and Classical Software Engineering is known while making significant improvements and additions to content as well as problems and projects. The revisions for the eighth edition make the text easier to use in a one-semester course.

Integrating case studies to show the object oriented approach to software engineering, Object-Oriented and Classical Software Engineering, 8e presents an excellent introduction to software engineering fundamentals, covering both traditional and object-oriented techniques.

While maintaining a unique organization with Part I covering underlying software engineering theory, and Part II presenting the more practical life cycle, the eighth edition includes significant revision to problems, new content, as well as a new chapter to enable instructors to better-utilize the book in a one-semester course. Complementing this well-balanced approach is the straightforward, student-friendly writing style, through which difficult concepts are presented in a clear, understandable manner.

CONTENTS
Part I: Introduction to Software Engineering
Chapter 1: The Scope of Software Engineering
Chapter 2: Software Life-Cycle Models
Chapter 3: The Software Process
Chapter 4: Teams
Chapter 5: The Tools of the Trade
Chapter 6: Testing
Chapter 7: From Modules to Objects
Chapter 8: Reusability and Portability
Chapter 9: Planning and Estimating
Part II: The Workflows of the Software Life Cycle
Chapter 10: Key Material from Part A
Chapter 11: Requirements
Chapter 12: Classical Analysis
Chapter 13: Object-Oriented Analysis
Chapter 14: Design
Chapter 15: Implementation
Chapter 16: Post-delivery Maintenance
Chapter 17: More on UML
Chapter 18: Emerging Technologies
SOFTWARE ENGINEERING: 
A PRACTITIONER'S APPROACH 
7th Edition
by Roger S. Pressman, R.S. Pressman & Associates
2010 (January 2009) / Hardcover / 928 pages
ISBN: 9780073523293
ISBN: 9780071267823 [IE]
www.mhhe.com/pressman

For almost three decades, Roger Pressman's Software Engineering: A Practitioner's Approach has been the world's leading textbook in software engineering. The new seventh edition represents a major restructuring and update of previous editions, solidifying the book's position as the most comprehensive guide to this important subject.

The seventh edition of Software Engineering: A Practitioner's Approach has been designed to consolidate and restructure the content introduced over the past two editions of the book. The chapter structure will return to a more linear presentation of software engineering topics with a direct emphasis on the major activities that are part of a generic software process. Content will focus on widely used software engineering methods and will de-emphasize or completely eliminate discussion of secondary methods, tools and techniques. The intent is to provide a more targeted, prescriptive, and focused approach, while attempting to maintain SEPA's reputation as a comprehensive guide to software engineering.

The book will be organized in five (5) parts-Process, Modeling, Quality Management, Project Management, and Advanced Topics. The chapter count will remain at 32, unchanged from the sixth edition. However, eight new chapters have been developed and another six chapters have undergone major or moderate revisions. The remaining chapters have undergone minor edits/updates.

CONTENTS
1 Software and Software Engineering
Part One The Software Process
2 Process Models
3 Agile Development
Part Two Modeling
4 Principles that Guide Practice
5 Understanding Requirements
6 Requirements Modeling: Scenarios, Information, and Analysis Classes
7 Requirements Modeling: Flow, Behavior, Patterns, and WebApps
8 Design Concepts
9 Architectural Design
10 Component-Level Design
11 User Interface Design
12 Pattern-Based Design
13 WebApp Design
Part Three Quality Management
14 Quality Concepts
15 Review Techniques
16 Software Quality Assurance
17 Software Testing Strategies
18 Testing Conventional Applications
19 Testing Object-Oriented Applications
20 Testing Web Applications
21 Formal Modeling and Verification
22 Software Configuration Management
23 Product Metrics
Part Four Project Management
24 Project Management Concepts
25 Process and Project Metrics
26 Estimation for Software Projects
27 Project Scheduling
28 Risk Management
29 Maintenance and Reengineering
Part Five Advanced Topics

30 Software Process Improvement
31 Emerging Trends in Software Engineering
32 Concluding Comments
Appendix I-An Introduction to UML
Appendix II-Object-Oriented Concepts

WEB ENGINEERING: A PRACTITIONER'S APPROACH
by Roger S. Pressman, R.S. Pressman & Associates, and David Lowe, University of Technology, Sydney
2009 (January 2008) / Softcover / 352 pages
ISBN: 9780073523293
ISBN: 9780071263771 [IE]
www.mhhe.com/pressman

This book by the author of the best-selling Software Engineering: A Practitioner's Approach is unique in its application of software engineering principles to building effective web-based systems and applications. Roger Pressman and his co-author, David Lowe, offer practical advice to students and professionals alike on how to engineer and maintain complex websites.

Roger Pressman is the leading authority in software engineering and one of the best-known authors in computer science. His new book targets the emerging web engineering market, an area whose parameters and character are still evolving and where an experienced and trusted voice is especially welcome.

This book is designed to provide students with a solid understanding of a pragmatic process for engineering Web-based applications. It is written in an informal, conversational style, using a question and answer format to mentor the reader in this new engineering discipline.

CONTENTS
Chapter 1: Web-based Systems
Chapter 2: Web Engineering
Chapter 3: A Web Engineering Process
Chapter 4: Communication
Chapter 5: Planning
Chapter 6: The Modeling Activity
Chapter 7: Analysis Modeling For WebApps
Chapter 8: WebApp Design
Chapter 9: Interaction Design
Chapter 10: Information Design
Chapter 11: Functional Design
Chapter 12: Construction and Deployment
Chapter 13: Design Patterns
Chapter 14: Technologies and Tools
Chapter 15: WebApp Testing
Chapter 16: Change and Content Management
Chapter 17: Future Directions
OBJECT-ORIENTED SOFTWARE ENGINEERING
by Stephen R. Schach, Vanderbilt University - Nashville
2008 (September 2007) / Hardcover / 576 pages
ISBN: 9780073523330
ISBN: 9780071259415 [IE]
www.mhhe.com/schach

Object-Oriented Software Engineering is written for both the traditional one-semester and the newer two-semester software engineering curriculum. Part I covers the underlying software engineering theory, while Part II presents the more practical life cycle, workflow by workflow.

The text is intended for the substantial object-oriented segment of the software engineering market. It focuses exclusively on object-oriented approaches to the development of large software systems that are the most widely used. Text includes 2 running case studies, expanded coverage of agile processes and open-source development.

CONTENTS
PART ONE INTRODUCTION TO OBJECT-ORIENTED SOFTWARE ENGINEERING
1 The Scope of Object-Oriented Software Engineering
2 Software Life-Cycle Models
3 The Software Process
4 Teams
5 The Tools of the Trade
6 Testing
7 From Modules to Objects
8 Reusability and Portability
9 Planning and Estimating

PART TWO THE WORKFLOWS OF THE SOFTWARE LIFE-CYCLE
10 The Requirements Workflow
11 The Analysis Workflow
12 The Design Workflow
13 The Implementation Workflow
14 Postdelivery Maintenance
15 More on UML
Bibliography
Appendix A Term Project: Osric’s Office Appliances and Decor
Appendix B Software Engineering Resources
Appendix C The Requirements Workflow: The MSG Foundation Case Study
Appendix D The Analysis Workflow: The MSG Foundation Case Study
Appendix E Software Project Management Plan: The MSG Foundation Case Study
Appendix F The Design Workflow: The MSG Foundation Case Study
Appendix G The Implementation Workflow: The MSG Foundation Case Study (C++ Version)
Appendix H The Implementation Workflow: The MSG Foundation Case Study (Java Version)
Appendix I The Test Workflow: The MSG Foundation Case Study
4.12 Detailed example: requirements for a feature of the SimpleChat instant messaging program
4.13 Difficulties and risks in domain and requirement analysis
5: Modeling with classes
5.1 What is UML?
5.2 Essentials of UML class diagrams
5.3 Associations and multiplicity
5.4 Generalizations
5.5 Object diagrams
5.6 More advance features of class diagrams
5.7 The basics of Object Constraint Language (OCL)
5.8 Detailed example: a class diagram for genealogy
5.9 The process of developing class diagrams
5.10 Implementing class diagrams in Java
5.11 Difficulties and risks when creating class diagrams
6: Using design patterns
6.1 Introduction to patterns
6.2 The Abstraction-Occurrence pattern
6.3 The General Hierarchy pattern
6.4 The Player-Role pattern
6.5 The Singleton pattern
6.6 The Observer pattern
6.7 The Delegation pattern
6.8 The Adapter pattern
6.9 The Façade pattern
6.10 The Immutable pattern
6.11 The Read-Only interface pattern
6.12 The Proxy pattern
6.13 The Factory pattern
6.14 Detailed example: Enhancing OCSF to employ additional design patterns
6.15 Difficulties and risks when using design patterns
7: Focusing on users and their tasks
7.1 User-centered design
7.2 Characteristics of users
7.3 Developing use case models of systems
7.4 The basics of user interface design
7.5 Usability principles
7.6 Evaluating user interfaces
7.7 Implementing a simple GUI in Java
7.8 Difficulties and risks in use case modeling and UI design
8: Modeling interactions and behaviors
8.1 Interaction diagrams
8.2 State diagrams
8.3 Activity diagrams
8.4 Implementing classes based on interaction and state diagrams
8.5 Difficulties and risks in modeling interactions and behaviors
9: Architecting and designing software
9.1 The process of design
9.2 Principles leading to good design
9.3 Techniques for making good design decisions
9.4 Model driven development
9.6 Architectural patterns
9.7 Wiring a good design document
9.8 Detailed example: design of a feature for the SimpleChat instant messaging application
9.9 Difficulties and risks in design
10: Testing and inspecting to ensure high quality
10.1 Basic definitions
10.2 Effective and efficient testing
10.3 Defects in ordinary algorithms
10.4 Defects in numerical algorithms
10.5 Defects in timing and co-ordination: deadlocks, livelocks and critical races
10.6 Defects in handling stress and unusual situations
10.7 Documents defects
10.8 Writing formal test cases and text plans
10.9 Strategies for testing large systems
10.10 Inspections 10.11 Quality assurance in general
10.12 Detailed example: test case for phase 2 of the SimpleChat instant messaging system
10.13 Difficulties and risks in quality assurance
11: Managing the software process
11.1 What is project management?
11.2 Software process models
11.3 Cost estimation
11.4 Building software engineering teams
11.5 Project scheduling and tracking
11.6 Contents of a project plan
11.7 Difficulties and risks in project management
12: Review
12.1 Theme 1: Understanding the customer and user
12.2 Theme 2: Basing development on solid principles and reusable technology
12.3 Theme 3: Object orientation
12.4 Theme 4: Visual modeling using UML
12.5 Theme 5: Evaluation of alternatives in requirements and design
12.6 Theme 6: Incorporating quantitative and logical thinking
12.7 Theme 7: Iterative and agile development
12.8 Theme 8: Communicating effectively using documentation
12.9 Rich management in all software engineering activities
12.10 What next?
APPENDIX A: Summary of the ULM notation used in this book
APPENDIX B: Summary of the documentation types recommended in this book
APPENDIX C: System descriptions
Index

SCHAUM'S OUTLINE OF SOFTWARE ENGINEERING
by David Gastaftion
2002 / Softcover / 256 pages
ISBN: 9780071377942
(A Schaum’s Publication)

Designed to assist students and professors in software engineering courses and degree programs, Schaum’s Outline of Software Engineering presents the theory and techniques of software engineering as a series of steps that students can apply to complete any software project successfully. An ideal supplement to all leading textbooks, it provides more than 200 detailed problems with step-by-step solutions, clear, concise explanations of all relevant concepts and applications, and complete coverage of the material taught in the course.

CONTENTS
Chapter 1 The software lifecycle
Chapter 2 The Software Process
Chapter 3 Project Management
Chapter 4 Software Metrics
Chapter 5 Software Project Planning
Chapter 6 Risk analysis and Management
Chapter 7 Project Scheduling and Tracking
Chapter 8 Software Quality Assurance
Chapter 9 Software Configuration Management
Chapter 10 Requirements Analysis
Chapter 11 Analysis Modeling
Chapter 12 Design Concepts and Principles
Chapter 13 Software Testing Techniques
Chapter 14 Software Metrics
Chapter 15 Object-Oriented Concepts and Principles
Chapter 16 Formal Methods
Chapter 17 Cleanroom Software Engineering
Chapter 18 Component-Based Software Engineering
Chapter 19 Reengineering
Chapter 20 Computer-Aided Software Engineering
Software Engineering (Advanced)

SOFTWARE QUALITY ASSURANCE
by Milind Limaye, CEO, Consulting Firm, Pune

2011 (March 2011) / Softcover / 610 pages
ISBN: 9780071072526
(A McGraw-Hill India Title)

Software quality assurance (SQA) consists of means of monitoring the software engineering processes and methods used to ensure quality. SQA encompasses the entire software development process, which includes processes such as requirements definition, software design, coding, source code control, code reviews, change management, configuration management, testing, release management, and product integration.

This book follows a general view of the quality-assurance process, providing a comprehensive synthesis of fundamental concepts and techniques and showcasing a practical way of implementing quality assurance using the outlined processes. The quality-assurance domain with managerial, technical and process orientation includes the latest improvements such as corporate governance and risk management. This book discusses the various ways of implementation of quality-assurance standards in any organisation, be it a software-development company, an engineering enterprise or any other.

FEATURES
- Adopts an integrated approach to quality-assurance techniques and process-requirement activities
- Provides a comprehensive insight of quality-assurance fundamental concepts, major models and standards, implementation methodology along with risk analysis in SQA
- Elucidates a hands-on approach for implementing quality assurance in a typical organisation
- Enriched with information on IT service management, quantitative analysis and metrics
- Uses terminologies in sync with the current industry position
- Quality Tips, Important Definitions and Examples enhance the theoretical discussions
- Rich Pedagogy includes
  - 491 Chapter-end Exercises
  - 41 Frequently Asked Questions (FAQs) in job interviews
  - 30 Open Book Questions
  - Case study on Planning a Mailing Software

CONTENTS
PART I: Concepts of Quality
1. Introduction to Quality
2. Product Quality
PART II: Quality-Standard Models and Implementation
3. Quality Models and Standards
4. Quality Management at the Organisation Level
5. Configuration Management
PART III: Soft Skills for Quality Analyst
6. Soft Skills for a Quality Analyst
PART IV: Quality Assurance
9. Quality Assurance
10. Quality Planning
11. Developing Process Framework
PART V: Quality Control Practices
12. Software Verification and Validation
PART VI: Qualitative and Quantitative Analysis
13. Qualitative and Quantitative Analysis
14. Metrics at the Organisation and Project Level
PART VII: Risk Management and Controls
15. Risk Analysis 16. Auditing and Control
17. Vendor Control
CASE STUDY: Planning a Mailing Software

Invitation to Publish

McGraw-Hill is interested to review your textbook proposals for publication. Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com.

Visit McGraw-Hill Education (Asia)
Website: http://www.mheducation.asia/publish/
Unified Modeling Language (UML)

SCHAUM’S OUTLINE OF GUIDE TO UML
2nd Edition
by Simon Bennett, John Skelton and Ken Lunn
2005 / 380 pages / Softcover
ISBN: 97800771247719 [IE]
(McGraw-Hill UK Title)

All undergraduate programs in computer science and information systems worldwide offer courses using UML. In the U.S. they are typically taken in the second or third year of the undergraduate curriculum. In management information systems, courses are: Systems Analysis and Design, and Advanced Systems Analysis and Design; in computer science: Software Engineering, Systems Analysis and Design, Object-Oriented Modeling, Systems Development Methods, and Object-Oriented Programming.

OBJECT-ORIENTED SYSTEMS ANALYSIS
4th Edition
by Simon Bennett, Steve McRobb, and Ray Farmer
2011 (January 2010) / Softcover / 720 pages
ISBN: 9780077125363
(McGraw-Hill UK Title)

The fourth edition of Object-Oriented Systems Analysis and Design has been revised and updated to reflect the most up-to-date approaches to information systems development. Still a best-seller in its field, Bennett’s, McRobb’s and Farmer’s text remains a key teaching resource for Systems Analysis and Design courses at both undergraduate and postgraduate level.

The book provides a clear, practical framework for development that uses all the major techniques from UML 2.2. It follows an iterative and incremental approach based on the industry-standard Unified Process, placing systems analysis and design in the context of the whole systems lifecycle. Structured in four parts, the first provides the background to information systems analysis and design and to object-orientation. The second part focuses on the activities of requirements gathering and systems analysis, as well as the basic notation of UML. Part three covers the activities of systems architecture and design, and UML notation for object design, and the book concludes with the implementation of systems and the issues of how the systems life cycle is organized and how reusable components can be developed.

FEATURES
- Updated notation following the very latest version of the UML standard.
Two realistic case studies that are used throughout the book - one for illustrative examples and the other for practical exercises for the reader.

Brand new, two colour text design.

Additional material on the Online Learning Centre website to complement the chapters in the book.

CONTENTS
A1 Agate Ltd Case Study—Introduction
B1 FoodCo Ltd Case Study—Introduction
1 Information Systems—What Are They?
2 Challenges in Information Systems Development
3 Meeting the Challenges
4 What is Object-Orientation?
5 Modelling Concepts
6 Requirements Capture
A2 Agate Ltd Case Study—Requirements Model
7 Requirement Analysis
A3 Agate Ltd Case Study—Requirements Analysis
8 Refining the Requirements Model
9 Object Interaction
10 Specifying Operations
11 Specifying Control
A4 Agate Ltd Case Study—Further Analysis
12 Moving into Design
13 Systems Design and Architecture
14 Detailed Design
15 Design Patterns
16 Human–Computer Interaction
17 Designing Boundary Classes
18 Data Management Design
A5 Agate Ltd Case Study—Design
19 Implementation
20 Software Reuse
21 Software Development Processes

The primary strength of Object-Oriented Design Using Java is that it has one of the best presentations of problem solving using patterns available. It has received rave reviews from instructors, and has been class tested at a number of schools where the response from both professors and students has been extremely positive. This book is intended for the object-oriented programming design course where UML is used extensively for design and notation. It has been especially designed to be accessible to students and is full of real-world examples, case studies, and other aids to assist student understanding.

CONTENTS
Chapter 1: Elegance in Object-Oriented Design and Implementation
Chapter 2: Fundamentals of Object Orientation
Chapter 3: Elegance and Implementation Inheritance
Chapter 4: Elegance and Methods
Chapter 5: Elegance and Classes
Chapter 6: Simple Case Study of a Money Class
Chapter 7: Introduction to Design Patterns
Chapter 8: Figure-Drawing Application Case Study
Chapter 9: Language Parser Case Study
Appendix A: An Introduction to UML
Appendix B: Coding Conventions and Javadoc comments
Software Project Management

SOFTWARE PROJECT MANAGEMENT
5th Edition
By Bob Hughes, and Mike Cotterell, both from University of Brighton
2010 (May 2009) / 400 pages / Softcover
ISBN: 9780077122799
(McGraw-Hill UK Title)
www.mcgraw-hill.co.uk/textbooks/hughes

Software project management is a crucial element in successful software and IT development, and requires students to develop an understanding of technical methodology and an appreciation of the many human factors that can play a part in software projects. The new fifth edition of Software Project Management has been fully revised and updated to help students to grasp these contrasting skills, and learn about new developments in the discipline. It provides both undergraduate and postgraduate students with a comprehensive introduction to software project management and has enjoyed a loyal following of users since the first edition published.

CONTENTS
Chapter 1 Introduction to software project management
Chapter 2 Project evaluation and programme management
Chapter 3 An overview of project planning
Chapter 4 Selection of an appropriate project approach
Chapter 5 Software effort estimation
Chapter 6 Activity planning
Chapter 7 Risk management
Chapter 8 Resource allocation
Chapter 9 Monitoring and control
Chapter 10 Managing contracts
Chapter 11 Managing people in software environments
Chapter 12 Working in teams
Chapter 13 Software quality

Invitation to Publish

McGraw-Hill is interested to review your textbook proposals for publication. Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com.

Visit McGraw-Hill Education (Asia)
Website: http://www.mheducation.asia/publish/
Local Area Networks

Contents

Chapter 1 Introduction.
Chapter 2 Data Communication Models.
Chapter 3 Data Transmission.
Chapter 4 Transmission Media.
Chapter 5 Error Detection.
Chapter 6 LAN Topologies.
Chapter 7 Flow & Error Control.
Chapter 8 Medium Access Methods.
Chapter 9 Logical Link Control (LLC).
Chapter 10 Ethernet: 10 Mbps.
Chapter 11 Ethernet Evolution: Fast and Gigabit Ethernet.
Chapter 12 Token Bus. Chapter 13 Token Ring.
Chapter 14 ATM LANs. Chapter 15 Wireless LANs.
Chapter 16 LAN Performance.
Chapter 17 Connecting LANs.
Chapter 18 TCP/IP.
Chapter 19 Data Encryption.
Chapter 20 Network Management.
Appendix A ASCII Code.
Appendix B Numbering Systems & Transformation.
Appendix C Spanning Tree.
Appendix D Information Theory.
Appendix E ATM. Appendix F DQDB.
Appendix G FDDI.
Appendix H Virtual Local Area Networks (VLANs).
Appendix I Virtual Private Networks (VPNs).
Appendix J Probability.
Glossary.
Solutions.
Index
2012 (March 2011) / Hardcover / 864 pages
ISBN: 9780073523262
ISBN: 9780071326896 [IE]
www.mhhe.com/forouzan

This new networking text follows a top-down approach. The presentation begins with an explanation of the application layer, which makes it easier for students to understand how network devices work, and then, with the students fully engaged, the authors move on to discuss the other layers, ending with the physical layer. With this top-down approach, its thorough treatment of the topic, and a host of pedagogical features, this new networking book offers the market something it hasn’t had for many years—a well-crafted, modern text that places the student at the center of the learning experience.

Forouzan's Computer Networks presents a complex topic in an accessible, student-friendly way that makes learning the material not only manageable but fun as well. The appealing visual layout combines with numerous figures and examples to provide multiple routes to understanding. Students are presented with the most up-to-date material currently available and are encouraged to view what they are learning in a real-world context. This approach is both motivating and practical in that students begin to see themselves as the professionals they will soon become.

FEATURES
- Top-down approach
- Covers network programming in both C (chapter 2) and Java (chapter 11).
- Whole chapter on Java Programming
- Numerous examples throughout the text
- Rich visual layout
- Large number of well-executed figures
- Key terms in each chapter (Kurose doesn't have these)
- Further reading section in each chapter
- Exercises in each chapter
- Glossary (Kurose doesn't have one)
- Abbreviation list (Kurose doesn't have this)
- Bibliography
- Host of supplements including a set of quizzes for each chapter, lab assignments, animated Power-Points, several Java Aplets for each chapter, student solutions, professor solutions

CONTENTS
Chapter 1: Introduction
Chapter 2: Application Layer
Chapter 3: Transport Layer
Chapter 4: Network Layer
Chapter 5: Data Link Layer: Wired LANs and WANs
Chapter 6: Data Link Layer: Wireless LANs and WANs
Chapter 7: Physical Layer
Chapter 8: Multimedia
Chapter 9: Network Management
Chapter 10: Network Security
Chapter 11: Network Programming in Java
Appendix A: Who’s Who
Appendix B: Linux Kernel Overview
Appendix C: Development Tools
Appendix D: Network Utilities

TCP/IP PROTOCOL SUITE
4th Edition
by Behrouz A. Forouzan, De Anza College
2010 / Hardcover / 528 pages
ISBN: 9780072376042
ISBN: 9780072574385

www.mhhe.com/forouzan

In a world where the number of people who need to learn about data communications and networking is exploding, Forouzan’s book is the answer. The book’s visual approach makes it easy for students to learn about and understand the concepts involved in this rapidly developing field.

TCP/IP Protocol Suite teaches students and professionals, with no prior knowledge of TCP/IP, everything they need to know about the subject. This comprehensive book uses hundreds of figures to make technical concepts easy to grasp as well as many examples which help tie the material to the real-world.

The fourth edition of TCP/IP Protocol Suite has been fully updated to include all of the recent technology changes in the field. Additionally, out-of-date material has been overhauled to reflect recent changes in technology.

CONTENTS
1 Introduction
2 The OSI Model and the TCP/IP Protocol Suite
3 Underlying Technologies
4 IP Addresses: Classful Addressing
5 IP Addresses: Classless Addressing
6 Delivery, Forwarding, and Routing of IP Packets
7 ARP and RARP
8 Internet Protocol (IP)
9 Internet Control Message Protocol (ICMP)
10 Internet Group Management Protocol (IGMP)
11 User Datagram Protocol (UDP)
12 Transmission Control Protocol (TCP)
13 Stream Control Transmission Protocol (SCTP)
14 Unicast Routing Protocols (RIP, OSPF, and BGP)
15 Multicasting and Multicast Routing Protocols
16 Host Configuration: BOOTP and DHCP
17 Domain Name System (DNS)
18 Remote Login: TELNET
19 File Transfer: FTP and TFTP
20 Electronic Mail: SMTP, POP, and IMAP
21 Network Management: SNMP
22 Wide Web: HTTP
23 IP over ATM
24 Mobile IP
25 Multimedia
26 Private Networks, Virtual Private Networks, and Network Address Translation
27 Next Generation: IPv6 and ICMPv6
28 Network Security
Appendix A: ASCII Code
Appendix B: Numbering Systems

Network Security

CRYPTOGRAPHY AND NETWORK SECURITY
by Behrouz A. Forouzan, De Anza College
2008 (February 2007) / Hardcover / 480 pages
ISBN: 9780073327532
ISBN: 97800731263610 [IE]

www.mhhe.com/forouzan

A textbook for beginners in security. In this new first edition, well-known author Behrouz Forouzan uses his accessible writing style and visual approach to simplify the difficult concepts of cryptography and network security. Forouzan presents difficult security topics from the ground up. A gentle introduction to the fundamentals of number theory is provided in the opening chapters, paving the way for the student to move on to more complex security and cryptography topics. Difficult math concepts are organized in appendices at the end of each chapter so that students can first learn the principles, then apply the technical background. Hundreds of examples, as well as fully coded programs, round out a practical, hands-on approach which encourages students to test the material they are learning.

CONTENTS
1 Introduction
Part 1 Symmetric-Key Encryption
2 Mathematics of Cryptography
3 Traditional Symmetric-Key Ciphers
4 Mathematics of Cryptography
5 Introduction to Modern Symmetric-Key Ciphers
6 Data Encryption Standard (DES)
7 Advanced Encryption Standard (AES)
8 Encipherment Using Modern Symmetric-Key Ciphers
Part 2 Asymmetric-Key Encryption
9 Mathematics of Cryptography
10 Asymmetric-Key Cryptography
Part 3 Integrity, Authentication, and Key Management
11 Message Integrity and Message Authentication
12 Cryptographic Hash Functions
13 Digital Signature
14 Entity Authentication
15 Key Management
Part 4 Network Security
16 Security at the Application Layer: PGP and S/MIME
17 Security at the Transport Layer: SSL and TLS
18 Security at the Network Layer: IPSec
Wireless Communications & Networking

GLOBAL EDITION

NEW

DATA COMMUNICATIONS AND NETWORKING
5th Edition
by Behrouz A. Forouzan, Deuna College

2013 (February 2012) / Hardcover / 1184 pages
ISBN: 9780073376226
ISBN: 9780071326285 [GE]

www.mhhe.com/forouzan

Data Communications and Networking is designed to help students understand the basics of data communications and networking, and the protocols used in the Internet in particular by using the protocol layering of the Internet and TCP/IP protocol suite. Technologies related to data communication and networking may be the fastest growing in today’s culture. The appearance of some new social networking applications is a testimony to this claim. In this Internet-oriented society, specialists need to be trained to run and manage the Internet, part of the Internet, or an organization’s network that is connected to the Internet. As both the number and types of students are increasing, it is essential to have a textbook that provides coverage of the latest advances, while presenting the material in a way that is accessible to students with little or no background in the field.

Using a bottom-up approach, Data Communications and Networking presents this highly technical subject matter without relying on complex formulas by using a strong pedagogical approach supported by more than 830 figures. Now in its Fifth Edition, this textbook brings the beginning student right to the forefront of the latest advances in the field, while presenting the fundamentals in a clear, straightforward manner. Students will find better coverage, improved figures and better explanations on cutting-edge material. The “bottom-up” approach allows instructors to cover the material in one course, rather than having separate courses on data communications and networking.

NEW TO THIS EDITION

✔ Changes is the End-of-Chapter Materials. Lab assignments have been added to some chapters. Applets have been posted in the book website to allow students to see some problems and protocols in action.

CONTENTS

Part I: Overview
Chapter 1 Introduction
Chapter 2 Network Models
Part II: Physical Layer
Chapter 3 Introduction to Physical Layer
Chapter 4 Digital Transmission
Chapter 5 Analog Transmission
Chapter 6 Bandwidth Utilization: Multiplexing and Spreading
Chapter 7 Transmission Media
Chapter 8 Switching
Part III: Data Link Layer
Chapter 9 Introduction to Data-Link Layer
Chapter 10 Error Detection and Correction
Chapter 11 Data Link Control (DLC)
Chapter 12 Media Access Control (MAC)
Chapter 13 Wired LANs: Ethernet
Chapter 14 Other Wired Networks
Chapter 15 Wireless LANs
Chapter 16 Other Wireless Networks
Chapter 17 Connecting Devices and Virtual LANs
Part IV: Network Layer
Chapter 18 Introduction to Network Layer
Chapter 19 Network-Layer Protocols
Chapter 20 Unicast Routing
Chapter 21 Multicast Routing
Chapter 22 Next Generation IP
Part V: Transport Layer
Chapter 23 Introduction to Transport Layer
Chapter 24 Internet Transport-Layer Protocols
Part VI: Application Layer
Chapter 25 Introduction to Application Layer
Chapter 26 Standard Client-Server Protocols
Chapter 27 Network Management
Chapter 28 Multimedia
Chapter 29 Peer-to-Peer Paradigm
Part VII: Topics Related to All Layers
Chapter 30 Quality of Service
Chapter 31 Cryptography and Network Security
Chapter 32 Internet Security
Appendices
Appendix A Unicode
Appendix B Positioning Numbering System
Appendix C HTML, CSS, XML, and XSL
Appendix D A Touch of Probability
Appendix E Mathematical Review
Appendix F Miscellaneous Information
Appendix G 8B/6T Code
Appendix H Telephone History

All Global Editions are adapted to better meet the needs of courses outside the United States. Please contact your local sales representative for more details.
2011 (May 2011) / Softcover / 544 pages
ISBN: 9780071077705
(A McGraw-Hill India title)

This book fulfills the need for a basic comprehensive text on data communications and networks. This second edition lays emphasis on key topics such as data transmission, transmission media, data compression, security, network types and topologies, Internet and TCP/IP protocol suite.

NEW TO THIS EDITION
- New chapter on Wireless Communication including discussion of IEEE Standards, Bluetooth, Wireless LANs, and Cellular Telephones
- 875 chapter-end exercises include 600 Objective-type Questions with Answers (True/False and Multiple-Choice Questions) and 275 Review Questions

CONTENTS
1. Introduction to Data Communication and networking (existing Chapter-1)
2. Analog and Digital Transmission Methods (existing-3)
3. Modes of Data Transmission and Multiplexing (existing Chapter-4)
4. Transmission Errors: Detection and Correction (existing Chapter-5)
5. Data Compression and Encryption (existing Chapter-6)
6. Transmission Media (existing Chapter-7)
7. Network Topologies, Switching and Routing Algorithms (existing Chapter-8)
8. Networking Protocols and OSI Model (existing Chapter-9)
9. Local Area Networks (LAN), Metropolitan Area Networks (MAN) and Wide Area Networks (WAN)
10. Medium Access Sub Layer and ISDN (renamed; existing Chapter-11)
11. X.25 Protocol (existing Chapter-12)
12. Frame Relay and Congestion Control (renamed; existing Chapter-13)
13. Asynchronous Transfer Mode (ATM) (existing Chapter-14)
14. Wireless Communication (New)
15. Internetworking Concepts, Devices, Internet Basics, History and Architecture (existing Chapter-15)
16. Ways of Accessing the Internet (existing Chapter-16)
17. TCP/IP Part I: An Introduction to TCP/IP, IP, ARP, RARP, ICMP (existing Chapter-17)
18. TCP/IP Part II (TCP, UDP) (existing Chapter-18)
19. TCP/IP Part III (DNS, Email, FTP, TFTP) (existing Chapter-19)
20. TCP/IP Part IV (WWW, HTTP, TELNET) (existing Chapter-20)
21. Multimedia Communications (existing Chapter-21)
Appendix A: Internet Protocol Version 6 (ipv6)
Appendix B: Hardware for Error Detection
Appendix C: Network Management and Monitoring

COMMUNICATION NETWORK
2nd Edition
by Alberto Leon-Garcia, University of Toronto and Indra Widjaja
2004 / 848 pages
ISBN: 9780071257091 [IE]

http://highered.mcgraw-hill.com/sites/007246352X

This book is designed for introductory one-semester or one-year courses in communications networks in upper-level undergraduate programs. The second half of the book can be used in more advanced courses. As pre-requisites the book assumes a general knowledge of computer systems and programming, and elementary calculus. The second edition expands on the success of the first edition by updating on technological changes in networks and responding to comprehensive market feedback.

CONTENTS

SCHAUM’S OUTLINE OF COMPUTER NETWORKING
by Ed Tittel
2002 / Softcover / 304 pages
ISBN: 9780071362856
(A Schaum’s Publication)

Schaum's Outline of Computer Networking introduces the underlying concepts, principles, and terminology of computer networks. Covering the full scope of material taught in computer networking courses, this problem-solved approach presents the different components of a network and shows how these components fit together as well as explaining the varied harmonizing functions needed for the interconnection of many heterogeneous computer networks.
Computer Science

**Database Systems**

**SQL Programming**

*SCHAUM’S OUTLINE OF FUNDAMENTALS OF SQL PROGRAMMING*

by Ramon Mata-Toledo and Pauline Cashman

2001 / 314 pages / Softcover

ISBN: 9780071359535

(A Schaum’s Publication)

Standard SQL guarantees that no matter what the database implementation, the features of the language will be applicable across all platforms. Over 200 completely solved problems plus 200 supplementary problems reinforce students’ understanding and skills. Features the syntax used by the most important database developers, Oracle and Microsoft, to familiarize students with this common language. Includes labs and practice tests like those used in database certification exams.

**CONTENTS**


**Database Management & Design**

*NEW*

**DATABASE MANAGEMENT SYSTEMS**

by G K Gupta, Adjunct Professor of Computer Science, Monash University, Clayton, Australia

2011 (April 2011) / Softcover / 792 pages

ISBN: 9780071072731

(A McGraw-Hill India Title)

This book provides simple and comprehensive explanation of fundamentals of database management systems. It focuses on building database applications by emphasizing on concepts that are the foundation of database processing. This book is intended to be a complete text for undergraduate and graduate level database management courses offered across a range of academic disciplines such as computer science, information systems, and business management.

**FEATURES**

- Concepts like Relational Model, ER Model, etc., elucidated through a running example of a cricket database, especially formulated for Indian students
- In-depth coverage of Transaction Management and Concurrency, Query Processing, Distributed Databases, and Backup and Recovery
- Discussion of new technologies like Mobile Databases and Cloud Computing
- Strong pedagogical features:
  - 342 Review Questions along with Section References
  - 348 Short Answer Questions
  - 409 Multiple Choice Questions with Answers
  - 246 Exercises
  - 56 Lab Assignments
  - 43 Projects

**CONTENTS**

1. Introduction to Database Management
2. Entity–Relationship Data Model
3. Relational Model
4. Relational Algebra and Relational Calculus
5. SQL
6. Normalization
7. Physical Storage and Indexing
8. Query Processing
9. Transaction Management and Concurrency
10. Database Backup and Recovery
11. Database Security
12. Integrity Constraints and Active Databases
13. Distributed Databases
14. Object-Oriented Databases
15. Data Warehouses and OLAP
16. Data Mining
Database Management Systems

International Edition

3rd Edition
by Raghu Ramakrishnan, University of Wisconsin - Madison and Johannes Gehrke, University of Wisconsin - Madison

2003 / 928 pages
ISBN: 9780072465631
ISBN: 9780071230575 [IE]
http://highered.mcgraw-hill.com/sites/0072465638

Database Management Systems provides comprehensive and up-to-date coverage of the fundamentals of database systems. Coherent explanations and practical examples have made this one of the leading texts in the field. The third edition continues in this tradition, enhancing it with more practical material. The new edition has been reorganized to allow more flexibility in the way the course is taught. Now, instructors can easily choose whether they would like to teach a course which emphasizes database application development or a course that emphasizes database systems issues. New overview chapters at the beginning of parts make it possible to skip other chapters in the part if you don't want the detail. More applications and examples have been added throughout the book, including SQL and Oracle examples. The applied flavor is further enhanced by the two new database applications chapters.

CONTENTS

Chapter 1 Introduction to Database Systems.
Chapter 2 The Entity-Relationship Model.
Chapter 3 The Relational Model.
Chapter 4 Relational Algebra and Calculus.
Chapter 5 SQL: Queries, Programming, Triggers.
Chapter 6 Overview of File Organizations and Indexes.
Chapter 7 Storing Data: Disks and Files.
Chapter 8 Tree-Structured Indexing.
Chapter 9 Hash-Based Indexing.
Chapter 10 Overview of Query Evaluation.
Chapter 11 External Sorting.
Chapter 12 Evaluation of Relational Operators.
Chapter 13 A Typical Relational Query Optimizer.
Chapter 14 Schema Refinement and Normal Forms.
Chapter 15 Physical Database Design and Tuning.
Chapter 16 Security.
Chapter 17 Database Applications and the Internet: Concepts.
Chapter 18 Database Applications and the Internet: Practice.
Chapter 19 Overview of Transaction Management.
Chapter 20 Concurrency.
Chapter 21 Crash Recovery.
Chapter 22 Parallel and Distributed Databases.
Chapter 23 Data on the Web: XML and XQuery.
Chapter 24 Information Retrieval and Database Systems.
Chapter 25 Decision Support.
Chapter 26 Data Mining.
Chapter 27 Object-Database Systems.
Chapter 28 Additional Reading

Database System Concepts

6th Edition
by Abraham Silberschatz, Yale University, Henry F. Korth, Lehig University, and S. Sudarshan

2011 (January 2010) / Hardcover / 1376 pages
ISBN: 9780073523323
ISBN: 9780071289597 [IE]
www.mhhe.com/silberschatz

Database System Concepts by Silberschatz is now in its 6th edition and is one of the cornerstone texts of database education. It presents the fundamental concepts of database management in an intuitive manner geared toward allowing students to begin working with databases as quickly as possible.

Silberschatz is designed for a first course in databases at the junior/ senior undergraduate level or the first year graduate level. It also contains additional material that can be used as supplements or as introductory material for an advanced course. Because the authors present concepts as intuitive descriptions, a familiarity with basic data structures, computer organization, and a high-level programming language are the only prerequisites. Important theoretical results are covered, but formal proofs are omitted. In place of proofs, figures and examples are used to suggest why a result is true.

CONTENTS

Chapter 1: Introduction
Part 1: Relational Databases
Chapter 2: Introduction to the Relational Model
Chapter 3: Introduction to SQL
Chapter 4: Intermediate SQL
Chapter 5: Advanced SQL
Chapter 6: Normal Forms
Part II: Database Design
Chapter 7: Database Design and the E-R Model
Chapter 8: Relational Database Design
Chapter 9: Application Design and Development
Part III: Data Storage and Querying
Chapter 10: Storage and File Structure
Chapter 11: Indexing and Hashing
Chapter 12: Query Processing
Chapter 13: Query Optimization
Part IV: Transaction Management
Chapter 14: Transactions
Chapter 15: Concurrency Control
Chapter 16: Recovery System
Part V: System Architecture
Chapter 17: Database-System Architectures
Chapter 18: Parallel Databases
Chapter 19: Distributed Databases
Part VI: Data Mining and Information Retrieval
Chapter 20: Data Mining
Chapter 21: Information Retrieval
Part VII: Speciality Databases
Chapter 22: Object-Based Databases
Chapter 23: XML
Chapter 24: Advanced Application Development
Chapter 25: Advanced Data Types and New Applications
Chapter 26: Advanced Transaction Processing
Part IX: Case Studies
Chapter 27: PostgreSQL
Chapter 28: Oracle
Chapter 29: IBM DB2 Universal Database
Chapter 30: Microsoft SQL Server
INTRODUCTION TO DATABASE SYSTEMS
by Stephane Bressan, and Barbara Catanita
2005 / 168 pages / Softcover
ISBN: 9780071246507

Most books on databases have the size and content of a book of magic written in the ancient language of Tolkiens Ents. To counter this trend, Introduction to Database Systems is small and concise by design. It aims to provide students, academics and professionals with a rigorous, convenient and economical reference.

The book describes the essential concepts pertaining to the design and programming of database applications with relational database management systems. It covers conceptual modelling with the entity-relationship model and logical modelling with the relational model. It also presents the techniques for the normalisation of logical designs based on functional dependencies, i.e. the decomposition into Boyce-Codd and third normal forms.

Also covered are t-ouple and domain relational calculi, as well as relational algebra. This book illustrates the main SQL data definition and data manipulation statements and looks at contemporary approaches to coupling SQL with general purpose programming languages.

Introduction to Database Systems concludes with a brief catalogue raisonne of textbooks on databases.

CONTENTS
Preface.
About the Authors.
1 What’s in a Database?
2 Relational Model.
3 Relational Calculus.
4 Relational Algebra.
5 SQL.
6 SQL and Programming Languages.
7 Entity-Relationship Model.
8 Normalisation.
9 Conclusion.
References.
Index.
plain the latest techniques and tools for achieving photorealism in computer graphics.

CONTENTS
Introduction.
Image Representation.
Scan Conversion.
Two-Dimensional Transformations.
Two-Dimensional Viewing and Clipping.
Three-Dimensional Transformations.
Mathematics of Projection.
Three-Dimensional viewing and Clipping.
Geometric Representation.
Hidden Surfaces.
Color and Shading Models.
Ray Tracing.

Artificial Intelligence

Artificial Intelligence (AI)

MACHINE LEARNING
by Tom M Mitchell, Carnegie Mellon University
1997 / 414 pages / hardcover
ISBN: 9780070428072
ISBN: 9780071154673 [IE]
www.cs.cmu.edu/~afs/cs.cmu.edu/user/mitchell/fps/mlbook.html

This book covers the field of machine learning, which is the study of algorithms that allow computer programs to automatically improve through experience. The book is intended to support upper level undergraduate and introductory level graduate courses in machine learning.

CONTENTS
1 Introduction
2 Concept Learning and the General-to-Specific Ordering
3 Decision Tree Learning
4 Artificial Neural Networks
5 Evaluating Hypotheses
6 Bayesian Learning
7 Computational Learning Theory
8 Instance-Based Learning
9 Genetic Algorithms
10 Learning Sets of Rules
11 Analytical Learning
12 Combining Inductive and Analytical Learning
13 Reinforcement Learning

Neural Networks & Fuzzy Systems

INTERNATIONAL EDITION

NEURAL NETWORKS: A CLASSROOM APPROACH
by Satish Kumar, Dayalbagh Educational Institute, India
2004 / 768 pages / Softcover
ISBN: 9780071246729 [I
ISBN: 9780070482920
(McGraw-Hill India Title)
http://highered.mcgraw-hill.com/sites/0070482926

Neural Networks is an integral component to the ubiquitous soft computing paradigm. An in-depth understanding of this field requires some background of the principles of neuroscience, mathematics and computer programming. Neural Networks: A Classroom Approach, achieves a balanced blend of these areas to weave an appropriate fabric for the exposition of the diversity of neural network models.

This book is unique, in the sense that it stresses on an intuitive and geometric understanding of the subject and on the heuristic explanation of the theoretical results.

CONTENTS
I. Traces of History and A Neuroscience Briefer:
1 Brain Style Computing: Origins and Issues.
2 Lessons from Neuroscience.
II. Feedforward Neural Networks and Supervised Learning:
3 Artificial Neurons, Neural Networks and Architectures.
4 Geometry of Binary Threshold Neurons and Their Networks.
5 Supervised Learning:
1: Perceptrons and LMS.
6 Supervised Learning.
II: Backpropagation and Beyond:
7 Neural Network: A Statistical Pattern Recognition Perspective.
8 Focussing on Generalization: Support Vector Machines and Radial Basis Function Networks.
III. Recurrent Neurodynamical Systems.
9 Dynamical Systems Review.
10 Attractor Neural Networks.
11 Adaptive Resonance Theory
12 Towards the Self Organizing Feature Map.
IV. Contemporary Topics:
14 Fuzzy Sets, Fuzzy Systems and Applications.
15 Neural Networks and the Soft Computing Paradigm
Internet/Multimedia

MULTIMEDIA TECHNOLOGIES
by Ashok Banerji, and Ananda Mohan Ghosh
2009 / Softcover
ISBN: 9780070669239
(McGraw-Hill India Title)

This book is designed to provide comprehensive of Multimedia Technologies with a strong focus on field practice and active experimentation. Ample supplemented with rich pedagogy, it offers an unparalleled learning experience to both students and practitioners.

CONTENTS
Chapter 1. Introduction To Multimedia
Chapter 2. Uses Of Multimedia
Chapter 3. Interaction Technologies And Devices
Chapter 4. Compression Technologies For Multimedia
Chapter 5. Text
Chapter 6. Digital Images
Chapter 7. Computer Graphics And Image Editing
Chapter 8. Digital Audio
Chapter 9. Audio-Visual Media
Chapter 10. Creating Animation In Flash
Chapter 11. Designing Multimedia
Chapter 12. Internet And WWW
Chapter 13. Future Directions

Software Testing

SOFTWARE TESTING
by S.S. Limaye, Principal, RKN Engg College and Professor of Electronics
2009 / Softcover
ISBN: 978007139909
(McGraw-Hill India Title)

www.mhhe.com/limaye1st

This book employs an integrated approach to test management, techniques and process requirement activities. This text uses testing tools, processes and case designs as few of the many elements that prepare the audience to be a worthy keeper of the 'Quality Gate'.

Contents
PART I QUALITY ASSURANCE
Chapter 1. Introduction to Quality
Chapter 2. Software Quality
Chapter 3. Fundamentals of Software Testing
PART II BASIC CONCEPTS OF SOFTWARE TESTING
Chapter 4. Configuration Management
Chapter 5. Risk Analysis
Chapter 6. Software Verification and Validation
Chapter 7. V-Test Model
Chapter 8. Defect Management
PART III TESTING TECHNIQUES AND TOOLS
Chapter 9. Levels of Testing
Chapter 10. Acceptance Testing
Chapter 11. Special Tests (Part I)
Chapter 12. Special Tests (Part II)
Chapter 13. Testing Tools
PART IV TESTING PROCESS
Chapter 14. Test Planning
Chapter 15. Test Metrics and Test Reports
Chapter 16. Qualitative and Quantitative Analysis
PART V TEST PROCESS MANAGEMENT
Chapter 17. Test Process Improvement

Bioinformatics

INTERNATIONAL EDITION

BIOINFORMATICS
A Computing Perspective
by Shuba Gopal, Rochester Institute of Technology, Anne Haake, Rochester Institute of Technology, Rhys Price Jones, and Paul Tymann, Rochester Inst Of Technology
2009 (May 2008) / Hardcover / 480 pages
ISBN: 9780073133645
ISBN: 9780071263900 [JE]

www.mhhe.com/gopal

This book is written by a very experienced author team representing the many areas out of which the new discipline of Bioinformatics is emerging. Their common sense approach and carefully detailed presentation have positioned Bioinformatics: A Computing perspective on the front lines for defining how the college Bioinformatics course will ultimately be taught. Bioinformatics: A Computing Approach is to make students conversant with key concepts in the biological sciences and knowledgeable about current iconoclastic tools and approaches. It successfully ties interesting computational challenges to relevant biological phenomenon, avoiding the "bioinformatics" vs. "computational" debate that tends to confuse students rather than interest and instruct them.
Professional References

THE DATA WAREHOUSE MENTOR
Practical Data Warehouse and Business Intelligence Insights
by Robert Laberge
2011 (May 2011) / Softcover / 416 pages
ISBN: 9780071745321
(Osborne Media Professional Title)
Empower your users and drive better decision making across your enterprise with detailed instructions and best practices from an expert developer and trainer. The Data Warehouse Mentor: Practical Data Warehouse and Business Intelligence Insights shows how to plan, design, construct, and administer an integrated end-to-end DW/BI solution. Learn how to choose appropriate components, build an enterprise data model, configure data marts and data warehouses, establish data flow, and mitigate risk. Change management, data governance, and security are also covered in this comprehensive guide.

CONTENTS
Part I: Preparation
Chapter 1: Data Warehouse and Business Intelligence Overview
Chapter 2: Data in the Organization
Chapter 3: Reasons for Building
Chapter 4: Business Intelligence and Data Warehouse Strategy
Chapter 5: Project Resources: Roles and Insights
Chapter 6: Write-It-Up Overview
Part II: Components
Chapter 7: Business Intelligence: Data Marts and Usage
Chapter 8: Enterprise Data Models
Chapter 9: Data Warehouse Architecture: Components
Chapter 10: ETL and Data Quality
Chapter 11: Project Planning and Methodology
Part III: Let's Build
Chapter 12: Working Scenarios
Chapter 13: Data Governance
Chapter 14: Post-Project Review
Index

JAVA 7 THE COMPLETE REFERENCE
8th Edition
by Herbert Schildt
2011 (June 2010) / Softcover / 1000 pages
ISBN: 9780071606301
(Osborne Media Professional Title)
In this international bestseller, top-selling programming author Herbert Schildt shows you everything you need to develop, compile, debug, and run Java programs. The book has been updated to cover the latest version of the world's number-one programming language.

Java 7: The Complete Reference, Eighth Edition covers all of the Java 7 features, including closures, superpackages, reified generic types, the enhanced switch statement, chained method invocations, extension methods, the enhanced catch statement, and enum values. The book also includes details on the Swing Application Framework and a chapter on language-level XML support.

CONTENTS
Part One: The Java Language;
Chapter 1. The History and Evolution of Java;
Chapter 2. An Overview of Java;
Chapter 3. Data Types, Variables, and Arrays;
Chapter 4. Operators;
Chapter 5. Control Statements;

Chapter 6. Introducing Classes;
Chapter 7. A Closer Look at Methods and Classes;
Chapter 8. Inheritance;
Chapter 9. Packages and Interfaces;
Chapter 10. Exception Handling;
Chapter 11. Multithreaded Programming;
Chapter 12. Enumerations, Autoboxing, and Annotations;
Chapter 13. I/O, Applets, and Other Topics;
Chapter 14. Generics;
Part Two: The Java Library;
Chapter 15. String Handling;
Chapter 16. Exploring java.lang;
Chapter 17. java.util Part 1: The Collections Framework;
Chapter 18. java.util Part 2: More Utility Classes;
Chapter 19. Input/Output: Exploring java.io;
Chapter 20. Networking;
Chapter 21. The Applet Class;
Chapter 22. Event Handling;
Chapter 23. Introducing the AWT: Working with Windows, Graphics, and Text;
Chapter 24. Using AWT Controls, Layout Managers, and Menus;
Chapter 25. Images;
Chapter 26. The Concurrency Utilities;
Chapter 27. NIO, Regular Expressions, and Other Packages;
Part 3: Software Development Using Java;
Chapter 28. Java Beans;
Chapter 29. Introducing Swing;
Chapter 30. Exploring Swing;
Chapter 31. Servlets;
Part 4: Applying Java;
Chapter 32. Financial Applets and Servlets;
Chapter 33. Creating a Download Manager;
Appendix A: Using Java's Documentation Comments

MULTIMEDIA MAKING IT WORK
8th Edition
by Tay Vaughan
2011 / Softcover / 478 pages
ISBN: 9780071748469
(Osborne Media Professional Title)
Learn the basic elements of multimedia and the skills required for a successful multimedia career from this up-to-date, full-color resource. Covering both Windows and Mac platforms, Multimedia Making It Work, Eighth Edition explains how to incorporate text, images, sound, animation, and video into compelling projects. Hardware and software tools are described in detail. Discover how to design, organize, produce, and deliver multimedia projects on the Web, CD-ROM, and DVD. Each chapter includes full-color illustrations and screenshots, professional insights from multimedia experts, self-quizzes, and hands-on projects.

CONTENTS
Chapter 1. What is Multimedia;
Chapter 2. Text,
Chapter 3. Images;
Chapter 4. Sound;
Chapter 5. Animation;
Chapter 6. Video;
Chapter 7. Making Multimedia;
Chapter 8. Multimedia Skills;
Chapter 9. Planning and Costing;
Chapter 10. Designing and Producing;
Chapter 11. Content and Talent;
Chapter 12. The Internet and Multimedia;
Chapter 13. Designing for the World Wide Web;
Chapter 14. Delivering;
Appendix
Computer Science

ORACLE VM IMPLEMENTATION AND ADMINISTRATION GUIDE
by Edward Whalen
2011 / Softcover / 448 pages
ISBN: 9780071639194
(Osborne Media Professional Title)

Set up and maintain a dynamic virtualization platform across your enterprise using the detailed information contained in this Oracle Press guide. Oracle VM Implementation and Administration Guide contains key virtualization concepts, practical instructions, examples, and best practices. Find out how to design Oracle VM server farms, build and deploy virtual machines, handle provisioning and cloning, and work with Oracle VM Manager. Monitoring, tuning, and security techniques are also covered in this comprehensive volume.

CONTENTS
Part I: Introduction
Chapter 1: Introduction to Virtualization
Chapter 2: What is Oracle VM?
Chapter 3: Oracle VM Architecture
Chapter 4: Oracle VM Lifecycle Management
Chapter 5: Planning and Sizing the Enterprise VM Farm
Part II: Installing and Configuring Oracle VM
Chapter 6: Installing the Oracle VM Server
Chapter 7: Installing and Configuring Oracle VM Manager
Chapter 8: Configuring the Oracle VM Management Pack
Chapter 9: Installing and Configuring the Oracle VM CLI
Chapter 10: Configuring the VM Server Network
Chapter 11: Configuring the VM Server Storage
Part III: Managing Oracle VM Servers and Guests
Chapter 12: Creating Server Pools and Servers
Chapter 13: Configuring Server Resources
Chapter 14: Managing and Tuning the Virtual Machine Server
Part IV: Installing and Configuring the Guest OS
Chapter 15: Creating Templates
Chapter 16: Using Templates to Create Virtual Machines and Configuring Resources
Chapter 17: Creating Virtual Machines Manually
Chapter 18: Converting Other Virtual Images to Oracle VM
Chapter 19: Managing the VM Environment and Virtual Machines
Chapter 20: Virtualization Summary and Best Practices Practices
Part V: Appendixes and Glossary
Appendix A: Configuring Linux Support Functions
Appendix B: Oracle VM Log Files
Glossary
Index

MOBILE APPLICATION SECURITY
by Himanshu Dwivedi, Chris Clark and David Thiel
2010 (February 2010) / Softcover / 400 pages
ISBN: 9780071633567
(Osborne Media Professional Title)

This is the only book on the market that shows IT and Web professionals how to secure mobile devices and the new Web 2.0 applications that run on them. You will learn best practices for securing applications that are written for the most popular mobile platforms, such as Apple iPhone, Windows Mobile, and Google Android. The author provides global case studies based on his work building mobile applications for major international corporate clients.

CONTENTS
1 Mobile Application Security Overview
2 Android Security
3 Apple iPhone
4 Windows Mobile
5 Blackberry

6 J2ME
7 Symbian
8 Qualcomm BREW
9 WAP and Mobile HTML Security
10 Bluetooth Security
11 SMS, MMS and Radio Interface Security
12 Mobile Location Services (GPS)
13 Enterprise Security on the Mobile OS
14 Mobile Enterprise Mail Scenarios

HACKING EXPOSED COMPUTER FORENSICS
2nd Edition
by Aaron Philipp, David Cowen, and Chris Davis
2010 (September 2009) / Softcover / 544 pages
ISBN: 9780071626774
(Osborne Media Professional Title)

Identify and investigate computer criminals of all stripes with help from this fully updated, real-world resource. Hacking Exposed Computer Forensics, Second Edition explains how to construct a high-tech forensics lab, collect prosecutable evidence, discover e-mail and system file clues, track wireless activity, and recover obscured documents. Learn how to re-create an attacker's footsteps, communicate with council, prepare court-ready reports, and work through legal and organizational challenges. Case studies straight from today's headlines cover IP theft, mortgage fraud, employee misconduct, securities fraud, embezzlement, organized crime, and consumer fraud cases.

CONTENTS
Part 1: Preparing for an Incident;
Ch. 1: The Forensics Process;
Ch. 2: Computer Fundamentals;
Ch. 3: Forensics Lab Environment Preparation;
Part 2: Collecting the Evidence;
Ch. 4: Forensically Sound Evidence Collection;
Ch. 5: Remote Investigations and Collections;
Part 3: Forensic Investigation Techniques;
Ch. 6: Microsoft Windows Systems Analysis;
Ch. 7: Linux Analysis;
Ch. 8: Macintosh Analysis;
Ch. 9: Defeating Anti-Forensic Techniques;
Ch. 10: Enterprise Storage Analysis;
Ch. 11: Email Analysis;
Ch. 12: Tracking User Activity;
Ch. 13: Forensic Analysis of Mobile Devices;
Part 4: Presenting your Findings;
Ch. 14: Documenting the Investigation;
Ch. 15: The Justice System;
Part 5: Putting It All Together;
Ch. 16: IP Theft;
Ch. 17: Employee Misconduct;
Ch. 18: Employee Fraud;
Ch. 19: Corporate Fraud;
Ch. 20: Organized Cyber Crime;
Ch. 21: Consumer Fraud;
Appendix A. Searching Techniques;
Index
Application Software
Access Complete.................................................................83
Access Intro........................................................................82
Excel Complete .................................................................81
Excel Intro...........................................................................80
Office Intro.........................................................................73
Operating Systems.............................................................86
Outlook Intro........................................................................87
PowerPoint Complete.........................................................85
PowerPoint Intro.................................................................84
Training & Assessment........................................................86
Word Complete....................................................................78
Word Intro...........................................................................77

Computer Concepts
Brief Computer Concepts.....................................................67
Comprehensive Computer Concepts......................................69

Game Design & Development .............................................91

Networking
Information Security..........................................................92
Networking Essentials........................................................92
Wireless Networking..........................................................93

Professional References......................................................94

Programming
Visual Basic........................................................................88

Web Programming/Design
HTML..................................................................................90
# New Titles

## COMPUTER INFORMATION TECHNOLOGY

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Computing Now</td>
<td>McGraw-Hill</td>
<td>9780073516851</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>Computing Essentials 2013, Introductory Edition</td>
<td>O'Leary</td>
<td>9780077538989</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Computing Essentials 2013, Complete Edition</td>
<td>O'Leary</td>
<td>9780073516820</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Using Information Technology, Introductory Edition, 10e</td>
<td>Williams</td>
<td>9780077470678</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Using Information Technology, Complete Edition, 10e</td>
<td>Williams</td>
<td>9780073516837</td>
<td>71</td>
</tr>
<tr>
<td>2012</td>
<td>Survey of Operating Systems, 3e</td>
<td>Holcombe</td>
<td>9780073518176</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Making Microsoft Outlook 2010 Work For You</td>
<td>Nordell</td>
<td>9780073519289</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>Computing Essentials 2012, Complete Edition, 22e</td>
<td>O'Leary</td>
<td>9780073516806</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Microsoft Office 2010 Now: A Skills Approach</td>
<td>Triad Interactive</td>
<td>9780073516479</td>
<td>73</td>
</tr>
<tr>
<td>2011</td>
<td>Data Communications and Networks, 2e [MH India Title]</td>
<td>Godbole</td>
<td>9780071077705</td>
<td>92</td>
</tr>
</tbody>
</table>
Computer Concepts

Brief Computer Concepts

Computing Essentials 2013...Making IT Work for You! How are you learning about the most important, essential, and current concepts of information technology? Computing Essentials 2013 allows you to Make IT Work for You through relevant Explorations, Ethics and Environment themes throughout each chapter. Make IT Work for You!

2013 (January 2012) / Softcover / 416 pages
ISBN: 9780077538989
ISBN: 9780071314725 [IE]

Using Information Technology: A Practical Introduction to Computers & Communications 10/e "If there is anything we have learned during 18 years of writing and revising this computer concepts book, it is this: Not only does the landscape of computer education change rapidly, but so do the students. . . . This edition, then, is written for the Always On generation, helping students use technology to enrich their personal lives.” –Brian K. Williams & Stacey C. Sawyer

Contents
Chapter 1: Introduction To Information Technology: Your Digital World
Chapter 2: The Internet & The World Wide Web: Exploring Cyberspace
Chapter 3: Software: Tools For Productivity & Creativity
Chapter 4: Hardware: The Cpu & Storage: How To Choose A Multimedia Computer System
Chapter 5: Hardware: Input & Output: Taking Charge Of Computing & Communications
Chapter 6: Communications, Networks, & Safeguards: The Wired & Wireless World
Chapter 7: Personal Technology: The Future Is You
Chapter 8: Databases Are In Your Life: Digital Engines For Today's Economy
Chapter 9: The Challenges Of The Digital Age: Society & Information Technology Today
Chapter 10: Building Systems & Applications: Software Development, Programming, & Languages

Invitation to Publish
McGraw-Hill is interested to review your textbook proposals for publication. Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com.

O'Leary, Computing Essentials 2012 Introductory and Complete versions available "Making IT Work for You!" Your essential guide to computing concepts… Computing Essentials 2012 provides you with a complete learning solution focusing on the most important, essential, and current concepts of information technology. Students are given a streamlined, concise, relevant approach to the fundamental issues surrounding the world of computing through a balance between theory and applied learning of these important topics. Overall, all of the items featured with this text—including the end-of-chapter materials and the text Web site—work together to help students truly understand the basics of computer concepts.

NEW TO THIS EDITION

- APPROACH: Concise, streamlined approach to fundamental computing issues.
- THEME of RELEVANCE: Highlights the relevance of current, essential topics for better student understanding.
- REMEMBER the "E-BOXs!" Environment, Ethics, and Exploration boxes for enhanced student learning.
- STUDENT RELEVANCE: "Careers in IT" section at the end of each chapter provide information on a variety of positions in the IT industry.
- CURRENT INFORMATION AND FUTURE DIRECTION: "A Look to the Future" section at the end of each chapter to engage students with emerging technologies.

CONTENTS

1 Information Technology, The Internet, And You
2 The Internet, The Web, And Electronic Commerce
3 Basic Application Software
4 Specialized Application Software
5 System Software
6 The System Unit
7 Input And Output
8 Secondary Storage
9 Communications And Networks
10 Privacy, Security, And Ethics
11 Your Future And Information Technology
Glossary
Credits
Index
Lesson 3A: Operating System Basics
LO 3.1 – Operating System Types and Functions
LO 3.2 – Moving Data Around the Computer
LO 3.3 – Common Operating Systems
LO 3.4 – Data, Files, and Utility Programs
Lesson 3B: Application Software
LO 3.5 – Acquiring and Installing Software
LO 3.6 – Productivity Software
LO 3.7 – Graphics Software
Chapter 4: Meeting Your Computing Needs
Lesson 4A: Choosing the Right Computer
LO 4.1 – Determining Your Computing Needs
LO 4.2 – Storage Devices and Options
LO 4.3 – Selecting a Manufacturer and Vendor
Lesson 4B: Mobile Gear
LO 4.4 – Mobile Devices
LO 4.5 – Handheld Devices
LO 4.6 – Mobile Networks and Communications
LO 4.7 – Mobile Access to Your Data
Chapter 5: Bringing the World to You
Lesson 5A: The Internet
LO 5.1 – The Internet’s History and Structure
LO 5.2 – Overview of Internet Services
LO 5.3 – The Internet at Home
LO 5.4 – The Internet at School
Lesson 5B: The Mobile User
LO 5.5 – Mobile Software
LO 5.6 – Effective Mobile Business
LO 5.7 – Safe and Courteous Computing
Chapter 6: Safe Computing in a Connected World
Lesson 6A: Social Media and Cloud Computing
LO 6.1 – Making Your Mark on the Web
LO 6.2 – Online Income and E-Commerce
LO 6.3 – Cloud Computing for Individuals and Businesses
Lesson 6B: Computer Security and Online Privacy
LO 6.4 – Basic Security Concepts
LO 6.5 – Safeguarding Your Hardware
LO 6.6 – Keeping Your Data Secure
LO 6.7 – Protecting Yourself and Your Identity
Chapter 7: Making Connections
Lesson 7A: Networking and Information Systems
LO 7.1 – Computer Networks
LO 7.2 – Information Systems: What and Why
LO 7.3 – Types of Information Systems
LO 7.4 – Networks, Hardware, and Data Management
Lesson 7B: Computing Ethics
LO 7.5 – Digital Piracy
LO 7.6 – Personal Computing Ethics
LO 7.7 – Professional Computing Ethics
Chapter 8: Your Future in Computing
Lesson 8A: Computing and Careers
LO 8.1 – Computing in Your Field
LO 8.2 – Telecommuting
LO 8.3 – Emerging Careers
Lesson 8B: The Future of Computing
LO 8.4 – Advancements in Computing and Technology
LO 8.5 – Effects of Computing
LO 8.6 – What’s Next

Computing Essentials 2013...Making IT Work for You! How are you learning about the most important, essential, and current concepts of information technology? Computing Essentials 2013 allows you to Make IT Work for You through relevant Explorations, Ethics and Environment themes throughout each chapter. Make IT Work for You!

CONTENTS
1 Information Technology, The Internet, And You
2 The Internet, The Web, And Electronic Commerce
3 Basic Application Software
4 Specialized Application Software
5 System Software
6 The System Unit
7 Input And Output
8 Secondary Storage
9 Communications And Networks
10 Privacy, Security, And Ethics
11 Information Systems
12 Databases
13 Systems Analysis And Design
14 Programming And Languages
15 Your Future And Information Technology
Glossary
Credits
Index
O’Leary, Computing Essentials 2012 Introductory and Complete versions available “Making IT Work for You!” Your essential guide to computing concepts… Computing Essentials 2012 provides you with a complete learning solution focusing on the most important, essential, and current concepts of information technology. Students are given a streamlined, concise, relevant approach to the fundamental issues surrounding the world of computing through a balance between theory and applied learning of these important topics. Overall, all of the items featured with this text—including the end-of-chapter materials and the text Web site—work together to help students truly understand the basics of computer concepts.

NEW TO THIS EDITION

- APPROACH: Concise, streamlined approach to fundamental computing issues.
- THEME of RELEVANCE: Highlights the relevance of current, essential topics for better student understanding.
- REMEMBER the “E-BOXs”! Environment, Ethics, and Exploration boxes for enhanced student learning.
- STUDENT RELEVANCE: “Careers in IT” section at the end of each chapter provide information on a variety of positions in the IT industry.
- CURRENT INFORMATION AND FUTURE DIRECTION: “A Look to the Future” section at the end of each chapter to engage students with emerging technologies.

CONTENTS

1 Information Technology, the Internet, and You
2 The Internet, the Web, and Electronic Commerce
3 Basic Application Software
4 Specialized Application Software
5 System Software
6 The System Unit
7 Input and Output
8 Secondary Storage
9 Communications and Networks
10 Privacy, Security, and Ethics
11 Information Systems
12 Databases
13 Systems Analysis and Design
14 Programming and Languages
15 Your Future and Information Technology
The Evolution of the Computer Age
The Buyer’s Guide: How to Buy Your Own Microcomputer System
The Upgrader’s Guide: How to Upgrade Your Microcomputer System
Glossary
Credits
Index
The Williams, Using Information Technology, 9th edition utilizes a practical, applied approach to technology. This text is user-focused and has been highly updated including topics, pictures and examples. The Williams text contains less theory and more application to engage students who might be more familiar with technology. Continually published and updated for over 15 years, Using Information Technology was the first text to foresee and define the impact of digital convergence—the fusion of computers and communications. It was also the first text to acknowledge the new priorities imposed by the Internet and World Wide Web and bring discussion of them from late in the course to the beginning. Today, it is directed toward the “Always On” generation that is at ease with digital technology—comfortable with iPhones, MySpace, Facebook, Twitter, Wikipedia, and the blogosphere—but not always savvy about its processes, possibilities, and liabilities. This 9th edition continues to address the two most significant challenges that instructors face in teaching this course: •Trying to make the course interesting and challenging, and •Trying to teach to students with a variety of computer backgrounds. This text also correlates with SimNet Online, our online training and assessment program for the MS Office Suite and also computing concepts!

Contents
1. Introduction to Information Technology
   Your Digital World
   Exploring Cyberspace
2. Software
   Tools for Productivity & Creativity
3. Hardware: The CPR & Storage
   How to Choose a Multimedia Computer System
4. Hardware: Input & Output
   Taking Charge of Computing & Communications
5. Communications, Networks, & Safeguards
   The Wired & Wireless World
6. Personal Technology
   The Future Is You
7. Databases & Information Systems
   Digital Engines for Today’s Economy
8. Systems Analysis & Programming
   Software Development, Programming, & Languages
MICROSOFT OFFICE 2010 NOW: A SKILLS APPROACH
by Triad Interactive

NEW

MICROSOFT OFFICE 2010 NOW:
A SKILLS APPROACH
by Triad Interactive

2012 (March 2011) / Spiral Bound / 600 pages
ISBN: 9780073516479

www.mhhe.com/office2010skills

“Office Skills on Demand” Today’s world is a world of INSTANT gratification. We want information at our fingertips and resources easily within our reach. The Office 2010: Skills approach provides a truly unique approach in learning Office skills with it’s completely isolated skills for customized learning. Created from the “Teach Me” pages from SimNet Online, our online training and assessment program, this textbook has 1:1 content with SimNet Online. As a result, it provides the most flexible book on the market as you can access the specific, isolated skills that you need for customized learning.

FEATURES

• 1:1 content with SimNet Online
• Isolated skills for quick, efficient learning
• Intuitive design for at-a-glance accessibility
• Concise instructions for skills
• “From the Perspective of” feature and end-of-chapter projects relate the content to a variety of common career paths for a larger understanding of the material
• Online Learning Center available at www.mhhe.com/office2010skills

CONTENTS

Office 2010
Chapter 1 Getting Started with Microsoft Office 2010 Common Features
Word 2010
Chapter 1 Getting Started with Word 2010
Chapter 2 Formatting Text and Paragraphs
Chapter 3 Formatting Documents
Chapter 4 Working with Tables and Graphics
Chapter 5 Working with References and Mailings
Excel 2010
Chapter 1 Getting Started with Excel 2010
Chapter 2 Using Formulas and Functions
Chapter 3 Formatting the Worksheet
Chapter 4 Adding Charts and Analyzing Data
Access 2010
Chapter 1 Getting Started with Access 2010
Chapter 2 Working with Tables

Chapter 3 Working with Forms and Reports
Chapter 4 Using Queries and Organizing Information
PowerPoint 2010
Chapter 1 Getting Started with PowerPoint 2010
Chapter 2 Adding Content to Slides
Chapter 3 Formatting Presentations
Chapter 4 Managing and Delivering Presentation
Glossary
Office Index
Word Index
Excel Index
Access Index
PowerPoint Index

MICROSOFT OFFICE 2010: A CASE APPROACH
Introductory
by Linda I. O’Leary, Independent, and Timothy J. O’Leary, Arizona State University-Tempe
2011 (November 2010) / Spiral Bound/Comb / 1216 pages
ISBN: 9780073519302

www.mhhe.com/oleary

Timothy and Linda O’Leary and the Computer Information Technology Team at McGraw-Hill Higher Education offer your students a fully integrated learning program with time-tested quality and reliability. Office 2010: A Case Approach offers running case study throughout the text to help students understand the material in a consistent, relevant environment. Through this theme of “Making Office Relevant,” this text helps students understand why they need this course and these skills. Student success is assured through clear step-by-step instruction, plentiful screen captures and conceptual explanations. Each Lab, designed to be covered in 1 hour of class time, combines conceptual coverage with detailed software-specific instructions. Each Lab opens with a running case study that highlights real-world applications of each software program and leads students from problem to solution. The O’Leary Series helps students learn specific applications skills along with those that cross all Office applications, which is especially important in mastering this version of Office. The O’Leary Series also correlates with SimNet Online, our online training and assessment program for Office 2010.

CONTENTS

Overview of Office 2010
Word
Lab 1 – Creating and Editing a Document
Lab 2 – Revising and Refining a Document
Lab 3 – Creating Reports and Tables
Working Together 1 – Word 2010 and Your Web Browser
Excel
Lab 1 – Creating and Editing a Worksheet
Lab 2 – Charting Worksheet Data
Lab 3 – Managing and Analyzing a Workbook
Working Together 1 – Exporting Data
PowerPoint
Lab 1 – Creating a Presentation
Lab 2 – Modifying and Refining a Presentation
Working Together 1 – Copying, Embedding, and Linking between Applications
MICROSOFT OFFICE 2010: A LESSON APPROACH
by Deborah Hinkle
2011 (August 2010) / Spiral Bound / 1088 pages
ISBN: 9780077454890
www.mhhe.com/lessonapproach2010

McGraw-Hill is proud to introduce the Hinkle et al., Office 2010: A Lesson Approach Series. Utilizing the author team of Deborah Hinkle, Kathleen Stewart, John Carter and Pat Graves from the former Professional Approach Series for Microsoft Office, this Office 2010: Lesson Approach series provides a fresh, clear, modular introduction of Microsoft Office 2010 skills. It’s “Learn by Doing” theme is incorporated in each lesson so students can experience hands-on learning throughout the entire text. Students first focus on the introductory skills that are isolated in each lesson and then complete individual skill exercises that ensure a clear learning path. The application case studies provide even more context to the student so they can better associate lesson goals and themes. This text also correlates with SimNet Online for Office 2010, our online training and assessment program, and also SimGrader, our online project grader component which contains a full project library including projects from this Lesson Approach Series and also projects from our other Microsoft Office 2010 textbook series.

CONTENTS
Word
Unit 1 – Basic Skills
Lesson 1: Creating a Document
Lesson 2: Formatting Characters
Lesson 3: Writing Tools
Lesson 4: Formatting Paragraphs
Unit 2 – Paragraph Formatting, Tabs, and Advanced Editing
Lesson 5: Tabs and Tabbed Columns
Lesson 6: Move and Copy
Lesson 7: Find and Replace
Unit 3 – Page Formatting
Lesson 8: Margins and Print Options
Lesson 9: Page and Section Breaks
Lesson 10: Page Numbers, Headers, and Footers
Lesson 11: Styles and Themes
Lesson 12: Templates
Excel
Unit 1 – Introduction to Excel
Lesson 1: Getting Acquainted with Excel
Lesson 2: Developing Workbooks
Lesson 3: Developing and Editing Formatting Skills
Unit 2 – Working with Formulas and Functions
Lesson 4: Exploring Formula Basics
Lesson 5: Exploring Function and Argument Basics
Lesson 6: Using Dates, Times, and Logical Functions
Unit 3 – Presenting and Analyzing Worksheet Data
Lesson 7: Building Worksheet Charts
Lesson 8: Working with Excel Tables
Lesson 9: Using What-If Analysis Tools
Access
Unit 1 – Understanding Access Databases
Lesson 1: Getting Started with a Database
Lesson 2: Viewing and Modifying Records
Lesson 3: Finding, Filtering, Sorting, and Summarizing Data
Lesson 4: Creating New Databases and Tables
Unit 2 – Designing and Managing Database Objects
Lesson 5: Managing Data Integrity
Lesson 6: Designing Queries
Lesson 7: Adding and Modifying Forms
Lesson 8: Adding and Modifying Reports
PowerPoint
Unit 1 – Basic Skills
Lesson 1: Getting Started in PowerPoint
Lesson 2: Developing Presentation Text
Lesson 3: Revising Presentation Text

WINDOWS 7
by Linda I. O’Leary, Independent
2011 (July 2011) / 608 pages
ISBN: 9780077331252
www.mhhe.com/oleary

CONTENTS
Windows 7 Overview
System Software
Application Software
Microsoft Windows 7
Case Study for Windows 7 Tutorials
Before You Begin
Instructional Conventions
Lab 1
Windows 7 Basic Skills
Objectives
Case Study
Concept Overview
Starting Windows 7
Turning on the Computer
Using the Mouse
Exploring the Desktop
Using Windows 7
Using the Start Menu
Starting Windows Help and Support
Working with Windows
Sizing and Moving Windows
Scrolling a Window
Using Help and Support
Navigating Help and Support
Using the Browse Help Feature
Searching Help
Printing a Help Topic
Using Dialog Boxes
Using the Options Menu
Starting Windows Help
Using Folder Windows
Exploring the Computer Window
Changing the Window Layout
Navigating the Folder Window
Changing Folder Views
Sorting Files and Folders
Viewing and Organizing Pictures
Using the Pictures Folder
Using Windows Photo Gallery
Shutting Down Windows 7
Lab 2
File Management
Objectives
Case Study
Concept Overview
Managing Files Using Folders
Using the Folders List
Using the Address Bar
Creating Folders
Renaming Folders
Deleting Folders
Customizing a Folder  
Working with Files  
Copying Using the Menu  
Adding File Properties  
Filtering, Grouping, and Stacking  
Using Drag and Drop  
Selecting Nonadjacent Files  
Renaming and Deleting Files  
Using the Recycle Bin  
Searching Your Computer  
Finding Files  
Narrowing the Search  
Running Applications  
Starting NotePad  
Opening a File  
Editing a Document  
Printing a Document  
Saving a File

**Lab 3**  
Using Applications  
Objectives  
Case Study  
Concept Overview  
Using Shortcut Icons  
Creating a Shortcut  
Opening a File  
Using WordPad  
Editing the Document  
Formatting Text  
Saving the Document to the Desktop  
Creating a Graphic  
Creating a Blank Document Icon  
Starting Paint  
Drawing with Paint  
Adding Color  
Using the Brush Tool  
Using the Eraser  
Using the Airbrush Tool  
Creating a Custom Color  
Copying between Documents  
Copying to Another File  
Editing an Embedded Object  
Previewing, Printing, and Saving the Document  
Cleaning up the Desktop

**MICROSOFT OFFICE 2007 BRIEF:**  
**A PROFESSIONAL APPROACH**

*by Deborah Hinkle, John Carter, New Mexico State University-Las Cruces, Kathleen Stewart, Pat R. Graves, Eastern Illinois University, Amie Mayhall, Olney Central College, and Jon Juarez*

2010 (January 2009) / Spiral Bound/Comb / 976 pages  
ISBN: 9780073519265  
www.mhhe.com/pas07brief

The Hinkle, Professional Approach Series for Office 2007 BRIEF text is a more concise text of the Hinkle, Professional Approach Office 2007 text. It is briefer with all of the end of chapter projects and material relocated online. The PAS text offers an entirely new way of mastering Office 2007 applications. Using unique exercises from realistic business situations, this step-by-step approach is supported by a colorful graphics program. The series is ideal for students new to the world of computers, yet in-depth enough to challenge more savvy users. Each lesson contains up to 25 skill applications and each unit contains up to 5 skill applications that take students from simple to complex situations. Each of the individual application books are approved courseware for the MCAS Certification exams. This “Learn by Doing” text is very hands on and provides a clear learning path with learning objectives so students see the skills they know and the ones they don’t. This text also correlates with SimNet Online, our online training and assessment program for Office 2007.
OFFICE 2007 WINDOWS VISTA VERSION
by Linda I. O'Leary, Independent
2010 (February 2009) / Spiral Bound/Comb / 1408 pages
ISBN: 9780073519272
www.mhhe.com/oleary

Timothy and Linda O'Leary and the Computer Information Technology Team at McGraw-Hill Higher Education offer your students a fully integrated learning program with time-tested quality and reliability. It’s theme of ‘Making Office Relevant’ helps students understand why they need this course and these skills. Student success is assured through clear step-by-step instruction, plentiful screen captures and conceptual explanations, UPDATED FOR VISTA USERS! Each Lab, designed to be covered in 1 hour of class time, combines conceptual coverage with detailed software-specific instructions. Each Lab opens with a running case study that highlights real-world applications of each software program and leads students from problem to solution. The O'Leary Series helps students learn specific applications skills along with those that cross all Office applications, which is especially important in mastering this version of Office. The O'Leary Series also correlates with SimNet Online, our online training and assessment program for Office 2007.

CONTENTS
Introduction to Computer Essentials
Objectives
• Introduction
• Information Systems
• People
• Software
• Hardware
• Data
• Connectivity, the Wireless Revolution, and the Internet

Introduction to Microsoft Office 2007
Objectives
• What is the 2007 Microsoft Office System?
• Common Office 2007 Interface Features

Lab 1: Creating and Editing a Document
Introducing Office Word 2007
• Viewing and Zooming a Document
• Creating New Documents
• Entering Text
• Moving through Text
• Identifying and Correcting Errors Automatically
• Specifying Document Properties
• Saving, Closing, and Opening Files
• Navigating a Document
• Editing Documents
• Formatting a Document
• Working with Graphics
• Enhancing the Page
• Printing a Document
• Exiting Word
• Focus on Careers

Lab 2: Revising and Refining a Document
Revising a Document
• Moving and Copying Selections
• Controlling Document Paging
• Finding and Replacing Text
• Inserting the Current Date
• Modifying Page Layout
• More Character Formatting
• Creating Lists
• Using Quick Parts
• Adding and Modifying Shapes
• Previewing and Editing Multiple Pages
• Setting Page Margins
• Printing the Document
• Focus on Careers

Lab 3: Creating Reports and Tables
Creating and Modifying an Outline
• Saving to a New Folder
• Hiding Spelling and Grammar Errors
• Creating a Cover Page
• Using Document Themes
• Inserting a Blank Page
• Applying a Quick Style
• Creating a Table of Contents
• Navigating a Document
• Including Source References
• Including Footnotes
• Formatting Picture Layout
• Referencing Figures
• Creating a Simple Table
• Including a Table of Figures
• Creating a Bibliography
• Creating Headers and Footers
• Redisplaying Spelling and Grammar Errors
• Updating a Table of Contents
• Printing Selected Pages
• Focus on Careers

Working Together 1: Word 2007 and Your Web Browser
Case Study
• Saving a Word Document as a Web Page
• Making Text Changes
• Changing the Picture Layout
• Applying Page Color
• Changing Bullet Styles
• Creating a Hyperlink
• Previewing the Page
• Making a Web Page Public

Office Excel 2007
Overview of Microsoft Office Excel 2007
Lab 1: Creating and Editing a Worksheet
Introducing Office Excel 2007
• Starting Excel 2007
• Creating New Worksheets
• Entering and Editing Data
• Entering Text
• Changing Column Widths
• Saving, Closing, and Opening Workbooks
• Using Proofing Tools
• Duplicating Cell Contents
• Working with Formulas
• Inserting and Deleting Rows and Columns
• Formatting the Worksheet
• Entering the Date
• Previewing and Printing a Worksheet
• Exiting Excel 2007
• Focus on Careers

Lab 2: Charting Worksheet Data
Improving the Appearance of the Worksheet
• Working with Charts
• Creating and Formatting a Pie Chart
• Setting File Properties
• Preparing the Worksheet and Charts for Printing
• Focus on Careers

Lab 3: Managing and Analyzing a Workbook
Correcting Worksheet Errors
• Working with Sheets
• Finding and Replacing Information
• Saving to a New Folder
• Managing Large Workbooks
• Forecasting Values
• Using Conditional Formatting
• Customizing Print Settings
• Focus on Careers

Case Study
• Sharing Information Between Applications
Computer Information Technology

* Linking Between Applications
* Deciding When to Link or Embed Objects

Office Access 2007
Overview of Microsoft Office Access 2007
Lab 1: Creating a Database
Designing a New Database
  * Creating and Naming the Database File
  * Using Datasheet View
  * Using Design View
  * Entering and Editing Data
  * Changing Column Width
  * Deleting Records
  * Creating a Second Table
  * Previewing and Printing a Table
  * Closing and Opening a Table and Database
  * Exiting Access
  * Focus on Careers
Lab 2: Modifying and Filtering a Table and Creating a Form
Navigating a Large Table
  * Customizing and Inserting Fields
  * Hiding and Redisplaying Fields
  * Creating a Lookup Field
  * Finding and Replacing Data
  * Sorting Records
  * Formatting the Datasheet
  * Filtering a Table
  * Creating and Using Forms
  * Organizing the Navigation Pane
  * Previewing and Printing a Form
  * Identifying Object Dependencies
  * Setting Database and Object Properties
  * Focus on Careers
Lab 3: Querying Tables and Creating Reports
Refining the Database Design
  * Defining and Modifying Relationships
  * Creating a Filter
  * Querying a Database
  * Displaying a Totals Row
  * Creating Reports
  * Preparing Records for Printing
  * Compacting and Backing Up the Database
  * Focus on Careers
Working Together 1: Exporting Data
Case Study
  * Exporting Data

Office PowerPoint 2007
Overview of Microsoft Office PowerPoint 2007
Lab 1: Creating a Presentation
Introducing Office PowerPoint 2007
  * Developing New Presentations
  * Viewing the Presentation
  * Editing a Presentation
  * Saving, Closing, and Opening a Presentation
  * Checking Spelling
  * Working with Slides
  * Rehearsing a Presentation
  * Formatting Slide Text
  * Working with Graphics
  * Previewing and Printing the Presentation
  * Exiting PowerPoint
  * Focus on Careers
Lab 2: Modifying and Refining a Presentation
Replacing Text
  * Creating a Simple Table
  * Modifying and Creating Graphic Objects
  * Working with Text Boxes
  * Changing the Presentation Design
  * Working with Master Slides
  * Adding Animation Effects
  * Controlling the Slide Show
  * Adding Speaker Notes
  * Documenting a File
  * Customizing Print Settings
  * Focus on Careers
Lab 3: Using Advanced Presentation Features
Creating a Presentation from Multiple Sources
  * Creating an Organization Chart
  * Adding Interest to the Presentation
  * Delivering Presentations
  * Publishing a Presentation
  * Focus on Careers
Working Together 1: Copying, Embedding, and Linking Between Applications
Case Study
  * Reviewing a Presentation
  * Copying Between Applications
  * Embedding a Presentation
Command Summary
Glossary of Key Terms
Appendix: More about Office 2007
Reference 1
Reference 2
Index

Word Intro

MICROSOFT OFFICE WORD 2010: A CASE APPROACH
INTRODUCTORY
by Linda I. O'Leary, Independent
2011 (June 2010) / Softcover / 384 pages
ISBN: 9780077331283
www.mhhe.com/oleary

Timothy and Linda O'Leary and the Computer Information Technology Team at McGraw-Hill Higher Education offer your students a fully integrated learning program with time-tested quality and reliability. Office 2010: A Case Approach offers running case study throughout the text to help students understand the material in a consistent, relevant environment. Through this theme of “Making Office Relevant,” this text helps students understand why they need this course and these skills. Student success is assured through clear step-by-step instruction, plentiful screen captures and conceptual explanations. Each Lab, designed to be covered in 1 hour of class time, combines conceptual coverage with detailed software-specific instructions. Each Lab opens with a running case study that highlights real-world applications of each software program and leads students from problem to solution. The O'Leary Series helps students learn specific applications skills along with those that cross all Office applications, which is especially important in mastering this version of Office. The O'Leary Series also correlates with SimNet Online, our online training and assessment program for Office 2010.

 CONTENTS
Word
Lab 1 – Creating and Editing a Document
Lab 2 – Revising and Refining a Document
Lab 3 – Creating Reports and Tables
Working Together 1 – Word 2010 and Your Web Browser
MICROSOFT OFFICE WORD 2010:
A CASE APPROACH
COMPLETE
by Linda I. O'Leary, Independent
2011 (March 2011) / Softcover / 576 pages
ISBN: 9780077331276

www.mhhe.com/oleary

Timothy and Linda O'Leary and the Computer Information Technology Team at McGraw-Hill Higher Education offer your students a fully integrated learning program with time-tested quality and reliability. Office 2010: A Case Approach offers running case study throughout the text to help students understand the material in a consistent, relevant environment. Through this theme of Making Office Relevant, this text helps students understand why they need this course and these skills. Student success is assured through clear step-by-step instruction, plentiful screen captures and conceptual explanations. Each Lab, designed to be covered in 1 hour of class time, combines conceptual coverage with detailed software-specific instructions. Each Lab opens with a running case study that highlights real-world applications of each software program and leads students from problem to solution. The O'Leary Series helps students learn specific applications skills along with those that cross all Office applications, which is especially important in mastering this version of Office. The O'Leary Series also correlates with SimNet Online, our online training and assessment program for Office 2010.

CONTENTS
Lab 1 Creating and Editing a Document
Creating New Documents
Developing a Document
Exploring the Word 2010 Window
Changing the Document View
Entering Text
Typing Text
Ending a Line and Inserting Blank Lines
Revealing Formatting Marks
Identifying and Correcting Errors Automatically
Checking Grammar
Checking Spelling
Using AutoCorrect
Using Word Wrap
Editing Documents
Inserting Text
Replacing Text
Deleting Text
Undoing Editing Changes
Changing Case
Moving and Copying Selections
Using Copy and Paste
Using Cut and Paste
Using Drag and Drop
Formatting a Document
Changing Fonts and Font Sizes
Formatting Character
Setting Paragraph Alignment
Clearing Formats
Working with Graphics
Inserting a Picture from Files
Inserting a Picture from Clip Art
Deleting a Graphic
Sizing a Graphic
Adding a Watermark
Modifying Document Properties
Printing a Document
Previewing the Document

Working with Templates
Replacing Placeholders
Entering Body Text
Exiting Word
Lab 2 Revising and Refining a Document
Revising a Document
Spell-Checking the Entire Document
Using the Thesaurus
Working with Multiple Documents
Arranging and Scrolling Windows
Copying between Documents
Controlling Document Paging
Inserting a Hard Page Break
Finding and Replacing Text
Finding Text
Replacing Text
Inserting the Current Date
Modifying Page Layout
Indenting paragraphs
Setting tab stops
Adding Leader Characters
Changing Line and Paragraph Spacing
Formatting Text
Adding Color Highlighting
Underlining Text
Copying Formats with Format Painter
Creating Lists
Numbering a List
Bulleted a List
Sorting a List
Using Quick Parts
Using Supplied Building Blocks
Creating a Custom Building Block
Adding and Modifying Shapes
Inserting a Shape
Changing the Shape Style
Filling the Shape with Color
Adding Text to a Shape
Moving an Object
Finalizing the Document
Using a Picture Style
Adding a Page Border
Setting Page Margins
Securing Content and Sharing Documents
Setting File Compatibility
Checking for Private Information
Sharing a Document
Preparing and Printing Envelopes
Entering Addresses
Selecting Envelopes
Lab 3 Creating Reports and Tables
Using Quick Styles
Applying Heading Styles
Navigating a Document
Browsing by Headings
Browsing by Pages
Creating a Cover Page
Inserting a Cover Page
Modifying a Cover Page
Using Document Themes
Applying a Theme
Customizing a Theme
Saving a Custom Theme
Creating a Table of Contents
Inserting a Blank Page
Generating a table of Contents
Modifying a Table of Contents
Using a Table Contents Hyperlink
Creating a Custom Quick Style
Including Source References
Selecting a Reference Style
Creating Citations
Editing a Source
Including Footnotes
Inserting Footnotes in Draft View
Inserting Footnotes in Print Layout View
Formatting Picture Layout
Wrapping Text around Graphics
Referencing Figures
Adding a Figure Caption
Adding a Cross-Reference
Using a Cross-Reference Hyperlink
Creating a Simple Table
Inserting a Table
Entering Data in a Table
Inserting a Row
Sizing a Column
Sizing a Table
Sorting a Table
Formatting a Table
Including a Table of Figures
Creating a Table of Figures
Modifying a Table of Figures
Updating a Table of Figures
Creating a Bibliography
Generating a Bibliography
Updating a Bibliography
Modifying a Bibliography
Creating an Index
Mark entries for Indexing
Create the Index
Update and Modify the Index
Creating Headers and Footers
Using a Predesigned Header
Modifying Header Settings
Changing Header Content
Inserting and Modifying the Date
Inserting and Modifying Page Numbers
Updating a Table of Contents
Printing Selected Pages
Working Together 1 Word 2010 and Your Web Browser
Creating a Web Page
Saving a Word Document as a Web Page
Modifying the Web Page
Making Text Changes
Changing the Picture Layout
Applying Page Color
Changing Bullet Styles
Linking Pages
Creating a Hyperlink
Testing a Hyperlink
Previewing the Page
Making a Web Page Public
Lab 4 Creating a Newsletter
Using WordArt to Create a Newsletter Headline
Selecting a WordArt Shape
Changing WordArt Shape and Size
Changing WordArt Fill and Line Color
Modifying Character Spacing
Creating Horizontal Rules
Researching Information on the Web
Using the Research Tool
Inserting a Screenshot
Copying Between Applications
Using the Office Clipboard
Copying Items to the Office Clipboard
Pasting Items from the Office Clipboard
Using Bookmarks
Adding a Bookmark
Moving to Bookmarks
Deleting a Bookmark
Creating a New Style
Creating Newsletter-Style Columns
Applying a Two-Column Layout
Applying a Three-Column Layout
Sizing Columns
Using Hyphenation and Justification
Adding Borders and Shading to Paragraphs
Creating Text Boxes
Inserting a Text Box
Formatting a Text Box
Linking Text Boxes
Inserting a Text Box Using the Building Blocks Organizer
Formatting Illustrations
Cropping and Compressing a Picture
Adjusting Contrast and Brightness
Applying Picture Effects
Rotating a Picture
Refining the Newsletter
Adding a Drop Cap
Using Special Characters and Symbols
Customizing Bullets
Finalizing the Newsletter
Refining the Layout and Position of Graphics
Printing the Newsletter
Lab 5 Creating Complex Tables, Charts and Graphics
Working with Grouped Objects
Arranging Graphic Objects
Selecting Objects to Group
Modifying an Object within a Group
Sizing and Copying a Grouped Object
Creating a Complex Table
Using Draw Table
Inserting a Column
Performing Calculations in a Table
Calculating a Sum
Updating a Calculation
Enhancing a Complex Table
Merging Table Cells
Changing Text Orientation
Adjusting Number Spacing
Adding Cell Shading
Changing Page Orientation
Sizing Rows and Columns
Changing Cell Margins and Centering Vertically
Removing Table Border Lines
Creating a Chart
Selecting the Chart Type
Specifying the Chart Data
Sizing the Chart
Modifying the Chart
Creating a Multilevel List
Choosing the List Style
Typing the List
Changing the List Level
Changing List Styles
Creating a Custom Template
Modifying the Template
Saving the Template
Using the Template
Creating an Organization Chart
Selecting a SmartArt Graphic
Adding Text to the Organization Chart
Adding and Deleting Shapes
Changing the Diagram Layout
Enhancing the Organization Chart
Lab 6 Creating Forms, Using Mail Merge and Reviewing Documents
Creating a Form
Converting Text to a Table
Adding Lines
Adding Form Controls
Preparing the Form for Use
Checking for Private Information

Computer Information Technology
Marking a Document as Final
Adding a Digital Signature
Protecting the Form
Adding Text Content Controls
Protecting and Testing the On-screen Form
Using Collaboration Features
Tracking Changes to a Document
Adding Comments
Viewing Changes
Changing Tracking Options
Comparing and Merging Documents
Accepting and Rejecting Changes
Reviewing Comments
Using Mail Merge
Creating the Main Document
Creating the Data Source
Entering Merge Fields in the Main Document
Previewing the Merged Letter
Printing the Merged Letter
Printing Mailing Labels
Working Together 2: Copying, Linking and Embedding between Applications
Copying between Applications
Linking between Applications
Updating a Linked Object
Editing Links
Embedding an Object in another Application
Updating an Embedded Object

UNIT 1 – BASIC SKILLS
Lesson 1: Creating a Document
Lesson 2: Formatting Characters
Lesson 3: Writing Tools
Lesson 4: Formatting Paragraphs

UNIT 2 – PARAGRAPH FORMATTING, TABS, AND ADVANCED EDITING
Lesson 5: Tabs and Tabbed Columns
Lesson 6: Move and Copy
Lesson 7: Find and Replace

UNIT 3 – PAGE FORMATTING
Lesson 8: Margins and Print Options
Lesson 9: Page and Section Breaks
Lesson 10: Page Numbers, Headers, and Footers

UNIT 4 – TABLES AND COLUMNS
Lesson 11: Styles and Themes
Lesson 12: Templates
Unit 4 – Tables and Columns
Lesson 13: Tables
Lesson 14: Advanced Tables
Lesson 15: Columns
Unit 5 – Graphics and Charts
Lesson 16: Graphics
Lesson 17: Text Boxes
Lesson 18: SmartArt and Charts
Unit 6 – Advanced Topics
Lesson 19: Mail Merge
Lesson 20: Fields and Forms
Lesson 21: Macros

UNIT 5 – GRAPHICS AND CHARTS
Lesson 22: Footnotes
Lesson 23: Outlines, Indexes, and Tables of Contents
Lesson 24: Sharing Your Work and Hyperlinks

UNIT 6 – ADVANCED TOPICS
Lesson 19: Mail Merge
Lesson 20: Fields and Forms
Lesson 21: Macros

UNIT 7 – LONG DOCUMENTS AND DOCUMENT SHARING
Lesson 22: Footnotes
Lesson 23: Outlines, Indexes, and Tables of Contents
Lesson 24: Sharing Your Work and Hyperlinks
Excel Complete

MICROSOFT OFFICE EXCEL 2010
A PROFESSIONAL APPROACH
COMPLETE
by Kathleen Stewart
2011 (July 2010) / Spiral Bound/Comb / 832 pages
ISBN: 9780077331214
www.mhhe.com/lessonapproach2010

This comprehensive and understandable Excel text sets your students on the way to becoming a proficient Microsoft Excel 2010 user. Each component talks to your students in a conversational, motivational tone to promote confidence, knowledge, and skill development. In 18 lessons, students follow a time-tested approach as they move from simple to complex learning. The lessons, tasks, and activities relate to AllAround Vision Care, a fictional eye care group that has a relationship with non-profit entities. This combination reinforces typical business Excel work and expands the student’s awareness into other potential uses. Many exercises and tasks incorporate global and environmental concerns, too. A lesson includes explanatory exercises, relevant figures, notes, tips, and reviews. End-of-lesson activities are coordinated with lesson content so that you can assign some of them at various points throughout the lesson. An annotated instructor’s edition is available on the Online Learning Center, along with test bank questions, unit exams and projects, data and solution files, and answer keys. And for skill exploration, there are coordinated GoogleDocs projects on the OLC, too. The text is also supported by SimNet Online for Office 2010.

CONTENTS
Unit 1 – Introduction to Excel
Lesson 1: Getting Acquainted with Excel
Lesson 2: Developing Workbooks
Lesson 3: Developing and Editing Formatting Skills
Unit 2 – Working with Formulas and Functions
Lesson 4: Exploring Formula Basics
Lesson 5: Exploring Function and Argument Basics
Lesson 6: Using Dates, Times, and Logical Functions
Unit 3 – Presenting and Analyzing Worksheet Data
Lesson 7: Building Worksheet Charts
Lesson 8: Working with Excel Tables
Lesson 9: Using What-If Analysis Tools
Unit 4 – Expanding Workbook Skills
Lesson 10: Auditing and Validating Workbook Data
Lesson 11: Expanding Skills with Functions and Objects
Lesson 12: Consolidating Data and Linking Workbooks
Unit 5 – Exploring List, Data, and Table Features
Lesson 13: Exploring Data Commands and Tools
Lesson 14: Working with External Data Sources
Lesson 15: Using Data Tables and Pivot Tables
Unit 6 – Exploring Macros, Templates, and Shared Work
Lesson 16: Working with Macros
Lesson 17: Using Templates
Lesson 18: Sharing Work
INTERNATIONAL EDITION

MICROSOFT EXCEL 2007:
A PROFESSIONAL APPROACH
By Kathleen Stewart
2008 (June 2007) / Softcover / 864 pages
ISBN: 9780073519210
 ISBN: 9780071284042 [IE]
www.mhhe.com/pas07

The Professional Approach Series is designed for students unfamiliar with the Microsoft Office Suite, or even students who are nervous about trying to learn computer skills. It is ideal for students who are new to the world of computers, yet in-depth enough to teach and challenge more savvy users. Each lesson contains up to 25 skill-applications and 5 end-of-unit skill-applications that take students from simple to complex situations. The Office 2007 texts complete instruction in all skill sets and activities for the appropriate MCAS Exams.

CONTENTS
UNIT 1
Lesson 1 – Getting Started with Excel.
Lesson 2 – Creating a Workbook
Lesson 3 – Using Editing and Style Tools.
Lesson 4 – Exploring Home Tab Commands.
UNIT 2
Lesson 5 – Exploring Formula Basics.
Lesson 6 – Working with Functions.
Lesson 7 – Using Logical and Financial Functions.
Lesson 8 – Rounding and Nesting Functions.
UNIT 3 Lesson 9 – Building Charts.
Lesson 10 – Inserting Shapes.
Lesson 11 – Using Images and SmartArt Graphics.
UNIT 4
Lesson 12 – Using 3-D References.
Lesson 13 – Working with Tables.
Lesson 14 – Using Named Ranges and Structured References.
UNIT 5
Lesson 15 – Using Auditing Tools.
Lesson 16 – Using What-if Analysis.
Lesson 17 – Consolidating and Linking Workbooks.
UNIT 6 Lesson 18 – Using External Data Sources.
Lesson 19 – Exploring List Ranges.
Lesson 20 – Using Data Tables and PivotTables.
UNIT 7
Lesson 21 – Working with Macros.
Lesson 22 – Using Templates.
Lesson 23 – Using Workgroup Features.

MICROSOFT OFFICE ACCESS 2010
A CASE APPROACH
INTRODUCTORY
by Linda I. O'Leary, Independent
2011 (November 2010) / Softcover / 384 pages
ISBN: 9780077331320
www.mhhe.com/oleary

Timothy and Linda O'Leary and the Computer Information Technology Team at McGraw-Hill Higher Education offer your students a fully integrated learning program with time-tested quality and reliability. Office 2010: A Case Approach offers running case study throughout the text to help students understand the material in a consistent, relevant environment. Through this theme of "Making Office Relevant," this text helps students understand why they need this course and these skills. Student success is assured through clear step-by-step instruction, plentiful screen captures and conceptual explanations. Each Lab, designed to be covered in 1 hour of class time, combines conceptual coverage with detailed software-specific instructions. Each Lab opens with a running case study that highlights real-world applications of each software program and leads students from problem to solution. The O'Leary Series helps students learn specific applications skills along with those that cross all Office applications, which is especially important in mastering this version of Office. The O'Leary Series also correlates with SimNet Online, our online training and assessment program for Office 2010.

CONTENTS
Access
Lab 1 – Creating a Database
Lab 2 – Modifying and Filtering a Table and Creating a Form
Lab 3 – Querying Tables and Creating Reports
Working Together 1 – Exporting Data

REVIEW COPY
(Available for course adoption only)
To request for a review copy,
- contact your local McGraw-Hill representatives or,
- fax the Review Copy Request Form found in this catalog or,
- e-mail your request to
  mghasia_qg@mcgraw-hill.com or,
- submit online at www.mheducation.asia
## Access Complete

**MICROSOFT ACCESS 2010**
**A CASE APPROACH COMPLETE**
by Linda I. O'Leary, Independent
2011 (March 2011) / Softcover / 576 pages
ISBN: 9780077331351

Timothy and Linda O'Leary and the Computer Information Technology Team at McGraw-Hill Higher Education offer your students a fully integrated learning program with time-tested quality and reliability. Office 2010: A Case Approach offers running case study throughout the text to help students understand the material in a consistent, relevant environment. Through this theme of Making Office Relevant, this text helps students understand why they need this course and these skills. Student success is assured through clear step-by-step instruction, plentiful screen captures and conceptual explanations. Each Lab, designed to be covered in 1 hour of class time, combines conceptual coverage with detailed software-specific instructions. Each Lab opens with a running case study that highlights real-world applications of each software program and leads students from problem to solution. The O'Leary Series helps students learn specific applications skills along with those that cross all Office applications, which is especially important in mastering this version of Office. The O'Leary Series also correlates with SimNet Online, our online training and assessment program for Office 2010.

### CONTENTS

- Lab 1 Creating a Database
  - Designing a New Database
  - Creating a New Database
  - Creating a Table
  - Modifying Field Properties
  - Entering and Editing Records
  - Changing Column Width
  - Navigating Among Records
  - Deleting Records
  - Creating a Table in Design View
  - Creating Relationships
  - Setting Database and Object Properties
  - Previewing and Printing a Table
  - Closing and Opening a Database
  - Exiting Access

- Lab 2 Modifying and Filtering a Table and Creating a Form
  - Customizing Fields
  - Hiding and Redisplaying Fields
  - Creating a Lookup Field
  - Searching, Finding and Replacing Data
  - Sorting Records
  - Formatting the Datasheet
  - Filtering a Table
  - Creating a Simple Form
  - Modifying a Form
  - Using a Form
  - Organizing the Navigation Pane
  - Previewing and Printing a Form
  - Identifying Object Dependencies

- Lab 3 Querying Tables and Creating Reports
  - Refining the Database Design
  - Defining and Modifying Relationships
  - Creating a Query
  - Displaying a Totals Row
  - Creating Reports
  - Preparing Reports for Printing
  - Compacting and Backing Up the Database
  - Working Together 1 Exporting Data
  - Exporting Data

- Lab 4 Importing and Querying Tables
  - Importing Data
  - Controlling Field Input
  - Using Action Queries
  - Using Memo Fields
  - Adding a Multivalued Field
  - Using Calculations in Tables and Queries
  - Creating a Top-Values Query
  - Creating a Crosstab Query

- Lab 5 Creating Custom Forms
  - Creating a Split Form
  - Creating a Datasheet Form and Subform
  - Creating a Form for Multiple Tables
  - Changing Control Properties
  - Adding Label Controls
  - Enhancing Form Controls
  - Aligning and Spacing Controls
  - Adding Subforms
  - Setting Tab Order
  - Using Command Buttons
  - Creating Page Headers and Footers
  - Previewing a Form
  - Deleting a Form

- Lab 6 Creating Custom Reports, Charts, Pivot Charts and Mailing Labels
  - Creating a Grouped Report
  - Using the Report Wizard to Create a Grouped Report
  - Customizing the Report Layout
  - Enhancing the Report
  - Changing the Record Source
  - Using Calculated Controls in a Report
  - Applying Conditional Formatting
  - Printing a Grouped Report
  - Creating a Chart in a Report
  - Using Pivot Chart View
  - Creating Mailing Labels
  - Creating a Startup Display Form
  - Securing a Database
  - Working Together 2: Linking and Splitting Databases
  - Linking to External Data Sources
  - Splitting a Database
Computer Information Technology

MICROSOFT OFFICE ACCESS 2010: A LESSON APPROACH COMPLETE
by John Carter, New Mexico State University-Las Cruces, and Jon Juarez
2011 (September 2010) / Spiral Bound/Comb / 640 pages
ISBN: 9780077331245
www.mhhe.com/lessonapproach2010

Utilizing the author team of Deborah Hinkle, Kathleen Stewart, John Carter and Pat Graves from the former Professional Approach Series for Microsoft Office, this Office 2010: Lesson Approach series provides a fresh, clear, modular introduction of Microsoft Office 2010 skills. It's "Learn by Doing" theme is incorporated in each lesson so students can experience hands-on learning throughout the entire text. Students first focus on the introductory skills that are isolated in each lesson and then complete individual skill exercises that ensure a clear learning path. The application case studies provide even more context to the student so they can better associate lesson goals and themes. This text also correlates with SimNet Online for Office 2010, our online training and assessment program, and also SimGrader, our online project grader component which contains a full project library including projects from this Lesson Approach Series and also projects from our other Microsoft Office 2010 textbook series. Together, SimNet and SimGrader provide the complete solution for today's student learning Microsoft Office 2010.

CONTENTS
Unit 1 – Understanding Access Databases
Lesson 1: Getting Started with a Database
Lesson 2: Viewing and Modifying Records
Lesson 3: Finding, Filtering, Sorting, and Summarizing Data
Unit 2 – Designing and Managing Database Objects
Lesson 5: Managing Data Integrity
Lesson 6: Designing Queries
Lesson 7: Adding and Modifying Forms
Lesson 8: Adding and Modifying Reports
Unit 3 – Integrating Database Objects
Lesson 9: Building Links, Relationships, and Indexes
Lesson 10: Designing Advanced Queries
Lesson 11: Building Advanced Forms
Unit 4 – Using Advanced Database Features
Lesson 13: Advanced Database Features
Lesson 14: Using Special Controls and Tools
Lesson 15: Working with Macros and Modules

MICROSOFT OFFICE POWERPOINT 2010 A CASE APPROACH INTRODUCTORY
by Linda I. O'Leary, Independent
2011 (November 2010) / Softcover / 224 pages
ISBN: 9780077331344
www.mhhe.com/oleary

Timothy and Linda O'Leary and the Computer Information Technology Team at McGraw-Hill Higher Education offer your students a fully integrated learning program with time-tested quality and reliability. Office 2010: A Case Approach offers running case study throughout the text to help students understand the material in a consistent, relevant environment. Through this theme of "Making Office Relevant," this text helps students understand why they need this course and these skills. Updated for Office 2010, student success is assured through clear step-by-step instruction, plentiful screen captures and conceptual explanations. Each Lab, designed to be covered in 1 hour of class time, combines conceptual coverage with detailed software-specific instructions. Each Lab opens with a running case study that highlights real-world applications of each software program and leads students from problem to solution. Moreover, 25-50% of all end of chapter exercises are completely new. The O'Leary Series helps students learn specific applications skills along with those that cross all Office applications, which is especially important in mastering this version of Office. The O'Leary Series also correlates with SimNet Online, our online training and assessment program for Office 2010.

CONTENTS
PowerPoint
Lab 1 – Creating a Presentation
Lab 2 – Modifying and Refining a Presentation
Working Together 1 – Copying, Embedding, and Linking between Applications
Computer Information Technology

Powerpoint Complete

MICROSOFT OFFICE POWERPOINT 2010: A LESSON APPROACH COMPLETE
by Pat R. Graves, Eastern Illinois University, and Amie Mayhall, Olney Central College
2011 (July 2010) / Spiral Bound/Comb / 624 pages
ISBN: 9780077331191

www.mhhe.com/lessonapproach2010

Utilizing the author team of Deborah Hinkle, Kathleen Stewart, John Carter and Pat Graves from the former Professional Approach Series for Microsoft Office, this Office 2010: Lesson Approach series provides a fresh, clear, modular introduction of Microsoft Office 2010 skills. It’s “Learn by Doing” theme is incorporated in each lesson so students can experience hands-on learning throughout the entire text. Students first focus on the introductory skills that are isolated in each lesson and then complete individual skill exercises that ensure a clear learning path. The application case studies provide even more context to the student so they can better associate lesson goals and themes. This text also correlates with SimNet Online for Office 2010, our online training and assessment program, and also SimGrader, our online project grader component which contains a full project library including projects from this Lesson Approach Series and also projects from our other Microsoft Office 2010 textbook series. Together, SimNet and SimGrader provide the complete solution for today’s student learning Microsoft Office 2010.

CONTENTS
Unit 1 – Basic Skills
Lesson 1: Getting Started in PowerPoint
Lesson 2: Developing Presentation Text
Lesson 3: Revising Presentation Text
Unit 2 – Presentation Illustration
Lesson 4: Working with Images
Lesson 5: Creating Tables
Lesson 6: Creating Charts
Lesson 7: Creating SmartArt Graphics
Unit 3 – Visual Impact
Lesson 8: Customizing Colors and Effects
Lesson 9: Refining Original Illustrations
Lesson 10: Animating and Using Multimedia Effects
Lesson 11: Customizing Themes and Slide Masters
Unit 4 – Development and Distribution
Lesson 12: Integrating and Other Programs
Lesson 13: Preparing a Presentation for Delivery
Lesson 14: Preparing for Electronic Distribution

MICROSOFT® POWERPOINT 2010: A CASE APPROACH, COMPLETE
by Timothy J. O’Leary, Arizona State University-Tempe, and Linda I. O’Leary, Independent
2011 (August 2011) / Softcover / 512 pages
ISBN: 9780077331306

http://www.mhhe.com/oleary

Timothy and Linda O’Leary and the Computer Information Technology Team at McGraw-Hill Higher Education offer your students a fully integrated learning program with time-tested quality and reliability. Office 2010: A Case Approach offers running case study throughout the text to help students understand the material in a consistent, relevant environment. Through this theme of “Making Office Relevant,” this text helps students understand why they need this course and these skills. Student success is assured through clear step-by-step instruction, plentiful screen captures and conceptual explanations. Each Lab, designed to be covered in 1 hour of class time, combines conceptual coverage with detailed software-specific instructions. Each Lab opens with a running case study that highlights real-world applications of each software program and leads students from problem to solution. The O’Leary Series helps students learn specific applications skills along with those that cross all Office applications, which is especially important in mastering this version of Office. The O’Leary Series also correlates with SimNet Online, our online training and assessment program for Office 2010.

CONTENTS
Lab 1 Creating a Presentation
Starting a New Presentation
Editing a Presentation
Using Spelling Checker
Using Slide Sorter View
Selecting a Slide Layout
Changing a Placeholder
Formatting Slide Text
Working with Graphics
Rehearsing a Presentation
Documenting a File
Previewing and Printing the Presentation
Exiting Power Point
Lab 2 Modifying and Refining a Presentation
Finding and Replacing Text
Creating a Simple Table
Inserting and Enhancing Pictures
Inserting and Enhancing Shapes
Working with Text Boxes
Changing the Presentation Design
Working with Master Slides
Animating the Presentation
Preparing for the Slide Show
Adding Headers and Footers
Customizing Print Settings
Working Together 1: Copying, Embedding, and Linking between Applications
Copying between Applications
Embedding a Word Table in a PowerPoint Slide
Linking Between Applications
Printing Selected Slides
Lab 3 Using Advanced Presentation Features
Creating a Presentation from Multiple Sources
Creating a SmartArt Graphic
Creating an Organization Chart
Creating a Chart Slide
Creating a WordArt Object
Adding an Animated Graphic
Organizing Slides into Sections
Delivering Presentations
Creating Custom Shows
Lab 4 Creating a Presentation for a Kiosk and the Web
Modifying the Design Template
Customizing Graphics
Computer Information Technology

Inserting a Screenshot
Creating a Complex Table
Setting Up a Presentation for a Kiosk
Setting up the Presentation for Browsing
Publishing the Presentation on the Web
Saving a Presentation as a Design Template
Packaging Presentations for a CD
Working Together 2: Reviewing and Embedding a Presentation
Reviewing a Presentation
Embedding a Presentation

Training & Assessment

SIMGRADER FOR MICROSOFT OFFICE 2010
by Triad Interactive
2011 (August 2010)
ISBN: 9780073519364

Triad Interactive: SimGrader “Your Project Library” SimGrader is the most recent addition to SimNet Online, McGraw-Hill’s online training and assessment software for Microsoft Office skills and more. This online program provides automatic grading of projects for Microsoft Office Word, Excel and PowerPoint and can be used seamlessly within SimNet Online or can be used separately if needed. Available with a full project library, SimGrader offers the widest range of projects from any of our Office series. Moreover, this offers instructors the benefit of utilizing projects that are specifically related to their student’s needs and areas of study. SimNet and SimGrader are a completely online system that is easy-to-use for both instructors and students alike. Together, they provide an ideal solution for students to gain complete knowledge of Office skills and application.

Operating Systems

SURVEY OF OPERATING SYSTEMS
3rd Edition
by Charles Holcombe, and Jane Holcombe

2012 (March 2011) / Softcover / 448 pages
ISBN: 9780073518176

Holcombe, Survey of Operating Systems, 3e “Your Foundation for IT Success!” McGraw-Hill is proud to introduce the third edition of Jane and Charles Holcombe’s, Survey of Operating Systems. This edition is a unique revision of the successful previous editions. Every chapter has been updated to include more illustrations and hands-on activities for students building a foundation for IT success through a fundamental understanding of desktop operating systems, including Windows 7, Mac OS X, and Linux. Due to market feedback and customer response, the textbook has been streamlined to provide a new pedagogy, including more extensive coverage on security that is, presented earlier in the text, and a new chapter on Desktop Virtualization. Survey of Operating Systems offers today’s student a visual, interactive, and empowering approach to learning desktop operating systems so they can build their foundation for IT success!

CONTENTS
1 Introduction to Microcomputer Operating Systems
2 Computer Security Basics
3 Desktop Virtualization
4 Disk Operating System (DOS)
5 Windows XP Professional
6 Today’s Windows (Windows 7 and Windows Vista)
7 Under the Windows Desktop
8 Linux on the Desktop
9 Mac OS X
10 The Client Side of Networking
Glossary
Index
Making Outlook Work For You

NEW

Richard Nordell
American River College

2012 (January 2011) / Spiral Bound/Comb / 448 pages
ISBN: 9780073519289

www.mhhe.com/nordell

Randy Nordell Making Outlook 2010 Work for You “A Comprehensive Look at Outlook” With Microsoft Office 2010, Outlook has added valuable new features and has significant enhancements, including the addition of the ribbon format. This textbook, Making Outlook 2010 Work for You by Randy Nordell, provides a comprehensive solution for learning Outlook 2010. While starting with a foundation of E-mail, Calendar, Contacts, and Tasks in the first six chapters, the later half delves deeper into these essential topics to cover the advanced features available in Outlook. Making Outlook 2010 Work for You provides students and instructors with a blended approach of a step-by-step tutorial textbook and a reference text, thus allowing for continued learning both within the course and beyond! This textbook also correlates with SimNet Online, our online training and assessment program for Microsoft Office 2010.

Contents
Chapter 1: Outlook Overview
Chapter Flyover
Making Outlook Work For You
What Is Outlook?
Working With Outlook
Navigating Outlook
What's New in Outlook 2010?
Outlook As A Stand-Alone Program
Chapter Highlights
What Do You Know About Outlook?
Putting Outlook to Work
Chapter 2: E-Mail Basics
Chapter Flyover
Making Outlook Work For You
Types Of E-mail Accounts
Setting Up An E-Mail Account
Creating, Sending, And Receiving E-Mail
Handling Attachments
Understanding Arrangement And Icons
Cleaning Up Your Inbox
Chapter Highlights
What do You Know About Outlook?
Putting Outlook to Work
Chapter 3: E-Mail Special Features
Chapter Flyover
Making Outlook Work For You
Types Of E-Mail Format
Message Options
Voting Buttons
Customize Your E-Mail
Chapter Highlights
What Do You Know About Outlook?
Advanced Calendar Features
Chapter Highlights
What Do You Know About Outlook?
Putting Outlook to Work
Chapter 11: Notes, Journal, Search Folders, Shortcuts, and Archiving
Chapter Flyover
Making Outlook Work For You
Using Notes
Using The Journal
Using Search Folders
Using Shortcuts
Archiving Highlights
Chapter Highlights
What Do You Know About Outlook?
Putting Outlook to Work
Chapter 12: Sharing, Security, Search and User Interface
Chapter Flyover
Making Outlook Work For You
Sharing Your Outlook With Others
Security
Searching For Outlook Items
Customizing Outlook To Fit Your Needs
Chapter Highlights
What Do You Know About Outlook?
Putting Outlook to Work
Quick Tips And Troubleshooting
Appendix A: Setting Up Outlook For An On-Site Or Online Classroom Environment
Appendix B: Outlook Shortcuts
Appendix C: Outlook Quick Reference Guide
Appendix D: Exchange Server Versus Stand Alone Usage
Glossary
Index
ADVANCED PROGRAMMING USING VISUAL BASIC 2008
Fourth Edition
by Julia Case Bradley, Mt San Antonio College, and Anita C. Millspaugh, Mt San Antonio College
2010 (January 2009) / Softcover / 672 pages
ISBN: 9780073517223
ISBN: 9780071310079 [IE]
www.mhhe.com/AdvVB2008

The author team of Julia Bradley and Anita Millspaugh remain the guiding light for countless students around the world in Programming in Visual Basic 2008. How better to master the most popular object-oriented programming language than to use the bestselling textbook? Be at the cutting edge of technology with examples, feedback questions, and a full Hands-On Programming Example. Apply the concepts yourself with Case Studies and Exercises. Screen captures, step-by-step exercises, and thorough appendices ensure that Programming Excellence Begins Here.

CONTENTS
Chapter 1. Visual Studio and the .NET Framework 1
Chapter 2. Building Multitier Programs with Classes 49
Chapter 3. Windows Database Applications 105
Chapter 4. Windows Database using Related Tables 149
Chapter 5. Windows Database Updates 187
Chapter 6. Services 249
Chapter 7. Web Applications 275
Chapter 8. Web Database Applications 351
Chapter 9. Reports 403
Chapter 10. Collections 431
Chapter 11. User Controls 465
Chapter 12. Help Files 491

PROGRAMMING IN VISUAL C# 2008
Third Edition
by Julia Case Bradley, Mt San Antonio College, and Anita C. Millspaugh, Mt San Antonio College
2010 (January 2009) / Softcover / 704 pages
ISBN: 9780073517216
ISBN: 9780070172814 [IE]
www.mhhe.com/c#2008

Be sharp. Learn C#. Programming in Visual C# 2008 gives you a fresh and easily accessible approach to learning programming concepts using Visual C# for 2008, one of the most pervasive programming languages in the job market today. Best-selling authors Bradley and Millspaugh apply their proven pedagogy, incorporating basic concepts of programming, problem solving, and programming logic and design techniques to teach a mastery of Visual C# at an introductory level. A hands-on approach. Programming in Visual C# 2008 lets you begin programming in the very first chapter. Thought-provoking feedback questions and in-chapter tips are dispersed throughout so students can reflect on a topic introduced and evaluate their understanding of the details. Comprehensive Hands-On Programming Examples found in each chapter reinforce the programming logic and techniques learned in the chapter.

CONTENTS
Chapter 1 Introduction to Programming and Visual C# 2008 1
Chapter 2 User Interface Design 67
Chapter 3 Variables, Constants, and Calculations 107
Chapter 4 Decisions and Conditions 157
Chapter 5 Menus, Common Dialog Boxes, and Methods 217
Chapter 6 Multiform Projects 259
Chapter 7 Lists, Loops, and Printing 293
Chapter 8 Arrays 331
Chapter 9 Web Applications 369
Chapter 10 Database Applications 411
Chapter 11 Data Files 451
Chapter 12 OOP: Creating Object-Oriented Programs 481
Chapter 13 Graphics, Animation, Sound, and Drag-and-Drop 535
Chapter 14 Additional Topics in C# 571
Appendix A Answers to Feedback Questions 613
Appendix B Methods for Working with Dates, Mathematics, and String Operations 627
Appendix C Tips and Shortcuts for Mastering the Environment 635
Appendix D Security 653
Glossary 657
Index 668
Intro Programming course is estimated currently at 150-200,000 and growing. Visual Basic is taking over where BASIC, QBasic, and QuickBasic once dominated, in the Introductory Business Programming course. That trend will continue as VB continues to encroach on other less progressive languages such as COBOL and the Basic variations listed above within CIS and Business departments. The courses that can be supported by this text are not specific to any one type of institution, since VB in a Business course is largely a functional topic needed by all types of students from 2-4 year, to Vo-Tech, to extended, to even adult education.

**Contents**
1. Introduction to Visual Basic.
3. Variables, Constants, and Calculations.
6. Multiple Forms.
8. Arrays.
9. OOP-Creating Object-Oriented Programs.
10. Data Files.
11. Accessing Database Files.
12. Data Handling-Grids, Validation, Selection, and Sorting.
Appendix A Answers to Feedback Questions.
Appendix C Tips and Shortcuts for Mastering the VB Environment.
Appendix D A Preview of Microsoft’s VB.NET

**SCHUAUM’S OUTLINE OF VISUAL BASIC**
by Byron S Gottfried, University of Pittsburgh, Pittsburgh
2001 / 325 pages
ISBN: 9780071356718
(A Schaum’s Publication)

**CONTENTS**
Chapter 1: Introducing Visual Basic.
Chapter 2: Visual Basic Fundamentals.
Chapter 3: Branching and Looping.
Chapter 4: Visual Basic Control Fundamentals.
Chapter 5: Menus and Dialog Boxes.
Chapter 6: Executing and Debugging a New Project.
Chapter 7: Procedures.
Chapter 8: Arrays.
Chapter 9: Data Files.
Appendix A: The ASCII Character Set.
Appendix B: Incompatibilities with Visual Basic.NET.
Answers to Selected Problems.

**HTML**

**EVEN MORE EXCELLENT HTML WITH HTML REFERENCE GUIDE**
2nd Edition
by Timothy T. Gottleber, North Lake College and Timothy Trainor, Muskegon County Community College
2003
ISBN: 9780072561784

HTML texts from other academic publishers treat HTML in a step-by-step cookbook fashion, as though it were a simple software application, limiting the amount of material and concepts covered. Unique in the marketplace, Gottleber and Trainor’s Even More Excellent HTML combines the pedagogical support of academic texts with the comprehensive coverage found in trade books. No previous knowledge of HTML or Web design is assumed.

**CONTENTS**
Chapter 1 An HTML Overview.
Chapter 2 Your First Web Page.
Chapter 3 Links - Let’s Get Hyper.
Chapter 4 Lists - Bringing Order to the Chaos.
Chapter 5 Formatting - Is What You See What You Get?
Chapter 6 Images A Picture is Worth a 1,000 Words.
Chapter 7 Tables - Data in Rows and Columns.
Chapter 8 Styles - Some Have It and Some Don’t.
Chapter 9 Multimedia Beyond Static Web Pages.
Chapter 10 Frames - Divide and Conquer.
Chapter 11 Forms - Handling User Input.
Chapter 12 Jazzing Up Your HTML.
Chapter 13 JavaScript Programs for HTML.
Chapter 14 Images Maps and Dynamic HTML.
Chapter 15 XML Overview.
Chapter 16 Pragmatic Hypertext.
Appendix A Style Guides.
Appendix B Using File Transfer Protocol.
Appendix C History of the Internet.
HTML Reference Guide Contents.
Section A Summary of HTML 4.0 Elements.
Section B Summary of XML Elements (New).
Section C Style Properties and Values (old Appendix B).
Section D Common Character Sets (old Appendix C).
Section E Color blow-in/bind in page
Web literacy will be a basic skill as the cyber revolution gets the world up to speed. The World Wide Web is going to fundamentally change how we work and play.

CONTENTS
1. Introduction to Internet
2. Internet Technologies
3. Internet Browsers
4. Introduction to HTML
5. Head and Body
6. Designing the Body Section
7. Ordered and Unordered Listing
8. Table Handling
9. DHTML and Style Sheets
10. Frames

Schaum’s Outline of HTML
by David Mercer, AFC Computer Services
2002 / 360 pages
ISBN: 9780071210348 [IE]
(A Schaum’s Publication)
(International Edition is not for sale in Japan.)

Schaum’s Outline of HTML provides a succinct overview of the principles of Web design, HTML, and XHTML markup. Includes numerous examples where proper design techniques and markup are demonstrated. Offers pointers to copious additional resources, examples, and information on these topics online. Across all potential markets, there are over 400,000 students per year taking such courses at the college level; triple this number to account for high-school and adult/continuing education programs. This book is intended to provide a tightly focused, succinct overview of the concepts, terminology, techniques, and markup involved in creating effective, correct Web pages. It will include coverage of the most recent HTML specification (HTML 4.01), the current and pending XHTML specifications (XHTML 1.0 and 1.1), plus information about Web page design, layout, style sheets, frames and content management.

INTRODUCTION TO VIDEO GAME DESIGN AND DEVELOPMENT WITH STUDENT CD
by Joseph Saulter, American Intercontinental University
2007 / Softcover
ISBN: 9780073294025
ISBN: 9780071100472 [IE, with Student CD]
www.mhhe.com/saulter1e

This text offers a comprehensive introduction of the concepts and processes involved in video game design and development. This book is a text book for Game Design and Development Studies across the nation as well as internationally. Introduction to Video Game Design and Development is written for the student to learn and the educator to teach in a classroom setting. It is special because it is designed to stimulate creativity in the Game Design and Development Arena, to educate both the student and the teacher as an applied application.

CONTENTS
Brief Table of Contents.
Chapter 1 Overview of Games, Gameplay, and the Game Experience.
Chapter 2 Evolution of Video and Computer Games.
Chapter 3 Game Components: Part One.
Chapter 4 Game Components: Part Two
Chapter 5 Serious Games.
Chapter 6 The Game Development Team.
Chapter 7 Game Development Process Part One: Concept and Preproduction.
Chapter 8 Game Development Process Part Two: Production and Postrelease.
Chapter 9 The Business of Game Development, Current Gaming Trends, and the Future of Game Development.
Glossary
Learn the essentials of computer and network security while getting complete coverage of all the objectives for CompTIA’s Security+ certification exam, plus coverage of the (ISC)2 SSCP certification, which focuses on best practices, roles, and responsibilities of security experts. Written and edited by leaders in the IT security field, this text explains the fundamentals of communication, infrastructure, and operational security. You’ll also get details on methods to defend your computer systems and networks and how to prevent attacks.

Contents
3: Operational/Organizational Security.
4: The Role of People in Security.
5: Cryptography.
6: Public Key Infrastructure.
7: Standards and Protocols.
9: Network Fundamentals.
10: Infrastructure Security.
11: Remote Access.
14: Security Baselines.
15: Attacks and Malware.
16: E-mail.
17: Web Components.
18: Software Development.
19: Disaster Recovery, Business Continuity, and Organizational Policies.
20: Risk Management.
21: Change Management.
22: Privilege Management.
23: Computer Forensics.
24: Security and Law.
A: About the CD-ROM.
B: About the Security+ Exam

NEW TO THIS EDITION
➔ New chapter on Wireless Communication including discussion of IEEE Standards, Bluetooth, Wireless LANs, and Cellular Telephones
➔ 875 chapter-end exercises include 600 Objective-type Questions with Answers (True/False and Multiple-Choice Questions) and 275 Review Questions

Contents
1. Introduction to Data Communication and Networking (existing Chapter-1)
2. Analog and Digital Transmission Methods (existing-3)
3. Modes of Data Transmission and Multiplexing (existing Chapter-4)
4. Transmission Errors: Detection and Correction (existing Chapter-5)
5. Data Compression and Encryption (existing Chapter-6)
6. Transmission Media (existing Chapter-7)
7. Network Topologies, Switching and Routing Algorithms (existing Chapter-8)
8. Networking Protocols and OSI Model (existing Chapter-9)
9. Local Area Networks (LAN), Metropolitan Area Networks (MAN) and Wide Area Networks (WAN)
10. Medium Access Sub Layer and ISDN (renamed; existing Chapter-11)
11. X.25 Protocol (existing Chapter-12)
12. Frame Relay and Congestion Control (renamed; existing Chapter-13)
13. Asynchronous Transfer Mode (ATM) (existing Chapter-14)
14. Wireless Communication (New)
15. Internetworking Concepts, Devices, Internet Basics, History and Architecture (existing Chapter-15)
16. Ways of Accessing the Internet (existing Chapter-16)
17. TCP/IP Part I; An Introduction to TCP/IP, IP, ARP, RARP, ICMP (existing Chapter-17)
18. TCP/IP Part II (TCP, UDP) (existing Chapter-18)
19. TCP-IP Part III (DNS, Email, FTP, TFTP) (existing Chapter-19)
20. TCP-IP Part IV (WWW, HTTP, TELNET) (existing Chapter-20)
21. Multimedia Communications (existing Chapter-21)
Appendix A: Internet Protocol Version 6 (IPv6)
Appendix B: Hardware for Error Detection
Appendix C: Network Management and Monitoring
## Wireless Networking

### CONTENTS
1. Introduction to Wireless Networks.
2. Wireless Network Architectures.
4. RF Communications.
5. Wireless LAN Standards.
6. Infrared Devices.
8. Wireless LAN Planning and Design.
10. Antennas and Cables.
12. SOHO and Enterprise WLANs.
14. Wireless WANs.
15. Security and Virtual Private Networks (VPN)

---

## PRINCIPLES OF VOICE & DATA COMMUNICATIONS

by Regis “Bud” J. Bates, TC International Consulting, Inc. and Marcus Bates

2007 / Softcover / 816 pages
ISBN: 9780071257671 [IE]
www.mhhe.com/bates1e and http://www.mhhe.com/batesvdc

### CONTENTS
1. Principles of Voice and Data Communications-An Introduction.
2. The Evolution of the Telephone Set.
4. Signaling System 7, Intelligent Networks and Number Portability.
5. Analog versus Digital Communications.
6. Integrated Services Digital Network and SONET.
7. Data standards in Use.
8. Data Communications.
9. The Internet.
10. Local Area Networks (LANs).
12. xDSL.
13. Cable Modem Systems and Technology.
15. Security and Virtual Private Networks (VPN)
OCP JAVA SE 6 PROGRAMMER PRACTICE EXAMS (EXAM 310-065)
by Bert Bates, and Katherine Sierra
2011 (October 2010) / Softcover / 448 pages
ISBN: 9780072260885
(Osborne Media Professional Title)

Written by two of the lead developers of the Java SE Programmer Exam, OCP Java SE 6 Programmer Practice Exams is filled with more than 260 realistic practice questions to prepare you for this challenging exam. To help you understand this material, in-depth explanations of both the correct and incorrect answers are included for every question. This practical guide covers all official objectives for Exam 310-065 and is the perfect companion to SCJP Sun Certified Programmer for Java 6 Study Guide.

CONTENTS
Chapter 1: Self-Assessment Test 1
Chapter 2: Self-Assessment Test 2
Chapter 3: Practice Exam 1
Chapter 4: Coding Exercises
Chapter 5: Practice Exam 2
Chapter 6: Practice Exam 3
Chapter 7: Practice Exam 4
Appendix: Objectives Index

IT AUDITING USING CONTROLS TO PROTECT INFORMATION ASSETS
2nd Edition
by Chris Davis, Mike Schiller, and Kevin Wheeler
2011 (January 2011) / Hardcover / 512 pages
ISBN: 9780071742382
(Osborne Media Professional Title)

Filled with solid techniques, checklists, forms, coverage of leading-edge tools, and systematic procedures for common IT audits, IT Auditing, Second Edition covers real-life scenarios and fosters the skills necessary for auditing complex IT systems. Fully updated to cover new technology including cloud computing, virtualization, and storage, the book provides guidance on creating an effective and value-added internal IT audit function. Information is presented in easy-to-follow sections, allowing you to quickly grasp critical and practical techniques.

The Second Edition contains updated tools and checklists, as well as discussions of key concepts and methods for their effective use. This definitive guide offers a unique combination of 'how to' information on IT auditing for new auditors, and cutting-edge audit techniques for experienced professionals.

CONTENTS
Part I: Audit Overview;
Chapter 1. Building an Effective Internal IT Audit Function;
Chapter 2. The IT Audit Process;
Part II: Auditing Techniques;
Chapter 3. Auditing Entity Level Controls;
Chapter 4. Auditing Data Centers and Disaster Recovery;
Chapter 5. Auditing Routers, Switches, and Firewalls;
Chapter 6. Auditing Windows Operating Systems; Chapter 7. Auditing UNIX and Linux Operating Systems;
Chapter 8. Auditing Web Servers and Web Applications;
Chapter 9. Auditing Databases;
Chapter 10. Auditing Storage;

MULTIMEDIA MAKING IT WORK
8th Edition
by Tay Vaughan
2011 (November 2010) / Softcover / 560 pages
ISBN: 9780071748469
(Osborne Media Professional Title)

This thoroughly revised and updated full-color text covers the most current multimedia tools, techniques, and technologies, including Web and mobile content design and delivery

Multimedia: Making It Work, Eighth Edition teaches fundamental multimedia concepts and shows you the process of managing multimedia production. Beginning with the essential multimedia building blocks of text, images, sound, animation, and video, the book educates you on the business of making multimedia. Project planning, costs, design, production, talent acquisition, testing, and delivery are also covered.

Discussions of the most up-to-date technologies run throughout the chapters, with coverage of Multimedia Messaging Service (MMS), the architecture for multimedia content delivery used in mobile devices. Lab projects have been updated with applications of multimedia on the Web, such as shooting videos on a cell phone and uploading the results to websites. Both Windows and Mac environments are covered. Starting with this edition, software tools will be drawn from Open Source and shareware. Each chapter of the text focuses on highlighted learning objectives and includes chapter summaries, key term lists, end-of-chapter quizzes, and lab projects.

CONTENTS
Chapter 1. What is Multimedia;
Chapter 2. Text;
Chapter 3. Images;
Chapter 4. Sound;
Chapter 5. Animation;
Chapter 6. Video;
Chapter 7. Making Multimedia;
Chapter 8. Multimedia Skills;
Chapter 9. Planning and Costing;
Chapter 10. Design and Production;
Chapter 11. Content and Talent;
Chapter 12. The Internet and Multimedia;
Chapter 13. Designing for the Web;
Chapter 14. Delivering
PMP CERTIFICATION: A BEGINNER’S GUIDE
by George G. Angel
2010 (September 2009) / Softcover / 464 pages
ISBN: 9780071633703
( Osborne Media Professional Title)
This accessible guide bridges the gap between being a project manager and becoming a globally recognized Project Management Professional (PMP). Covering the latest PMP exam content from the Project Management Institute (PMI), the book explains PMI’s worldwide standards, methods, and processes. You’ll learn proven strategies for improving project efficiency and effectiveness, balancing constraints, communicating timely and accurate project status, and successfully bringing a project to completion. A real-world case study that follows throughout the book provides helpful examples, checklists, and proven project results.

CONTENTS
Part I: Essentials of Project Management and PMP Certification;
Chapter 1. Bridging the Gap Between PM and PMP;
Chapter 2. The Emerging World of Project Management;
Chapter 3. Project Management Process Groups;
Part II: The Nine Knowledge Areas;
Chapter 4. Project Integration Management;
Chapter 5. Project Scope Management;
Chapter 6. Project Time Management;
Chapter 7. Project Cost Management;
Chapter 8. Project Quality Management;
Chapter 9. Project Human Resource Management;
Chapter 10. Project Communication Management;
Chapter 11. Project Risk Management;
Chapter 12. Project Procurement Management;
Chapter 13. Clos ing the Project: Are We There Yet;
Index.

CWNA CERTIFIED WIRELESS NETWORK ADMINISTRATOR & CWSP CERTIFIED WIRELESS SECURITY PROFESSIONAL ALL-IN-ONE EXAM GUIDE (PW0-104 & PW0-204)
by Tom Carpenter
2010 (May 2010) / Hardcover / 800 pages
ISBN: 9780071713887
(Osborne Media Professional Title)
Get complete coverage of all the material included on the CWNA and CWSP exams inside this comprehensive resource. Written by a wireless systems expert, this authoritative guide covers exams PW0-104 and PW0-204 in full detail. You’ll find learning objectives at the beginning of each chapter, exam tips, practice exam questions, and in-depth explanations. Designed to help you pass these challenging exams with ease, this definitive volume also serves as an essential on-the-job reference.

CONTENTS
Part I: An Overview of SQL
Chapter 1. Introduction
Chapter 2. A Quick Tour of SQL
Chapter 3. SQL in Perspective
Chapter 4. Relational Databases
Part II: Retrieving Data
Chapter 5. SQL Basics
Chapter 6. Simple Queries
Chapter 7. Multitable Queries (Joins)
Chapter 8. Summary Queries
Chapter 9. Subqueries and Query Expressions
Part III: Updating Data
Chapter 10. Database Updates
Chapter 11. Data Integrity
Chapter 12. Transaction Processing
Part IV: Database Structure
Chapter 13. Creating a Database
Chapter 14. Views
Chapter 15. SQL Security
Chapter 16. The System Catalog
Part V: Programming with SQL
Chapter 17. Embedded SQL
Chapter 18. Dynamic SQL*
Chapter 19. SQL APIs
Part VI: SQL Today and Tomorrow
Chapter 20. Database Processing and Stored Procedural SQL
Chapter 21. SQL and Data Warehousing
Chapter 22. SQL and Application Servers
Chapter 23. SQL Networking and Distributed Databases
Chapter 24. SQL and Objects
Chapter 25. SQL and XML

SQL THE COMPLETE REFERENCE
3rd Edition
by James R. Groff, Paul N. Weinberg, and Andy Oppel
2010 / Softcover / 912 pages
ISBN: 9780071592550
(Osborne Media Professional Title)
Get comprehensive coverage of every aspect of SQL from three leading industry experts. Revised with coverage of the latest RDBMS software versions, this one-stop guide explains how to build, populate, and administer high-performance databases and develop robust SQL-based applications.

SQL: The Complete Reference, Third Edition shows you how to work with SQL commands and statements, set up relational databases, load and modify database objects, perform powerful queries, tune performance, and implement reliable security policies. Learn how to employ DDL statements and APIs, integrate XML and Java scripts, use SQL objects, build web servers, handle remote access, and perform distributed transactions. Techniques for managing in-memory, stream, and embedded databases that run on today’s mobile, handheld, and wireless devices are included in this in-depth volume.

CONTENTS
Part I: An Overview of SQL
Chapter 1. Introduction
Chapter 2. A Quick Tour of SQL
Chapter 3. SQL in Perspective
Chapter 4. Relational Databases
Part II: Retrieving Data
Chapter 5. SQL Basics
Chapter 6. Simple Queries
Chapter 7. Multitable Queries (Joins)
Chapter 8. Summary Queries
Chapter 9. Subqueries and Query Expressions
Part III: Updating Data
Chapter 10. Database Updates
Chapter 11. Data Integrity
Chapter 12. Transaction Processing
Part IV: Database Structure
Chapter 13. Creating a Database
Chapter 14. Views
Chapter 15. SQL Security
Chapter 16. The System Catalog
Part V: Programming with SQL
Chapter 17. Embedded SQL
Chapter 18. Dynamic SQL*
Chapter 19. SQL APIs
Part VI: SQL Today and Tomorrow
Chapter 20. Database Processing and Stored Procedural SQL
Chapter 21. SQL and Data Warehousing
Chapter 22. SQL and Application Servers
Chapter 23. SQL Networking and Distributed Databases
Chapter 24. SQL and Objects
Chapter 25. SQL and XML
Chapter 26. Specialty Databases
Chapter 27. The Future of SQL
Part VII: Appendixes
Appendix A. The Sample Database
Appendix B. DBMS Vendor Profiles
Appendix C. SQL Syntax Reference
Index

MAC OS X SYSTEM ADMINISTRATION
by Guy Hart-Davis
2010 (May 2010) / Softcover / 512 pages
ISBN: 9780071668972
(Osborne Media Professional Title)
Mac OS X System Administration is a task-based, hands-on implementation guide to setting up and administering networks based on the newest release of Mac OS X – Snow Leopard. The book assumes minimal starting knowledge of Snow Leopard Server, then moves the reader rapidly into a position of full practical knowledge. This detailed resource provides network administrators with the information they need to do their jobs smoothly and efficiently.

CONTENTS
Part I: Plan and Create the Network;
Chapter 1. Plan Your Mac Network;
Chapter 2. Set Up the Network Hardware;
Chapter 3. Set Up Mac OS X Servers;
Chapter 4. Configure Your Servers;
Chapter 5. Set Up Directory Services;
Chapter 6. Enable Client Systems;
Chapter 7. Create and Control Users;
Chapter 8. Add the iPhone or iPod Touch to Your Network;
Part II: Provide Services and Applications;
Chapter 9. Provide Internet Access and Internet;
Chapter 10. Connect E-mail;
Chapter 11. Set Up File Services;
Chapter 12. Install and Manage Applications;
Chapter 13. Run Windows Applications on Macs;
Chapter 14. Manage Printers;
Chapter 15. Allow Remote Access to Your Network;
Part III: Secure and Maintain Your Network;
Chapter 16. Secure Your Macs and Your Network;
Chapter 17. Maintain, Update, and Optimize Client Macs;
Chapter 18. Back Up and Restore Data;
Part IV: Create Different Types of Networks
Chapter 20. Use Windows Clients on a Mac-Based Network;
Chapter 21. Use Mac Clients on a Windows Network;
Chapter 22. Create Peer-to-Peer Mac Networks for Small Offices

ASP.NET 4.0 PROGRAMMING
by Joydip Kanjilal
2010 / Softcover / 400 pages
ISBN: 9780071604109
(Osborne Media Professional Title)
Deliver faster, lighter, more efficient distributed applications using the powerful technologies and tools available in ASP.NET 4.0 and Visual Studio 2010. Written by a Microsoft MVP in ASP.NET, this definitive guide lays out each development tactic alongside detailed code samples and real-world examples. Build feature-rich web applications, leverage the power of the ASP.NET MVC framework, interface with databases using ADO.NET, create modular Web Parts, integrate Dynamic Data controls, and deploy all-new Ajax and LINQ features. ASP.NET 4.0 Programming also covers the latest security, verification, tracing, and troubleshooting techniques.

CONTENTS
Chapter 1. Introduction to ASP.NET 4.0;
Chapter 2. ASP.NET State Management;
Chapter 3. Working with ADO.NET;
Chapter 4. Binding Data in ASP.NET;
Chapter 5. Building and Deploying ASP.NET Web Sites;
Chapter 6. Internationalization in ASP.NET;
Chapter 7. The ASP.NET Security Model;
Chapter 8. Tracing and Debugging in ASP.NET;
Chapter 9. Dynamic Data;
Chapter 10. Silverlight;
Chapter 11. Web Parts;
Chapter 12. Language Integrated Query (LINQ);
Chapter 13. ASP.NET Ajax;
Chapter 14. Programming ASP.NET Ajax;
Chapter 15. Web Services;
Chapter 16. Windows Communication Foundation;
Chapter 17. ASP.NET MVC Framework;
Chapter 18. Program ASP.NET MVC Framework;
Chapter 19. Working with jQuery in ASP.NET;
Chapter 20. Improving ASP.NET 4.0 Application;
Index

VMWARE VSPHERE 4 IMPLEMENTATION
by Mike Laverick
2010 (February 2010) / Softcover / 704 pages
ISBN: 9780071664523
(Osborne Media Professional Title)
Written by internationally recognized VMware expert Mike Laverick, this is an in-depth implementation guide to VMware's new suite of virtualization technologies, vSphere4. The book provides best practices for deploying the vSphere product in real-world enterprise environments. You will get insider tips for planning, designing, implementing, and securing a virtual infrastructure and automating tasks and procedures.

CONTENTS
Introduction
1 Installing ESX 4 Classic
2 Installing ESX 4i
3 Installing vCenter
4 Standard Networking
5 Distributed Virtual Networking (DVN)
6 Storage
7 Create and Modify VMs
8 Rapid VM
9 Access Control
10 Resource Monitoring
11 Resource Management
12 VMotion, Storage VMotion and Cold Migration
13 VMware Distributed Resource
Chapter 12: Intelligent Buildings and Mobility
Appendix A- Mobility definitions
Appendix B- Relevant IEEE mobility Standards
Appendix C- Key mobility groups to know

JAVASCRIPT: A BEGINNER'S GUIDE
3rd Edition
by John Pollock
2010 (September 2009) / Softcover / 512 pages
ISBN: 9780071632959
(Osborne Media Professional Title)
Create dynamic Web pages complete with special effects using today's leading Web development language. JavaScript: A Beginner's Guide, Third Edition gives you step-by-step coverage of the fundamentals, including variables, functions, operators, event handlers, objects, arrays, strings, forms, and frames. You'll also learn about more advanced techniques, including debugging and security. This hands-on guide explains how JavaScript works with XHTML Transitional and covers the new features available in JavaScript. Get started using JavaScript right away with help from this fast-paced tutorial.

CONTENTS
Ch. 1. Introduction to JavaScript
Ch. 2. Placing JavaScript in an HTML File
Ch. 3. Using Variables
Ch. 4. Using Functions
Ch. 5. JavaScript Operators
Ch. 6. Conditional Statements and Loops
Ch. 7. Event Handlers
Ch. 8. Objects
Ch. 9. The Document Object
Ch. 10. Window Object
Ch. 11. JavaScript Arrays
Ch. 12. Math, Number, and Date Objects
Ch. 13. Handling Strings
Ch. 14. JavaScript and Forms
Ch. 15. JavaScript and Frames
Ch. 16. An Introduction to Advanced Techniques
Appendix A. Answers to Self Tests
Index

CSS & XHTML: THE COMPLETE REFERENCE
5th Edition
by Thomas Powell
2010 (January 2010) / Softcover / 1008 pages
ISBN: 9780071496292
(Osborne Media Professional Title)
The fifth edition of this comprehensive resource on client side Web page creation provides full coverage of XHTML 1.0, 1.1, and the emerging HTML 5 standard; CSS (Cascading Style Sheets) 2.1; and browser-specific CSS rules adopted from the upcoming CSS 3 specification. You will learn, step-by-step, how to use all of these tools to build impressive Web pages.

CSS & XHTML: The Complete Reference, Fifth Edition covers the newest browser versions including Firefox 3, Internet Explorer 8, and Safari; the latest development trends; and current W3C standards. Hundreds of examples of correct markup and style are included.

Wireless Mobility covers the newest technologies, including WiFi, WiMAX, 802.11n, 802.15, mobile cellular, Zigbee, PTT, and more. This book will prepare IT and business-process stakeholders to lead the discussions on mobility and implement a wireless mobile network.

Neil Reid, wireless Cisco expert and bestselling author, incorporates the best of what has been learned from some of the most complex and challenging wireless deployments in the industry. Wireless Mobility discusses significant technical changes in the areas of the 802.11n standard, security, centralized architectures, advances in complex deployment practices, and Optimal Project Sequencing for complex enterprise class wireless networks.

CONTENTS
Chapter 1: The Big Picture
Chapter 2: Mobility- The Purpose Driven Network
Chapter 3: Mobility and the CIO
Chapter 4: Virtualization--the New Frontier
Chapter 5: Mobility Doesn't Make Things- It Makes Things Better
Chapter 6: Value Propositions and Success Metrics
Chapter 7: Optimal Project Sequencing
Chapter 8: Multi-Medium Mobility
Chapter 9: It's a Mad, Mad, Mad Unlicensed World
Chapter 10: Next Gen Mobility
Chapter 11: The Vendor Perspective

WIRELESS MOBILITY HANDBOOK
by Neil Reid
2010 (June 2010) / Softcover / 608 pages
ISBN: 9780071628624
(Osborne Media Professional Title)
Wireless Mobility covers the newest technologies, including WiFi, WiMAX, 802.11n, 802.15, mobile cellular, Zigbee, PTT, and more. This book will prepare IT and business-process stakeholders to lead the discussions on mobility and implement a wireless mobile network.

Neil Reid, wireless Cisco expert and bestselling author, incorporates the best of what has been learned from some of the most complex and challenging wireless deployments in the industry. Wireless Mobility discusses significant technical changes in the areas of the 802.11n standard, security, centralized architectures, advances in complex deployment practices, and Optimal Project Sequencing for complex enterprise class wireless networks.

CONTENTS
1 Stepping into Windows 7
2 Customizing Windows 7
3 Storing Information
4 Using the Internet
5 Managing Windows 7
6 Working with Documents and Photos
7 Working with Multimedia
8 Controlling Security
9 Setting up Networking
10 Using Networking

WINDOWS 7 QUICKSTEPS
by Marty Matthews
2010 / Softcover / 272 pages
ISBN: 9780071635691
(Osborne Media Professional Title)
Get started using Windows 7 right away--the QuickSteps way. Color screenshots with streamlined explanations show you how to use all the new and improved features of this sleek operating system. You'll find tips for customizing your desktop, managing files, connecting to the Internet, using email, adding hardware and software, and enjoying photos, music, and video. Learn how to set up a wired or wireless network and secure your entire system too. Get the book that gets you up-and-running on Windows 7 in no time.

CONTENTS
1 Upgrading from Vi3.5 to vSphere 4
2 Vmware Patch Management
3 Virtual Machine Backup
4 Vmware View (VDI) Jumpstart
5 Vmware Fault-Tolerance (FT)
6 Vmware Distributed Power Management
7 Vmware High Availability
8 Vmware Advanced Configuration Tools
9 vSphere Advanced Configuration Tools
10 Vmware Distributed Power Management
11 Vmware Fault-Tolerance (FT)
12 Vmware High Availability
13 Vmware Advanced Configuration Tools
14 Vmware Distributed Power Management
15 Vmware Fault-Tolerance (FT)
16 vSphere Advanced Configuration Tools
17 Vmware Advanced Configuration Tools
18 Vmware High Availability
19 vSphere Advanced Configuration Tools
20 Vmware Distributed Power Management
21 Upgrading from Vi3.5 to vSphere 4

CSS & XHTML: THE COMPLETE REFERENCE
5th Edition
by Thomas Powell
2010 (January 2010) / Softcover / 1008 pages
ISBN: 9780071496292
(Osborne Media Professional Title)
The fifth edition of this comprehensive resource on client side Web page creation provides full coverage of XHTML 1.0, 1.1, and the emerging HTML 5 standard; CSS (Cascading Style Sheets) 2.1; and browser-specific CSS rules adopted from the upcoming CSS 3 specification. You will learn, step-by-step, how to use all of these tools to build impressive Web pages.

CSS & XHTML: The Complete Reference, Fifth Edition covers the newest browser versions including Firefox 3, Internet Explorer 8, and Safari; the latest development trends; and current W3C standards. Hundreds of examples of correct markup and style are included.
WIRELESS NETWORK ADMINISTRATION: A BEGINNER'S GUIDE
by Wale Soyinka
2010 (July 2010) / Softcover / 464 pages
ISBN: 9780071639217
(Osborne Media Professional Title)

FEATURES
- Covers the latest in wireless networking; WiFi, 802.11, the new 802.11n standard, 802.15.4/Zigbee, and Bluetooth Personal Area Networks
- Covers both the US CDMA and European GSM standards
- Covers Linux, Windows, and Mac platforms

CONTENTS
Part I: Overview;
Chapter 1. Uses, Benefits, and Drawbacks of Wireless;
Chapter 2. Standards and Standards Bodies;
Chapter 3. Wave Theory and Radio Concepts;
Part II: Hardware;
Chapter 4. Client Side Devices;
Chapter 5. Infrastructure Side Devices;
Chapter 6. Chipsets;
Part III: Wireless Network Topologies and Design;
Chapter 7. Design Overview;
Chapter 8. Wireless Topologies;
Part IV: Wireless Infrastructure Backend;
Chapter 9. Importance of Backend Infrastructure;
Chapter 10. Standard Infrastructure Services and Protocols;
Chapter 11. Optional Infrastructure Services and Protocols;
Part V: Administering Users;
Chapter 12. Windows;
Chapter 13. MACs;
Chapter 14. Linux;
Part VI: Security;
Chapter 15. Wireless Security Vulnerabilities;
Part VII: Wireless LAN Trouble Shooting, Tuning and Monitoring;
Chapter 17. Spectrum Analyzers;
Chapter 18. WIDS and IDS

PRINCIPLES OF COMPUTER SECURITY, COMPTIA SECURITY+ AND BEYOND
2nd Edition
By Wm. Arthur Conklin, University Of Houston--Houston, Gregory B. White, University Of Texas At San Antonio, Dwayne Williams, Univ Of Texas At San Antonio, Roger L. Davis, Chuck Cothren, Univ Of Texas At San Antonio, And Corey Schou, Idaho State Univ
2010 / Softcover with CDROM / 730 pages
ISBN: 9780071633758
(Osborne Media Professional Title)

Learn the fundamentals of computer and information security while getting complete coverage of all the objectives for the latest release of CompTIA's Security+ certification exam. This instructive, full-color guide discusses communication, infrastructure, operational security, and methods for preventing attacks. Written and edited by leaders in the field, Principles of Computer Security, Second Edition will help you pass the CompTIA Security+ exam and become an IT security expert.

CONTENTS
Chapter 1. Introduction and Security Trends;
Chapter 2. General Security Concepts;
Chapter 3. Operational/Organizational Security;
Chapter 4. The Role of People in Security;
Chapter 5. Cryptography;
Chapter 6. Public Key Infrastructure;
Chapter 7. Standards and Protocols;
Chapter 8. Physical Security;
Chapter 9. Network Fundamentals;
Chapter 10. Infrastructure Security;
Chapter 11. Authentication and Remote Access;
Chapter 12. Wireless Security;
Chapter 13. Intrusion Detection Systems and Network Security;
Chapter 14. Baselines;
Chapter 15. Types of Attacks and Malicious Software;
Chapter 16. E-mail and Instant Messaging;
Chapter 17. Web Components;
Chapter 18. Secure Software Development;
Chapter 19. Disaster Recovery, Business Continuity, and Organizational Policies;
Chapter 20. Risk Management;
Chapter 21. Change Management;
Chapter 22. Privilege Management;
Chapter 23. Computer Forensics;
Chapter 24. Legal Issues and Ethics;
Chapter 25. Privacy;
Appendix A. Objectives Map: CompTIA Security+;
Appendix B. About the CD;
Glossary;
Index
Advanced MIS .................................................. 116
Data Communications / Telecommunications / Office Systems 114
Data Mining ........................................................................................................... 118
Decision Support Systems .................................................................................. 115
Enterprise Resource Planning .......................................................... 117
Introduction to Information Systems ........................................................ 101
Management Information Systems ........................................... 104
Object-Oriented System Analysis & Design ........................................ 113
Project Management ......................................................................................... 115
System Analysis & Design .................................................................................. 112
# New Titles

## MANAGEMENT INFORMATION SYSTEMS

### 2013

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Driven Technology, 5e</td>
<td>Baltzan</td>
<td>9780073376844</td>
<td>104</td>
</tr>
<tr>
<td>M: Information Systems, 2e</td>
<td>Baltzan</td>
<td>9780073376868</td>
<td>101,106</td>
</tr>
<tr>
<td>Annual Editions: Technologies, Social Media and Society, 18e</td>
<td>De Palma</td>
<td>9780073528731</td>
<td>111, 116</td>
</tr>
<tr>
<td>Management Information Systems for the Information Age, 9e</td>
<td>Haag</td>
<td>9780073376851</td>
<td>107</td>
</tr>
<tr>
<td>Introduction to Information Systems, 16e</td>
<td>Marakas</td>
<td>9780073376882</td>
<td>102,107</td>
</tr>
</tbody>
</table>

### 2012

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Driven Information Systems, 3e</td>
<td>Baltzan</td>
<td>9780073376820</td>
<td>102,107</td>
</tr>
</tbody>
</table>

### 2011

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Resource Planning</td>
<td>Goyal</td>
<td>9780071077972</td>
<td>117</td>
</tr>
</tbody>
</table>
Management Information Systems

Introduction to Information Systems

NEW

M: INFORMATION SYSTEMS
2nd Edition
By Paige Baltzan, University of Denver

2013 (January 2012) / 384 pages
ISBN: 9780073376868

www.mhhe.com/baltzanm2e

The visual impact of the magazine format will win students over quickly. They'll love the price. And the fascinating, sometimes hard-to-believe real examples will keep them reading. Baltzan's approach discusses various business initiatives first and how technology supports those initiatives second. The premise for this unique approach is that business initiatives drive technology choices in a corporation. Therefore, every discussion addresses the business needs first and addresses the technology that supports those needs second. This approach takes the difficult and often intangible MIS concepts, brings them down to the student's level, and applies them using a hands-on approach to reinforce the concepts. M: Information Systems provides the foundation that will enable students to achieve excellence in business, whether they major in operations management, manufacturing, sales, marketing, etc. M: Information Systems is designed to give students the ability to understand how information technology can be a point of strength in an organization.

NEW TO THIS EDITION

- Streamlined Table of Contents. This edition has been streamlined to include three modules with nine chapters.
- Completely Updated: This text has been completely updated to reflect the latest in research and practice in the work of Management Information Systems and ensures students are introduced to the latest technology utilized by today's businesses.
- Thoroughly updated examples throughout the text with the most current information available about the large number of companies of all sizes and industries (e.g., service, manufacturing, nonprofit, and profit) in the United States and around the world included in this text.
- NEW! Database Cohesion Case: This is a new product that mimics the original cohesion case on the Broadway Café and focuses on databases. The database case challenges your students to pull together core material from each chapter and apply this material to databases. The case can be found at www.cohesioncase.com. In addition, the original Cohesion Case has been very successful: The Broadway Café is a running case instructors can use to reinforce core material such as customer relationship management, supply chain management, business intelligence, and decision making. The case has 15 sections that challenge students to develop and expand their grandfather's coffee shop. Students receive hands-on experience in business and learn technology's true value of enabling business. Please note that the Cohesion Case is not a McGraw-Hill product but a Baltzan direct product. The case can be found at www.cohesioncase.com.

- CREATE, our Custom Textbook Option: Craft your teaching resources to match the way you teach! With McGraw-Hill Create, www.mcgrawhillcreate.com, you can easily rearrange chapters, combine material from other content sources, and quickly upload content you have written, like your course syllabus or teaching notes. Find the content you need in Create by searching through thousands of leading McGraw-Hill textbooks. Arrange your book to fit your teaching style. Create even allows you to personalize your book's appearance by selecting the cover and adding your name, school, and course information. Order a Create book and you'll receive a complimentary print review copy in 3–5 business days or a complimentary electronic review copy (eComp) via email in as little as one hour. Go to www.mcgrawhillcreate.com today and register. Experience how McGraw-Hill Create empowers you to teach your students your way.

- Tegrity Campus is a service that makes class time available all the time by automatically capturing every lecture in a searchable format for students to review when they study and complete assignments. With a simple one-click start and stop process, you capture all computer screens and corresponding audio. Students can replay any part of any class with easy-to-use browser-based viewing on a PC or Mac. Tegrity Campus is available stand-alone or within Connect.

- Blackboard® Partnership McGraw-Hill and Blackboard have teamed up to simplify your life. Now you and your students can access Connect and Create right from within your Blackboard course – all with one single sign-on. The grade books are seamless, so when a student completes an integrated Connect assignment, the grade for that assignment automatically (and instantly) feeds your Blackboard grade center. Learn more at www.domorenow.com.

- MH Campus: McGraw-Hill Campus™ is a new one-stop teaching and learning experience available to users of any learning management system. This institutional service allows faculty and students to enjoy single sign-on (SSO) access to all McGraw-Hill Higher Education materials, including the award winning McGraw-Hill Connect platform, from directly within the institution’s website. McGraw-Hill Campus™ provides faculty with instant access to all McGraw-Hill Higher Education teaching materials (e.g. eBooks, test banks, PowerPoint slides, animations and learning objects, etc), allowing them to browse, Search, and use any instructor ancillary content in our vast library at no additional cost to instructor or students. Students enjoy SSO access to a variety of free (e.g. quizzes, flash cards, narrated presentations... etc.) and subscription-based products (e.g. McGraw-Hill Connect). With this program enabled, faculty and students will never need to create another account to access McGraw-Hill products and services. Learn more at www.mhcampus.com.

CONTENTS

Module One: Business Driven MIS
Chapter 1: Management Information Systems: Business Driven MIS
Chapter 2: Decision and Processes: Value Driven Business
Chapter 3: Ebusiness: Electronic Business Value
Chapter 4: Ethics and Information Security: MIS Business Concerns

Module Two: Technical Foundations of MIS
Chapter 5: Infrastructure: Sustainable Technologies
Chapter 6: Data: Business Intelligence
Chapter 7: Networks: Mobile Business

Module Three: Enterprise MIS
Chapter 8: Enterprise Applications: Business Communications
Chapter 9: Systems Development and Project Management: Corporate Responsibility
Business Driven Information Systems story: Business Driven Information Systems discusses various business initiatives first and how technology supports those initiatives second. The premise for this unique approach is that business initiatives should drive technology choices. Every discussion first addresses the business needs and then addresses the technology that supports those needs. This text provides the foundation that will enable students to achieve excellence in business, whether they major in operations management, manufacturing, sales, marketing, finance, human resources, accounting, or virtually any other business discipline. Business Driven Information Systems is designed to give students the ability to understand how information technology can be a point of strength for an organization.

NEW TO THIS EDITION
- New paperback format!
- Streamlined Table of Contents. This edition has been streamlined to include three modules with nine chapters.
- New application and business focused pedagogical boxes in each chapter. These boxes provide discussion starters and encourage students to think critically about the information and how it relates to practical, everyday business concerns. Each chapter contains a number of these thought provoking conversation starters, under a variety of categories, including:
  - Business Driven Discussion – see page 6 for an example of the responsibility that comes with greater access to information
  - Business Driven MIS – see page 9 for an example concerning manipulation of data to find your version of the truth
  - Business Driven Ethics and Security – see page 10 for an example of inappropriate data handling
  - Business Driven Globalization – see page 15 for an example regarding the competitive landscape for students
  - Business Driven Innovation – see page 19 for a discussion about fixing the post office
  - Business Driven Debate – see page 21 for the debate about the iPad – greatest product in history or just another gadget?
  - Business Driven Start-Up – see page 23 for an example of a college student start-up invented to solve a problem
  - New end-of-chapter pedagogical elements:
  - Critical Business Thinking: The best way to learn MIS is to apply it to scenarios and real-world business dilemmas. These projects require students to apply critical thinking skills and chapter concepts to analyze the problems and make recommended business decisions.
  - Entrepreneurial Challenge: This unique feature represents a run-
ning project that allows students to challenge themselves by applying the MIS concepts to a real business. The flexibility of the case allows each student to choose the type of business they would like to operate throughout the case. Each chapter provides hands-on projects your students can work with their real-business scenarios.

- NEW! Database Cohesion Case: This is a new product that mimics the original cohesion case on the Broadway Café and focuses on databases. The database case challenges your students to pull together core material from each chapter and apply this material to databases. The case can be found at www.cohesioncase.com\Database. In addition, the original Cohesion Case has been very successful: The Broadway Café is a running case instructors can use to reinforce core material such as customer relationship management, supply chain management, business intelligence, and decision making. The case has 15 sections that challenge students to develop and expand their grandfather’s coffee shop. Students receive hands-on experience in business and learn technology’s true value of enabling business. Please note that the Cohesion Case is not a McGraw-Hill product but a Baltzan direct product. The case can be found at www.cohesioncase.com.

CONTENTS

Module One: Business Driven MIS
Chapter 1: Management Information Systems: Business Driven MIS
Chapter 2: Decisions and Processes: Value Driven Business
Chapter 3: E-Business: Electronic Business Value
Chapter 4: Ethics and Information Security: MIS Business Concerns

Module Two: Technical Foundations of MIS
Chapter 5: Infrastructures: Sustainable Technologies
Chapter 6: Data: Business Intelligence
Chapter 7: Networks: Mobile Business

Module Three: Enterprise MIS
Chapter 8: Enterprise Applications: Business Communications
Chapter 9: Systems Development and Project Management: Corporate Responsibility
Appendix A: Hardware and Software Basics
Appendix B: Networks and Telecommunications
Appendix C: Designing Databases

INTRODUCTION TO INFORMATION SYSTEMS

15th Edition
By James A O’Brien (deceased) and George Marakas, University of Kansas-Lawrence
2010 (November 2009) / 608 pages
ISBN: 9780073376776
ISBN: 9780070167087 [IE]
www.mhhe.com/obrien15e

O’Brien’s Introduction to Information Systems 15e reflects the contemporary use of enterprise-wide business systems. New real-world case studies continue to correspond with this industry reality. The text’s focus is on teaching the future manager the potential effect on business of the most current IT technologies such as the Internet, Intranets, and Extranets for enterprise collaboration, and how IT contributes to competitive advantage, reengineering business processes, problem solving, and decision-making.

CONTENTS

Module I: Foundation Concepts
Chapter 1 Foundations Of Information Systems In Business
Chapter 2 Competing With Information Technology

Module II: Information Technologies
Chapter 3 Computer Hardware
Chapter 4 Computer Software
Chapter 5 Data Resource Management
Chapter 6 Telecommunications And Networks

Module III: Business Applications
Chapter 7 Electronic Business Systems
Chapter 8 Electronic Commerce Systems

Module IV: Development Process
Chapter 10 Developing Business/It Solutions

Module V: Management Challenges
Chapter 11 Security And Ethical Challenges
Chapter 12 Enterprise And Global Management Of Information Technology
Essentials of Business Driven Information Systems discusses various business initiatives first and how technology supports those initiatives second. The premise for this unique approach is that business initiatives should drive technology choices. Every discussion first addresses the business needs and then addresses the technology that supports those needs.

Contents
Chapter 1 Information Systems in Business
Chapter 2 Strategic Decision Making
Chapter 3 E-Business
Chapter 4 Ethics and Information Security
Chapter 5 IT Architectures
Chapter 6 Databases and Data Warehouses
Chapter 7 Networks, Telecommunications, and Wireless Computing
Chapter 8 Supply Chain Management
Chapter 9 Customer Relationship Management
Chapter 10 Enterprise Resource Planning and Collaboration Systems
Appendix A Business Basics (on the OLC only)
Appendix B Business Process (on the OLC only)
10 new Apply Your Knowledge business projects to reinforce the business initiatives explored in the text. These projects help to develop the application and problem-solving skills of your students through challenging and creative business-driven scenarios.

9 new cases to promote critical thinking.

Completely Updated: This text has been completely updated to reflect the latest in research and practice in the work of Management Information Systems and ensures students are introduced to the latest technology utilized by today’s businesses.

Thoroughly updated examples throughout the text with the most current information available about the large number of companies of all sizes and industries (e.g., service, manufacturing, non-profit, and profit) in the United States and around the world included in this text.

NEW! Database Cohesion Case: This is a new product that mimics the original cohesion case on the Broadway Café and focuses on databases. The database case challenges your students to pull together core material from each chapter and apply this material to databases. The case can be found at www.cohesioncase.com. Database. In addition, the original Cohesion Case has been very successful: The Broadway Café is a running case instructors can use to reinforce core material such as customer relationship management, supply chain management, business intelligence, and decision making. The case has 15 sections that challenge students to develop and expand their grandfather’s coffee shop. Students receive hands-on experience in business and learn technology’s true value of enabling business. Please note that the Cohesion Case is not a McGraw-Hill product but a Baltzan direct product. The case can be found at www.cohesioncase.com.

CREATE, our Custom Textbook Option: Craft your teaching resources to match the way you teach! With McGraw-Hill CREATE, www.mcgrawhillcreate.com, you can easily rearrange chapters, combine material from other content sources, and quickly upload content you have written, like your course syllabus or teaching notes. Find the content you need in CREATE by searching through thousands of leading McGraw-Hill textbooks. Arrange your book to fit your teaching style. CREATE even allows you to personalize your book’s appearance by selecting the cover and adding your name, school, and course information. Order a CREATE book and you’ll receive a complimentary print review copy in 3–5 business days or a complimentary electronic review copy (eComp) via email in about one hour. Go to www.mcgrawhillcreate.com today and register. Experience how McGraw-Hill CREATE empowers you to teach your students your way.

Tegrity Campus is a service that makes class time available all the time by automatically capturing every lecture in a searchable format for students to review when they study and complete assignments. With a simple one-click start and stop process, you capture all computer screens and corresponding audio. Students can replay any part of any class with easy-to-use browser-based viewing on a PC or Mac. Tegrity Campus is available stand-alone or within Connect.

Blackboard® Partnership McGraw-Hill and Blackboard have teamed up to simplify your life. Now you and your students can access Connect and Create right from within your Blackboard course – all with one single sign-on. The grade books are seamless, so when a student completes an integrated Connect assignment, the grade is automatically (and instantly) feeds your Blackboard grade center. Learn more at www.domorenow.com.

MH CampusTM: McGraw-Hill Campus™ is a new one-stop teaching and learning experience available to users of any learning management system. This institutional service allows faculty and students to enjoy single sign-on (SSO) access to all McGraw-Hill Higher Education materials, including the award winning McGraw-Hill Connect platform, from directly within the institution’s website. McGraw-Hill Campus™ provides faculty with instant access to all McGraw-Hill Higher Education teaching materials (e.g. eTextbooks, test banks, PowerPoint slides, animations and learning objects, etc), allowing them to browse, Search, and use any instructor ancillary content in our vast library at no additional cost to instructor or students. Students enjoy SSO access to a variety of free (e.g. quizzes, flash cards, narrated presentations…etc.) and subscription based products (e.g. McGraw-Hill Connect). With this program enabled, faculty and students will never need to create another account to access McGraw-Hill products and services. Learn more at www.mhcampus.com.
Management Information Systems

By Paige Baltzan, University of Denver

2013 (January 2012) / 384 pages
ISBN: 9780073376868

http://mhhe.com/baltzan2e

The visual impact of the magazine format will win students over quickly. They’ll love the price. And the fascinating, sometimes hard-to-believe real examples will keep them reading. Baltzan’s approach discusses various business initiatives first and how technology supports those initiatives second. The premise for this unique approach is that business initiatives drive technology choices in a corporation. Therefore, every discussion addresses the business needs first and addresses the technology that supports those needs second. This approach takes the difficult and often intangible MIS concepts, brings them down to the student’s level, and applies them using a hands-on approach to reinforce the concepts. M: Information Systems provides the foundation that will enable students to achieve excellence in business, whether they major in operations management, manufacturing, sales, marketing, etc. M: Information Systems is designed to give students the ability to understand how information technology can be a point of strength in an organization.

NEW TO THIS EDITION

- Streamlined Table of Contents. This edition has been streamlined to include three modules with nine chapters.
- Completely Updated: This text has been completely updated to reflect the latest in research and practice in the work of Management information Systems and ensures students are introduced to the latest technology utilized by today’s businesses.
- Thoroughly updated examples throughout the text with the most current information available about the large number of companies of all sizes and industries (e.g., service, manufacturing, nonprofit, and profit) in the United States and around the world included in this text.
- NEW! Database Cohesion Case: This is a new product that mimics the original cohesion case on the Broadway Cafe and focuses on databases. The database case challenges students to pull together core material from each chapter and apply this material to databases. The case can be found at www.cohesioncase.com.
- Database. In addition, the original Cohesion Case has been very successful: The Broadway Cafe is a running case instructors can use to reinforce core material such as customer relationship management, supply chain management, business intelligence, and decision making. The case has 15 sections that challenge students to develop and improve their grandfather’s coffee shop. Students receive hands-on experience in business and learn technology’s true value of enabling business. Please note that the Cohesion Case is not a McGraw-Hill product but a Baltzan direct product. The case can be found at www.cohesioncase.com.
- CREATE, our Custom Textbook Option: Craft your teaching resources to match the way you teach! With McGraw-Hill Create, www.mcgrawhillcreate.com, you can easily rearrange chapters, combine material from other content sources, and quickly upload content you have written, like your course syllabus or teaching notes. Find the content you need in Create by searching through thousands of leading McGraw-Hill textbooks. Arrange your book to fit your teaching style. Create even allows you to personalize your book’s appearance by selecting the cover and adding your name, school, and course information. Order a Create book and you’ll receive a complimentary print review copy in 3–5 business days or a complimentary electronic review copy (eComp) via email in about one hour. Go to www.mcgrawhillcreate.com today and register. Experience how McGraw-Hill Create empowers you to teach your students your way.
- Tegrity Campus is a service that makes class time available all the time by automatically capturing every lecture in a searchable format for students to review when they study and complete assignments. With a simple one-click start and stop process, you capture all computer screens and corresponding audio. Students can replay any part of any class with easy-to-use browser-based viewing on a PC or Mac. Tegrity Campus is available stand-alone or within Connect.
- Blackboard® Partnership McGraw-Hill and Blackboard have teamed up to simplify your life. Now you and your students can access Connect and Create right from within your Blackboard course – all with one single sign-on. The grade books are seamless, so when a student completes an integrated Connect assignment, the grade for that assignment automatically (and instantly) feeds your Blackboard grade center. Learn more at www.domorenow.com.
- MHCampusTM: McGraw-Hill Campus™ is a new one-stop teaching and learning experience available to users of any learning management system. This institutional service allows faculty and students to enjoy single sign-on (SSO) access to all McGraw-Hill Higher Education materials, including the award winning McGraw-Hill Connect platform, from directly within the institution’s website. McGraw-Hill Campus™ provides faculty with instant access to all McGraw-Hill Higher Education teaching materials (e.g. eTextbooks, test banks, PowerPoint slides, animations and learning objects, etc), allowing them to browse, search, and use any instructor ancillary content in our vast library at no additional cost to instructor or students. Students enjoy SSO access to a variety of free (e.g. quizzes, flash cards, narrated presentations…etc.) and subscription based products (e.g. McGraw-Hill Connect). With this program enabled, faculty and students will never need to create another account to access McGraw-Hill products and services. Learn more at www.mhcampus.com.

CONTENTS

Module One: Business Driven MIS
Chapter 1: Management Information Systems: Business Driven MIS
Chapter 2: Decision and Processes: Value Driven Business
Chapter 3: Ebusiness: Electronic Business Value
Chapter 4: Ethics and Information Security: MIS Business Concerns

Module Two: Technical Foundations of MIS
Chapter 5: Infrastructure: Sustainable Technologies
Chapter 6: Data: Business Intelligence
Chapter 7: Networks: Mobile Business

Module Three: Enterprise MIS
Chapter 8: Enterprise Applications: Business Communications
Chapter 9: Systems Development and Project Management: Corporate Responsibility
Business Driven Information Systems story: Business Driven Information Systems discusses various business initiatives first and how technology supports those initiatives second. The premise for this unique approach is that business initiatives should drive technology choices. Every discussion first addresses the business needs and then addresses the technology that supports those needs. This text provides the foundation that will enable students to achieve excellence in business, whether they major in operations management, manufacturing, sales, marketing, finance, human resources, accounting, or virtually any other business discipline. Business Driven Information Systems is designed to give students the ability to understand how information technology can be a point of strength for an organization.

New to this edition:

- New paperback format!
- Streamlined Table of Contents. This edition has been streamlined to include three modules with nine chapters.
- New application and business focused pedagogical boxes in each chapter. These boxes provide discussion starters and encourage students to think critically about the information and how it relates to practical, everyday business concerns. Each chapter contains a number of these thought provoking conversation starters, under a variety of categories, including:
  - Business Driven Discussion – see page 6 for an example of the responsibility that comes with greater access to information
  - Business Driven MIS – see page 9 for an example concerning manipulation of data to find your version of the truth
  - Business Driven Ethics and Security – see page 10 for an example of inappropriate data handling
  - Business Driven Globalization – see page 15 for an example regarding the competitive landscape for students
  - Business Driven Innovation – see page 19 for a discussion about fixing the post office
  - Business Driven Debate – see page 21 for the debate about the iPad – greatest product in history or just another gadget?
  - Business Driven Start-Up – see page 23 for an example of a college student start-up invented to solve a problem
- New end-of-chapter pedagogical elements:
  - Critical Business Thinking: The best way to learn MIS is to apply it to scenarios and real-world business dilemmas. These projects require students to apply critical thinking skills and chapter concepts to analyze the problems and make recommended business decisions.
  - Entrepreneurial Challenge: This unique feature represents a running project that allows students to challenge themselves by applying
the MIS concepts to a real business. The flexibility of the case allows
each student to choose the type of business they would like to operate
throughout the case. Each chapter provides hands-on projects your
students can work with their real-business scenarios.

> NEW! Database Cohesion Case: This is a new product that
mimics the original cohesion case on the Broadway Café and focuses
on databases. The database case challenges your students to pull
together core material from each chapter and apply this material
to databases. The case can be found at www.cohesioncase.com.

Database. In addition, the original Cohesion Case has been very suc-
sessful: The Broadway Café is a running case instructors can use to
reinforce core material such as customer relationship management,
supply chain management, business intelligence, and decision mak-
ing. The case has 15 sections that challenge students to develop and
expand their grandfather’s coffee shop. Students receive hands-on
experience in business and learn technology’s true value of enabling
business. Please note that the Cohesion Case is not a McGraw-Hill
product but a Baltzan direct product. The case can be found at www.
cohesioncase.com.

CONTENTS
Module One: Business Driven MIS
Chapter 1: Management Information Systems: Business Driven MIS
Chapter 2: Decisions and Processes: Value Driven Business
Chapter 3: E-Business: Electronic Business Value
Chapter 4: Ethics and Information Security: MIS Business Concerns
Module Two: Technical Foundations of MIS
Chapter 5: Infrastructures: Sustainable Technologies
Chapter 6: Data: Business Intelligence
Chapter 7: Networks: Mobile Business
Module Three: Enterprise MIS
Chapter 8: Enterprise Applications: Business Communications
Chapter 9: Systems Development and Project Management: Corporate Responsibility
Appendix A: Hardware and Software Basics
Appendix B: Networks and Telecommunications
Appendix C: Designing Databases
The Baltzan and Phillips approach in Business Driven Technology discusses various business initiatives first and prolifically through the Business Plug-Ins, and how technology supports those initiatives second. The premise for this unique approach is that business initiatives drive technology choices in a corporation. With 21 Business Plug Ins, instructors may customize the degree in which the business initiative is explored prior to the technology solution making those possible. This approach takes the difficult and often intangible MIS concepts, brings them down to the student’s level, and applies them using a hands-on approach to reinforce the concepts. BDT provides the foundation that will enable students to achieve excellence in business, whether they major in operations management, manufacturing, sales, marketing, etc. BDT is designed to give students the ability to understand how information technology can be a point of strength in an organization.

CONTENTS
Unit 1:
Chapter 1: Business Driven Technology
Chapter 2: Identifying Competitive Advantages
Chapter 3: Strategic Initiatives for Implementing Competitive Advantages
Chapter 4: Measuring the Success of Strategic Initiatives
Chapter 5: Organizational Structures that Support Strategic Initiatives
Unit 2:
Chapter 6: Valuing Organizational Information
Chapter 7: Storing Organizational Information – Databases
Chapter 8: Accessing Organizational Information – Data Warehouse
Unit 3:
Chapter 9: Enabling the Organization – Decision Making
Chapter 10: Extending the Organization – Supply Chain Management
Chapter 11: Building a Customer-Centric Organization – Customer Relationship Management
Chapter 12: Integrating the Organization from End-to-End – Enterprise Resource Planning
Unit 4:
Chapter 13: Creating Innovative Organizations
Chapter 14: E-Business
Chapter 15: Creating Collaborative Partnerships
Chapter 16: Integrating Wireless Technology in Business
Unit 5:
Chapter 17: Building Software to Support an Agile Organization
Chapter 18: Managing Organizational Projects
Chapter 19: Outsourcing in the 21st Century
Chapter 20: Developing a 21st Century Organization
Business Plug-Ins:
B1 Business Basics
B2 Business Process
B3 Hardware and Software
B4 Enterprise Architectures
B5 Networks and Telecommunications
B6 Information Security
B7 Ethics
B8 Supply Chain Management
B9 Customer Relationship Management
B10 Enterprise Resource Management
B11 E-Business
B12 Global Trends
B13 Strategic Outsourcing
B14 Systems Development

109
Management Information Systems

**INTRODUCTION TO INFORMATION SYSTEMS**

15th Edition

By James A O’Brien (deceased) and George Marakas, University of Kansas-Lawrence

2010 (November 2009) / 608 pages

ISBN: 9780070167087 [IE]

www.mhhe.com/obrien15e

O’Brien’s Introduction to Information Systems 15e reflects the contemporary use of enterprise-wide business systems. New real-world case studies continue to correspond with this industry reality. The text’s focus is on teaching the future manager the potential effect on business of the most current IT technologies such as the Internet, Intranets, and Extranets for enterprise collaboration, and how IT contributes to competitive advantage, reengineering business processes, problem solving, and decision-making.

**CONTENTS**

Module I: Foundation Concepts

Chapter 1 Foundations Of Information Systems In Business

Chapter 2 Competing With Information Technology

Module II: Information Technologies

Chapter 3 Computer Hardware

Chapter 4 Computer Software

Chapter 5 Data Resource Management

Chapter 6 Telecommunications And Networks

Module III: Business Applications

Chapter 7 Electronic Business Systems

Chapter 8 Electronic Commerce Systems

Chapter 9 Decision Support Systems

Module IV: Development Process

Chapter 10 Developing Business/It Solutions

Chapter 11 Security And Ethical Challenges

Chapter 12 Enterprise And Global Management Of Information Technology

On the OLC:

XLM D Decision Analysis with Spreadsheet Software (Office 2003)

XLM F Building a Web Page with HTML

XLM G Object-Oriented Technologies

XLM H Building an E-Portfolio

XLM J Implementing a Database with Microsoft Access (Office 2003) Group Projects

XLM K Careers in Business

XLM L Building Web Sites with FrontPage

XLM M Programming in Excel with VBA

---

**MANAGEMENT INFORMATION SYSTEMS FOR THE INFORMATION AGE**

8th Edition

By Stephen Haag, University of Denver, Maeve Cummings, Pittsburg State University and Amy Phillips, University of Denver

2010 (November 2009) / 608 pages

ISBN: 9780073376783

ISBN: 9780070167094 [IE]

www.mhhe.com/haag8e

Chapters cover what instructors want students to know about MIS while Extended Learning Modules (XLMs) show students what they can do with MIS. A contemporary writing style and a wealth of examples engage students. Arranged with chapter opening cases that highlight how an organization has successfully implemented many of the chapter’s concepts and chapter closing cases that help students apply what they just learned gives students the hands-on knowledge that is applicable in both their personal and professional experiences.

**CONTENTS**

Chapter 1 The Information Age in Which You Live: Changing the Face of Business

Chapter 2 Major Business Initiatives: Gaining Competitive Advantage with IT

Chapter 3 Databases and Data Warehouses: Building Business Intelligence

Chapter 4 Decision Support and Artificial Intelligence: Brainpower for Your Business

Chapter 5 Electronic Commerce: Strategies for the New Economy

Chapter 6 Systems Development: Phases, Tools, and Techniques

Chapter 7 Enterprise Infrastructure, Metrics, and Business Continuity Planning: Building and Sustaining the Dynamic Enterprise

Chapter 8 Protecting People and Information: Threats and Safeguards

Chapter 9 Emerging Trends and Technologies: Business, People, and Technology Tomorrow

XLM A Computer Hardware and Software

XLM B The World Wide Web and the Internet

XLM C Designing Databases and Entity-Relationship Diagramming

XLM D Decision Analysis with Spreadsheet Software (Office 2007)

XLM E Network Basics

XLM H Computer Crime and Digital Forensics

XLM J Implementing a Database with Microsoft Access (Office 2007) Group Projects

On the OLC:

XLM D Decision Analysis with Spreadsheet Software (Office 2003)

XLM F Building a Web Page with HTML

XLM G Object-Oriented Technologies

XLM I Building an E-Portfolio

XLM J Implementing a Database with Microsoft Access (Office 2003)

XLM K Careers in Business

XLM L Building Web Sites with FrontPage

XLM M Programming in Excel with VBA
This book is about Information Technology and about Retail Management. This two dimensional approach leads to the biggest advantage of reading this book. Information Technology is so deeply entrenched in business processes that many regard it as a 'black box', i.e., they know what goes into a computer system and what comes out. But they do not know how the input is processed. In such a scenario, it is vital that retail professionals understand the perspective that different participants have towards technology. This book attempts to explain technology from multiple perspectives. For instance, in explaining the Cash Register, the perspectives of the customer, manager and operator are explored separately.

Contents:

Chapter 1. Management Information Systems: Information Technology to the Assistance of Business Managers
Chapter 2. IT at PoS : Hardware at Point of sale
Chapter 3. IT at PoS (Part-II): Software at Point of sale
Chapter 4. Credit Card: The Payment mechanism of the Emerging Retail
Chapter 5. Automatic Identification & Data Capture: Using Technology to Identify Products and Capture Data
Chapter 6. Enterprise Resource Planning (ERP): Interconnecting the Retailer’s Information Technology Resources
Chapter 7. Customer Relationship Management: Technology That Helps Build Relations with Customers
Chapter 8. Data Mining: Discovering Purchase Patterns and Correlations
Chapter 9. Supply Chain Management: From Raw Material to Finished Product
Chapter 10. E-Tailing: The Compelling New World of Electronic Retailing

New to this edition:
- Enhanced Pedagogy! Learning Outcomes at the beginning of each unit. Critical Thinking questions at the end of each article.
ANNUAL EDITIONS: TECHNOLOGIES, SOCIAL MEDIA AND SOCIETY 11/12
17th Edition
By Paul De Palma, Gonzaga University
2012 (February 2011) / 224 pages
ISBN: 9780073528687
www.mhhe.com/annualeditions

The Annual Editions series is designed to provide convenient, inexpensive access to a wide range of current articles from some of the most respected magazines, newspapers, and journals published today. Annual Editions are updated on a regular basis through a continuous monitoring of over 300 periodical sources. The articles selected are authored by prominent scholars, researchers, and commentators writing for a general audience. The Annual Editions volumes have a number of common organizational features designed to make them particularly useful in the classroom: a general introduction; an annotated table of contents; a topic guide; an annotated listing of selected World Wide Web sites; and a brief overview for each section. Each volume also offers an online Instructor’s Resource Guide with testing materials. Using Annual Editions in the Classroom is a general guide that provides a number of interesting and functional ideas for using Annual Editions readers in the classroom. Visit www.mhhe.com/annualeditions for more details.

NEW TO THIS EDITION
❖ Learning Outcomes for each Unit are presented in the form of questions.
❖ Assess Your Progress offers study questions for students at the end of each article.

CONTENTS
Preface
Correlation Guide
Topic Guide
Internet References
Unit 1: Introduction
1. Five Things We Need to Know about Technological Change
2. Moore’s Law and Technological Determinism
3. A Passion for Objects
Unit 2: The Economy
4. Online Salvation?
5. Publish or Perish: Can the iPad Topple the Kindle and Save the Book Business?
6. The Great Wall of Facebook
7. Personally Controlled Online Health Data
Unit 3: Work and the Workplace
8. Computer Software Engineers
9. Women, Mathematics, and Computing
10. Out of Time: Reflections on the Programming Life
11. Dilberts of the World, Unite!
12. How Deep Can You Probe?
Unit 4: Computers, People, and Social Participation
13. Is Google Making Us Stupid?
14. The End of Solitude
15. It’s Not Easy to Stand up to Cyberbullies, but We Must
Unit 5: Societal Institutions: Law, Politics, Education, and the Military
17. The End of Forgetting
18. Archiving Writers’ Work in the Age of E-Mail
19. Wikipedia in the Newsroom
20. E-Mail in Academia: Expectations, Use, and Instructional Impact
21. The Trouble with Twittering: Integrating Social Media into Mainstream News
Unit 6: Risk
22. The Evolution of Cyber Warfare
23. War in the Fifth Domain
24. Geeks and Hackers, Uncle Sam’s Cyber Force Wants You!
25. Untangling Attribution: Moving Accountability in Cyberspace
27. The Software Wars: Why You Can’t Understand Your Computer
28. The BP Oil Spill: Could Software be a Culprit?
29. The Conundrum of Visibility: Youth Safety and the Internet
Unit 7: International Perspectives and Issues
30. The List: Look Who’s Censoring the Internet Now
31. Google and Saving Face in China
32. A Fantasy World Is Creating Problems in South Korea
Unit 8: The Frontier of Computing
33. In Good Company? On the Threshold of Robotic Companions
34. The Coming Superbrain
35. Cloud Computing
36. Chrome the Conqueror
37. Publishing: The Revolutionary Future
38. Computers Learn to Listen, and Some Talk Back

SYSTEMS ANALYSIS AND DESIGN METHODS
7th Edition
By Jeffrey L. Whitten, Purdue University-West Lafayette, and Lonnie D. Bentley, Purdue University-West Lafayette
2007 (December 2005) / 768 pp / Hardcover
ISBN: 9780073052335 (Not for Sale in Asia)
ISBN: 9780071107662 [Alternate ISE]
www.mhhe.com/whitten

CONTENTS
Preface
Part One The Context of Systems Development Projects
1 The Context of Systems Analysis and Design Methods
2 Information System Building Blocks
3 Information Systems Development
4 Project Management
Part Two Systems Analysis Methods
5 Systems Analysis
6 Fact-Finding Techniques for Requirements Discovery
7 Modeling System Requirements with Use Cases
8 Data Modeling and Analysis
9 Process Modeling
10 Object-Oriented Analysis and Modeling Using the UML
11 Feasibility Analysis and the System Proposal
Part Three Systems Design Methods
12 Systems Design
13 Application Architecture and Modeling
14 Database Design
15 Output Design and Prototyping
16 Input Design and Prototyping
17 User Interface Design
18 Object-Oriented Design and Modeling Using the UML
Part Four Beyond Systems Analysis and Design
19 Systems Construction and Implementation
20 Systems Operations and Support
Photo Credits
Glossary
Index
Management Information Systems

INFORMATION SYSTEMS DEVELOPMENT
4th Edition
By David Avison, University of Southampton and ESSEC and Guy Fitzgerald, Brunei University
2006 (March 2006) / 656 pages
ISBN: 9780077114176
ISBN: 9780071253154 [IE]
McGraw-Hill UK Title
www.mcgraw-hill.com/uk/textbooks/avison

PARTS
Preface
1. Context
2. Information systems development
3. Information systems development life cycle
4. Organisational themes
5. People themes
6. Modelling themes
7. Rapid and evolutionary development
8. Engineering themes
9. External development
10. Holistic techniques
11. Data techniques
12. Process techniques
13. Object-oriented techniques
14. Project management techniques
15. Organizational techniques
16. People techniques
17. Techniques in context

PARTS
Tools and Toolsets
18. Tools
19. Toolsets

PARTS
Methodologies
20. Process-oriented methodologies
21. Blended
22. Object-oriented methodologies
23. Rapid development methodologies
24. People-oriented methodologies
25. Organisational-oriented methodologies
26. Frameworks

PARTS
Methodology issues and comparisons
27. Issues
28. Methodology comparisons

Bibliography
Index

Object-Oriented System Analysis & Design

OBJECT-ORIENTED SYSTEMS ANALYSIS AND DESIGN USING UML
4th Edition
by Simon Bennett, Celesio AG, Steve McRobb, De Montfort University, and Ray Farmer, Coventry University
2010 (April 2010) / 688 pages
ISBN: 9780077125363
McGraw-Hill UK Title
www.mcgraw-hill.co.uk/textbooks/bennett

The fourth edition of Object-oriented Systems Analysis and Design has been revised and updated to reflect the most up-to-date approaches to information systems development. Still a best-seller in its field, Bennett’s, McRobb’s and Farmer’s text remains a key teaching resource for Systems Analysis and Design courses at both undergraduate and postgraduate level. The book provides a clear, practical framework for development that uses all the major techniques from UML 2.2. It follows an iterative and incremental approach based on the industry-standard Unified Process, placing systems analysis and design in the context of the whole systems lifestyle. Structured in four parts, the first provides the background to information systems analysis and design and to object-orientation. The second part focuses on the activities of requirements gathering and systems analysis, as well as the basic notation of UML. Part three covers the activities of systems architecture and design, and UML notation for object design, and the book concludes with the implementation of systems and the issues of how the systems life cycle is organized and how reusable components can be developed.

CONTENTS
A1 Agate Ltd Case Study—Introduction
B1 FoodCo Ltd Case Study—Introduction
1 Information Systems—What Are They?
2 Challenges in Information Systems Development
3 Meeting the Challenges
4 What is Object-Orientation?
5 Modelling Concepts
6 Requirements Capture
A2 Agate Ltd Case Study—Requirements Model
7 Requirement Analysis
A3 Agate Ltd Case Study—Requirements Analysis
8 Refining the Requirements Model
9 Object Interaction
10 Specifying Operations
11 Specifying Control
A4 Agate Ltd Case Study—Further Analysis
12 Moving into Design
13 Systems Design and Architecture
14 Detailed Design
15 Design Patterns
16 Human–Computer Interaction
17 Designing Boundary Classes
18 Data Management Design
A5 Agate Ltd Case Study—Design
19 Implementation
20 Software Reuse
21 Software Development Processes
**DATA COMMUNICATIONS AND NETWORK SECURITY**

*by Houston H Carr, Auburn University, and Charles Snyder, Auburn University*

2007 (July 2006) / 512 pages / Hardcover

ISBN: 9780071102971 [IE]

www.mhhe.com/carr2007

**CONTENTS**

Part I: The Basics of Communications
1. Basics of Communications Technology
2. Media and Their Applications
3. Architecture, Models, and Standards

Part II: Network Basics
5. Network Form and Function

Part III: Wide-Area Networks: The Internet
6. From LANs to WANs: Broadband Technology
7. The Internet, Intranets, and Extrarets
8. Internet Applications

Part IV: Wireless Networks
9. Wireless Networks: The Basics
10. Wireless Networks: Issues and Management

Part V: Security
11. Network Security
12. Wireless Network Security

Part VI: Network Management and Control
13. Monitoring and Control of Network Activity
14. Network and Project Management

Appendix A: Analog Voice Capabilities
Appendix B: Epilogue: Emerging Technologies, Innovation, and Risks

---

**INTRODUCTION TO INFORMATION SYSTEMS PROJECT MANAGEMENT**

*2nd Edition*

*by David Olson, University of Nebraska, Lincoln*

2004 / 360 pages

ISBN: 9780071232616 [IE]

www.mhhe.com/olson2e

**CONTENTS**

1. Introduction to Project Management.
3. Project Organization.
4. Project Selection and Approval.
5. Requirements Definition.
7. Estimation.
8. Quantitative Project Scheduling Methods.
11. Project Control and Assessment. Appendix (Microsoft Project).

PMBOK Cross References

---

**DECISION SUPPORT AND DATA WAREHOUSE SYSTEMS**

*by Efrem G Mallach, University Massachusetts Lowell*

2000 / 672 pages

ISBN: 9780071163569 [IE]

**CONTENTS**

Preface
Chapter 1: Introduction to Decision Support Systems
Chapter 2: Human Decision Making Processes
Chapter 3: Systems, Information Quality, and Models
Chapter 4: Types of Decision Support Systems
Chapter 5: DSS Architecture, Hardware and Operating System Platforms
Chapter 6: DSS Software Tools
Chapter 7: Building and Implementing Decision Support System Tools
Chapter 8: Models in Decision Support Systems
Chapter 9: Mathematical Models and Optimization
Chapter 10: Group Decision Support Systems
Chapter 11: Expert Systems
Chapter 12: Data Warehousing and Executive Information System Fundamentals
Chapter 13: The Data Warehouse Database
Chapter 14: Analyzing the Contents of the Data Warehouse
Chapter 15: Constructing a Data Warehouse System
Chapter 16: Putting it all Together: Systems Integration and the Future of DSS
Appendix: Selected Case Studies

---

**Decision Support Systems**
NEW TO THIS EDITION
❖ Learning Outcomes for each Unit are presented in the form of questions.
❖ Assess Your Progress offers study questions for students at the end of each article.

CONTENTS
Preface
Correlation Guide
Topic Guide
Internet References
Unit 1: Introduction
1. Five Things We Need to Know about Technological Change
2. Moore’s Law and Technological Determinism
3. A Passion for Objects
Unit 2: The Economy
4. Online Salvation?
5. Publish or Perish: Can the iPad Topple the Kindle and Save the Book Business?
6. The Great Wall of Facebook
7. Personally Controlled Online Health Data
Unit 3: Work and the Workplace
8. Computer Software Engineers
9. Women, Mathematics, and Computing
10. Out of Time: Reflections on the Programming Life
11. Dilberts of the World, Unite!
12. How Deep Can You Probe?
Unit 4: Computers, People, and Social Participation
13. Is Google Making Us Stupid?
14. The End of Solitude
15. It’s Not Easy to Stand up to Cyberbullies, but We Must
Unit 5: Societal Institutions: Law, Politics, Education, and the Military
17. The End of Forgetting
18. Archiving Writers’ Work in the Age of E-Mail
19. Wikipedia in the Newsroom
20. E-Mail in Academia: Expectations, Use, and Instructional Impact
21. The Trouble with Twitering: Integrating Social Media into Mainstream News
Unit 6: Risk
22. The Evolution of Cyber Warfare
23. War in the Fifth Domain
24. Geeks and Hackers, Uncle Sam’s Cyber Force Wants You!
25. Untangling Attribution: Moving Accountability in Cyberspace
27. The Software Wars: Why You Can’t Understand Your Computer
28. The BP Oil Spill: Could Software be a Culprit?
29. The Conundrum of Visibility: Youth Safety and the Internet
Unit 7: International Perspectives and Issues
30. The List: Look Who’s Censoring the Internet Now
31. Google and Saving Face in China
32. A Fantasy World is Creating Problems in South Korea
Unit 8: The Frontier of Computing
33. In Good Company? On the Threshold of Robotic Companions
34. The Coming Superbrain
35. Cloud Computing
36. Chrome the Conqueror
37. Publishing: The Revolutionary Future
38. Computers Learn to Listen, and Some Talk Back
MANAGERIAL ISSUES OF ENTERPRISE RESOURCE PLANNING SYSTEMS

by David L. Olson, University of Nebraska - Lincoln
2004 / 336 pages
ISBN: 9780072866129
ISBN: 9780071236287 [IE]
www.mhhe.com/olsonerp

CONTENTS
Chapter 1: Enterprise Resource Planning Systems.
Chapter 2: ERP Modules and Historical Development.
Chapter 3: ERP System Options and Selection Methods.
Chapter 4: Business Process. eEngineering and Best Practices.
Chapter 5: ERP System Installation.
Chapter 6: ERP Project Management.
Chapter 7: ERP Implementation and Maintenance.
Chapter 8: Business Intelligence Systems and ERP.
Chapter 9: ERP and Supply Chains.
Chapter 11: Trends in ERP

INTERNATIONAL EDITION

INTRODUCTION TO BUSINESS DATA MINING

by David L. Olson, University of Nebraska - Lincoln, and Yong Shi, University of Nebraska-Omaha
2007 (November 2005) / 336 pages
ISBN: 9780072959710
ISBN: 9780071244701 [IE]
www.mhhe.com/olson1e

CONTENTS
Part I: INTRODUCTION.
Chapter 1: Initial Description of Data Mining in Business.
Chapter 2: Data Mining Processes and Knowledge Discovery.
Chapter 3: Database Support to Data Mining.
Part II: DATA MINING METHODS AS TOOLS.
Chapter 4: Overview of Data Mining Techniques. Chapter 4 Appendix: Enterprise Miner Demonstration on Expenditure Data Set.
Chapter 5: Cluster Analysis. Chapter 5 Appendix: Clementine.
Chapter 6: Regression Algorithms in Data Mining.
Chapter 7: Neural Networks in Data Mining.
Chapter 8: Decision Tree Algorithms. Appendix 8: Demonstration of See5 Decision Tree Analysis.
Chapter 9: Linear Programming-Based Methods. Chapter 9 Appendix: Data Mining Linear Programming Formulations.
Part III: BUSINESS APPLICATIONS.
Chapter 10: Business Data Mining Applications Applications.
Part IV: DEVELOPING ISSUES.
Chapter 13: Ethical Aspects of Data Mining

REVIEW COPY
(Available for course adoption only)
To request for a review copy,
- contact your local McGraw-Hill representatives or,
- fax the Review Copy Request Form found in this catalog or,
- e-mail your request to nghania_sg@mcgraw-hill.com or,
- submit online at www.mheducation.asia

Invitation to Publish
McGraw-Hill is interested to review your textbook proposals for publication. Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com.
Visit McGraw-Hill Education (Asia)
Website: http://www.mheducation.asia/publish/
## Introduction to Electrical Engineering
- Introduction to Electrical Engineering ............................................... 123
- Basic Electricity .................................................................................. 124
- Basic Electronics ................................................................................ 129

## Circuits and Electronics
- Circuit Analysis .................................................................................. 132
- Analog Integrated Circuits ................................................................. 135
- Digital Integrated Circuits ................................................................. 136
- Electronics Principles ......................................................................... 137
- Analog OP Amps ................................................................................ 138

## Devices and Materials
- Microelectronics ................................................................................ 138
- Physics of Semiconductor Devices ..................................................... 140
- Solid State/Electronic Materials .......................................................... 141

## Fields and Waves
- Electromagnetics ............................................................................... 142
- Microwaves ....................................................................................... 143
- Antennas and Radar .......................................................................... 144

## Digital
- Digital Electronics ............................................................................... 145
- Digital Design/Logic .......................................................................... 147
- Programmable Logic Controller ......................................................... 151

## Controls
- Control Systems ................................................................................ 152
- Digital Control .................................................................................. 153
- Generators, Motors, Compressors ..................................................... 154
- Neural Networks/Fuzzy Systems ....................................................... 154
- Electrical Instrumentation ................................................................. 155
- Mechatronics .................................................................................... 155
- Advanced Systems ........................................................................... 156

## Power and Machines
- Electric Machines ............................................................................... 156
- Power Electronics ................................................................................ 158
- Power Systems .................................................................................. 159
Computer Engineering
  Computer Organization & Architecture .................................................. 161
  Embedded Systems .................................................................................. 164
  Advanced Computer Architecture ......................................................... 164

Networking and Communications
  Communication Systems .......................................................................... 165
  Digital Communication .............................................................................. 167
  Electronic Communications ...................................................................... 168
  Fiber Optic Communications .................................................................... 170
  Wireless Communications ......................................................................... 171
  Computer Networks .................................................................................. 172
  Local Area Networks ................................................................................ 174
  Circuits and Networks .............................................................................. 174

Signals and Systems
  Signals and Systems ................................................................................ 175
  Digital Signal Processing ......................................................................... 177
  Digital Image Processing .......................................................................... 179

Numerical Methods
  Numerical Methods .................................................................................. 182
  Probability & Random Processes ............................................................. 183

Microcomputers. Microprocessors and Chips
  Advanced Microprocessor ......................................................................... 184

General Reference
  Design in Electrical Engineering ............................................................. 184

Professional References ............................................................................. 185
## New Titles

### ELECTRICAL ENGINEERING

#### 2013

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Electric Circuits, 5e</td>
<td>Alexander</td>
<td>9780073380575</td>
<td>132</td>
</tr>
<tr>
<td>Data Communications and Networking, 5e [Global Edition]</td>
<td>Forouzan</td>
<td>9780073376226</td>
<td>172</td>
</tr>
<tr>
<td>Electricity Principles &amp; Applications with Student Data CD-Rom, 8e</td>
<td>Fowler</td>
<td>9780077567620</td>
<td>124</td>
</tr>
<tr>
<td>Contemporary Communication Systems</td>
<td>Mesiya</td>
<td>9780073380360</td>
<td>165</td>
</tr>
<tr>
<td>Applied Circuit Analysis</td>
<td>Sadiku</td>
<td>9780078028076</td>
<td>129,132</td>
</tr>
<tr>
<td>Electronics Principles and Applications with Student Data CD-Rom, 8e</td>
<td>Schuler</td>
<td>9780077567705</td>
<td>137</td>
</tr>
</tbody>
</table>

#### 2012

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Mechatronics and Measurement Systems, 4e</td>
<td>Alciatore</td>
<td>9780073380230</td>
<td>155</td>
</tr>
<tr>
<td>Electric Machinery Fundamentals, 5e</td>
<td>Chapman</td>
<td>9780073529547</td>
<td>156</td>
</tr>
<tr>
<td>Applied Numerical Methods with MatLab for Engineers and Scientists, 3e</td>
<td>Chapra</td>
<td>9780073401102</td>
<td>182</td>
</tr>
<tr>
<td>Computer Organization and Embedded Systems, 6e</td>
<td>Hamacher</td>
<td>9780073380650</td>
<td>161</td>
</tr>
<tr>
<td>Engineering Circuit Analysis, 8e</td>
<td>Hayt</td>
<td>9780073529578</td>
<td>133</td>
</tr>
<tr>
<td>Engineering Electromagnetics, 8e</td>
<td>Hayt</td>
<td>9780073380667</td>
<td>142</td>
</tr>
<tr>
<td>Electrical Principles for the Electrical Trades, Volume 2, 6e</td>
<td>Jenneson</td>
<td>9780071013178</td>
<td>123</td>
</tr>
<tr>
<td>Semiconductor Physics and Devices, 4e</td>
<td>Neamen</td>
<td>9780073529585</td>
<td>140</td>
</tr>
<tr>
<td>Electrical Wiring Practice, Volume 2, 7e [MH Australia Title]</td>
<td>Pethebridge</td>
<td>9780070286436</td>
<td>124</td>
</tr>
<tr>
<td>Signals and Systems, 2e</td>
<td>Roberts</td>
<td>9780073380681</td>
<td>175</td>
</tr>
<tr>
<td>Fundamentals of Digital and Computer Design with VHDL</td>
<td>Sandige</td>
<td>9780073380698</td>
<td>147</td>
</tr>
</tbody>
</table>

#### 2011

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>ISBN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern Power System Analysis, 4e [MH India Title]</td>
<td>Kothari</td>
<td>9780071077750</td>
<td>159</td>
</tr>
<tr>
<td>HVDC Transmission [MH India Title]</td>
<td>Kanakshai</td>
<td>9780071072533</td>
<td>166</td>
</tr>
<tr>
<td>Basic Electrical Engineering, Revised 1st Edition [MH India Title]</td>
<td>Kulshreshtha</td>
<td>9780071328968</td>
<td>125</td>
</tr>
<tr>
<td>Principles of Electromagnetics [MH India Title]</td>
<td>Mahapatra</td>
<td>9780071072601</td>
<td>142</td>
</tr>
<tr>
<td>Power System Protection and Switchgear, 2e [MH India Title]</td>
<td>Ram</td>
<td>9780071077743</td>
<td>159</td>
</tr>
<tr>
<td>Analog Communication [MH India Title]</td>
<td>Rao</td>
<td>9780070704800</td>
<td>165</td>
</tr>
<tr>
<td>Digital Communication [MH India Title]</td>
<td>Rao</td>
<td>9780070707764</td>
<td>167</td>
</tr>
<tr>
<td>Digital Signal Processing, 2e [MH India Title]</td>
<td>Salivahanan</td>
<td>9780071329149</td>
<td>177</td>
</tr>
</tbody>
</table>
Introduction To Electrical Engineering

Introduction to Electrical Engineering

NEW

ELECTRICAL PRINCIPLES FOR THE ELECTRICAL TRADES, VOLUME 2
6th Edition
by Jim R. Jenneson, and Bob Harper
2012 (May 2012) / Softcover
ISBN: 9780071013178
(A McGraw-Hill Australia Title)

Electrical Principles for the Electrical Trades 6th Edition Volume 1 has been completely revised and updated to incorporate the relevant competencies of the new Electrotechnology Training Package (UEE07). Building on the classic 5th edition, this text provides students with the fundamental knowledge needed for a future career in the electrical trades.

The text features a clear writing style teamed with concise and informative full-colour illustrations which create an engaging and effective learning tool for Australian students.

NEW TO THIS EDITION

- Revised and updated to incorporate relevant competencies in UEE07 Electrotechnology Training Package
- Attractive and engaging new four-colour design
- A wealth of diagrams, photographs, graphs and figures to clearly illustrate key concepts
- Student-friendly writing style demonstrates the logical flow from simple to complex theories
- Revised and updated exercises and examples allow students to assess their understanding of the material
- Appendix material expands on key concepts and creates an authoritative and up-to-date text perfect for VET students and as a reference for trades professionals
- Ideal companion text to Electrical Wiring Practice 6th Edition Volume 1 and Volume 2 (available for semester 1 2011)

CONTENTS

1. Elementary electricity
2. Electrochemistry
3. Magnetism
4. DC Circuits
5. Resistors
6. Inductors
7. Capacitors
8. Single phase alternating current (1)
9. Single phase alternating current (2)
10. Three phase alternating current
11. Cells and batteries
12. Test equipment

10. Three phase alternating current
11. Cells and batteries
12. Test equipment

ELECTRICAL PRINCIPLES FOR THE ELECTRICAL TRADES, VOLUME 1
6th Edition
by Jim R. Jenneson, and Bob Harper
2010 (August 2010) / Softcover
ISBN: 9780071000338
(McGraw-Hill Australia Title)

www.mhhe.com/au/jenneson6e

Electrical Principles for the Electrical Trades 6th Edition Volume 1 has been completely revised and updated to incorporate the relevant competencies of the new Electrotechnology Training Package (UEE07). Building on the classic 5th edition, this text provides students with the fundamental knowledge needed for a future career in the electrical trades. The text features a clear writing style teamed with concise and informative full-colour illustrations which create an engaging and effective learning tool for Australian students.

CONTENTS

1. Elementary electricity
2. Electrochemistry
3. Magnetism
4. DC Circuits
5. Resistors
6. Inductors
7. Capacitors
8. Single phase alternating current (1)
9. Single phase alternating current (2)
10. Three phase alternating current
11. Cells and batteries
12. Test equipment

BASIC ELECTRICAL & ELECTRONICS ENGINEERING
by Ravish R. Singh, Vice-Principal & Head, Electronics and Telecomm Dept., Thakur College of Engineering & Technology, Mumbai
2009 / Softcover / 440 pages
ISBN: 9780070146136
(McGraw-Hill India Title)

Basic Electrical & Electronics Engineering is meant for the students of all engineering disciplines who are to take up the course in their first year. The book will be useful to students pursuing diploma courses in EEE and ECE. Lucid writing style and rich pedagogy are the USP of this book.

CONTENTS

1. Basic Circuit Concepts
2. DC Circuits
3. AC Circuits
4. Three-Phase Circuits
5. Single-Phase Transformer
6. Electrical Machines
7. Semiconductor Devices and Rectifiers
The eighth edition of Electricity: Principles and Applications is based on the same philosophy of previous editions. It continues to be written so that a student needs no prior knowledge of electrical theory and principles and at a level that allows students with limited math and reading skills can gain a clear understanding of electricity and electrical devices.

**NEW TO THIS EDITION**
- MORE examples, self-test questions and Chapter review questions and problems in every Chapter!
- An expanded section on energy efficiency now includes information on neon light bulbs and LEDs.
- New! Coverage on Fuel Cells.
- Examples emphasizing C, V, and Q relationships and RC time constants.
- More examples showing how to use "powers of 10".
- When to italicize a symbol (abbreviation) used in formulas.
- Advantage of using the current divider formula.

**CONTENTS**
- Ch. 1: Basic Concepts
- Ch. 2: Electrical Quantities and Units
- Ch. 3: Basic Circuits, Laws and Measurements
- Ch. 4: Circuit Components
- Ch. 5: Multiple-Load Circuits
- Ch. 6: Complex-Circuit Analysis
- Ch. 7: Magnetism and Electromagnetism
- Ch. 8: Alternate Current and Voltage
- Ch. 9: Power in AC Circuits
- Ch. 10: Capacitance
- Ch. 11: Inductance
- Ch. 12: Transformers
- Ch. 13: R, C, and L Circuits
- Ch. 14: Electric Motors
- Ch. 15: Instruments and Measurements
- Ch. 16: Residential Wiring Concepts

The 7th edition of Electrical Wiring Practice has been thoroughly updated to provide guidance in the use of the Australian and New Zealand Wiring Rules AS/NZS 3000:2007, including the 2009 Amendments and other related standards. This text presents the knowledge and skills specified in units of competency in national training packages for an electrical trade qualification and advanced trade competencies. Taking a practical approach, Electrical Wiring Practice employs clear visual tools to illustrate the knowledge and practices required by specified products and Standards.

Although the book is primarily written for students and teachers of electrical trades, it provides up-to-date reference material that will be helpful to many trade professionals.

**CONTENTS**
- Chapter 10. Electrical protection and protective devices
- Chapter 11. Installation of safety services
- Chapter 12. Renewable energy and other alternative electrical supply installations
- Chapter 13. Switchboards and control panels
- Chapter 14. Installation design – selection of cables and protective devices
- Chapter 15. Special electrical installations
- Chapter 16. Appliances – electric heating and motors
- Chapter 17. Lighting sources and applications
- Chapter 18. Control and energy management
BASIC ELECTRICAL ENGINEERING
Revised 1st Edition
by D C Kulshreshtha, Professor of Electronics and Communication Engineering, Jaypee University of Information Technology

2011 (July 2011) / Softcover / 880 pages
ISBN: 9780071328968

[McGraw-Hill India Title]

This book provides a solid overview of electrical engineering principles geared for both electrical as well as non-electrical engineering students. With the liberal use of practical illustrations and numerous exercises, it offers an unparalleled exposure to Electricity Fundamentals, Network Theory, Electromagnetism, Electric Machines, Transformers, and Measuring Instruments.

FEATURES
- Covers entire spectrum of Basic Electrical Engineering from the fundamentals to measuring instruments in a single volume
- Special focus on step-by-step and tutorial approach for solved examples

CONTENTS
1. Introduction
2. Ohm’s Law
3. Network Analysis
4. Network Theorems
5. Electromagnetism
6. Magnetic Circuits
7. Self and Mutual Inductances
8. Dc Transients
9. Alternating Voltage and Current
10. Ac Circuits
11. Resonance in Ac Circuits
12. Three-Phase Circuits and Systems
13. Transformers
14. Alternators And synchronous Motors
15. Induction Motors
16. Dc Machines
17. Fractional Horsepower Motors
18. Electrical Measuring Instruments
19. Electrical Installation and Illumination

BASIC ELECTRICAL ENGINEERING
3rd Edition
by D P. Kothari, Professor, Centre for Energy Studies, IIT, Delhi, (Former Director In charge, IIT Delhi)
2009 (September 2009) / Softcover
ISBN: 9780070146112

(McGraw-Hill India Title)

www.mhhe.com/kothari/he3

This hallmark text on Basic Electrical Engineering provides concise and balanced account of all key concepts as well as applications in the field. With the liberal use of practical illustrations and numerous exercises, it offers an unparalleled exposure to Electricity Fundamentals, Network Theory, Electromagnetism, Electric Machines, Transformers, and Measuring Instruments.

CONTENTS
Chapter 1. Elementary Concepts and Definitions
Chapter 2. Fundamentals of Resistive Circuits
Chapter 3. Fundamentals of Reactive Circuits
Chapter 4. Steady State Analysis For Sinusoidal Excitation
Chapter 5. Frequency Response
Chapter 6. Three-Phase Circuits
Chapter 7. Magnetic Circuits
Chapter 8. Transformers
Chapter 9. EMF and Torque in Electric Machines
Chapter 10. DC Machines
Chapter 11. Synchronous Machine
Chapter 12. Induction Motor
Chapter 13. Fractional-kW Motors
Chapter 14. Measurement Techniques and Electric and Electronic Instrumentation
Chapter 15. Power Systems
Chapter 16. Domestic Wiring

ELECTRICAL WIRING PRACTICE
VOLUME 1
7th Edition
by Keith Pethebridge, and Ian Neeson, Sydney Institute of TAFE
2009 / Softcover
ISBN: 9780070286412

(McGraw-Hill Australia Title)

www.mhhe.com/au/pethebridge7e

The 7th edition of Electrical Wiring Practice has been thoroughly updated to provide guidance in the use of the Australian and New Zealand Wiring Rules AS/NZS 3000:2007, including the 2009 Amendments and other related standards. This text presents the knowledge and skills specified in units of competency in national training packages for an electrical trade qualification and advanced trade competencies. Taking a practical approach, Electrical Wiring Practice employs clear visual tools to illustrate the knowledge and practices required by specified products and Standards.

Although the book is primarily written for students and teachers of electrical trades, it provides up-to-date reference material that will be helpful to many trade professionals. A portion of the profits from this book will go to WorldSkills Australia. Visit www.worldskills.org.au for more information.

CONTENTS
Volume 1
1. Electrical energy—past, present and future
2. Workplace and electrical safety
3. Regulations and standards
4. Cables, connections and terminations
5. Fixing methods and accessories for electrical and data/communications installations
Rizzoni's Fundamentals of Electrical Engineering provides a solid overview of the electrical engineering discipline that is especially geared toward the many non-electrical engineering students who take this course. The book was developed to fit the growing trend of the Intro to EE course morphing into a briefer, less comprehensive course.

The hallmark feature of this text is its liberal use of practical applications to illustrate important principles. The applications come from every field of engineering and feature exciting technologies. The appeal to non-engineering students are the special features such as Focus on Measurement sections, Focus on Methodology sections, and Make the Connections sidebars.

CONTENTS

Chapter 1: Introduction to Electrical Engineering
Chapter 2: Fundamentals of Electric Circuits
Chapter 3: Resistive Network Analysis
Chapter 4: AC Network Analysis
Chapter 5: Transient Analysis
Chapter 6: Frequency Response and System Concepts
Chapter 7: AC Power

Part II – Electronics

Chapter 8: Operational Amplifiers
Chapter 9: Semiconductors and Diodes
Chapter 10: Bipolar Junction Transistors: Operation, Circuit Models, and Applications
Chapter 11: Field-Effect Transistors: Operation, Circuit Models, and Application
Chapter 12: Digital Logic Circuits
Chapter 13: Principles of Electromechanics
Chapter 14: Introduction to Electric Machines

Appendices
Appendix A – Linear Algebra and Complex Numbers
Appendix B – The Laplace Transform
Appendix C – Fundamentals of Engineering (FE) Examination
Appendix D – Answers to Selected Problems
Chapter 2: Resistors and Ohm's Law.
Chapter 3: Conductors and Insulators.
Chapter 4: Capacitors and Dielectrics.
Chapter 5: Inductors and Magnetic Materials.
Chapter 6: Measurement of Voltage.
Chapter 7: Measurement of Current.
Chapter 8: Measurement of Resistance.
Chapter 9: Measurement of Capacitance.
Chapter 10: Measurement of Inductance.

Appendices.
B: Glossary.
C: Index.

INTERNATIONAL EDITION

BASIC ELECTRICITY: A TEXT-LAB MANUAL
7th Edition
by by Paul B Zbar and Joseph Sloop, Gordon Rockmaker, Electronic Industries Association
2000 / 460 pages / Softcover
ISBN: 9780078212758
ISBN: 9780071202848 [IE]
(A Glencoe/McGraw-Hill Title)

Designed for use in traditional DC/AC courses, this text serves equally well as a stand-alone introductory text and lab manual or as a lab manual for use with any basic theory text. The content of this text/lab manual is prepared with the technical assistance of the Electronic Industries Association, guaranteeing that the material is consistent with the competencies of the electronics manufacturing and service industries.

CONTENTS
Chapter 1: Introduction to Experiments.
Chapter 3: Measurement of Voltage.
Chapter 4: Conductors and Insulators.
Chapter 5: Switches and Switching Circuits.
Chapter 6: Measurement of Direct Current.
Chapter 7: Ohm's Law.
Chapter 8: Series Circuits.
Chapter 9: Designing Series Circuit.
Chapter 10: Voltage-Divider Circuits unloaded).
Chapter 11: Current in a Parallel Circuit.
Chapter 12: Resistance of a Parallel Circuit.
Chapter 13: Designing Parallel Circuits.
Chapter 14: Resistance of Series-Parallel Circuits.
Chapter 15: Direct-Current Meters (shunts and multipliers).
Chapter 16: Kirchhoff's Voltage Law (one source).
Chapter 17: Kirchhoff's Current Law.
Chapter 18: Voltage-Divider Circuits (loaded).
Chapter 19: Designing Voltage and Current-Divider Circuits.
Chapter 21: Maximum Power Transfer.
Chapter 22: Solving Circuits using Mesh Currents.
Chapter 23: Balanced-Bridge Circuit.
Chapter 24: Superposition Theorem.
Chapter 25: Thevenin's Theorem.
Chapter 26: Millman's Theorem.
Chapter 27: Norton's Theorem.
Chapter 28: Magnetic Field Associated with Current in a Wire.
Chapter 29: Inducing Voltage in a Coil.
Chapter 30: Applications of the DC Relay.
Chapter 31: Oscilloscope Operation.
Chapter 32: Oscilloscope Voltage and Frequency Measurement.
Chapter 33: Peak, RMS, and Average Values of AC.
Chapter 34: Characteristics of Inductance.
Chapter 35: Transformers.
Chapter 36: Inductances in Series and Parallel.
Chapter 37: RC Time Constants.
Chapter 38: Reactance of a Capacitor (XC).
Chapter 39: Capacitors in Series and Parallel.
Chapter 40: The Capacitive Voltage Divider.
Chapter 41: Impedance of a Series RL Circuit.
Chapter 43: Voltage Relationships in a Series RC Circuit.
Chapter 44: Power in AC Circuits.
Chapter 45: Frequency Response of a Reactive Circuit.
Chapter 46: Impedance of a Series RLC Circuit.
Chapter 47: Effects of Changes in Frequency on Impedance and Phase Angle.
Chapter 48: Current in a Series RLC Circuit.
Chapter 49: Impedance of Parallel RL and RC Circuits.

Chapter 50: Impedance of a Parallel RLC Circuit.
Chapter 51: Resonant Frequency and Frequency Response of a Series RLC Circuit.
Chapter 52: Effect of Q on Frequency Response and Bandwidth of a Series Resonant Circuit.
Chapter 53: Characteristics of Parallel Resonant Circuits.
Chapter 54: Low-Pass and High-Pass Filters.
Chapter 55: RC Bandpass and Bandstop Filters.
Chapter 56: Nonlinear Resistors - Thermistors.
Chapter 57: Nonlinear Resistors - Varistors (VDRS).

Appendices.
A: Wiring Methods.
B: Familiarization with Hand Tools Used in Electronics.
C: Soldering Techniques.

INTERNATIONAL EDITION

ELECTRICITY/ELECTRONICS FUNDAMENTALS
A Text-Lab Manual
4th Edition
by by Paul B Zbar and Joseph Sloop, Gordon Rockmaker, Electronic Industries Association
1993 / 384 pages / Softcover
ISBN: 9780071137805 [IE]
ISBN: 9780071137805 [IE]
(A Glencoe/McGraw-Hill Title)

This combined text and lab manual covers the basics of electricity and electronics theory. Thoroughly revised, it is designed as an introductory course for electronic service technicians. It also is well suited for use in technical schools and two-year colleges as a principal lab manual in the typical basic courses that last two or three semesters or quarters. Emphasis is always placed on the commonsense manner of understanding or troubleshooting circuitry. Experiments, which use commonly available components, have been written in a down-to-earth style so that students can grasp the most fundamental concepts. Experimental procedures require students to think and make decisions. Summaries, self-tests, and questions are strategically placed throughout the text.

CONTENTS
Using the Multimeter
Series and Parallel Resistance Circuits
Voltage and Voltage Measurement
Measurement and Control of DC
Ohm's Law and the Series Circuit
The Parallel Circuit
Series-Parallel Circuits
Kirchhoff's Laws
Thevenin's Theorem
Power
Electricity and Magnetism
Alternating Current Measurement
Capacitors
Capacitive Reactance

Chapter 1: Introduction to Experiments.
Chapter 3: Measurement of Voltage.
Chapter 4: Conductors and Insulators.
Chapter 5: Switches and Switching Circuits.
Chapter 6: Measurement of Direct Current.
Chapter 7: Ohm's Law.
Chapter 8: Series Circuits.
Chapter 9: Designing Series Circuit.
Chapter 10: Voltage-Divider Circuits unloaded).
Chapter 11: Current in a Parallel Circuit.
Chapter 12: Resistance of a Parallel Circuit.
Chapter 13: Designing Parallel Circuits.
Chapter 14: Resistance of Series-Parallel Circuits.
Chapter 15: Direct-Current Meters (shunts and multipliers).
Chapter 16: Kirchhoff's Voltage Law (one source).
Chapter 17: Kirchhoff's Current Law.
Chapter 18: Voltage-Divider Circuits (loaded).
Chapter 19: Designing Voltage and Current-Divider Circuits.
Chapter 21: Maximum Power Transfer.
Chapter 22: Solving Circuits using Mesh Currents.
Chapter 23: Balanced-Bridge Circuit.
Chapter 24: Superposition Theorem.
Chapter 25: Thevenin's Theorem.
Chapter 26: Millman's Theorem.
Chapter 27: Norton's Theorem.
Chapter 28: Magnetic Field Associated with Current in a Wire.
Chapter 29: Inducing Voltage in a Coil.
Chapter 30: Applications of the DC Relay.
Chapter 31: Oscilloscope Operation.
Chapter 32: Oscilloscope Voltage and Frequency Measurement.
Chapter 33: Peak, RMS, and Average Values of AC.
Chapter 34: Characteristics of Inductance.
Chapter 35: Transformers.
Chapter 36: Inductances in Series and Parallel.
Chapter 37: RC Time Constants.
Chapter 38: Reactance of a Capacitor (XC).
Chapter 39: Capacitors in Series and Parallel.
Chapter 40: The Capacitive Voltage Divider.
Chapter 41: Impedance of a Series RL Circuit.
Chapter 43: Voltage Relationships in a Series RC Circuit.
Chapter 44: Power in AC Circuits.
Chapter 45: Frequency Response of a Reactive Circuit.
Chapter 46: Impedance of a Series RLC Circuit.
Chapter 47: Effects of Changes in Frequency on Impedance and Phase Angle.
Chapter 48: Current in a Series RLC Circuit.
Chapter 49: Impedance of Parallel RL and RC Circuits.

Chapter 50: Impedance of a Parallel RLC Circuit.
Chapter 51: Resonant Frequency and Frequency Response of a Series RLC Circuit.
Chapter 52: Effect of Q on Frequency Response and Bandwidth of a Series Resonant Circuit.
Chapter 53: Characteristics of Parallel Resonant Circuits.
Chapter 54: Low-Pass and High-Pass Filters.
Chapter 55: RC Bandpass and Bandstop Filters.
Chapter 56: Nonlinear Resistors - Thermistors.
Chapter 57: Nonlinear Resistors - Varistors (VDRS).

Appendices.
A: Wiring Methods.
B: Familiarization with Hand Tools Used in Electronics.
C: Soldering Techniques.
The high-performance study guides that help you cut study time, hone problem-solving skills, and achieve top scores on exams! Success adds up when you choose Schaum's. From cable and fiberoptics to increased electricity demands, the job of the electronics technician has changed drastically over the last two decades. This revised textbook covers the latest technological advances.

CONTENTS
Chapter 1: The Nature of Electricity
Chapter 2: Electrical Standards and Conventions
Chapter 3: OHM's Law and Power
Chapter 4: Direct-Current Series Circuits
Chapter 5: Direct-Current Parallel Circuits
Chapter 6: Batteries
Chapter 7: Kirchhoff's Laws
Chapter 8: Determinant Solutions for DC Networks
Chapter 9: Network Calculations
Chapter 10: Magnetism and Electromagnetism
Chapter 11: Direct-Current Generators and Motors
Chapter 12: Principles of Alternating Current
Chapter 13: Inductance, Inductive Reactance, and Inductive Circuits
Chapter 14: Capacitance, Capacitive Reactance, and Capacitive Circuits
Chapter 15: Single-Phase Circuits
Chapter 16: Alternating-Current Generators and Motors
Chapter 17: AC Circuit Analysis with Complex Numbers
Chapter 18: AC Circuit Analysis with Complex Numbers
Chapter 19: Transformers
Chapter 20: Three-Phase Systems
Chapter 21: Series and Parallel Resonance
Chapter 22: Waveforms and Time Constants
TABLES
INDEX

The chief emphasis is on solving realistic problems, hundreds of which are included with detailed solutions. This popular study guide concisely yet clearly covers all the areas taught in two-semester survey courses and serves as an ideal review for electrical engineers and others looking for high ratings on the Professional Engineer's Examination.

CONTENTS
Circuit Elements and Laws.
Analysis of DC Circuits.
AC Circuits: Sinusoidal Steady-State.
Transient Circuit Analysis.
State-Variable Circuit Analysis.
Diodes.
Bipolar Junction Transistors.
Field-Effect Transistors.
Operational Amplifiers.
Switching Logic Circuits.
Digital Logic Applications.
Transformers.
Electromechanics and Electrical Machines.
Concepts of Control.
Transfer Functions.
Block Diagrams and Signal Flow Graphs.
Control Criteria and Response.

CONTENTS
Basic Electricity and Algebra.
Fractions, Decimals, and Percentage.
Power and Energy.
Powers of 10 and Logarithms.
Resistance and Wire Size.
Series Circuits.
Parallel Circuits.
Simultaneous Equations and Kirchhoff's Rules.
Network Theorems.
Inductance.
Capacitance.
Trigonometry and Vectors.
Alternating Current.
Appendices: A: Conversion Factors.
B: American Wire Gage Tables.
C: Table of Allowable Current Carrying Capacities (ampacities) of Copper Conductors.
D: Four-Place Logarithms.
E: Natural Trigonometric Functions.
Basic Electronics

INTERNATIONAL EDITION

APPLIED CIRCUIT ANALYSIS
by Matthew Sadiku, Prairie View A&M University, Charles K. Alexander, Cleveland State University, Sarhan Musa, Prairie View A&M University

2013 (January 2012) / Hardcover / 992 pages
ISBN: 97800778117825 [IE]

Applied Circuit Analysis 1e is intended to present circuit analysis to engineering technology students in a manner that is clearer, more interesting and easier to understand than other texts. This book was written for a two-semester or three-quarter course in linear analysis. The book may also be used for a one-semester course by a proper selection of chapters and sections by the instructor. It is broadly divided into two parts. Part 1, consisting of Chapters 1 to 10, is devoted to dc circuits. Part 2, containing Chapters 11 to 19, deals with ac circuits. The material in two parts is more than sufficient for a two-semester course so the instructor must select which chapters or sections to cover.

FEATURES

In recognition of the requirements by ABET (Accreditation Board for Engineering and Technology) on integrating computer tools, the use of PSpice and Multisim is encouraged in a student-friendly manner. Appendix C serves as a tutorial on PSpice for Windows, while Appendix D provides an introduction to Multisim.

Ten review questions in the form of multiple-choice objective items are provided at the end of each chapter with answers. The review questions are intended to cover the little "tricks" which the examples and end-of-chapter problems may not cover. They serve as a self-test device and help students determine how well they have mastered the chapter.

CONTENTS

PART 1--DC Circuits
Chapter 1 Basic Concepts
Chapter 2 Resistance
Chapter 3 Power and Energy
Chapter 4 Series Circuits
Chapter 5 Parallel Circuits
Chapter 6 Series-Parallel Circuits
Chapter 7 Methods of Analysis
Chapter 8 DC Circuit Theorems
Chapter 9 Capacitors
Chapter 10 Inductors

PART 2--AC Circuits
Chapter 11 AC Voltage and Current
Chapter 12 Phasors and Impedance
Chapter 13 Sinusoidal Steady-State Analysis
Chapter 14 Power
Chapter 15 Resonance
Chapter 16 Filters and Bode Plots
Chapter 17 Three-Phase Circuits
Chapter 18 Transformers and Coupled Circuits
Chapter 19 Two-Port Networks

Appendix A Simultaneous Equations and Matrix Inversion
Appendix B Complex Numbers
Appendix C PSpice for Windows
Appendix D MultiSim
Appendix E MATLAB
Appendix F TI-86 Calculators
Appendix G Answers to odd-numbered Problems

INTERNATIONAL EDITION

GROB’S BASIC ELECTRONICS
11th Edition
by Mitchel E. Schultz, Western Wisconsin Technical College
2011 (May 2010) / Hardcover with CD-Rom / 1280 pages
ISBN: 9780077410094 [with Student CD]
ISBN: 9780071314008 [IE, with Student CD]
(A Career Trade & Technical Title)

www.mhhe.com/grob11e

Grob’s Basic Electronics, Eleventh Edition, is written for the beginning student pursuing a technical degree in Electronics Technology. In covering the fundamentals of electricity and electronics, this text focuses on essential topics for the technician, and the all-important development of testing and troubleshooting skills.

This highly practical approach combines clear, carefully-laid-out explanations of key topics with good, worked-out examples and problems to solve. Review problems that follow each section reinforce the material just completed, making this a very student-friendly text. It is a thoroughly accessible introduction to basic DC and AC circuits and electronic devices.

This eleventh edition of this longtime best-selling text has been refined, updated and made more student friendly. The focus on absolutely essential knowledge for technicians, and focus on real-world applications of these basic concepts makes it ideal for today’s technology students.

CONTENTS

I Introduction to Powers of 10
Chapter 1 Electricity
Chapter 2 Resistors
Chapter 3 Ohm’s Law Sample Chapter
Chapter 4 Series Circuits
Chapter 5 Parallel Circuits
Chapter 6 Series-Parallel Circuits
Chapter 7 Voltage Dividers and Current Dividers
Chapter 8 Analog and Digital Multimeters
Chapter 9 Kirchhoff’s Laws
Chapter 10 Network Theorems
Chapter 11 Conductors and Insulators
Chapter 12 Batteries
Chapter 13 Magnetism
Chapter 14 Electromagnetism
Chapter 15 Alternating Voltage and Current
Chapter 16 Capacitance
Chapter 17 Capacitive Reactance
Chapter 18 Capacitive Circuits
Chapter 19 Inductance
Chapter 20 Inductive Reactance
Chapter 21 Inductive Circuits
Chapter 22 RC and LR Time Constants
Chapter 23 Alternating Current Circuits
Chapter 24 Complex Numbers for AC Circuits
Chapter 25 Resonance
Chapter 26 Filters
Chapter 27 Diodes and Diode Applications
Chapter 28 Bipolar Junction Transistors
Chapter 29 Transistor Amplifiers
Chapter 30 Field Effect Transistors
Grob’s Basic Electronics: Fundamentals of DC/AC Circuits is written for the beginning student pursuing a degree in electronics technology. In covering the fundamentals of electricity and electronics, this text focuses on essential topics for the technician and the all-important development of troubleshooting skills.

This highly practical approach combines clear, carefully-laid-out explanations of key topics with worked-out examples and problems to solve. Review problems that follow each section reinforce material just completed making this a very student-friendly text. It provides the student with complete, comprehensive coverage of all of the fundamental concepts of DC and AC circuit theory. This first edition combines the tried and true Grob’s Basic Electronics with more specific study in DC/AC Circuitry. For the first time, instructors can choose between Grob’s Basic Electronics 10th edition, with its additional coverage of devices or this new, concise Fundamentals of DC/AC Circuits. The focus on absolutely essential knowledge for technicians, including troubleshooting failed circuitry, keeps this book completely practical.

**CONTENTS**

1 Electricity  
2 Resistors  
3 Ohm’s Law  
4 Series Circuits  
5 Parallel Circuits  
6 Series-Parallel Circuits  
7 Voltage Dividers and Current Dividers  
8 Direct-Current Meters  
9 Kirchhoff’s Laws  
10 Network Theorems  
11 Conductors and Insulators  
12 Batteries  
13 Magnetism  
14 Electromagnetism  
15 Alternating Voltage and Current  
16 Capacitance  
17 Capacitive Reactance  
18 Capacitive Circuits  
19 Inductance  
20 Inductive Reactance  
21 Inductive Circuits  
22 RC and LR Time Constants  
23 Alternating Current Circuits  
24 Complex Numbers for AC Circuits  
25 Resonance  
26 Filters
BASIC ELECTRONICS FOR SCIENTISTS
5th Edition
by James J Brophy, University of Utah
1990 / 462 pages / Softcover
ISBN: 9780071006750 [IE]

A leading book in electronics, Basic Electronics for Scientists is completely updated to reflect changes in the field. Features of the Fifth Edition include a new chapter on microprocessor circuits (including processing applications and DC-based instruments), an earlier introduction of diode circuits and semiconductor devices, a new emphasis on integrated circuits, and expanded treatment of digital measurement techniques.

CONTENTS
1 Direct Current Circuits
2 Alternating Currents
3 Diode Circuits
4 Semiconductor Devices
5 AC-Circuit Analysis
6 Transistor Amplifiers
7 Operational Amplifiers
8 Oscillators
9 Digital Electronics
10 Analog and Digital Measurements
11 Microprocessors
12 Microprocessor Circuits
Appendixes
1: Vacuum Tube Circuits
2: Binary Arithmetic

SCHAUM’S OUTLINE OF BASIC MATHEMATICS
FOR ELECTRICITY AND ELECTRONICS
2nd Edition
by Arthur Beiser, New York University
1993 / 224 pages
ISBN: 9780070044395
(A Schaum’s Publication)

A solved-problems Outline of mathematical calculations for electricity and electronics technicians. All major types of problems are included. This edition will continue to follow the course trends as covered in the leading textbooks such as Singer and Forster, and Zbar. A new chapter on network theorems will introduce theorems of Thevenin, Norton, and Millman. Additions to other chapters will include impedance matching (AC and DC); superposition theorem and voltage dividers; volt-ampere reactive power (VAR power). The use of electronic calculators will be included. A mix of SI and customary units will occur throughout.

CONTENTS
Basic Electricity and Algebra.
Fractions, Decimals, and Percentage.
Power and Energy.
Powers of 10 and Logarithms.
Resistance and Wire Size.
Series Circuits.
Parallel Circuits.
Simultaneous Equations and Kirchhoff’s Rules.
Network Theorems.
Inductance.
Capacitance.
Trigonometry and Vectors.
Alternating Current.
American Wire Gage Tables.
Appendices: A: Conversion Factors.
B: American Wire Gage Tables.
C: Table of Allowable Current Carrying Capacities (ampacities) of Copper Conductors.
D: Four-Place Logarithms.
E: Natural Trigonometric Functions.

Invitation to Publish

McGraw-Hill is interested to review your textbook proposals for publication. Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com.

Visit McGraw-Hill Education (Asia)
Website: http://www.mheducation.asia/publish/
Alexander and Sadiku’s fifth edition of Fundamentals of Electric Circuits continues in the spirit of its successful previous editions, with the objective of presenting circuit analysis in a manner that is clearer, more interesting, and easier to understand than other, more traditional texts. Students are introduced to the sound, six-step problem solving methodology in chapter one, and are consistently made to apply and practice these steps in practice problems and homework problems throughout the text.

A balance of theory, worked examples and extended examples, practice problems, and real-world applications, combined with over 468 new or changed homework problems for the fifth edition and robust media offerings, renders the fifth edition the most comprehensive and student-friendly approach to linear circuit analysis.

This edition retains the Design a Problem feature which helps students develop their design skills by having the student develop the question as well as the solution. There are over 100 Design a Problem exercises integrated into the problem sets in the book.

NEW TO THIS EDITION

- ConnectEngineering is available with Fundamentals of Electric Circuits, 5e. ConnectEngineering is a powerful, web-based assignment management system that makes creating and grading assignments easy for instructors and learning convenient for students. It saves time and makes learning for students accessible anytime, anywhere. With Connect, instructors can easily manage assignments, grading, progress, and students receive instant feedback from assignments and practice problems.

- Over 450 new homework problems have been added to this edition, including 121 Design a Problem exercises, and there are now more than 2,400 problems provided in the text.

CONTENTS

PART 1 DC Circuits
Chapter 1 Basic Concepts
Chapter 2 Basic Laws
Chapter 3 Methods of Analysis
Chapter 4 Circuit Theorems

PART 2 AC Circuits
Chapter 9 Sinusoids and Phasors
Chapter 10 Sinusoidal Steady-State Analysis
Chapter 11 AC Power Analysis
Chapter 12 Three-Phase Circuits
Chapter 13 Magnetically Coupled Circuits

PART 3 Advanced Circuit Analysis
Chapter 15 Introduction to the Laplace Transform
Chapter 16 Applications of the Laplace Transform
Chapter 17 The Fourier Series
Chapter 18 Fourier Transform
Chapter 19 Two-Port Networks

Appendix A Simultaneous Equations and Matrix Inversion
Appendix B Complex Numbers
Appendix C Mathematical Formulas
Appendix D Answers to Odd-Numbered Problems
Selected Bibliography
Index

APPLIED CIRCUIT ANALYSIS

by Matthew Sadiku, Prairie View A&M University, Charles K. Alexander, Cleveland State University, Sarhan Musa, Prairie View A&M University

2013 (January 2012) / Hardcover / 992 pages
ISBN: 9780071317825 (IE)

www.mhhe.com/sadiku

Applied Circuit Analysis 1e is intended to present circuit analysis to engineering technology students in a manner that is clearer, more interesting and easier to understand than other texts. This book was written for a two-semester or three-quarter course in linear analysis. The book may also be used for a one-semester course by a proper selection of chapters and sections by the instructor. It is broadly divided into two parts. Part 1, consisting of Chapters 1 to 10, is devoted to dc circuits. Part 2, containing Chapters 11 to 19, deals with ac circuits. The material in two parts is more than sufficient for a two-semester course so the instructor must select which chapters or sections to cover.

FEATURES

- In recognition of the requirements by ABET (Accreditation Board for Engineering and Technology) on integrating computer tools, the use of PSpice I and Multisim is encouraged in a student-friendly manner. Appendix C serves as a tutorial on PSpice for Windows, while Appendix D provides an introduction to Multisim.

- Ten review questions in the form of multiple-choice objective items are provided at the end of each chapter with answers. The review questions are intended to cover the little “tricks” which the examples and end-of-chapter problems may not cover. They serve...
as a self-test device and help students determine how well they have mastered the chapter.

CONTENTS
PART 1—DC Circuits
Chapter 1 Basic Concepts
Chapter 2 Resistance
Chapter 3 Power and Energy
Chapter 4 Series Circuits
Chapter 5 Parallel Circuits
Chapter 6 Series-Parallel Circuits
Chapter 7 Methods of Analysis
Chapter 8 DC Circuit Theorems
Chapter 9 Capacitors
Chapter 10 Inductors
PART 2—AC Circuits
Chapter 11 AC Voltage and Current
Chapter 12 Phasors and Impedance
Chapter 13 Sinusoidal Steady-State Analysis
Chapter 14 Power
Chapter 15 Resonance
Chapter 16 Filters and Bode Plots
Chapter 17 Three-Phase Circuits
Chapter 18 Transformers and Coupled Circuits
Chapter 19 Two-Port Networks
Appendix A Simultaneous Equations and Matrix Inversion
Appendix B Complex Numbers
Appendix C PSpice for Windows
Appendix D MultiSim
Appendix E MATLAB
Appendix F TI-86 Calculators
Appendix G Answers to odd-numbered Problems

NEW TO THIS EDITION
✓ Over eighty percent new end-of-chapter problems. These problems give your students new challenges and current examples that pique student interest. Many of these focus on design and problem-solving techniques.
✓ New appendix posted online answers to selected odd-numbered EOC problems.
✓ Addition of active filter content.
✓ ConnectEngineering is available with Engineering Circuit Analysis, 8e. ConnectEngineering is a powerful, web-based assignment management system that makes creating and grading assignments easy for instructors and learning convenient for students. It saves time and makes learning for students accessible anytime, anywhere. With Connect, instructors can easily manage assignments, grading, progress, and students receive instant feedback from assignments and practice problems.

CONTENTS
Chapter 1 Introduction
Chapter 2 Basic Components and Electric Circuits
Chapter 3 Voltage and Current Laws
Chapter 4 Basic Nodal and Mesh Analysis
Chapter 5 Handy Circuit Analysis Techniques
Chapter 6 The Operational Amplifier
Chapter 7 Capacitors and Inductors
Chapter 8 Basic RL and RC Circuits
Chapter 9 The RLC Circuit
Chapter 10 Sinusoidal Steady-State Analysis
Chapter 11 AC Circuit Power Analysis
Chapter 12 Polyphase Circuits
Chapter 13 Magnetically Coupled Circuits
Chapter 14 Complex Frequency and The Laplace Transform
Chapter 15 Circuit Analysis in the s-Domain
Chapter 16 Frequency Response
Chapter 17 Two-Port Networks
Chapter 18 Fourier Circuit Analysis
Chapter 19 State Variable Analysis (online only)
Appendix 1 An Introduction to Network Topology
Appendix 3 A Solution of Simultaneous Equations
Appendix 3 A Proof of Thevenin's Theorem
Appendix 4 A PSpice Tutorial
Appendix 5 Complex Numbers
Appendix 6 A Brief MATLAB Tutorial
Appendix 7 Additional Laplace Transform Theorems
Appendix 8 Selected Answers (Available Online)
FUNDAMENTALS OF ELECTRIC CIRCUITS
4th Edition
by Charles Alexander, Cleveland State University, and Matthew Sadiku, Prairie View A&M University
2009 (August 2008) / Hardcover / 1056 pages
ISBN: 9780077263195
ISBN: 9780071272384 [IE]

www.mhhe.com/alexander

Alexander and Sadiku’s fourth edition of Fundamentals of Electric Circuits continues in the spirit of its successful previous editions, with the objective of presenting circuit analysis in a manner that is clearer, more interesting, and easier to understand than other, more traditional texts. Students are introduced to the sound, six-step problem solving methodology in chapter one, and are consistently made to apply and practice these steps in practice problems and homework problems throughout the text. A balance of theory, worked examples and extended examples, practice problems, and real-world applications, combined with over 350 new homework problems for the fourth edition and robust media offerings, renders the fourth edition the most comprehensive and student-friendly approach to linear circuit analysis. This edition adds the Design a Problem feature which helps students develop their design skills by having the student develop the question as well as the solution. There are over 100 Design a Problem exercises integrated into the problem sets in the book. Alexander/Sadiku also offers you the convenience of ARIS -- the text-specific web site -- which allows you to assign homework online or create printed homework sets and solutions to your students. The website also features solutions and KCIDE software, which reinforces the books problem-solving approach.

CONTENTS

Part 1 DC Circuits
1 Basic Concepts
2 Basic Laws
3 Methods of Analysis
4 Circuit Theorems
5 Operational Amplifiers
6 Capacitors and Inductors
7 First-Order Circuits
8 Second-Order Circuits
Part 2 AC Circuits
9 Sinusoids and Phasors
10 Sinusoidal Steady-State Analysis
11 AC Power Analysis
12 Three-Phase Circuits
13 Magnetically Coupled Circuits
14 Frequency Response
Part 3 Advanced Circuit Analysis
15 Introduction to the Laplace Transform
16 Applications of the Laplace Transform
17 The Fourier Series
18 Fourier Transform
19 Two-Port Networks
Appendix A Simultaneous Equations and Matrix Inversion
Appendix B Complex Numbers
Appendix C Mathematical Formulas
Appendix D PSpice for Windows
Appendix E MATLAB
Appendix F KCIDE
Appendix G Answers to Odd-Numbered Problems

PSPICE FOR BASIC CIRCUIT ANALYSIS
2nd Edition
by Joseph G Tront, Virginia Polytech Institute & State University
2007 / Softcover / 128 pages
ISBN: 9780073263199 (with CD)
ISBN: 9780071258883 [IE, with CD]

This practical PSpice manual, updated to support the latest release of OrCAD Pspice introduces students to the fundamental uses of this book in support of basic circuit analysis. The organization allows readers to advance quickly to solving a variety of circuit analysis problems. The modular approach allows this hand-on reference to be used with any introductory circuits text.

CONTENTS

Preface
Chapter 1 Introduction
1.1 Background
1.2 The Design Process
1.3 Appropriate Use of CAD
1.4 Versions of SPICE and Limitations
Chapter 2 Getting Started
2.1 Circuit Description
2.2 Specifying the Analysis
2.3 Simulation Results
2.4 Generating the Simulation File by Hand
Chapter 3 Simple DC Circuits
3.1 Independent Sources
3.2 Dependent Sources
3.3 Thevenin Equivalent Circuits
3.4 Norton Equivalent Circuits
Chapter 4 Other DC Analyses
4.1 DC Sweep Analysis
4.2 DC Sensitivity Analysis
4.3 Simulating Resistor Tolerances
Chapter 5 Operational Amplifiers
5.1 Simple Op Amp Model
5.2 Library Models for Op Amps
5.3 Using PSpice Subcircuit Models
Chapter 6 Time Domain Analysis
6.1 Source-Free RL Circuits
6.2 Source-Free RC Circuits
6.3 Source-Free RLC Circuits
6.4 Time-Varying Sources
6.5 Circuits with Time-Varying Sources
Chapter 7 Frequency Domain Analysis
7.1 Frequency Response
7.2 Bode Plot of the Frequency Response
Chapter 8 Fourier Series
8.1 Basic Analysis
8.2 Fourier Circuit Analysis
Chapter 9 Mutual Inductance and Transformers
9.1 Modeling Mutual Inductance
9.2 Ideal Transformers
Chapter 10 Conclusion
10.1 Common Mistakes
10.2 Tips
10.2.1 Opening Projects
10.2.2 Running PSpice
10.3 Summary Bibliography
Appendix I: Converting OrCAD Version 9.X Files to Version 10.0
Appendix II: Files Used by PSpice Index
SCHAUM'S OUTLINE OF ELECTRIC CIRCUITS
5th Edition
by Mahmood Nahvi and Joseph A. Edminister, University of Akron
2012 (July 2011) / Softcover / 504 pages
ISBN: 9780071633727
(A Schaum's Publication)
An update of this successful outline in electrical engineering, modified to conform to the current curriculum, Schaum's Outline of Electric Circuits, 5ed mirrors the course in scope and sequence to help enrolled students understand basic concepts and offer extra practice on topics such as amplifiers and operational amplifier circuits, waveforms and signals, first-order circuits, AC power, and more.

CONTENTS
1. Introduction
2. Circuit Concepts Circuit Laws
3. Analysis Methods
4. Amplifiers and Operational Amplifier Circuits
5. Waveforms and Signals
6. First-Order Circuits
7. Higher-Order Circuits and Complex Frequency
8. Sinusoidal Steady-State Circuit Analysis
9. AC Power
10. Polyphase Circuits
11. Frequency Response, Filters, and Resonance
12. Two-Port Networks
13. Mutual Inductance and Transformers
14. Circuit Analysis Using Spice and Pspice
15. The LaPlace Transform Method
17. Fourier Method of Waveform Analysis
Appendix A Complex Number System
Appendix B Matrices and Determinants

SCHAUM’S OUTLINE OF BASIC CIRCUIT ANALYSIS
2nd Edition
by John O'Malley, Ph.D., University of Florida
2011 (February 2011) / Softcover / 432 pages
ISBN: 9780071756433
(A Schaum’s Publication)
Schaum's Outline of Basic Circuit Analysis mirrors the course in scope and sequence to help enrolled students understand basic concepts and offer extra practice on topics such as capacitance, inductor construction, energy storage, magnetic flux, inductance, inductor construction, sine and cosine waves, and resistor sinusoidal response. Coverage also includes phasor-domain circuit elements, AC series circuit analysis, AC parallel circuit analysis, mesh and loop analyses, AC bridge circuits, circuit power absorption, wattmeters, reactive power, and power factor correction.

CONTENTS
1. Basic Concepts
2. Resistance
3. Series and Parallel DC Circuits
4. DC Circuit Analysis
5. DC Equivalent Circuits, Network Theorems, and Bridge Circuits
6. Operational-Amplifier Circuits
7. Pspice DC Circuit Analysis
8. Capacitors and Capacitance
9. Inductors, Inductance, and Pspice Transient Analysis
10. Sinusoidal Alternating Voltage and Current
11. Complex Algebra and Phasors
12. Basic AC Circuit Analysis, Impedance, and Admittance
13. Mesh, Loop, Nodal, and Pspice Analyses of AC Circuits
14. AC Equivalent Circuits, Network Theorems, and Bridge Circuits
15. Power in AC Circuits
16. Transformers
17. Three-Phase Circuits

Analog Integrated Circuits
INTERNATIONAL EDITION
DESIGN OF ANALOG CMOS INTEGRATED CIRCUITS
by Behzad Razavi, University of California, Los Angeles
2001 / 704 pages / Hardcover
ISBN: 9780072380323
www.mhhe.com/razavi
This textbook deals with the analysis and design of analog CMOS integrated circuits, emphasizing recent technological developments and design paradigms that students and practicing engineers need to master to succeed in today’s industry. Based on the author’s teaching and research experience in the past ten years, the text follows three general principles: (1) Motivate the reader by describing the significance and application of each idea with real-world problems; (2) Force the reader to look at concepts from an intuitive point of view, preparing him/her for more complex problems; (3) Complement the intuition by rigorous analysis, confirming the results obtained by the intuitive, yet rough approach.

CONTENTS
1 Introduction to Analog Design.
2 Basic MOS Device Physics.
3 Single-Stage Amplifiers.
4 Differential Amplifiers.
5 Passive and Active Current Mirrors.
6 Frequency Response of Amplifiers.
7 Noise. 8 Feedback.
9 Operational Amplifiers.
10 Stability and Frequency Compensation.
11 Bandgap References.
12 Introduction to Switched-Capacitor Circuits.
13 Nonlinearity and Mismatch.
14 Oscillators.
15 Phase-Locked Loops.
16 Short-Channel Effects and Device Models.
17 CMOS Processing Technology.
18 Layout and Packaging
Digital Integrated Circuits

ANALYSIS AND DESIGN OF DIGITAL INTEGRATED CIRCUITS
3rd Edition
by David A. Hodges, University of California—Berkeley, Horace G. Jackson, University of California, Berkeley and Resse Saleh, University of British Columbia
2004 / 504 pages
ISBN: 9780072283655 (Out of Print)
ISBN: 9780071181648 [IE]

www.mhhe.com/hodges

The third edition of Hodges and Jackson's Analysis and Design of Digital Integrated Circuits has been thoroughly revised and updated by a new co-author, Resse Saleh of the University of British Columbia. The new edition combines the approachability and concise nature of the Hodges and Jackson classic with a complete overhaul to bring the book into the 21st century.

The new edition has replaced the emphasis on Bipolar with an emphasis on CMOS. The book focuses on the latest CMOS technologies and uses standard deep submicron models throughout the book.

The material on memory has been expanded and updated. As well the book now includes more on SPICE simulation and new problems that reflect recent technologies. The emphasis of the book is on design, but it does not neglect analysis and has as a goal to provide enough information so that a student can carry out analysis as well as be able to design a circuit. This book provides an excellent and balanced introduction to digital circuit design for both students and professionals.

CONTENTS
1 Introduction.
2 MOS Devices.
3 Fabrication and Layout.
4 Basic Gates.
5 High-Speed CMOS Design.
6 Interconnect Design.
7 Clocks and Flip-Flops.
8 Dynamic Logic Circuits.
9 Memory Design (Part I).
10 Memory Design (Part II).
11 Bipolar Digital Circuits.
12 GaAs Digital Circuits.

CMOS DIGITAL INTEGRATED CIRCUITS
ANALYSIS AND DESIGN
3rd Edition
by Sung-Mo (Steve) Kang, University of California—Santa Cruz, and Yusuf Leblebici, Swiss Federal Institute of Technology
2003 / 672 pages
ISBN: 9780072460537
ISBN: 9780071243421 [IE]

www.mhhe.com/kang

CMOS Digital Integrated Circuits: Analysis and Design is the most complete book on the market for CMOS circuits. Appropriate for electrical engineering and computer science, this book starts with CMOS processing, and then covers MOS transistor models, basic CMOS gates, interconnect effects, dynamic circuits, memory circuits, BiCMOS circuits, I/O circuits, VLSI design methodologies, low-power design techniques, design for manufacturability and design for testability.

This book provides rigorous treatment of basic design concepts with detailed examples. It typically addresses both the computer-aided analysis issues and the design issues for most of the circuit examples. Numerous SPICE simulation results are also provided for illustration of basic concepts. Through rigorous analysis of CMOS circuits in this text, students will be able to learn the fundamentals of CMOS VLSI design, which is the driving force behind the development of advanced computer hardware.

CONTENTS
1 Introduction.
2 Fabrication of MOSFETS.
3 MOS Transistor.
4 Modeling of MOS Transistors Using SPICE.
5 MOS Inverters: Static Characteristics.
6 MOS Inverters: Switching Characteristics and Interconnect Effects.
7 Combinational MOS Logic Circuits.
8 Sequential MOS Logic Circuits.
9 Dynamic Logic Circuits.
10 Semiconductor Memories.
11 Low-Power CMOS Logic Circuits.
12 BiCMOS Logic Circuits.
13 Chip Input and Output (I/O) Circuits.
14 Design for Manufacturability.
15 Design for Testability
Electronics Principles

NEW

ELECTRONICS PRINCIPLES AND APPLICATIONS WITH STUDENT DATA CD-ROM
8th Edition
by Charles A. Schuler

2013 (January 2012)
ISBN: 9780077567705
www.mhhe.com/schuler8e

The eighth edition of Electronics: Principles and Applications is based on the same philosophy of previous editions. It continues to be written so that a student needs no prior knowledge of electrical theory and principles and at a level that allows students with limited math and reading skills can gain a clear understanding and the entry-level knowledge and skills for a wide range of occupations within electricity and electronics.

NEW TO THIS EDITION

- NEW examples, self-test questions and Chapter review questions and problems in every Chapter!
- New coverage of renewable energy topics.
- Troubleshooting examples are included throughout as well as within its own chapter
- Online Learning Center (OLC) includes a wealth of instructor resources, including:
  - List of parts and equipment needed to perform lab experiments
  - Answers to the textbook chapter review questions and problems
  - Answers to the critical thinking questions
  - Answers and data for lab experiments and assignments
  - Detailed instructions for the construction of projects.
  - Collection of art and figures from the text
  - Instructor PowerPoint slide presentations for each chapter
  - Test generator software and text bank files for each chapter

CONTENTS

1 Introduction.
2 Semiconductors.
3 Diode Theory.
4 Diode Circuits.
5 Special-Purpose Diodes.
6 Bipolar Junction Transistors.
7 Transistor Fundamentals.
8 Transistor Biasing.
9 AC Models.
10 Voltage Amplifiers.
11 CC and CB Amplifiers.
12 Power Amplifiers.
13 JFETs. 14 MOSFETs.
15 Thyristors.
16 Frequency Effects.
17 Differential Amplifiers.
18 Operational Amplifiers.
19 Negative Feedback.
20 Linear Op-Amp Circuits.
21 Active Filters.
22 Nonlinear Op-Amp Circuits.
23 Oscillators.
24 Regulated Power Supplies.
Franco's "Design with Operational Amplifiers and Analog Integrated Circuits, 3e" is intended for a design-oriented course in applications with operational amplifiers and analog ICs. It also serves as a comprehensive reference for practicing engineers.

This new edition includes enhanced pedagogy (additional problems, more in-depth coverage of negative feedback, more effective layout), updated technology (current-feedback and folded-cascode amplifiers, and low-voltage amplifiers), and increased topical coverage (current-feedback amplifiers, switching regulators and phase-locked loops).

**CONTENTS**

1 Operational Amplifier Fundamentals.
2 Circuits with Resistive Feedback.
3 Active Filters:
   Part I:
   4 Active Filters:
   Part II:
5 Static Op Amp Limitations.
6 Dynamic Op Amp Limitations.
7 Noise.
8 Stability.
9 Nonlinear Circuits.
10 Signal Generators.
11 Voltage References and Regulators.
12 D-A and A-D Converters.
13 Nonlinear Amplifiers and Phase-Locked Loops.

Richard Jaeger and Travis Blalock present a balanced coverage of analog and digital circuits; students will develop a comprehensive understanding of the basic techniques of modern electronic circuit design, analog and digital, discrete and integrated.

A broad spectrum of topics are included in Microelectronic Circuit Design which gives the professor the option to easily select and customize the material to satisfy a two-semester or three-quarter sequence in electronics. Jaeger/Blalock emphasizes design through the use of design examples and design notes. Excellent pedagogical elements include chapter opening vignettes, chapter objectives, "Electronics in Action" boxes, a problem-solving methodology, and "Design Note" boxes. The use of the well-defined problem-solving methodology presented in this text can significantly enhance an engineer’s ability to understand the issues related to design. The design examples assist in building and understanding the design process.

**CONTENTS**

Part I—Solid State Electronics and Devices
Chapter 1 Introduction to Electronics
Chapter 2 Solid-State Electronics
Chapter 3 Solid-State Diodes and Diode Circuits
Chapter 4 Field-Effect Transistors
Chapter 5 Bipolar Junction Transistors
Part II—Digital Electronics
Chapter 6 Introduction to Digital Electronics
Chapter 7 Complementary MOS (CMOS) Logic Design
Chapter 8 MOS Memory and Storage Circuits
Chapter 9 Bipolar Logic Circuits
Part III—Analog Electronics
Chapter 10 Analog Systems and Ideal Operational Amplifiers
Chapter 11 Nonideal Operational Amplifiers and Feedback Amplifier Stability
Chapter 12 Operational Amplifier Applications
Chapter 13 Small-Signal Modeling and Linear Amplification
Chapter 14 Single Transistor Amplifiers
Chapter 15 Differential Amplifiers and Operational Amplifier Design
Chapter 16 Analog Integrated Circuit Design Techniques
Chapter 17 Amplifier Frequency Response
Chapter 18 Transistor Feedback Amplifiers and Oscillators
Appendices
A: Standard Component Values
B: Device Models and SPICE
C: Two-Port Review
Microelectronics: Circuit Analysis and Design is intended as a core text in electronics for undergraduate electrical and computer engineering students. The fourth edition continues to provide a foundation for analyzing and designing both analog and digital electronic circuits. The goal has always been to make this book very readable and student friendly.

An accessible approach to learning through clear writing and practical pedagogy has become the hallmark of Microelectronics: Circuit Analysis and Design by Donald Neamen. Now in its fourth edition, the text builds upon its strong pedagogy and tools for student assessment with key updates as well as revisions that allow for flexible coverage of op-amps.

Contents
Part I: Semiconductor Devices and Basic Applications
Chapter 1: Semiconductor Materials and Diodes
Chapter 2: Diode Circuits
Chapter 3: The Field-Effect Transistor
Chapter 4: Basic FET Amplifiers
Chapter 5: The Bipolar Junction Transistor
Chapter 6: Basic BJT Amplifiers
Chapter 7: Frequency Response
Chapter 8: Output Stages and Power Amplifiers
Part II: Analog Electronics
Chapter 9: Ideal Operational Amplifiers and Op-Amp Circuits
Chapter 10: Integrated Circuit Biasing and Active Loads
Chapter 11: Differential and Multistage Amplifiers
Chapter 12: Feedback and Stability
Chapter 13: Operational Amplifier Circuits
Chapter 14: Nonideal Effects in Operational Amplifier Circuits
Chapter 15: Applications and Design of Integrated Circuits
Part III: Digital Electronics
Chapter 16: MOSFET Digital Circuits
Chapter 17: Bipolar Digital Circuits

PSPICE for Basic Microelectronics
by Joseph G. Trout, Virginia Polytech Institute & State University
2008 (July 2007) / Softcover with CD
ISBN: 9780073263205
ISBN: 9780071263894 [IE, with CD]

The PSpice Manual will be sold as a stand-alone and, also, in packages with Neamen, Electronic Circuit Analysis and Jaeger, Microelectronic Circuit Design. Text introduces readers to the fundamental uses of Pspice in support of Microelectronic circuit analysis. This book goes beyond basic circuit analysis to include analysis of more complex electronic problems. Analysis of diodes, BJTs, JFETs, MOSFETs, and transformers will be included— all key areas in the Electronics course.
Key features include: • Step-by-step instructions to support novice users as they perform schematic capture and circuit simulation. • Detailed explanations and examples of the use of PSpice in typical problem-solving situations. • Explains some of the salient features of PSpice, including information on OrCAD Capture and Probe.

Contents
1 Introduction
2 Getting Started
3 Simple DC Circuits
4 Time Domain Analysis
5 Frequency Domain Analysis
6 Mutual Inductance and Transformers
7 Diode Circuits
8 Bipolar Junction Transistor Circuits
9 Metal Oxide Semiconductor Field Effect Transistor (MOSFET) Circuits
10 Conclusions
Bibliography
Appendix I Converting OrCAD Version 9.x Files to Version 10.0
Appendix II Files Used by PSpice
Index

Schaum's Outline of Electronic Devices and Circuits
2nd Edition
by Jim Cathey, University of Kentucky—Lexington
2002 / 304 pages
ISBN: 9780071362702
(International Edition is not for sale in Japan.)
(A Schaum's Publication)

This updated version of its internationally popular predecessor provides and introductory problem-solved text for understanding fundamental concepts of electronic devices, their design, and their circuitry. Providing an interface with Pspice, the most widely used program in electronics, new key features include a new chapter presenting the basics of switched mode power supplies, thirty-one new examples, and twenty-three PS solved problems.

Contents
Circuit Analysis: Port Point of View.
Semiconductor Diodes.
Characteristics of Bipolar Junction Transistors.
Characteristics of Field-Effect Transistors and Triodes.
Transistor Bias Considerations.
Small-Signal Midfrequency BJT Amplifiers.
Small-Signal Midfrequency FET Amplifiers.
Frequency Effects in Amplifiers.
Operational Amplifiers.
Switched Mode Power Supplies
Physics of Semiconductor Devices

AN INTRODUCTION TO SEMICONDUCTOR DEVICES

Chapter 7: The pn Junction
Chapter 8: The pn Junction Diode
Chapter 9: Metal-Semiconductor and Semiconductor Heterojunctions
Chapter 10: Fundamentals of the Metal-Oxide-Semiconductor Field-Effect Transistor
Chapter 11: Metal-Oxide-Semiconductor Field-Effect Transistor: Additional Concepts
Chapter 12: The Bipolar Transistor
Chapter 13: The Junction Field-Effect Transistor
Part III Specialized Semiconductor Devices
Chapter 14: Optical Devices
Chapter 15: Semiconductor Microwave and Power Devices
Appendix A: Selected List of Symbols
Appendix B: System of Units, Conversion Factors, and General Constants
Appendix C: The Periodic Table
Appendix D: Unit of Energy-The Electron-Volt
Appendix E: "Derivation" of Schrodinger’s Wave Equation
Appendix F: Effective Mass Concepts
Appendix G: The Error Function
Appendix H: Answers to Selected Problems

Contents
Part I Semiconductor Material Properties
Chapter 1: The Crystal Structure of Solids
Chapter 2: Introduction to Quantum Mechanics
Chapter 3: Introduction to the Quantum Theory of Solids
Chapter 4: The Semiconductor in Equilibrium
Chapter 5: Carrier Transport Phenomena
Chapter 6: Nonequilibrium Excess Carriers in Semiconductors
Part II Fundamental Semiconductor Devices
Appendix G Derivation of Shockley-Read-Hall Recombination Rates.
Appendix H Answers to Selected Problems
Chapter 7: The Steady Magnetic Field
Chapter 8: Magnetic Forces, Materials and Inductance
Chapter 9: Time-Varying Fields and Maxwell's Equations
Chapter 10: Transmission Lines
Chapter 11: The Uniform Plane Wave
Chapter 12: Plane Wave Reflection and Dispersion
Chapter 13: Guided Waves
Chapter 14: Electromagnetic Radiation and Antennas
Appendix A Vector Analysis
Appendix B Units
Appendix C Material Constants
Appendix D The Uniqueness Theorem
Appendix E Origins of the Complex Primitivity
Appendix F Answers to Odd-Numbered Problems

Features:
- Focused coverage of a one-semester course on Electromagnetics, written in unique ‘one topic, one chapter’ approach
- Holistic discussion of concepts based on the following format: Statement —> Proof —> Explanation / Interpretation —> Applications
- Dedicated chapter on ‘Solution of Boundary-Value Problems’ for both static electric and magnetic fields
- Pedagogy comprises 282 Diagrams, 287 Solved Examples, 168 Objective Questions, 248 Test Questions and 363 Problems with challenge levels, making this text an interactive and engrossing read

Contents:
Chapter 1: Introductory Topics
Chapter 2: Static Electric Fields
Chapter 3: The Steady Conduction Current
Chapter 4: The Magnetic Fields of Stationary Currents
Chapter 5: Solution of Boundary - Value Problems
Chapter 6: Time-Varying Electric and Magnetic Fields
Chapter 7: The Uniform Plane Electromagnetic Wave
Chapter 8: Two-Conductor Transmission Lines
Chapter 9: Wave Propagation between Parallel Plates in Rectangular Waveguides
Chapter 10: Radiation from Antennas

First published just over 50 years ago and now in its Eighth Edition, Bill Hayt and John Buck’s Engineering Electromagnetics is a classic text that has been updated for electromagnetics education today. This widely-respected book stresses fundamental concepts and problem solving, and discusses the material in an understandable and readable way. Numerous illustrations and analogies are provided to aid the reader in grasping the difficult concepts. In addition, independent learning is facilitated by the presence of many examples and problems. Important updates and revisions have been included in this edition. One of the most significant is a new chapter on electromagnetic radiation and antennas. This chapter covers the basic principles of radiation, wave antennas, simple arrays, and transmit-receive systems.

NEW TO THIS EDITION
- New Problems and Pedagogy. New end-of-chapter problems are added throughout the text, and 130 problems are all new. A "thermometer" icon is included throughout the problem sets to help the instructor select the preferred level of difficulty of homework assignments. Practice problems are also updated and revised.
- New Coverage—Antennas. Chapter 14, Antennas, covers important changes in antennas brought upon by the rapid advances in wireless communications.
- New Coverage — Rectangular Waves. The rectangular waveguides coverage has been expanded.
- Careful Learning Approach. The book is written to make it easy and possible for the student to learn independently. By applying a carefully graduated scale of difficulty within each chapter, providing numerical examples, a large number of drill problems with answers, and a graduated set of end-of-chapter problems, it is possible for the student to learn independently. By applying a carefully graduated scale of difficulty within each chapter, providing numerical examples, a large number of drill problems with answers, and a graduated set of end-of-chapter problems, it is possible for the student to learn independently.

Contents:
Chapter 1: Vector Analysis
Chapter 2: Coulomb’s Law and Electric Field Intensity
Chapter 3: Electric Flux Density, Gaus’s Law, and Divergence
Chapter 4: Energy and Potential
Chapter 5: Conductors and Dielectrics
Chapter 6: Capacitance

Principles of Electromagnetics has been primarily developed to elucidate the study of electromagnetics in a simple and systematic manner. Basis the aforesaid rationale, this text adheres to precise explanations of topics to help students grasp concepts better. Each chapter starts with an introduction, followed by theory and applications. The text is supported by a number of two-dimensional and three-dimensional illustrations for easy comprehension. Mathematical steps have been explained stepwise, leaving the final step such as differentiation or integration, for the students to work out.

International Edition

New to this edition:
- 9780073380667
- 2012 (February 2011) / Hardcover / 608 pages
- www.mhhe.com/haytbuck8

Eighth Edition

Principles of Electromagnetics
by S C Mahapatra, Former Professor, University College of Engineering, Sambalpur University, Orissa, and Sudipta Mahapatra, Associate Professor, Department of Electronics and Electrical Communication Engineering, Indian Institute of Technology, Kharagpur

2011 (April 2011) / Softcover / 728 pages
ISBN: 9780071072601
(McGraw-Hill India Title)
Electrical Engineering

Appendix A Mutual Inductance (Neumann's Form)
Appendix B Internal Impedance of Round Conductors
Appendix C The Smith Chart
Appendix D Material Constants
Appendix E List of Symbols
Appendix F References
Appendix G Answers

INTERNATIONAL EDITION

ELECTROMAGNETICS
5th Edition
by John Kraus, Ohio State University (Emeritus) and Daniel A Fleisch, Aeroflex-Lintele Corp, and Wittenburg University
1999 / 800 pages / Hardcover
ISBN: 9780071164290 [IE]

This book is a classic and has been one of the traditional market leaders since its first publication in 1953. In this revision, the authors have made some drastic changes to keep pace with the transformation that has been going on in the curriculum over the past few years. In many schools this course has gone from a two-semester course to a one-semester course. In the fifth edition, transmission lines and other practical applications are addressed early in the text and the coverage of electrostatics is reduced to make this book suitable for a one-semester course. This text provides flexibility in that the core material is provided in the first five chapters with supplementary material that may be used as desired in the remaining chapters.

This text is unique in having hundreds of real-world examples accompanied by problems of varying difficulty. Additionally, this book covers numerical techniques and contains useful computer programs and projects to afford students the opportunity to gain direct experience in the use of electromagnetic software and hardware. This text is accompanied by a website containing projects, recent developments in the field, and demonstrations of electromagnetic principles.

CONTENTS
1. Introduction.
2. Electric and Magnetic Fields.
3. Transmission Lines.
8. Waveguides, Resonators and Fiber Optics.
11. Numerical Techniques

SCHAUM’S OUTLINE OF ELECTROMAGNETICS
3rd Edition
by Joseph Edminister, Cornell University
2011 (October 2010) / Softcover / 360 pages
ISBN: 9780071632355
(A Schaum’s Publication)

Modified to conform to the current curriculum, Schaum's Outline of Electromagnetics complements these courses in scope and sequence to help you understand its basic concepts. The book offers extra practice on topics such as current density, capacitance, magnetic fields, inductance, electromagnetic waves, transmission lines, and antennas. Appropriate for the following course: Electromagnetics

CONTENTS
1. Vector Analysis
2. Coulomb Forces and Electric Field Intensity
3. Electric Flux and Gauss' Law
4. Divergence and the Divergence Theorem
5. The Electrostatic Field: Work, Energy, and Potential
6. Current, Current Density, and Conductors
7. Capacitance and Dielectric Materials
8. Laplace's Equation
9. Ampere's Law and the Magnetic Field
10. Forces and Torques in Magnetic Fields
11. Inductance and Magnetic Circuits
12. Displacement Current and Induced EMF
13. Maxwell's Equations and Boundary Conditions
14. Electromagnetic Waves
15. Transmission Lines
16. Waveguides
17. Antennas

MICROWAVE ENGINEERING
2nd Edition
by Annapurna Das, Head, EMC Division, SAMEER Centre for Electromagnetics, and Sisir K. Das, Dean-Research, GN Institute of Technology, Kolkata, India
2009 / Softcover / 580 pages
ISBN: 9780070667389
(McGraw-Hill India Title)

www.mhhe.com/das/me2e

This edition has been revised extensively to provide a comprehensive coverage of all major topics in Microwave Engineering. It thoroughly covers the basic principles, analysis, design and measurement techniques with the help of simple explanations and a large number of solved and unsolved problems.

CONTENTS
Chapter 1. Introduction
Chapter 2. Propagation of Electromagnetic Waves
Chapter 3. RF and Microwave Transmission Lines
Chapter 4. Microwave Integrated Circuits Design and Manufacturing
Chapter 5. Impedance Transformations for Matching
Chapter 6. Microwave Network Theory and Passive Devices
Chapter 7. Microwave Resonators
Chapter 8. Microwave Filters
Chapter 9. Microwave Vacuum Tube Devices
Chapter 10. Microwave Solid State Devices and Circuits
Chapter 11. Applications of Microwaves
Chapter 12. Microwave Radiation Hazards
Chapter 13. Microwave Measurements

Microwaves
This is an exciting revision of John Kraus' classic book "Antennas," which has been long known as the "Antenna Bible." A new co-author, Ronald Marhefka, has joined the author team for this revision. Many new, modern applications have been added—thus the title change to "Antennas with All Applications." As well, the references have been updated to include recent additions to the literature.

Additionally, the book has been reorganized to make it more user-friendly for both students and professionals. The book now covers the fundamentals of various antennas and concepts in the first half of the book and then gets into more details on those same topics later in the book. This allows a one-semester course to just cover the fundamentals if desired, and a professional to focus on advanced topics if he or she wants.

CONTENTS
1 Introduction.
2 Antenna Basics.
3 The Antenna Family.
4 Point Sources.
5 Arrays of Point Sources.
6 The Electric Dipole and Thin Linear Antennas.
7 The Loop Antenna.
8 End Fire Antennas: The Helical Beam Antenna and the Yagi-Uda Array.
9 Slot, Patch and Horn Antennas.
10 Flat Sheet, Corner and Parabolic Reflector Antennas.
11 Broadband and Frequency-Independent Antennas.
12 Antenna Temperature, Remote Sensing and Radar Cross-Section.
13 Self and Mutual Impedances.
14 The Cylindrical Antenna and the Moment Method (MM).
15 The Fourier Transform Relation Between Aperture Distribution and Far-Field Pattern.
16 Arrays of Dipoles and of Apertures.
17 Lens Antennas.
18 Frequency-Selective Surfaces and Periodic Structures by Ben A. Munk.
19 Practical Design Considerations of Large Aperture Antennas.
20 Some Examples of Large or Unique Antennas.
21 Antennas for Special Applications.
22 Terahertz Antennas.
23 Baluns, etc. By Ben A. Munk.
24 Antenna Measurements. By Arto Lehto and Pertti Vainikainen.
Appendix A Tables for Reference.
Appendix B Books and Video Tapes.
Appendix C Computer Programs (Codes).
Appendix D Absorbing Materials.
Appendix E Measurement Error
The 4th edition of the text book focuses on rigorous coverage of design and analysis of complex digital circuits and systems through expansion of topics like Sequential Logic Design, PLDs, Memories and VHDL implementation codes. The book begins with the fundamental concepts of digital electronics and covers digital design using VHDL supported with numerous examples. This book caters well to both CSE and Electronics courses requirements.

CONTENTS
1. FUNDAMENTAL CONCEPTS 1
1.1 Introduction 1
1.2 Digital Signals 2
1.3 Basic Digital Circuits 3
1.4 NAND and NOR Operations 8
1.5 Exclusive-OR and Exclusive-NOR Operations 12
1.6 Boolean Algebra 15
1.7 Examples of IC Gates 18
Summary 19
Glossary 21
Review questions 23
Problems 23

2. NUMBER SYSTEMS AND CODES 28
2.1 Introduction 28
2.2 Number Systems 28
2.3 Binary Number System 29
2.4 Signed Binary Numbers 34
2.5 Binary Arithmetic 38
2.6 2's Complement Arithmetic 41
2.7 Octal Number System 43
2.8 Hexadecimal Number System 48
2.9 Codes 53
2.10 Error Detecting and Correcting Codes 60
Summary 69
Glossary 70
Review Questions 71
Problems 72

3. SEMICONDUCTOR DEVICES—SWITCHING MODE OPERATION 74
3.1 Introduction 74
3.2 Semiconductors 75
3.3 p-n Junction Diode 76
3.4 Schottky Diode 83
3.5 Bipolar Junction Transistor 83
3.6 Schottky Transistor 91
3.7 Field-Effect Transistor 91
Summary 99
Glossary 99
Review Questions 99
Problems 99

4. DIGITAL LOGIC FAMILIES 105
4.1 Introduction 105
4.2 Characteristics of Digital ICs 106
4.3 Resistor–Transistor Logic (RTL) 109
4.4 Direct-Coupled Transistor Logic (DCTL) 112
4.5 Integrated-Injection Logic (I2L) 112
4.6 Diode-Transistor Logic (DTL) 116
4.7 High-Threshold Logic (HTL) 119
4.8 Transistor–Transistor Logic (TTL) 120
4.9 Schottky TTL 125
4.10 5400/7400 TTL Series 125
4.11 Emitter-Coupled Logic (ECL) 128
4.12 Interfacing ECL and TTL 132
4.13 MOS Logic 133
4.14 CMOS Logic 137
4.15 CMOS Logic Families 145
4.16 Low-Voltage CMOS Logic 147
4.17 BICMOS Logic Family 148
4.18 Interfacing CMOS and TTL 149
4.19 Interfacing CMOS and ECL 151
4.20 Tri-State Logic 151
Summary 155
Glossary 158
Review Questions 160
Problems 160

5. COMBINATIONAL LOGIC DESIGN 165
5.1 Introduction 165
5.2 Standard Representations for Logic Functions 166
5.3 Karnaugh Map Representation of Logic Functions 173
5.4 Simplify cation of Logic Functions Using K-Maps 178
5.5 Minimisation of Logic Functions Specified in Minterms/Maxterms or Truth Table 184
5.6 Minimisation of Logic Functions not Specified in Minterms/Maxterms 188
5.7 Don’t-Care Conditions 190
5.8 Design Examples 192
5.9 EX-OR and EX-NOR Simplify cation of K-Maps 201
5.10 Five- and Six-Variable K-Maps 208
5.11 Quine-McCluskey Minimisation Technique 210
5.12 Hazards in Combinational Circuits 218
Summary 225
Glossary 225
Review Questions 227
Problems 228

6. COMBINATIONAL LOGIC DESIGN USING MSI CIRCUITS 231
6.1 Introduction 231
6.2 Multiplexers and their use in Combinational Logic Design 231
6.3 Demultiplexers/Decoders and their use in Combinational Logic Design 238
6.4 Adders and their use as Subtractors 242
6.5 BCD Arithmetic 246
6.6 Arithmetic Logic Unit (ALU) 250
6.7 Digital Comparators 252
6.8 Parity Generators/Checkers 256
6.9 Code Converters 258
6.10 Priority Encoders 268
6.11 Decoder/Drivers for Display Devices 271
Summary 275
Glossary 275
Review Questions 276
Problems 276

7. FLIP-FLOPS 279
7.1 Introduction 279
7.2 A 1-Bit Memory Cell 280
7.3 Clocked S–R FLIP-FLOPS 282
7.4 J-K FLIP-FLOPS 284
7.5 D-TYPE FLIP-FLOPS 288
7.6 T-TYPE FLIP-FLOPS 289
7.7 Excitation Table of FLIP-FLOPS 290
7.8 Clocked FLIP-FLOP Design 290
7.9 Edge-Triggered FLIP-FLOPs 294
7.10 Applications of FLIP-FLOPs 299
Summary 303
Glossary 304
Review Questions 305
Problems 306
8. SEQUENTIAL LOGIC DESIGN 312
8.1 Introduction 312
8.2 Registers 312
8.3 Applications of Shift Registers 316
8.4 Ripple or Asynchronous Counters 321
8.5 Synchronous Counters 332
8.6 Synchronous Sequential Circuits Design 348
8.7 Asynchronous Sequential Circuits 369
8.8 Hazards in Sequential Circuits 390
Summary 392
Glossary 392
Review Questions 394
Problems 395
9. TIMING CIRCUITS 400
9.1 Introduction 400
9.2 Applications of Logic Gates in Timing Circuits 401
9.3 OP AMP and its Applications in Timing Circuits 403
9.4 Schmitt Trigger ICs 413
9.5 Monostable Multivibrator ICs 414
9.6 555 Timer 421
Summary 425
Glossary 425
Review Questions 426
Problems 427
10. A/D AND D/A CONVERTERS 429
10.1 Introduction 429
10.2 Digital-to-Analog Converters 430
10.3 An Example of D/A Converter IC 441
10.4 Sample-and-Hold 445
10.5 Analog-to-Digital Converters 446
10.6 An Example of A/D Converter IC 457
Summary 459
Glossary 460
Review Questions 461
Problems 461
11. SEMICONDUCTOR MEMORIES 463
11.1 Introduction 463
11.2 Memory Organisation and Operation 463
11.3 Expanding Memory Size 469
11.4 Classfi cation and Characteristics of Memories 472
11.5 Read-only Memory 475
11.6 Read and Write Memory 485
11.7 Flash Memory 496
11.8 Content Addressable Memory 498
11.9 First-in, fi rst-out Memory (FIFO) 504
11.10 Charge Coupled Device Memory 511
Summary 515
Glossary 516
Review Questions 518
Problems 518
12. PROGRAMMABLE LOGIC DEVICES 522
12.1 Introduction 522
12.2 ROM as a PLD 523
12.3 Programmable Logic Array 524
12.4 Programmable Array Logic 537
12.5 Complex Programmable Logic Devices (CPLDs) 554
12.6 Field-Programmable Gate Array (FPGA) 564
Summary 572
Glossary 572
Review Questions 574
Problems 575
13. FUNDAMENTALS OF MICROPROCESSORS 577
13.1 Introduction 577
13.2 An Ideal Microprocessor 578
13.3 The Data Bus 580
13.4 The Address Bus 582
13.5 The Control Bus 583
13.6 Microprocessor Based System—Basic Operation 584
13.7 Microprocessor Operation 587
13.8 Microprocessor Architecture 588
13.9 Instruction Set 590
13.10 The 8085A Microprocessor 592
13.11 The 8086 Microprocessor 617
13.12 Programming Languages 620
Summary 621
Glossary 622
Review Questions 624
Problems 625
14. COMPUTER AIDED DESIGN OF DIGITAL SYSTEMS 627
14.1 Introduction 627
14.2 Computer Aided Design (CAD) Concepts 628
14.3 CAD Tools 629
14.4 Introduction to VHDL 633
14.5 Describing Combinational Circuits using VHDL 649
14.6 Describing Sequential Circuits using VHDL 659
Summary 666
Glossary 666
Review Questions 669
Problems 670
Appendix A1— Reserved Words in VHDL 672
Appendix A2—Symbols Defi ned in VHDL 673
Appendix B—Bibliography 674
Appendix C—Answers to Review Questions 676
Appendix D—Answers to Selected Problems 681
Index 70

DIGITAL ELECTRONICS
Principals and Applications
by Soumitra Kumar Mandal, Asst. Professor, Dept of Electrical Engg.,
National Technical Teachers’ Training and Research, Kolkata
2009 / Softcover / 650 pages
ISBN: 9780070153820
(McGraw-Hill India Title)
www.mhhe.com/mandal/de

This book on Digital Electronics is an introductory level text on the subject. It has been designed to primarily target the Undergraduate students of Engineering Streams (like CS, IT, EEE, ECE, EI, etc.), of B & C category colleges. It can also be used by BSc./MSc., BCA, MCA, Diploma and Polytechnic level courses. The book begins with discussion on the fundamental concepts of digital electronics such as number systems, Boolean algebra, logic families followed by topics (like combinational and sequential logic, multivibrators, A/D conversion and Memories) related to design and analysis of digital systems and finally covers fundamentals of digital design using VHDL and Verilog HDL. The concepts are concisely explained and supported with numerous examples, illustrations and circuit diagrams. The book provides objective, theoretical and numerical problems for testing and enhancing one’s subject related knowledge and understandings. The objective questions would be also helpful in the preparation for competitive examinations.

CONTENTS
1. Number System
2. Boolean Algebra And Logic Gates
3. Digital Logic Family
4. Combinational Logic
5. Combinational Logic Design
6. Arithmetic Logic Circuits
7. Flip-Flops
8. Sequential Circuits
9. Sequential Circuits Design
10. Multivibrators
11. Analog Digital Conversion
12. Semiconductor Memories

13.6 Microprocessor Based System—Basic Operation 584
13.7 Microprocessor Operation 587
13.8 Microprocessor Architecture 588
13.9 Instruction Set 590
13.10 The 8085A Microprocessor 592
13.11 The 8086 Microprocessor 617
13.12 Programming Languages 620
Summary 621
Glossary 622
Review Questions 624
Problems 625
x Modern Digital Electronics - - - - -
13. Programmable Logic Devices
15. Laboratory Experiments

INTERNATIONAL EDITION

DIGITAL ELECTRONICS: PRINCIPLES AND APPLICATIONS
7th Edition
by Roger L. Tokheim
2008 (February 2007) / Softcover / 552 pages
ISBN: 9780073222752 (Student Text with MultiSIM CD)
ISBN: 9780071108508 [IE with MultiSIM CD]
(A Glencoe Trade & Technical Title)
www.mhhe.com/tokheim7e

Digital Electronics: Principles and Applications is a concise and practical text that prepares students for entry-level electronics jobs. Its level and approach are ideal for both electronics and electricity programs looking for a relatively short, applied book. The seventh edition has been updated, with new coverage of microcontrollers, memory, and interfacing. Optional simulation work with MultiSim is included in the text and accompanying Experiments Manual, with circuit files included on a bound-in CD ROM. Additional student and instructor resources are included on a new Online Learning Center website.

CONTENTS
1 Digital Electronics.
2 Numbers We Use in Digital Electronics.
3 Logic Gates.
4 Combining Logic Gates.
5 IC Specifications and Simple Interfacing.
6 Encoding, Decoding, and Seven-Segment Displays.
7 Flip-Flops.
8 Counters.
9 Shift Registers.
10 Arithmetic circuits.
11 Memory and Storage.
12 Digital Systems.
13 Computer Systems.
14 Connecting with Analog Devices
The popular Xilinx ISE WebPACK software is used as the design tool for VHDL. This tool contains the ISE synthesizer and built-in ISE simulator to allow students to verify that their designs work prior to downloading them in the Spartan 3E on the Nexys 2 board. Xilinx ISE WebPACK is a free download from Xilinx via their web site.

In Chapter 18, VBC1-E is introduced. VBC1-E is an enhanced version of VBC1 with 25 instructions with 71 variations.

CONTENTS
Chapter 1: Boolean Algebra, Boolean Functions, VHDL, and Gates
Chapter 2: Number Conversions, Codes, and Function Minimization
Chapter 3: Introduction to Logic Circuit Analysis and Design
Chapter 4: Combinational Logic Circuit Design with VHDL
Chapter 5: Bistable Memory Device Design with VHDL
Chapter 6: Simple Finite State Machine Design with VHDL
Chapter 7: Computer Circuits
Chapter 8: Circuit Implementation Techniques
Chapter 9: Complex Finite State Machine Design with VHDL
Chapter 10: Basic Computer Architectures
Chapter 11: Assembly Language Programming for VBC1
Chapter 12: Designing Input/Output Circuits
Chapter 13: Designing Instruction Memory, Loading Program Counter, and Debounced Circuit
Chapter 14: Designing Multiplexed Display Systems
Chapter 15: Designing Instruction Decoders
Chapter 16: Designing Arithmetic Logic Units
Chapter 17: Completing the Design for VBC1
Chapter 18: Assembly Language Programming for VBC1-E
Chapter 19: Designing Input/Output Circuits for VBC1-E
Chapter 20: Designing the Data Memory Circuit for VBC1-E
Chapter 21: Designing the Arithmetic, Logic, Shift, Rotate, and Unconditional Jump Circuits for VBC1-E
Chapter 22: Designing a Circuit to Prevent Program Execution During Manual Loading for VBC1-E
Chapter 23: Designing Extended Instruction Memory for VBC1-E
Chapter 24: Designing the Software Interrupt Circuits for VBC1-E
Chapter 25: Completing the Design for VBC1-E
Appendices
Fundamentals of Digital Logic With VHDL Design teaches the basic design techniques for logic circuits. It emphasizes the synthesis of circuits and explains how circuits are implemented in real chips. Fundamental concepts are illustrated by using small examples, which are easy to understand. Then, a modular approach is used to show how larger circuits are designed.

VHDL is used to demonstrate how the basic building blocks and larger systems are defined in a hardware description language, producing designs that can be implemented with modern CAD tools. The book emphasizes CAD through the use of Altera's Quartus II CAD software, a state-of-the-art digital circuit design package. This software produces automatic mapping of designs written in VHDL into Field Programmable Gate Arrays (FPGAs) and Complex Programmable Logic Devices (CPLDs).

Contents
Chapter 1: Design Concepts
Chapter 2: Introduction to Logic Circuits
Chapter 3: Implementation Technology
Chapter 4: Optimized Implementation of Logic Functions
Chapter 5: Number Representation and Arithmetic Circuits
Chapter 6: Combinational-Circuit Building Blocks
Chapter 7: Flip-Flops, Registers, Counters, and a Simple Processor
Chapter 8: Synchronous Sequential Circuits
Chapter 9: Asynchronous Sequential Circuits
Chapter 10: Digital System Design
Chapter 11: Testing of Logic Circuits
Chapter 12: Computer Aided Design Tools
Appendix A VHDL Reference
Appendix B Tutorial 1–Using Quartus II CAD Software
Appendix C Tutorial 2–Implementing Circuits in Altera Devices
Appendix D Tutorial 3–Physical Implementations in a PLD
Appendix E Commercial Devices
Answers
Introduction to Logic and Computer Design by Alan Marcovitz takes the successful formula realized in the author’s previous books and makes it even better. With the inclusion of several chapters on computer design, Marcovitz now offers everything a fundamentals-oriented logic design course might include. Further, this new book is supported by an ARIS site - McGraw-Hill's electronic homework management systems -- including 350 algorithmic problems and a host of new media supplements to make both the instructor’s and the student’s tasks easier. As with Marcovitz's previous books, the clear presentation of concepts and well-paced writing style make Introduction to Logic and Computer Design the ideal companion to any first course in digital logic. Users rave about the book’s extensive set of examples — well integrated into the body of the text and included at the end of each chapter in sections of solved problems — that give students multiple opportunities to understand the topics being presented.

CONTENTS
1 Introduction
Part I Logic Design
2 Combinational Systems
3 The Karnaugh Map
4 Designing Combinational Systems
5 Analysis of Sequential Systems
6 The Design of Sequential Systems
7 Solving Larger Sequential Problems
Part II Computer Design
8 Computer Organization
9 Computer Design Fundamentals
10 The Design of a Central Processing Unit
11 Beyond the Central Processing Unit

This exciting first edition provides more depth than existing digital design books, using a traditional approach to the subject. Digital Principles and Design contains introductory material in digital principles with emphasis on logic design, as well as more advanced material. With the exception of the digital circuits appendix, it assumes no background on the part of the reader. The text can be used by readers in computer science, computer engineering and electrical engineering. The emphasis in the book is on the thorough presentation of basic principles of logic design and the illustration of these principles. While many introductory texts only provide the mechanics of classical logic design, Givone provides justifications behind these procedures to give students the understanding they need for the advanced topics they will learn about in subsequent courses. Some of the topics that the book thoroughly presents include: the simplification of Boolean expressions with Karnaugh maps, variable-entered Karnaugh maps, and the analysis and design of both clocked synchronous sequential networks and asynchronous sequential networks.

CONTENTS
1 Introduction.
2 Number Systems, Arithmetic, and Codes.
3 Boolean Algebra and Combinational Networks.
4 Simplification of Boolean Expressions.
5 Logic Design with MSI Components and Programmable Logic Devices.
6 Flip-Flops and Simple Flip-Flop Applications.
7 Synchronous Sequential Networks.
8 Algorithmic State Machines.
9 Asynchronous Sequential Networks.
Appendix A: Digital Circuits.
Appendix B: TBD
COMPUTER ARCHITECTURE AND LOGIC DESIGN
by Thomas C. Bartee, IDA
1991 / 640 pages
ISBN: 9780071125543 [IE]

Thomas Bartee has succeeded in offering easy-to-understand coverage of the basics of computer organization and logic design—focusing on the most common microcomputers as examples. Written in Bartee’s excellent style, the book accurately reflects the current state of the art in its coverage of important topics, some of which include the Quine-McLuskey reduction technique, the 386-486 family, the 68030-68040 family, cache and virtual memory, and much more. The material integrates the principles of organization and architecture—clearly showing how they are interrelated. Starting from logical functions and moving to composite functions and structures, the book allows readers to easily place new material in context.

CONTENTS
1. Introduction.
2. Number Systems.
3. Boolean Algebra and Gate Networks.
4. Logic Design.
5. The Arithmetic-Logic Unit.
6. The Memory Element.
7. Input-Output.
8. Buses and Interfaces.
9. The Control Unit.
11. Selected Architectures.
12. Logic Circuits Overview.

SCHAUM’S OUTLINE OF INTRODUCTION TO DIGITAL SYSTEMS
by James Palmer, Rochester Institute of Technology; David Perlman, Rochester Institute of Technology
1993 / 400 pages
ISBN: 9780070484399
(A Schaum’s Publications)

CONTENTS
1 Numbers and the Binary System
2 Design of Combinational Logic I
3 Design of Combinational Logic II-Manipulation
4 Hardware and the Mixed-Logic Convention
5 MSI and LSI Elements
6 Timing Diagrams
7 The Flip-Flop/8 Combinations of Flip-Flops
9 Application Specific Devices
10 Design of Simple State Machines
11 Electronically Programmable Functions

Appendixes
A: Basic Boolean Theorems and Identities
B: Standard Logic Symbols
C: Some Comments on Digital Logic Simulation

PROGRAMMABLE LOGIC CONTROLLERS
4th Edition
by Frank D. Petruzella
2011 (September 2010) / Softcover / 416 pages
ISBN: 9780073510880
(ISBN: 9780071221351 [IE])
(A Trade & Technical Title)
www.mhhe.com/plc4e

This fourth edition of Programmable Logic Controllers continues to provide an up-to-date introduction to all aspects of PLC programming, installation, and maintaining procedures. No previous knowledge of PLC systems or programming is assumed. As one reviewer of this edition put it “I honestly believe that someone with little or no background to PLC systems could take this book and teach themselves PLCs”.

CONTENTS
Chapter 1 Programmable Logic Controllers (PLCs): An Overview
Chapter 2 PLC Hardware Components
Chapter 3 Number Systems and Codes
Chapter 4 Fundamentals of Logic
Chapter 5 Basics of PLC Programming
Chapter 6 Developing Fundamental PLC Wiring Diagrams and Ladder Logic Programs
Chapter 7 Programming Timers
Chapter 8 Programming Counters
Chapter 9 Program Control Instructions
Chapter 10 Data Manipulation Instructions
Chapter 11 Math Instructions
Chapter 12 Sequence and Shift Register Instructions
Chapter 13 PLC Installation Practices, Editing, and Troubleshooting
NEW! Chapter 14 Process Control, Network Systems, and SCADA
14.1 Types of Processes
14.2 Structure of Control Systems
14.3 ON/OFF Control
14.4 PID Control
14.5 Motion Control
14.6 Data Communications
Data Highway
Serial Communication
DeviceNet
ControlNet
EtherNet/IP
Modbus
Fieldbus
PROFIBUS-DP
14.7 Supervisory Control and Data Acquisition (SCADA)
Review Questions
Problems
NEW! Chapter 15 ControlLogix Controllers
Part 1—Memory and Project Organization
Memory Layout
Configuration
Project
Tasks
Programs
Routines
Tags
Structures
Creating Tags
Monitoring and Editing Tags
Array
Review Questions
Part 2—Bit-Level Programming
Program Scan
Creating Ladder Logic
Tag-Based Addressing
Adding Ladder Logic to the Main Routine
Internal Relay Instructions
Latch and Unlatch Instructions
One-Shot Instruction
Review Questions
Problems

Part 3—Programming Timers
Timer Predefined Structure
On-Delay Timer (TON)
Off-Delay Timer (TOF)
Retentive Timer On (RTO)
Review Questions
Problems

Part 4—Programming Counters
Counters
Count-Up (CTU) Counter
Count-Down (CTD) Counter
Review Questions
Problems

Part 5—Math, Comparison, and Move Instructions
Math Instructions
Comparison Instructions
Move Instructions
Review Questions
Problems

Part 6—Function Block Programming
Function Block Diagram (FBD)
FBD Programming
Review Questions
Problems

Control Systems

CONTROL SYSTEMS
Problems and Solutions
by Varmah K R, Department of Electrical & Electronics Engineering, Rajagiri School Of Engineering & Technology, Cochin, Kerala
2010 (May 2010) / Softcover / 793 pages
ISBN: 9780070678750
(McGraw-Hill India Title)

Targeted at the undergraduate level, this text is specially crafted to make the study of Control Systems easy. The theory is brief, to-the-point, the presentation is clear, user-friendly. Each topic is fortified by large pool of pedagogy. As many as 700 graded, fully solved examples have been presented in easy, step-by-step method. There are plenty of practice questions, numerical problems, short answer type questions and objective type problems available for self-assessment.

CONTENTS
1. Basic Concepts of Control Systems
2. Modelling of Physical Systems
3. Block Diagram Reduction
4. Signal Flow Graphs
5. Transient Response Specifications
6. Stability
7. Steady State Response Specifications
8. Frequency Response
9. Basic Control Actions
10. Root Locus Technique
11. Nyquist Diagram
12. Bode Plots
13. Compensation
14. State Variable Models

CONTROL SYSTEMS ENGINEERING
by S Palani, Dean and Professor, Department of Electronics and Communication Engineering Sudharsan Engineering College, Pudukkottai
2009 / Softcover
ISBN: 9780070671935
(McGraw-Hill India Title)

Control Engineering is a multi-disciplinary subject and finds widespread application in the guidance, navigation, control of missiles, and spacecrafts, aeroplanes, ships, as well as in the process control industry. This book presents clear theoretical concepts supplemented/ reinforced by worked out numerical examples. The book includes topics on Nyquist Stability Criterion, Signal Flow Graph, Root Locus Technique and comprehensive coverage on Control system components.

CONTENTS
Chapter 1. Introduction
Chapter 2. Mathematical Modeling of Physical Systems
Chapter 3. Electrical Analogue
Chapter 4. Block Diagram Reduction Technique and Signal Flow Graph
Chapter 5. Time Response of Feedback Control Systems
Chapter 6. Frequency Domain Analysis of Control Systems
Chapter 7. Stability of Linear Control Systems
Chapter 8. Root Locus Technique
Chapter 9. Design of Control Systems in Time and Frequency Domains
Chapter 10. Control System Components
SCHAUM'S OUTLINE OF FEEDBACK AND CONTROL SYSTEMS
2nd Edition
by Joseph DiStefano, University of California, Los Angeles; Allen Stubberud, UCLA; Ivan Williams, TRW Space and Technology
2012 (September 2011) / 512 pages
ISBN: 9780071635127
(A Schaum’s Publication)
Schaum's Outline of Feedback and Control Systems, 2nd edition mirrors the courses in scope and sequence to help enrolled students understand basic concepts and offer extra practice on topics such as differential equations and linear systems, transfer functions, block diagram algebra and transfer functions of systems, signal flow graphs, and many more.

CONTENTS
Introduction
Control Systems Terminology
Differential Equations, Difference Equations, and Linear Systems
The LaPlace Transform and The Z-Transform
Stability
Transfer Functions
Block Diagram Algebra and Transfer Functions of Systems
Signal Flow Graphs
System Sensitivity Measures and Classification of Feedback Systems
Analysis and Design of Feedback Control Systems: Objectives and Methods
Nyquist Analysis
Nyquist Design
Root-Locus Design
Bode Analysis
Bode Design
Nichols Chart Analysis
Nichols Chart Design
Introduction to Nonlinear Control Systems
Introduction to Advanced Topics in Control Systems Analysis and Design

Digital Control

INTERNATIONAL EDITION
DIGITAL CONTROL AND STATE VARIABLE METHODS
3rd Edition
by M Gopal
2008 / Softcover / 800 pages
ISBN: 9780070668805
ISBN: 9780071078894 [IE]
(McGraw-Hill India Title)
www.mhhe.com/gopal/dc3e
The third edition of Digital Control and State Variable Methods presents control theory relevant to the analysis and design of computer-control systems. Meant for the undergraduate and postgraduate courses on advanced control systems, this text provides an up-to-date treatment of digital control, state variable analysis and design, and nonlinear control.

CONTENTS
Digital Control: Principles and Design in Transform Domain
1. Introduction
2. Signal Processing in Digital Control
3. Models of Digital Control Devices and Systems
4. Design of Digital Control Algorithms
State Variable Methods in Automatic Control: Continuous-Time and Sampled-Data Systems
5. Control System Analysis using state variable methods
6. State variable Analysis of Digital Control System
7. Pole-Placement Design and State Observers
9. Nonlinear Systems Analysis
10. Non-linear control structure
11. Neural Networks
12. Fuzzy logic models
Generators, Motors, Compressors

ELECTRIC MOTORS AND CONTROL SYSTEMS
by Frank D. Petruzella
2010 (May 2009) / Softcover / 296 pages
ISBN: 9780073521824
ISBN: 9780071220330 [IE]
(A Glencoe Trade & Technical Title)

www.mhhe.com/emcs1e

This book has been written for a course of study that will introduce the reader to a broad range of motor types and control systems. It provides an overview of electric motor operation, selection, installation, control and maintenance. Every effort has been made in this first edition text to present the most up-to-date information which reflects the current needs of the industry.

The broad based approach taken makes this text viable for a variety of motors and control systems courses. Content is suitable for colleges, technical institutions, vocational/technical schools as well as apprenticeship and journeymen training. Electrical apprentices and journeymen will find this book to be invaluable due to Electrical Code references applicable to the installation of new control systems and motors, as well as information on maintenance and troubleshooting techniques. Personnel involved in the motor maintenance and repair will find this book to be a useful reference text.

The text is comprehensive! It includes coverage of how motors operate in conjunction with their associated control circuitry. Both older and newer motor technologies are examined. Topics covered operate in conjunction with their associated control circuitry. Both

PART – 1 MOTOR PRINCIPLE

Chapter 1 – Safety in the Workplace
PART 1 PROTECTING AGAINST ELECTRIC SHOCK
PART 2 GROUNDING – LOCKOUT– CODES

Chapter 2 – Understanding Electrical Drawings
PART 1 SYMBOLS – ABBREVIATIONS – LADDER DIAGRAMS
PART 2 WIRING–SINGLE LINE- BLOCK DIAGRAMS
PART 3 MOTOR TERMINAL CONNECTIONS
PART 4 MOTOR NAMEPLATE AND TERMINOLOGY
PART 5 MANUAL AND MAGNETIC STARTERS

Chapter 3 – Motor Transformers and Distribution Systems
PART 1 POWER DISTRIBUTION SYSTEMS
PART 2 TRANSFORMER PRINCIPLES
PART 3 TRANSFORMER CONNECTIONS AND SYSTEMS

Chapter 4 – Motor Control Devices
PART 1 MANUALLY OPERTED SWITCHES
PART 2 MECHANICALLY OPERTED SWITCHES
PART 3 SENSORS
PART 4 ACTUATORS

Chapter 5 – Electric Motors
PART 1 MOTOR PRINCIPLE
PART 2 DIRECT CURRENT MOTORS
PART 3 THREE-PHASE ALTERNATING CURRENT MOTORS
PART 4 SINGLE-PHASE ALTERNATING CURRENT MOTORS
PART 5 ALTERNATING CURRENT MOTOR DRIVES
PART 6 MOTOR SELECTION
PART 7 MOTOR INSTALLATION
PART 8 MOTOR MAINTENANCE AND TROUBLESHOOTING

Chapter 6 – Contactors and Motor Starters
PART 1 NEC MOTOR INSTALLATION REQUIREMENTS
PART 2 VFD INSTALLATION AND PROGRAMMING PARAMETERS
PART 3 DC MOTOR DRIVE FUNDAMENTALS
PART 4 PROGRAMMABLE LOGIC CONTROLLERS (PLCs)

Neural Networks/Fuzzy Systems

NEURAL NETWORKS: A CLASSROOM APPROACH
by Satish Kumar, Reader in Computer Science and Applications, Dayalbagh Educational Institute, Agra
2004 / 768 pages
ISBN: 9780070482920
ISBN: 9780071246729 [IE]
(McGraw-Hill India Title)

http://highered.mcgraw-hill.com/sites/0070482926

Neural Networks is an integral component of the ubiquitous soft computing paradigm. An in-depth understanding of this field requires some background of the principles of neuroscience, mathematics and computer programming. Neural Networks: A Classroom Approach, achieves a balanced blend of these areas to weave an appropriate fabric for the exposition of the diversity of neural network models.

This book is unique, in the sense that it stresses on an intuitive and geometric understanding of the subject and on the heuristic explanation of the theoretical results.

CONTENTS
I. Traces of History and A Neuroscience Briefer:
1 Brain Style Computing: Origins and Issues.
2 Lessons from Neuroscience.
II. Feedforward Neural Networks and Supervised Learning:
3 Artificial Neurons, Neural Networks and Architectures
4 Geometry of Binary Threshold Neurons and Their Networks.
5 Supervised Learning I: Perceptrons and LMS
6 Supervised Learning II: Backpropagation and Beyond.
7 Neural Network: A Statistical Pattern Recognition Perspective.
8 Focussing on Generalization: Support Vector Machines and Radial Basis Function Networks.
III. Recurrent Neurodynamical Systems:
9 Dynamical Systems Review.
10 Attractor Neural Networks.
11 Adaptive Resonance Theory.
12 Towards the Self Organizing Feature Map. IV. Contemporary Topics:
14 Fuzzy Sets, Fuzzy Systems and Applications.
15 Neural Networks and the Soft Computing Paradigm

Electrical Instrumentation

ELECTRONIC INSTRUMENTATION
3rd Edition
by H S Kalsi. St. Xavier’s Technical Institute, Mumbai.
2010 (May 2010) / Softcover / 824 pages
ISBN: 9780070702066
( McGraw-Hill India Title)

This revised and up-to-date edition provides essential understanding of the working principles, operation and limitations of the electronic instruments. Lucid explanation of the concepts supported by a plethora of solved examples makes this an indispensable text on this subject. The step-by-step problem solving methodology used in the examples is a highlight of this new edition.

CONTENTS
1. Qualities of Measurements
2. Indicators and Display Devices
3. Ammeters
4. Voltmeters and Multimeters
5. Digital Voltmeters
6. Digital Instruments
7. Oscilloscope
8. Signal Generators
9. Wave Analyzers and Harmonic Distortion
10. Measuring Instruments
11. Bridges
12. Recorders
13. Transducers
14. Signal Conditioning
15. Filters
16. Measurement Set-up
17. Data Acquisition System (DAS)
18. Data Transmission
19. Frequency Standards
20. Measurement of Power
21. Control Systems

Mechatronics

INTRODUCTION TO
MECHATRONICS AND
MEASUREMENT SYSTEMS
4th Edition
by David G. Alciatore, Colorado State University

2012 (March 2011) / Hardcover / 576 pages
ISBN: 9780073380230
ISBN: 9780071086042 [IE]

INTRODUCTION TO MECHATRONICS AND MEASUREMENT SYSTEMS provides comprehensive and accessible coverage of the evolving field of mechatronics for mechanical, electrical and aerospace engineering majors. The author presents a concise review of electrical circuits, solid-state devices, digital circuits, and motors- all of which are fundamental to understanding mechatronic systems.

Mechatronics design considerations are presented throughout the text, and in “Design Example” features. The text’s numerous illustrations, examples, class discussion items, and chapter questions & exercises provide an opportunity to understand and apply mechatronics concepts to actual problems encountered in engineering practice. This text has been tested over several years to ensure accuracy.

A text web site is available at www.mechatronics.colostate.edu and contains numerous supplemental resources.

NEW TO THIS EDITION
❖ Coverage of New Measurement Technologies including rapidly changing subjects like MEMS, cutting edge sensor technology, and micromachines are represented in this edition.

CONTENTS
1 Introduction
2 Electric Circuits and Components
3 Semiconductor Electronics
4 System Response
5 Analog Signal Processing Using Operational Amplifiers
6 Digital Circuits
7 Microcontroller Programming and Interfacing
8 Data Acquisition
9 Sensors
10 Actuators
11 Mechatronic Systems-Control Architectures and Case Studies
Appendixes
A Measurement Fundamentals
B Physical Principles
C Mechanics of Materials
Advanced Systems

THE FOURIER TRANSFORM AND ITS APPLICATIONS
3rd Edition
by Ronald Bracewell, Stanford University
1999 / 624 pages / Hardcover
ISBN: 9780073039381 (Out-of-Print)
ISBN: 9780071160438 [IE]
This text is designed for use in a senior undergraduate or graduate level course in Fourier Transforms. This text differs from many other fourier transform books in its emphasis on applications. Bracewell applies mathematical concepts to the physical world throughout this text, equipping students to think about the world and physics in terms of transforms. The pedagogy in this classic text is excellent. The author has included such tools as the pictorial dictionary of transforms and bibliographic references. In addition, there are many excellent problems throughout this book, which are more than mathematical exercises, often requiring students to think in terms of specific situations or asking for educated opinions. To aid students further, discussions of many of the problems can be found at the end of the book.

CONTENTS
1 Introduction.
2 Groundwork.
3 Convolution.
4 Notation for Some Useful Functions.
5 The Impulse Symbol.
6 The Basic Theorems.
7 Obtaining Transforms.
8 The Two Domains.
9 Waveforms, Spectra, Filters and Linearity.
10 Sampling and Series.
11 The Discrete Fourier Transform and the FFT.
12 The Hartley Transform.
13 Relatives of the Fourier Transform.
14 The Laplace Transform.
15 Antennas and Optics.
16 Applications in Statistics.
17 Random Waveforms and Noise.
18 Heat Conduction and Diffusion.
19 Dynamic Power Spectra. 20 Tables of sinc x, sinc2x and exp(-7x)^2.
21 Solutions to Selected Problems. 22 Pictorial Dictionary of Fourier Transforms. 23 The Life of Joseph Fourier

Power and Machines

ELECTRIC MACHINERY FUNDAMENTALS
5th Edition
by Stephen J. Chapman, BAE Systems, Australia
2012 (February 2011)/ Softcover / 704 pages
ISBN: 9780073529547
ISBN: 9780071325813 [IE]
www.mhhe.com/chapman
Electric Machinery Fundamentals continues to be a best-selling machinery text due to its accessible, student-friendly coverage of the important topics in the field.

In the fifth edition, the use of MATLAB® continues to be incorporated in examples and problems, where applicable. The targeted and thought-provoking problems you’ve come to appreciate have been retained in this edition.

Chapman continues to share his up-to-date knowledge and experiences in the field in an engaging and understandable style.

NEW TO THIS EDITION
✓ Updated Coverage of major topics and increased coverage of induction motors in this edition.
✓ Revised Problems and Examples are included in the fifth edition.
✓ More Student-Friendly Style Learning objectives have been added to each chapter.
✓ Companion Website includes COSMOS the Complete Online Solutions Manual Organization System, an online tool that will help professors easily build assignments.

CONTENTS
1 Introduction to Machinery Principles
2 Transformers
3 AC Machinery Fundamentals
4 Synchronous Generators
5 Synchronous Motors
6 Induction Motors
7 DC Machinery Fundamentals
8 DC Motors and Generators
9 Single-Phase and Special-Purpose Motors
Appendix A Three-Phase Circuits
Appendix B Coil Pitch and Distributed Windings
Appendix C Salient-Pole Theory of Synchronous Machines
Appendix D Tables of Contents and Conversion Factors
This new edition provides an excellent foundation to the theory of electromechanical devices with emphasis on rotating electric machines. The theory and applications of various machines are treated at appropriate places in the book. Extensive coverage on the systematic development of circuit model equivalent of both transformers and machines is given in the text. A number of solved examples and practice problems along with MATLAB examples are given in the book to facilitate problem solving skills.

CONTENTS
1. Introduction
2. Magnetic Circuits & Induction
3. Transformers
4. Principles of Electromagnetic Energy Conversion
5. Basic Concepts in Rotating Machines
6. Armature Windings
7. DC Machines
8. Synchronous Machines
9. Induction Machines
10. Fractional Kilowatt Motors
11. Generalized Theory of Electric Machines
12. Motor Control by Static Power Converters

INTERNATIONAL EDITION
ELECTRIC MACHINERY
6th Edition
by A. E. Fitzgerald, deceased; Charles Kingsley, Massachusetts Institute of Technology; Stephen Umans, Sc.D., Massachusetts Institute of Technology
2003 / 608 pages
ISBN: 9780073660097
ISBN: 9780071230100 [IE]
www.mhhe.com/fitzgerald6e

The exciting new sixth edition of Electric Machinery has been extensively updated while retaining the emphasis on fundamental principles and physical understanding that has been the outstanding feature of this classic book.

This book covers fundamental concepts in detail as well as advanced topics for readers who wish to cover the material in more depth.

Several new chapters have been added, including a chapter on power electronics, as well as one on speed and torque control of dc and ac motors. This edition has also been expanded with additional examples and practice problems. The use of MATLAB has been introduced to the new edition, both in examples within the text as well as in the chapter problems.

CONTENTS
2. Transformers. 3. Multi-Winding Transformers.
4. Introduction to Rotating Machines.
5. Synchronous Machines.
6. Polyphase Induction Machines.
7. DC Machines.
8. Variable-Reluctance Machines and Stepping Motors.
10. Introduction to Power Electronics.
11. Speed and Torque Control.
Appendix A. Three-phase circuits.
Appendix B. Voltages, Magnetic Fields and Inductances of Distributed AC Windings.
Appendix D. The dq0 Transformation.
Appendix E. Table of Constants and Conversion Factors for SI Units

INTERNATIONAL EDITION
ELECTRIC MACHINERY AND POWER SYSTEMS FUNDAMENTALS
by Stephen J. Chapman, BAE Systems Australia
2002 / 696 pages / Hardcover
ISBN: 9780072291353
ISBN: 9780071226202 [IE]
www.mhhe.com/chapman

Stephen J. Chapman is a leading author in the area of machines. He brings his expertise to the table again in An "Introduction to Electric Machinery and Power Systems." This text is designed to be used in a course that combines machinery and power systems into one semester. Chapman's new book is designed to be flexible and allow instructors to choose chapters "a la carte", so he instructor controls the emphasis.

Chapman has written a book that give students what they need to know to be real-world engineers. It focuses on principles and teaches students how to use information as opposed to do a lot of calculations that would rarely be done by a practicing engineer. He compresses the material by focusing on its essence, underlying principles. Matlab is used throughout the book in examples and problems.

CONTENTS
Part 1 Introduction.
1 Mechanical and Electro-magnetic Fundamentals.
2 Three-Phase Circuits.
Part 2 Power Systems Components.
3 Transformers.
4 AC Machinery Fundamentals.
5 Synchronous Generators.
6 Synchronous Motors.
7 Induction Motors.
8 Transmission Lines.
Part 3 Power Systems.
9 Power System Representation and Equations.
10 Introduction to Power-Flow Studies.
11 Symmetrical Faults.
12 Asymmetrical Faults
SCHAUM’S OUTLINE OF ELECTRIC MACHINES AND ELECTROMECHANICS
2nd Edition
by Syed A. Nasar, University of Kentucky
1998 / 208 pages
ISBN: 9780070459946
(A Schaum’s Publication)
More than 50,000 copies of this powerful study guide sold in the first edition! Covering a broad range of topics, from simple DC magnetic circuits to electronic control of DC and AC motors, all the concepts and their applications are clearly explained and illustrated. Includes hundreds of problems with detailed solutions to help students learn quickly and raise test scores without investing unnecessary time. Ideal for undergraduate students of electrical engineering, for solo study, and as a refresher.

Power Electronics

POWER ELECTRONICS
by Daniel W. Hart, Valparaiso University
2011 (January 2010) / Hardcover / 512 pages
ISBN: 9780073380674
www.mhhe.com/hart
Power Electronics is intended to be an introductory text in power electronics, primarily for the undergraduate electrical engineering student. The text is written for some flexibility in the order of the topics. Much of the text includes computer simulation using PSpice as a supplement to analytical circuit solution techniques.

CONTENTS
Chapter 1 Introduction
Chapter 2 Power Computations
Chapter 3 Half-Wave Rectifiers
Chapter 4 Full-Wave Rectifiers
Chapter 5 AC Voltage Controllers
Chapter 6 DC-DC Converters
Chapter 7 DC Power Supplies
Chapter 8 Inverters
Chapter 9 Resonant Converters
Chapter 10 Drive Circuits, Snubber Circuits, and Heatsinks
Appendix A Fourier Series for Some Common Waveforms
Appendix B State-Space Averaging
Index

POWER ELECTRONICS
3rd Edition
by Cyril W Lander
1994 / 496 pages
ISBN: 9780077077143
This Third Edition brings Lander's successful text completely up to date, retaining the original material but adding important new information. In particular, a whole new section on EMC (electromagnetic compatibility) is incorporated into the chapter on harmonics. Recently emerged semiconductor devices, such as IGBTs and MCTs are covered, as are other new topics, including active filters for harmonic elimination. The control sections are considerably expanded to take into account pulse-width modulated converters for power factor control, vector control of cage induction motor drives and resonant converters. The balanced and broad structure of coverage from the previous editions remain and is augmented by many new worked examples and an updated bibliography.

CONTENTS
Rectifying Devices.
Rectifying Circuits.
Converter Operation.
DC Line Commutation.
Frequency Conversion.
Some Applications.
Harmonics.
DC Machine Control.
AC Machine Control.
Protection.
Glossary of Terms.
References and Bibliography.
The functioning of a power system depends significantly on efficient and reliable protection schemes. With enhanced course coverage and refreshed pedagogy, the revised edition of Power System Protection and Switchgear discusses the contemporary protection system, now infused with new and innovative technology.

NEW TO THIS EDITION
- Current and Voltage Transformers
- Fault Analysis
- Differential Protection
- Modern Trends in Power System Protection
- Gas Actuated Relays
- Motor Protection

CONTENTS
1. Introduction
2. Relay Construction and Operating
3. Current and Voltage Transformers
4. Fault Analysis
5. Overcurrent Protection
6. Distance Protection
7. Pilot Relaying Schemes
8. Differential Protection
9. Rotating Machines Protection
10. Transformer and Buszone Protection
11. Numerical Protection
12. Microprocessor-Based Numerical Protective Relays
13. Artificial Intelligence Based Numerical Protection
14. Circuit Breakers
15. Fuses
16. Protection Against Overvoltages
17. Modern Trends in Power System Protection

MODERN POWER SYSTEM ANALYSIS
4th Edition
by D.P. Kothari, Vice Chancellor, VIT University, Vellore, Tamil Nadu and I.J. Nagrath, Adjunct professor, BITS, Professor of Electrical Engineering & Deputy, Director (Retd.) BITS Pilani

2011 (June 2011) / Softcover / 792 pages
ISBN: 9780071077750
(McGraw-Hill India Title)

The carefully crafted fourth edition of Modern Power System Analysis guides the reader from the basics of the power sector through its innumerable developments, which then very logically exposes the state of the art. The book provides for an in-depth study of Power Systems Analysis, Power Systems Stability, and Power Systems Operation and Control courses as offered at the undergraduate level across Indian universities. The rich and robust content caters to the requirements of a related postgraduate course and will also greatly benefit practicing engineers.

FEATURES
- Chapters on Power System Transients, HVDC
- Topical enhancements made to meet changing curriculum requirements—Influences of environmental constraints on power systems, Magnetic field and electrostatic induction, Control by midline boosters, Maintenance scheduling, Power system reliability
- Important technological advancements discussed—AGC of restructured power systems, smart grid, power system communication etc
- Teaching appendices considerably enhanced and elaborated to serve as rich sources of knowledge
- MCQs developed and other pedagogical features refreshed as per examination patterns

CONTENTS
1. Introduction
2. Inductance and Resistance of Transmission Lines
3. Capacitance of Transmission Lines
4. Representation of Power System Components
5. Characteristics and Performance of Power Transmission Lines
6. Load Flow Studies
7. Optimal System Operation
8. Automatic Generation and Voltage Control
9. Symmetrical Fault Analysis
10. Symmetrical Components
11. Unsymmetrical Fault Analysis
12. Power System Stability
13. Power System Transients
14. High Voltage DC (HVDC) Transmission
15. Power System Security
16. Voltage Stability
17. An Introduction to State Estimation of Power Systems
18. Compensation in Power Systems
19. Load Forecasting Technique
Appendix A: Introduction to Vector and Matrix Algebra
Appendix B: Generalised Circuit Constants
Appendix C: Triangular Factorisation and Optimal Ordering
Appendix D: Elements of Power System Jacobian Matrix
Appendix E: Kuhn-Tucker Theorem
Appendix F: Real-time Computer Control of Power Systems
POWER SYSTEM PROTECTION AND SWITCHGEAR
by Bhuvanesh A. Oza, BVM Engineering College, Nirmal-Kumar C. Nair, University of Auckland, New Zealand, Rakesh P. Mehta, BVM Engineering College, Vallabh Vidyanagar, and Vijay H. Makwana, G H Patel College of Engg. and Technology
2010 (January 2010) / Softcover / 504 pages
(ISBN: 9780070671188)
(McGraw-Hill India Title)
www.mhhe.com/ozapsp

This book offers a comprehensive treatment of Power System Protection and Switchgear with a detailed coverage on recent developments in numerical/digital relaying. Through the mixed and attractive blend of detailed theoretical explanations and intensive application practices, it enables the learner learn the subject in professional manner.

CONTENTS
1. Introduction and Philosophy of a Protective Relaying System
2. Electromagnetic Relays
3. Static Relays
4. Microprocessor-Based Digital Protection
5. Generator Protection
6. Transformer Protection
7. Protection of Transmission Lines by Overcurrent Relays
8. Protection of Transmission Lines by Distance Relays
9. Carrier Current Protection of Transmission Lines
10. Buszone Protection
11. Induction Motor Protection
12. Testing, Commissioning and Maintenance of Relays
13. Protective Current and Potential Transformers
14. Circuit Breaking Fundamentals
15. Electrical Switchgear
16. Short-Circuit Testing of Circuit Breakers
17. Lightning Overvoltage Protection
International edition

POWER SYSTEM ANALYSIS
by John Grainger, North Carolina State University; William Stevenson, Jr., late professor, North Carolina State University
1994 / 784 pages
ISBN: 9780070612938
ISBN: 9780071133388 [IE]

Based on William Stevenson’s classic, Elements of Power System Analysis, this new senior/graduate text offers a completely modern update of this popular textbook. Covering such topics as power flow, power-system stability and transmission lines, the book teaches the fundamental topics of power system analysis accompanied by logical discussions and numerous examples.

CONTENTS
1 Basic Concepts
2 Transformers
3 The Synchronous Machine
4 Series Impedance of Transmission Lines
5 Capacitance of Transmission Lines
6 Current and Voltage Relations on a Transmission Line
7 The Admittance Model and Network Calculations
8 The Impedance Model and Network Calculations
9 Power Flow Solutions
10 Symmetrical Faults
11 Symmetrical Components and Sequence Networks
12 Unsymmetrical Faults
13 Economic Operation of Power Systems
14 Zbus Methods in Contingency Analysis
15 State Estimation of Power Systems
16 Power System Stability

International edition

ELEMENTS OF POWER SYSTEM ANALYSIS
4th Edition
by William Stevenson, Jr., North Carolina State University
1982 / 436 pages
ISBN: 9780070665842 [IE]

CONTENTS
Chapter 1 General Background
Chapter 2 Basic Concepts
Chapter 3 Series Impedance of Transmission Lines
Chapter 4 Capacitance of Transmission Lines
Chapter 5 Current and Voltage Relations on a Transmission Line
Chapter 6 System Modeling
Chapter 7 Network Calculations
Chapter 8 Load-Flow Solutions and Control
Chapter 9 Economic Operation of Power Systems
Chapter 10 Symmetrical Three-Phase Faults
Chapter 11 Symmetrical Components
Chapter 12 Unsymmetrical Faults
Chapter 13 System Protection
Chapter 14 Power System Stability

International edition

COMPUTER ORGANIZATION AND EMBEDDED SYSTEMS
6th Edition
by V. Carl Hamacher, Queen's University; Zvonko Vranesic, University of Toronto; Safwat Zaky, University of Toronto, and Naraig Manjikian, Queen's University
2012 (January 2011) / Hardcover / 736 pages
ISBN: 9780073380650
ISBN: 9780071089005 [IE]

www.mhhe.com/hamacher

The sixth edition of this book covers the key topics in computer organization and embedded systems. It presents hardware design principles and shows how hardware design is influenced by the requirements of software. The book is suitable for undergraduate electrical and computer engineering majors and computer science specialists. It is intended for a first course in computer organization and embedded systems.

NEW TO THIS EDITION
❖ Four Popular Processors are represented in the book. While the main explanations are generic, Altera's Nios II, Freescale's ColdFire, ARM, and Intels IA-32 are covered in detail in separate appendices.
❖ More Coverage of Embedded Systems reflects the reality that many devices not thought of as computers do have computers in them. Microcontrollers and system-on-a-chip implementations are discussed and demonstrated.
❖ Graduated Difficulty Problems at the end of each chapter are classified as Easy, Medium, or Difficult. This allows instructors to easily assign problems based upon difficulty level.

CONTENTS
1 Basic Structure of Computers
2 Instruction Set Architecture
3 Basic Input/Output
4 Software
5 Basic Processing Unit
6 Pipelining
7 Input/output Organization
8 The Memory System
9 Arithmetic
10 Embedded Systems
11 System-On-A-Chip--A Case Study
Appendix A Logic Circuits
Appendix B The Altera Nios II Processor
Appendix C The ColdFire Processor
Appendix D The ARM Processor
Appendix E The Intel IA-32 Architecture
This textbook presents the subject of computer architecture in a modern light to match the needs of educational institutions and graduates for modern industry. The book reflects the fact that there are around 40 times as many embedded systems sold as desktop computers each year, and many more graduates will end up designing embedded systems hardware than will ever design a traditional desktop computer.

Without overlooking the historical perspective of computers, or the traditional topics in computer architecture, Computer Architecture: an embedded approach presents the subject in a readable and interesting format, and above all, provides the background and places emphasis on the increasingly important embedded systems that we all rely upon for our day-to-day living.

Whilst traditional computer engineering textbooks were fine resources for our day-to-day living. These supplement materials are available only to instructors using the textbook for their teaching purposes. Please contact your local McGraw-Hill sales representatives if you require further assistance.

FEATURES

- A comprehensive textbook covering the main “Computer Architecture” sections of the IEEE Body of Knowledge in Computer Engineering.
- An embedded systems-relevant approach, the book includes topics that are current in industry, and issues and technologies that embedded systems engineers face these days, which is what industry increasingly demands and tomorrow’s graduates will need to be conversant in. Some of these topics, which are not found in traditional texts, are:
  1. Programming of memory in embedded systems, especially JTAG
  2. Overlays and pages in code contexts
  3. The different types of memory available, including parallel and serial flash (NOR/NAND)
  4. Power supply issues, how clocking and system design relates to low power
  5. System reset, testing and error checking (detection and correction)
  6. General purpose I/O and pin configuration, especially in system-on-chip processors
  7. Modern buses including I2C, SPI, LVDS etc... Evolved PC/104 systems
  8. The use of memory management unit (MMU) in diskless embedded systems
  9. Soft core processors – including an entire chapter in which we design and build our own
  10. System-on-chip processors, application-specific ICs and field programmable gate arrays (FPGAs)

- Apart of the main items in the typical computer architecture theory curriculum relevant to embedded engineers, the book offers a wealth of practical information including the opportunity to build and test out a custom soft-core processor.
- Topics are placed into an academic framework that not only discusses the how and what, but also the why. Plenty of diagrams are given to explain tricky concepts and many explanatory boxes (containing extra worked examples, interesting snippets of information and additional explanations) are provided throughout to augment the main text.
- SI units are used throughout, including the newer “kibibyte” and “mebibyte” measures for computer memory.
- Each chapter ends with a set of 20 problems (with answers provided in the instructors’ manual).
- Supplementary materials:

Solution manuals (with detail explanations to end-of-chapter problems in the textbook), powerpoint slides, diagrams, extra teaching material (including recommendations for further reading), ready-made laboratory sessions are available for instructors on the instructors’ website. These supplement materials are available only to instructors using the textbook for their teaching purposes. Please contact your local McGraw-Hill sales representatives if you require further assistance.

CONTENTS

Preface
Acknowledgements
Chapter 1 Introduction
  1.1 Book organisation
  1.2 Evolution
  1.3 Computer generations
  1.4 Cloud, pervasive, grid and massively parallel computers
  1.5 Where to from here?
  1.6 Summary
Chapter 2 Foundations
  2.1 Computer organisation
  2.2 Computer fundamentals
  2.3 Number formats
  2.4 Arithmetic
  2.5 Multiplication
  2.6 Division
  2.7 Working with fractional number formats
  2.8 Floating point
  2.9 Floating point processing
  2.10 Summary
Chapter 3 CPU Basics
  3.1 What is a computer?
  3.2 Making the computer work for you
  3.3 Instruction handling
  3.4 Data handling
  3.5 A top down view
  3.6 Summary
Chapter 4 Processor Internals

...
4.1 Internal bus architecture
4.2 Arithmetic logic unit
4.3 Memory management unit
4.4 Cache
4.5 Co-processors
4.6 Floating point unit
4.7 Streaming SIMD Extensions (SSE) and Multimedia Extensions (MMX)
4.8 Co-processing in embedded systems
4.9 Summary

Chapter 5 Enhancing CPU Performance
5.1 Speedups
5.2 Pipelining
5.3 Complex and reduced instruction set computer
5.4 Superscalar architectures
5.5 Instructions per cycle
5.6 Hardcore acceleration
5.7 Branch prediction
5.8 Parallel machines
5.9 Tomasulo’s algorithm
5.10 Summary

Chapter 6 Externals
6.1 Interfacing using a bus
6.2 Parallel bus specifications
6.3 Standard interfaces
6.4 Real-time issues
6.5 Interrupts and interrupt handling
6.6 Wireless
6.7 Summary

Chapter 7 Practical Embedded CPUs
7.1 Introduction
7.2 Microprocessors are core plus more
7.3 Required functionality
7.4 Clocking
7.5 Clocks and power
7.6 Memory
7.7 Pages and overlays
7.8 Memory in embedded systems
7.9 Test and verification
7.10 Error detection and correction
7.11 Watchdog timers and reset supervision
7.12 Reverse engineering
7.13 Preventing reverse engineering
7.14 Summary

Chapter 8 CPU Design
8.1 Soft core processors
8.2 Hardware software co-design
8.3 Off-the-shelf cores
8.4 Making our own
8.5 CPU design specification
8.6 Instruction set
8.7 CPU implementation
8.8 CPU testing and operation
8.9 CPU programming and use
8.10 Summary

Chapter 9 The Future
9.1 Single bit architectures
9.2 Very long instruction word architectures
9.3 Parallel and massively-parallel machines
9.4 Asynchronous processors
9.5 Alternative number format systems
9.6 Optical computation
9.7 Science fiction or future reality?
9.8 Summary

A Standard Notation for Memory Size
B Open Systems Interconnection (OSI) Model
B.1 Introduction
B.2 The OSI layers
B.3 Summary
C Exploring Trade-offs in Cache Size and Arrangement
C.1 Introduction

C.2 Preparation
C.3 Installing CACTI and Dinero
C.4 Meet the tools
C.5 Experimenting with different trade-offs
C.6 Further information in cache design
D Wireless Technology for Embedded Computers
D.1 Introduction
D.2 802.11a, b and g
D.3 802.11n
D.4 802.20
D.5 802.16
D.6 Bluetooth
D.7 GSM
D.8 GRPS
D.9 ZigBee
D.10 Wireless USB
D.11 Near Field Communication
D.12 WiBro
D.13 Wireless device summary
D.14 Application example
D.15 Summary

E Tools for Compiling and Simulating TinyCPU
E.1 Preparation and obtaining software
E.2 How to compile and simulate your Verilog
E.3 How to view simulation outputs
E.4 Advanced test benches
E.5 Summary
F Tools for Compiling and Assembling Code for TinyCPU
F.1 Introduction
F.2 The assembly process
F.3 The assembler
F.4 Example program assembly
F.5 The compiler
F.6 Summary

Index
This book, equally applicable for a CSE or ECE course, gives an extensive account of Embedded Systems, keeping a balanced coverage of hardware and software concepts. Adhering to syllabus needs, this title is 'microprocessor' and 'software design methodology' specific, giving due weightage to architecture, programming and design aspects.

CONTENTS
1. Introduction to The Embedded Systems
2. 8051 And Advanced Processor Architectures, Memory organization, and Real World Interfacing
3. Device Drivers And Interrupts Servicing Mechanism
4. Programming Concepts And Embedded Programming In C, C++ and Java
5. Software-Development Process
6. Real Time Operating Systems- I: Inter Process Communication And Synchronization Of Processes, Task And Threads
7. Real Time Operating Systems
8. Parallel Models, Languages and Compilers
9. RTOS PROGRAMMING--I: Windows CE, OSEK, RTLinux and Others
10. RTOS PROGRAMMING--II: MicroC/OS-II and VxWorks
11. Design Examples And Case Studies Of Program Modeling And Programming With Rtos--1
12. Design Examples And Case Studies Of Program Modeling And Programming With RTOS--1
13. Appendixes
Contemporary Communication Systems

by M F Mesiya

2013 (January 2012) / Hardcover / 896 pages
ISBN: 9780073380360
ISBN: 9780071086615 [IE]

Contemporary Communication Systems provides a comprehensive introduction to analog and digital communication systems. In addition to a logical and easy-to-understand presentation of fundamental principles, the book engages students in the issues relevant to system and product implementation by integrating a discussion of theoretical concepts with extensive hands-on visual and simulation resources that reinforce learning. A unique feature of the book is sufficient coverage of important topics in digital communications including compression, multiplexing and synchronization techniques. The book also explores the impact of semiconductor revolution (Moore’s law) and software technologies in the realization of modern digital communication systems.

Features

™ Simple, step-by-step presentation in sufficient detail to allow students to master the fundamental concepts in communication systems.
™ The use of Simulink® as a key pedagogical tool to help students develop appreciation of theoretical models in the design and analysis of communication systems.
™ Numerous examples, including MATLAB exercises, to reinforce the key concepts and mathematical results.
™ Chapter introductions that preview the material covered in the chapter and its relevance in practice.
™ Chapter summaries that reiterate the chapter’s most important concepts.
™ Historical sidebars that chronicle milestone events in the history of communication technologies and systems.
™ Interviews with renowned contributors in the field of communications that should inspire and motivate students.
™ References that point to more advanced materials.
™ Extensive resources for instructors and students on the book’s website including PowerPoint slides, additional worked out problems and MATLAB exercises, Simulink files for the problems in the book and student exercises.

Contents
Chapter 1: Introduction
Chapter 2: Review of Signals and Linear Systems
Chapter 3: Simulation of Communication Systems Using MATLAB
Chapter 4: Amplitude Modulation (AM)
Chapter 5: Angle Modulation
Chapter 6: Probability and Random Processes
Chapter 7: Noise Performance of Analog Communication Systems
Chapter 8: Conversion of Analog Signals to Digital Format
Chapter 9: Digital Baseband Modulation
Chapter 10: Detection of Baseband Signals in Noise
Chapter 11: Transmission of Digital Information via Carrier Modulation
Chapter 12: Digital Signal Transmission Through Band-Limited Channels
Chapter 13: Digital Multiplexing and Synchronization
Chapter 14: Information Theory and Compression Techniques
Chapter 15: Channel Coding Techniques
Problems-Matlab Problems

ANALOG COMMUNICATION

by P. Ramakrishna Rao, Advisor, Raghu Engineering College, Visakhapatnam

2011 (May 2011) / Softcover / 488 pages
ISBN: 9780070704800 (McGraw-Hill India Title)

Analog Communication is a core subject for all Electronics and Communication Engineering students at the undergraduate level. The contents of the book are designed to cover the prescribed syllabus for a one-semester course on the subject of almost all Indian universities. The concepts in this book are explained thoroughly using simple and lucid language, mathematical analysis is used wherever necessary, and the results and their implications elucidated clearly. The book also reemphasizes the importance of our predominantly analog world steeped in digital technologies.

Features

™ Clear explanation of concepts in simple language and style using examples of practical systems
™ Covers essentials of the pre-requisites like signals and systems as well as probability and random processes
™ A full chapter devoted to coverage of transmitters and receivers
™ In-depth coverage of Noise and Noise Performance of various analog communication systems, including analog pulse communication systems
™ Inclusion of relevant MATLAB examples
™ Rich Pedagogy
™ 165 worked-out examples to reinforce the understanding of concepts and to illustrate the way the tools developed can be used for solving problems
™ 150 problems to enable the student to apply the techniques learnt
™ Over 190 Review Questions to test the student’s understanding
HVDC TRANSMISSION

by S Kamakshaiah, Professor of Electrical Engineering, JNTU Engineering College, Hyderabad, Andhra Pradesh, and V. Kamaraju, Formerly Principal and Professor of Electrical Engineering JNTU College of Engineering Kakinada, Andhra Pradesh

2011 (February 2011) / Softcover / 428 pages
ISBN: 9780071072533
(McGraw-Hill India Title)

www.mhhe.com/kamakshaiah/hvdc1

HVDC Transmission is a comprehensive text that facilitates in-depth study of HVDC transmission, including inception, working principles, advantages and disadvantages, and state-of-the-art HVDC transmission systems. Topics associated with DC transmission have been included, in detail, to support this study.

This text is useful for undergraduate students of electrical or electrical and electronics engineering, postgraduate students of the same subjects who have opted for an elective course on HVDC engineering, and field engineers and professionals connected with HVDC systems.

FEATURES

❖ Contents aligned as per the latest course in engineering colleges across India
❖ Details of HVDC projects implemented in India and abroad along with description and assessment of changing trends in power transmission, such as
❖ VSC converters being used to connect nonconventional energy sources
❖ Interaction of AC and DC systems
❖ Multiterminal HVDC systems
❖ FACTS controllers
❖ A dedicated chapter on Grounding and Ground Electrodes

Pedagogy includes

❖ 40 Worked Examples
❖ 35 Problems
❖ 125 Questions
❖ 150 Multiple Choice Questions

CONTENTS

1. HVDC Transmission: Developments
2. HVDC Converters
3. 6-pulse Converter Operation and Analysis
4. Control of HVDC Converter and Systems
5. Harmonics in HVDC Systems
6. Harmonic Suppression in HVDC System—Filters
7. Grounding and Ground Electrodes for HVDC Systems
8. Faults and Protection Schemes in HVDC Systems
9. Overvoltages and Insulation Co-ordination for HVDC Systems
10. Multiterminal HVDC Systems
11. Parallel AC and DC Systems
Appendix: Some HVDC Projects implemented in India
International Edition

COMMUNICATION THEORY
by Thomas
2005 / Softcover
ISBN: 9780070590915 (Out-of-Print)
ISBN: 9780071278782 [IE]
(McGraw-Hill India Title)

CONTENTS
1 A Quick Review of Signal Analysis and Introduction to Modulation
2 Amplitude Modulation—Double-Sideband Suppressed-Carrier Modulation
3 Conventional Amplitude Modulation—Double-Sideband Full-Carrier Modulation
4 Single-Sideband Modulation and Vestigial-Sideband Modulation
5 Introduction to Angle Modulation
6 Generation and Detection of Angle-Modulated Signals
7 Random Variables and Random Processes
8 Effect of Noise on Amplitude Modulation System Performance
9 Effect of Noise on Angle Modulation System Performance
10 Analog Pulse Modulation, Pulse Code Modulation and Differential
Appendix 1 Time and Frequency Division Multiplexing
Appendix 2 An Introduction to Radio Receivers
Appendix 3 Justification for Approximate Linear Analysis in FM Receivers
Appendix 4 Entropy and Information
Suggested Reading
Index

Digital Communications

DIGITAL COMMUNICATION
by P. Ramakrishna Rao, Advisor, Raghu Engineering College, Visakhapatnam

2011 (July 2011) / Softcover / 572 pages
ISBN: 9780070707764
(McGraw-Hill India Title)

Digital Communication is a core subject for all Electronics and Communication Engineering (ECE) students at the undergraduate level. The contents of the book are designed to cover the prescribed syllabus for a one-semester course on the subject as offered by Indian universities. This book adopts an approach best suited at the undergraduate level—concepts are explained thoroughly using simple and lucid language; mathematical analysis used wherever necessary and the results and their implications elucidated clearly. It provides an in-depth discussion of the various issues related to baseband and bandpass transmission and reception of digital signals, including source and channel coding.

FEATURES
- Clear explanation of concepts in simple language and style using examples of practical systems
- Covers essentials of the pre-requisites like signal-space concepts as well as probability and random processes
- Elaborate discussion on both baseband and bandpass signalling and effect of noise
- Transmission and reception of baseband and bandpass signals covered comprehensively
- Inclusion of relevant MATLAB examples

CONTENTS
Chapter 1: Introduction to Digital Communication
Chapter 2: Signals, Probability and Random Processes
Chapter 3: Waveform Coding (PCM and DM)
Chapter 4: Digital Baseband Signalling
Chapter 5: Bandpass Digital Signalling
Chapter 6: Information Theory and Source Coding
Chapter 7: Error - Control Coding
Chapter 8: Spread-Spectrum Systems
APPENDIX-A: MATLAB Programs
APPENDIX-B: Some useful Mathematical Formulae
APPENDIX-C: Fourier Transform Pairs
APPENDIX-D: Error Functions & Q- Function
APPENDIX-E: Constrained Optimization using Lagrange Multipliers
Electrical Engineering

Digital Communications

5th Edition
by John Proakis, Northeastern University, and Massoud Salehi, Northwestern University
2008 (November 2007) / Hardcover / 1024 pages
ISBN: 9780072957167
ISBN: 9780071263788 [IE]
www.mhhe.com/proakis

Digital Communications is a classic book in the area that is designed to be used as a senior or graduate level text. The text is flexible and can easily be used in a one semester course or there is enough depth to cover two semesters. Its comprehensive nature makes it a great book for students to keep for reference in their professional careers.

This all-inclusive guide delivers an outstanding introduction to the analysis and design of digital communication systems. Includes expert coverage of new topics: Turbo codes, Turboequalization, Antenna Arrays, Digital Cellular Systems, and Iterative Detection. Convenient, sequential organization begins with a look at the history and classification of channel models and builds from there.

CONTENTS
Chapter 1: Introduction
Chapter 2: Deterministic and Random Signal Analysis
Chapter 3: Digital Modulation Schemes
Chapter 4: Optimum Receivers for AWGN Channels
Chapter 5: Synchronization Techniques
Chapter 6: An Introduction to Information Theory
Chapter 7: Channel Coding I: Linear Block Codes
Chapter 8: Channel Coding II: Trellis and Graph Based Codes
Chapter 9: Digital Communication Through Bandlimited Channels
Chapter 10: Adaptive Equalization
Chapter 11: Multi-channel and Multi-carrier Systems
Chapter 12: Spread Spectrum Systems
Chapter 13: Channel Coding I: Characterization and Signaling
Chapter 14: Fading Channels II: Capacity and Coding
Chapter 15: Multiple-Antenna Systems
Chapter 16: Multi-user Communications
Appendices

Schaum's Outline of Analog and Digital Communications

2nd Edition
by Hwei Hsu, Fairleigh Dickinson University
2003 / 336 pages / Softcover
ISBN: 9780071402286
(A Schaum's Publication)

This study guide acts as an excellent tutor in this subject. It offers clear explanations of the mathematics behind signal and linear system analysis, fully covering communications theory, and provides an introduction to information theory and coding. Also included are more than 400 solved problems and hundreds more with answers, so students can test themselves and track their own progress as they master various concepts and their applications.

Electronic Communications

Principles of Electronic Communication Systems

3rd Edition
by Louis E. Frenzel
2008 (January 2007) / Hardcover
ISBN: 9780073222783
ISBN: 9780071106078 [IE, with OLC]
(A Glencoe Title)
www.mhhe.com/frenzel3e

Principles of Electronic Communication Systems is designed for an introductory course in communication electronics for Electronics Technology and Electrical Engineering Technology students who have a background in basic electronics, algebra and trigonometry. The text covers current, state-of-the-art technologies used in all forms of modern electronic communications, using a systems approach to best reflect current industry practice. This edition contains greatly expanded and updated material on the Internet, cell phones and wireless technologies. Practical skills like testing and troubleshooting are included throughout the new edition. As before, Frenzel's book is notable for its readability, which is augmented by numerous four-color line drawings, photographs, examples and learning features. A brand-new Laboratory & Activities Manual provides both hands-on experiments and a variety of other activities, reflecting the variety of skills now needed in the electronic communications world. A new Online Learning Center web site is available, with a wealth of learning resources for students, and teaching materials for instructors.

CONTENTS
Preface.
Chapter 1 Introduction to Electronic Communication.
1-1 The Significance of Human Communications.
1-2 Communication Systems.
1-3 Types of Electronic Communication.
1-4 Modulation and Multiplexing.
1-5 The Electromagnetic Spectrum.
1-6 Bandwidth.
1-7 A Survey of Communication Applications.
1-8 Careers in the Communications Industry.
Chapter 2 The Fundamentals of Electronics: A Review.
2-1 Gain, Attenuation and Decibels.
2-2 Tuned Circuits.
2-3 Filters.
2-4 Fourier Theory.
Chapter 3 Amplitude Modulation Fundamentals
3-1 AM Concepts.
3-2 Modulation Index and Percentage of Modulation.
3-3 Sidebands and The Frequency Domain.
3-4 AM Power.
3-5 Single-Sideband Modulation.
3-6 Classification of Radio Emissions.
Chapter 4 Amplitude Modulator and Demodulator Circuits.
4-1 Basic Principles of Amplitude Modulation.
4-2 Amplitude Modulators.
4-3 Amplitude Demodulators.
4-4 Balanced Modulators
4-5 SSB Circuits.
Chapter 5 Fundamentals of Frequency Modulation.
5-1 Basic Principles of Frequency Modulation.
5-2 Principles of Phase Modulation
5-3 Modulation Index and Sidebands.
5-4 Noise Suppression Effects of FM.
5-5 Frequency Modulation versus Amplitude Modulation.
Chapter 6 FM Circuits.
6-1 Frequency Modulators.
6-2 Phase Modulators.
6-3 Frequency Demodulators.
Chapter 7 Digital Communications Techniques.
7-1 Digital Transmission of Data.
7-2 Data Converters.
7-3 Parallel and Serial Transmission.
7-4 Pulse Code Modulation.
7-5 Pulse Modulation.
7-6 Digital Signal Processing.
Chapter 8 Radio Transmitters.
8-1 Transmitter Fundamentals.
8-2 Carrier Generators.
8-3 Power Amplifiers.
8-4 Impedance Matching Networks.
8-5 Typical Transmitter Circuits
Chapter 9 Communications Receivers.
9-1 Basic Principles of Signal Reproduction.
9-2 Superheterodyne Receivers.
9-3 Frequency Conversion.
9-5 Noise.
9-6 Typical Receiver Circuits.
Chapter 10 Multiplexing and Demultiplexing.
10-1 Multiplexing Principles.
10-2 Frequency Division Multiplexing.
10-3 Time Division Multiplexing.
10-4 Duplexing.
Chapter 11 Data Transmission Techniques.
11-1 Digital Codes.
11-3 Transmission Efficiency.
11-4 Basic Modem Concepts.
11-5 Wideband Modulation.
11-6 Advanced Modem Technology.
11-7 Error Detection and Correction.
11-8 Protocols.
Chapter 12 Introduction to Networking and Local Area Networks.
12-1 Network Fundamentals.
12-2 LAN Hardware.
12-3 Ethernet LANs.
12-4 Token Ring LAN.
Chapter 13 Transmission Lines.
13-1 Transmission Line Basics.
13-2 Standing Waves.
13-3 Transmission Lines as Circuit Elements.
13-4 The Smith Chart.
Chapter 14 Antennas and Wave Propagation.
14-1 Antenna Fundamentals.
14-2 Common Antenna Types.
14-3 Radio Wave Propagation.
Chapter 15 Internet Technologies.
15-1 Internet Applications.
15-2 Internet Transmission Systems.
15-3 Storage Area Networks.
Chapter 16 Microwave Communications.
16-1 Microwave Concepts.
16-2 Microwave Transistor Amplifiers.
16-3 Waveguides and Cavity Resonators.
16-4 Microwave Semiconductor Diodes.
16-5 Microwave Tubes.
16-6 Microwave Antennas.
16-7 Microwave Applications.
Chapter 17 Satellite Communications.
17-1 Satellite Orbits.
17-2 Satellite Communications Systems.
17-3 Satellite Subsystems.
17-4 Ground Stations.
17-5 Satellite Applications.
Chapter 18 Telecommunication Systems.
18-1 Telephones.
Electronic Communication

6th Edition
by Robert L. Shrader
1993 / 864 pages
ISBN: 9780070571570 (Out of Print)
ISBN: 9780071136655 [IE]

Electronic Communication has been one of the most popular textbooks in its field for many years. This expanded Sixth Edition utilizes the same user friendly format to prepare students for the operation, installation, and maintenance of most modern electronic and radio communication systems. Performance objectives have been added to each chapter to guide student focus. Electronic Communication provides information on the interrelationship of voltage, current, resistance, inductance, and capacitance as well as discussions of various active devices currently in use. While the text emphasizes semiconductor devices and circuitry, it still retains an adequate amount of vacuum tube theory. In addition, this edition features up-to-date coverage of digital communications and fiber optics, topics that are critical to the skills development of today’s communication student. To reinforce understanding of subjects just covered, check-up quizzes are inserted every few pages in most chapters, with answers on the next turned page. End-of-chapter questions, which include number references to the section or figure where the answer can be found, check comprehension of the entire chapter’s material. Bold letters prefixes many end-of-chapter questions indicate that a similar question may appear in one of the specific certification license tests.

Contents
- Current, Voltage, and Resistance
- Direct-Current Circuits
- Magnetism
- Alternating Current
- Inductance and Transformers
- Capacitance
- Alternating-Current Circuits
- Resonance and LC Filters
- Active Devices
- Power Supplies
- Oscillators
- Digital Fundamentals
- Measuring Devices
- Audio-Frequency Amplifiers
- Radio-Frequency Amplifiers
- Basic Trans-mitters
- Amplitude Modulation and SSB
- Amplitude-Modulation Receivers
- Frequency Modulation
- Antennas
- Two-Way Communications
- Microwaves
- Fiber Optics
- Broadcast Stations
- Television
- Maritime Radio
- Radar
- Sources of Electricity
- Operating Fundamentals

Fiber Optic Communications

4th Edition
by Gerd Keiser, Boston University & National Taiwan University of Science & Technology
2008 (October 2007) / Softcover / 580 pages
ISBN: 9780071088084 [IE]
(McGraw-Hill India Title)

www.mhhe.com/keiser/ofc4e

This book on Optical Fiber Communication presents the fundamental principles for understanding and applying optical fiber technology to sophisticated modern telecommunication system.

Contents
- Chapter 1 Overview of Optical Fiber Communications
- Chapter 2 Optical Fibers: Structures, Waveguiding, and Fabrication
- Chapter 3 Attenuation and Dispersion
- Chapter 4 Optical Sources
- Chapter 5 Power Launching and Coupling
- Chapter 6 Photodetectors
- Chapter 7 Optical Receiver Operation
- Chapter 8 Digital Links
- Chapter 9 Analog Links
- Chapter 10 WDM Concepts and Components
- Chapter 11 Optical Amplifiers
- Chapter 12 Non-linear Effect
- Chapter 13 Optical Networks
- Chapter 14 Performance Measurement and Monitoring
- Appendix A International System of Units
- Appendix B Useful Mathematical Relations
- Appendix C Bessel Functions
- Appendix D Decibels
- Appendix E Acronyms
- Appendix F List of Important Roman Symbols
- Appendix G List of Important Greek Symbols
The fourth edition of this popular text and reference book presents the fundamental principles for understanding and applying optical fiber technology to sophisticated modern telecommunication systems.

Optical-fiber-based telecommunication networks have become a major information-transmission-system, with high capacity links encircling the globe in both terrestrial and undersea installations. Numerous passive and active optical devices within these links perform complex transmission and networking functions in the optical domain, such as signal amplification, restoration, routing, and switching. Along with the need to understand the functions of these devices comes the necessity to measure both component and network performance, and to model and stimulate the complex behavior of reliable high-capacity networks.

**CONTENTS**

Chapter 1 Overview of Optical Fiber Communications
Chapter 2 Optical Fibers: Structures, Waveguiding, and Fabrication
Chapter 3 Attenuation and Dispersion
Chapter 4 Optical Sources
Chapter 5 Power Launching and Coupling
Chapter 6 Photodetectors
Chapter 7 Optical Receiver Operation
Chapter 8 Digital Links
Chapter 9 Analog Links
Chapter 10 WDM Concepts and Components
Chapter 11 Optical Amplifiers
Chapter 12 Non-linear Effect
Chapter 13 Optical Networks
Chapter 14 Performance Measurement and Monitoring
Appendix A International System of Units
Appendix B Useful Mathematical Relations
Appendix C Bessel Functions
Appendix D Decibels
Appendix E Acronyms
Appendix F List of Important Roman Symbols
Appendix G List of Important Greek Symbols
Data Communications and Networking is designed to help students understand the basics of data communications and networking, and the protocols used in the Internet in particular by using the protocol layering of the Internet and TCP/IP protocol suite. Technologies related to data communication and networking may be the fastest growing in today's culture. The appearance of some new social networking applications is a testimony to this claim. In this Internet-oriented society, specialists need to be trained to run and manage the Internet, part of the Internet, or an organization's network that is connected to the Internet. As both the number and types of students are increasing, it is essential to have a textbook that provides coverage of the latest advances, while presenting the material in a way that is accessible to students with little or no background in the field.

Using a bottom-up approach, Data Communications and Networking presents this highly technical subject matter without relying on complex formulas by using a strong pedagogical approach supported by more than 830 figures. Now in its Fifth Edition, this textbook brings the beginning student right to the forefront of the latest advances in the field, while presenting the fundamentals in a clear, straightforward manner. Students will find better coverage, improved figures and better explanations on cutting-edge material. The "bottom-up" approach allows instructors to cover the material in one course, rather than having separate courses on data communications and networking.

NEW TO THIS EDITION

- Changes is the End-of-Chapter Materials. Lab assignments have been added to some chapters. Applets have been posted in the book website to allow students to see some problems and protocols in action.

CONTENTS

- Part I: Overview
  - Chapter 1 Introduction
- Part 2: Physical Layer
  - Chapter 2 Network Models
  - Chapter 3 Introduction to Physical Layer
  - Chapter 4 Digital Transmission
  - Chapter 5 Analog Transmission
  - Chapter 6 Bandwidth Utilization: Multiplexing and Spreading
  - Chapter 7 Transmission Media
  - Chapter 8 Switching
- Part 3: Data Link Layer
  - Chapter 9 Introduction to Data-Link Layer
  - Chapter 10 Error Detection and Correction
- Part 4: Network Layer
  - Chapter 11 Data Link Control (DLC)
  - Chapter 12 Media Access Control (MAC)
  - Chapter 13 Wired LANs: Ethernet
  - Chapter 14 Other Wired Networks
  - Chapter 15 Wireless LANs
  - Chapter 16 Other Wireless Networks
  - Chapter 17 Connecting Devices and Virtual LANs
- Part 5: Transport Layer
  - Chapter 18 Introduction to Network Layer
  - Chapter 19 Network-Layer Protocols
  - Chapter 20 Unicast Routing
  - Chapter 21 Multicast Routing
  - Chapter 22 Next Generation IP
- Part 6: Application Layer
  - Chapter 23 Introduction to Transport Layer
  - Chapter 24 Internet Transport-Layer Protocols
  - Part 7: Topics Related to All Layers
  - Chapter 25 Quality of Service
  - Chapter 26 TCP/IP: The Internet Protocol Suite
  - Chapter 27 Internet Management
  - Chapter 28 Internet Security
  - Chapter 29 Peer-to-Peer Paradigm
  - Chapter 30 Quality of Service
  - Chapter 31 Cryptography and Network Security
  - Chapter 32 Internet Security

Appendices

- Appendix A Unicode
- Appendix B Positioning Numbering System
- Appendix C HTML, CSS, XML, and XSL
- Appendix D A Touch of Probability
- Appendix E Mathematical Review
- Appendix F Miscellaneous Information
- Appendix G 8B/6T Code
- Appendix H Telephone History
As one of the fastest growing technologies in our culture today, data communications and networking presents a unique challenge for instructors. As both the number and types of students are increasing, it is essential to have a textbook that provides coverage of the latest advances, while presenting the material in a way that is accessible to students with little or no background in the field. Using a bottom-up approach, Data Communications and Networking presents this highly technical subject matter without relying on complex formulas by using a strong pedagogical approach supported by more than 700 figures.

Now in its Fourth Edition, this textbook brings the beginning student right to the forefront of the latest advances in the field, while presenting the fundamentals in a clear, straightforward manner. Students will find better coverage, improved figures and better explanations on cutting-edge material. The "bottom-up" approach allows instructors to cover the material in one course, rather than having separate courses on data communications and networking.

CONTENTS
Part 1 Overview of Data Communications and Networking
1 Introduction
2 Network Models
Part 2 Physical Layer
3 Signals
4 Digital Transmission
5 Analog Transmission
6 Multiplexing
7 Transmission Media
8 Circuit Switching and Telephone Network
9 High-Speed Digital Access: DSL, Cable Moderns, and SONET
Part 3 Data Link Layer
10 Error Detection and Correction
11 Data Link Control and Protocols
12 Point-to-Point Access: PPP
13 Multiple Access
14 Local Area Networks: Ethernet
15 Wireless LANs
16 Connecting LANs, Backbone Networks, and Virtual LANs
17 Cellular Telephone and Satellite Networks
18 Virtual Circuit Switching: Frame Relay and ATM
Part 4 Network Layer
19 Host-to-Host Delivery: Intemetnworking, Addressing, and Routing
20 Network Layer Protocols: ARP, IPv4, ICMP, IPv6, and ICMPv6
21 Unicast and Multicast Routing: Routing Protocols
Part 5 Transport Layer
22 Process-to-Process Delivery: UDP and TCP
23 Congestion Control and Quality of Service.
Part 6 Application Layer
24 Client-Server Model: Socket Interface
25 Domain Name System (DNS)
26 Electronic Mail (SMTP) and File Transfer (FTP) 27 HTTP and WWW 28 Multimedia
Part 7 Security
29 Cryptography
30 Message Security, User Authentication, and Key Management
31 Security Protocols in the Internet
Appendix A ASCII Code.
Appendix B Numbering Systems and Transformation.
Appendix C The OSI Model
Appendix D 8B/6T Code.
Appendix E Checksum Calculation.
Local Area Networks

CONTENTS
1 Overview of LANs.
2 Network Architectures and Protocols.
3 Data Communication Concepts.
4 LAN Access Techniques.
5 Ethernet.
6 Token-Passing LANs.
7 ATM LANs.
8 Wireless LANs.
9 Fibre Channel and SANSs.
10 Internetworking.
11 Network Management.
12 Network Security.

Circuits and Networks

CIRCUITS AND NETWORKS
4th Edition
by A Sudhakar, and Shyammohan S Palli
May 2010 / Softcover / 972 pages
ISBN: 9780070699724
(A McGraw-Hill India Title)

Designed for the course on circuit analysis and synthesis, this book enables the student to have a firm grasp on the basic principles of electric circuits. It lays emphasis on the basic laws, theorems and techniques of analysis which helps to develop the ability to design practical circuits that perform the desired operations.

CONTENTS
1. Circuit Elements and Kirchoff’s Laws
2. Methods of Analyzing Circuits
3. Useful Theorems in Circuit Analysis
4. Introduction to Alternating Currents and Voltages
5. Complex Impedance
6. Power and Power Factor
7. Steady State AC Analysis
8. Resonance
9. Polyphase Circuits
10. Coupled Circuits
11. Transients
12. Fourier Method of Waveform Analysis
13. Introduction to the Laplace Transform
14. Application of the Laplace Transform in Circuit Analysis
15. S-Domain Analysis
16. Two-Port Networks
17. Filters and Attenuators
18. Elements of Realizability and Synthesis of One-Port Networks
19. An introduction to PSpice

NETWORK ANALYSIS & SYNTHESIS
by S P. Ghosh, Department of Electrical Engineering, College of Engineering & Management Kolaghat, West Bengal, and A. K. Chakraborty, College of Engineering and Management, Kolaghat, West Bengal
2009 / Softcover
ISBN: 9780070144781
(A McGraw-Hill India Title)

This text is designed to provide an easy understanding of the subject with the brief theory and large pool of problems which helps the students hone their problem-solving skills and develop an intuitive grasp of the contents. Covering analysis and synthesis of networks, this text also gives an account on PSpice and its applications in circuits and networks.

CONTENTS
Chapter 1. Introduction to Different Types of Systems
Chapter 2. Introduction to Circuit-Theory Concepts
Chapter 3. Network Topology (Graph Theory)
Chapter 4. Network Theorems
Chapter 5. Laplace Transform and Its Applications
Chapter 6. Two-Port Network
Chapter 7. Fourier Series and Fourier Transform
Chapter 8. Sinusoidal Steady State Analysis
Chapter 9. Magnetically Coupled Circuits
Chapter 10. Three Phase Circuits
Chapter 11. Resonance
Chapter 12. Network Functions and Their Time-Domain and Frequency-Domain Response
Chapter 13. Elements of Realizability and Network Synthesis
Chapter 14. Operational Amplifier and Active Filter
Chapter 15. Introduction To Software SPICE
Chapter 16. Indefinite Admittance Matrix (IAM)
Chapter 17. Symmetrical Components

Signals and Systems

Signals and Systems

INTERNATIONAL EDITION

NEW

SIGNALS AND SYSTEMS
Analysis Using Transform Methods & MATLAB
2nd Edition
by M.J. Roberts, University Of Tennessee-Knoxville

2012 (February 2011) / Hardcover / 816 pages
ISBN: 9780073380681
ISBN: 9780071086738 [IE]
www.mhhe.com/roberts

The second edition of Signals and Systems: Analysis Using Transform Methods and MATLAB® has been extensively updated while retaining the emphasis on fundamental applications and theory that has been the hallmark of this popular text. The text includes a wealth of exercises, including drill exercises, and more challenging conceptual problems. The book is intended to cover a two-semester course sequence in the basics of signals and systems analysis during the junior or senior year.

NEW TO THIS EDITION

- Increased emphasis of the Discrete Fourier Transform to approximate other types of transforms and some common signal-processing techniques using numerical methods.
- Revised Organization in this edition streamlines the presentation and adds extra emphasis on these topics:
  - Frequency Response Analysis
  - Communication System Analysis
  - Filter Analysis and Design
  - State-Space Analysis
  - More End of Chapter Problems in this edition. More than 500 exercises, including drill exercises with answers, and more challenging problems without answers are featured throughout the text.
- COSMOS is an online solutions manual organization system. It has all the exercises and solutions available in an online tool that will help professors easily build assignments. Learn more: http://cosmos.mhhe.com

FEATURES

- Increased Coverage of Mathematical Models Mathematical models of systems, the bilateral Laplace and z transforms, and many more topics are more prominent and thoroughly explored.
- Modular and Flexible Approach allows the professor to focus on either continuous or discrete-time coverage.
- Companion Website contains solutions, pdf files of figures, concept simulations, PPT lecture slides, and more.
- Extensive MATLAB Examples and a comprehensive appendix on the important MATLAB operations and functions used in signal and system analysis.

CONTENTS

Chapter 1 Introduction
Chapter 2 Mathematical Description of Continuous-Time Signals
Chapter 3 Discrete-Time Signal Description
Chapter 4 Description of Systems
Chapter 5 Time-Domain System Analysis
Chapter 6 Continuous-Time Fourier Methods
Chapter 7 Discrete-Time Fourier Methods
Chapter 8 The Laplace Transform
Chapter 9 The z Transform
Chapter 10 Sampling and Signal Processing
Chapter 11 Frequency Response Analysis
Chapter 12 Communication System Analysis
Chapter 13 Laplace System Analysis
Chapter 14 z-Transform System Analysis
Chapter 15 Filter Analysis and Design
Chapter 16 State-Space Analysis

Appendices
A-Useful Mathematical Relations
B-CTFS Pairs
C-DFT Pairs
D-CTFT Pairs
E-DTFT Pairs
F-Laplace Transform
G-z Transform

SIGNALS AND SYSTEMS
by A Nagorkani, RBA Educational Group Chennai
2010 (March 2010) / Softcover / 768 pages
ISBN: 9780070151390
(McGraw-Hill India Title)

Designed for the undergraduate course on Signals and Systems, this text provides a comprehensive overview of fundamental concepts and their practical implications. Supported by crisp and concise theory, plethora of numerical problems and MATLAB exercises, this book helps reader learn this important subject in the easiest manner.

CONTENTS

1. Introduction
2. Continuous Time Signals & Systems
3. Laplace Transform
4. Fourier Series and Fourier transform of Analog Signals
5. State Space Analysis of Continuous Time Systems
6. Discrete Time Signals and Systems
7. Z Transform
8. Fourier Series and Fourier Transform of Discrete Time Signals
9. Discrete Fourier Transform & Fast Fourier Transform
10. Structures for Realization of IIR & FIR Systems
11. State Space Analysis of Discrete Time Systems
This thoroughly revised and updated edition provides a comprehensive treatment of continuous and discrete-time signals and linear-time invariant systems.

CONTENTS
Chapter 1. Introduction to Signals and Systems
Chapter 3. Analysis of LTI Discrete-Time Systems Time Domain and Frequency Domain
Chapter 4. Discrete Fourier Transform and Fast Fourier Transform
Chapter 5. Sampling
Chapter 6. Transformed Networks; Frequency Response and Topological Models
Chapter 7. State Space Analysis
Chapter 8. Stability Analysis of LTI Systems
Chapter 9. Analog and Digital Filter Design
Chapter 10. Matlab Tools for Design and Analysis of Digital Filters

The understanding of Signals and Systems is a pre-requisite to learning Digital Signal Processing and Communication Systems. This book, designed as a fundamental textbook on the subject, has its emphasis on clear concepts and appropriate solved examples and problems. Now in its second edition, the book provides detailed coverage of topics like FFT, Structure Realization and State Variables.

CONTENTS
1. Signals
2. Systems
3. Continuous-time Linear Time-invariant (LTI) System
4. Discrete-time Linear Time-invariant (LTI) Systems
5. Continuous-time Fourier Series
6. Discrete-time Fourier Series
7. Continuous-time Fourier Transform
8. Discrete-time Fourier Transform
9. Discrete Fourier Transform and Fast Fourier Transform
10. Laplace Transform
11. Z-Transform
12. Structure Realization
13. State Variables
14. Sampling Theorem

As in most areas of science and engineering, the most important and useful theories are the ones that capture the essence, and therefore the beauty, of physical phenomena. This is true of signals and systems. Signals and Systems: Analysis Using Transform Methods and MATLAB captures the mathematical beauty of signals and systems and offers a student-centered, pedagogically driven approach. The author has a clear understanding of the issues students face in learning the material and does a superior job of addressing these issues. The book is intended to cover a one-semester sequence in Signals and Systems for juniors in engineering. This text is created in modular format, so instructors can select chapters within the framework that they teach this course.

CONTENTS
1. Introduction.
7. Time-Domain Analysis of Discrete-Time Systems
8. The Continuous-Time Fourier Series.
9. The Discrete-Time Fourier Series.
10. The Continuous-Time Fourier Transform.
11. The Discrete-Time Fourier Transform
15. The Laplace Transform.
16. The z Transform
Appendix A: Useful Mathematical Relations.
Appendix B: The Continuous-Time Fourier Series Pairs.
Appendix C: Discrete-Time Fourier Series Pairs.
Appendix D: Continuous-Time Fourier Transform Pairs.
Appendix E: Discrete-Time Fourier Transform Pairs.
Appendix F: Laplace Transform Pairs.
Appendix G: z Transform Pairs.
SCHAUM'S OUTLINE OF SIGNALS AND SYSTEMS
2nd Edition
by Hwei Hsu, Fairleigh Dickinson University
2011 (August 2010) / 480 pages / Softcover
ISBN: 9780071634724
(A Schaum's Publications)

Modified to conform to the current curriculum, Schaum's Outline of Signals and Systems complements these courses in scope and sequence to help you understand its basic concepts. The book offers practice on topics such as transform techniques for the analysis of LTI systems, the Laplace transform and its application to continuous-time and discrete-time LTI systems, Fourier analysis of signals and systems, and the state space or state variable concept and analysis for both discrete-time and continuous-time systems. Appropriate for the following courses: Basic Circuit Analysis, Electrical Circuits, Electrical Engineering and Circuit Analysis, Introduction to Circuit Analysis, AC and DC Circuits.

CONTENTS
1. Signals and Systems
2. Linear Time-Invariant Systems
3. Laplace Transform and Continuous-Time LTI Systems
4. The z-Transform and Discrete-Time LTI Systems
5. Fourier Analysis of Continuous-Time Signals and Systems
6. Fourier Analysis of Discrete-Time
7. State Space Analysis
8. Review of Matrix Theory
9. Properties of Linear Time-Invariant Systems and Various Transforms
10. Review of Complex Numbers
11. Useful Mathematical Formulas

Digital Signal Processing

DIGITAL SIGNAL PROCESSING
2nd Edition
by S.S. N. College of Engineering, Chennai, Vallavaraj, A. Caledonian College of Engineering, Sultanate of Oman, and Gnanapriya, C., Infosys Technologies Limited, Bangalore
2011 (April 2011) / Softcover / 936 pages
ISBN: 9780071329149
(McGraw-Hill India Title)

www.mhhe.com/salivahanan/dsp2e

This text helps students develop an understanding of digital signal processing concepts. Throughout the text, the exposition of topics is delivered in a simple way. The key topics of Digital Filter design (FIR & IIR Filters) and Fourier Transforms (DFT & FFT) are clearly defined and explained for easy learning. Important topics like Z transforms, Multirate Digital Signal Processing and DSP Applications are given due weightage. The topic of DSP Processors is added in the book for better coverage. Numerous solved examples and practice questions appear throughout the book for students to self assess their progress.

CONTENTS
1. Classification of Signals & Systems
2. Fourier Analysis of Periodic and Aperiodic Continuous Time Signals & Systems
3. Applications of Laplace Transform to System Analysis
4. Z Transform
5. Linear Time Invariant Systems
6. Discrete and Fast Fourier Transforms
7. Finite Impulse Response (FIR) Filters
8. Infinite Impulse Response (IIR) Filters
9. Realisation of Digital Linear Systems
10. Effects of Finite Word Length in Digital Filters
11. Multirate Digital Signal Processing
12. Multirate Digital Signal Processing
13. Spectral Estimation
14. Adaptive Filters
15. Applications of Digital Signal Processing
16. DSP Processors
17. MATLAB Programs

Invitation to Publish
McGraw-Hill is interested to review your textbook proposals for publication. Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com.

Visit McGraw-Hill Education (Asia)
Website: http://www.mheducation.asia/publish/
DIGITAL SIGNAL PROCESSORS:
ARCHITECTURE, PROGRAMMING AND APPLICATIONS
2nd Edition
by B. Venkataramani, and M. Bhaskar, Regional Engineering College, Tiruchirappalli, India
2010 (July 2010) / Softcover / 570 pages
ISBN: 9780070702561
(McGraw-Hill India Title)
www.mhhe.com/venkataramani/dsp2

The text provides a thorough understanding of the architecture and programming of Digital Signal Processors. It blends the concepts of digital signal processing with its applications on systems using digital signal processors. This revised edition offers an enhanced coverage of TMS320C6X series of processors and FPGA based system design-emerging trends of Digital Signal Processors.

CONTENTS
1. An Overview of Digital Signal Processing and Its Applications
2. Introduction to Programmable DSPs
3. Architecture of TMS320C5X
4. TMS320C5X Assembly Language Instructions
5. Instruction Pipelining in C5X
6. Applications Programs in C5X
7. Architecture of TMS320C3X
8. Addressing Modes and Assembly Language Instructions of C3X
9. Application Programs in C3X
10. An Overview of TMS320C54X
11. TMS320C54X Assembly Language Instructions
12. Application Programs in C54X
13. Architecture of TMS320C66X
14. TMS320C66X Assembly Language Instructions
15. TMS320C66X Application Programs & Peripherals
16. Architecture of TMS320C55X Processors
17. Recent Trends in DSP System Design
18. FPGAs in Telecommunication Applications

DIGITAL SIGNAL PROCESSING
2nd Edition
by S Poornachandra, RMD Engineering College, and B Sasikala
Crescent Engineering College, Chennai
July 2009 / Softcover with CD / 792 pages
ISBN: 9780070672796
(McGraw-Hill India Title)

Designed for a first course in digital signal processing, this book covers major topics like Discrete Fourier Transform Fast Fourier Transform), design of digital filters, effect of finite word length and multirate signal processing. Written in a clear style, the book provides lot of solved problems, illustrations and flow graphs that will facilitate easy learning of the subject.

CONTENTS
1. Introduction to Digital Signal Processing
2. Introduction to Signals and Systems
3. Linear Time Invariant Systems
4. Fourier Series
5. Fourier Transforms
6. Z-Transforms
7. Finite Impulse Response (FIR) Filter
8. Infinite Impulse Response (IIR) Filter
9. Analysis of Finite Word Length Effect
10. Random Signal Processing
11. Multirate Digital Signal Processing
12. Introduction to Speech Processing
13. Digital Signal Processors
Electrical Engineering

Digital Image Processing

DIGITAL IMAGE PROCESSING USING MATLAB
2nd Edition
by Rafael C. Gonzalez, Richard E. Woods and Steven L. Eddins
2010 (September 2010) / Softcover / 760 pages
ISBN: 9780071084789
(An Asian Publication)

Digital Image Processing Using MATLAB® is the first book to offer a balanced treatment of image processing fundamentals and the software principles used in their implementation. The book integrates material from the leading text, Digital Image Processing by Gonzalez and Woods, and the Image Processing Toolbox from The MathWorks, Inc., a leader in scientific computing. The Image Processing Toolbox provides a stable, well-supported software environment for addressing a broad range of applications in digital image processing. A unique feature of the book is its emphasis on showing how to enhance those tools by developing new code. This is important in image processing, an area that normally requires extensive experimental work in order to arrive at acceptable application solutions.

CONTENTS
Chapter 1 Introduction Preview
1.1 Background
1.2 What Is Digital Image Processing?
1.3 Background on MATLAB and the Image Processing Toolbox
1.4 Areas of Image Processing Covered in the Book
1.5 The Book Web Site
1.6 Notation
1.7 Fundamentals
1.7.1 The MATLAB Desktop
1.7.2 Using the MATLAB Editor/Debugger
1.7.3 Getting Help
1.7.4 Saving and Retrieving Work Session Data
1.7.5 Digital Image Representation
1.7.6 Image I/O and Display
1.7.7 Classes and Image Types
1.7.8 M-Function Programming
1.8 How References Are Organized in the Book

Chapter 2 Intensity Transformations and Spatial Filtering
Preview.
2.1 Background
2.2 Intensity Transformation Functions
2.2.1 Functions imadjust and stretchlim
2.2.2 Logarithmic and Contrast-Stretching Transformations
2.2.3 Specifying Arbitrary Intensity Transformations
2.2.4 Some Utility M-functions for Intensity Transformations
2.3 Histogram Processing and Function Plotting
2.3.1 Generating and Plotting Image Histograms
2.3.2 Histogram Equalization
2.3.3 Histogram Matching (Specification)
2.3.4 Function adapthisteq
2.3.5 Nonlinear Spatial Filtering
2.4.1 Linear Spatial Filtering
2.4.2 Nonlinear Spatial Filtering
2.5 Image Processing Toolbox Standard Spatial Filters
2.5.1 Linear Spatial Filters
2.5.2 Nonlinear Spatial Filters
2.6 Using Fuzzy Techniques for Intensity Transformations and Spatial Filtering
2.6.1 Background
2.6.2 Introduction to Fuzzy Sets
2.6.3 Using Fuzzy Sets
2.6.4 A Set of Custom Fuzzy M-functions
2.6.5 Using Fuzzy Sets for Intensity Transformations
2.6.6 Using Fuzzy Sets for Spatial Filtering

Chapter 3 Correlation and Convolution
3.1 Introduction
3.2 Cross-Correlation
3.3 Autocorrelation
3.4 Linear Convolution
3.5 Convolution Theorem
3.6 Circular Convolution
3.7 Summary 117

SCHAUMS OUTLINE OF DIGITAL SIGNAL PROCESSING
2nd Edition
by Monson H. Hayes, Professor of Electrical and Computer Engineering,
Georgia Institute of Technology in Atlanta, Georgia
2012 (September 2011) / Softcover / 456 pages
ISBN: 9780071635097
(A Schaum’s Publication)

Schaum’s Outline of Digital Signal Processing mirrors the standard course in scope and sequence. It helps students understand basic concepts and offers problem-solving practice in topics such as the discrete-time Fourier transform, sampling continuous-time signals, aliasing, the z-Transform, and the design and implementation of discrete-time systems.

CONTENTS
Chapter 1 Introduction to Digital Signal Processing.
Chapter 2 Converting Analog Signals to Digital Signals.
Chapter 3 Correlation and Convolution.
Chapter 4 Periodic Functions and Fourier Synthesis.
Chapter 5 Discrete Fourier Transform.
Chapter 6 Windows.
Chapter 7 Digital Filters.
Chapter 8 Practical Implementation of Filters.
Chapter 9 Digital Signal Processing Systems.
Chapter 10 Illustrated DSP Dictionary.
Index

DIGITAL SIGNAL PROCESSING
by Charles A. Schuler, and Mahesh Chugani
2005 / 352 pages
ISBN: 9780078297441
ISBN: 9780071113311 [IE]
(A Schaum’s Publication)

This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

INTERNATIONAL EDITION
DIGITAL SIGNAL PROCESSING
by Charles A. Schuler, and Mahesh Chugani
2005 / 352 pages
ISBN: 9780078297441
ISBN: 9780071113311 [IE]
(A Schaum’s Publication)

This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers.

CONTENTS
This new book is intended for two-year and four-year electronics students, as well as industry practitioners who need to learn about applied Digital Signal Processing. The text has a very practical “hands-on” approach, appropriate for those students who will apply and troubleshoot modern electronic systems. The authors present critical concepts to increase understanding and aid retention. The CD-ROM included with the text contains five programs that support the hands-on activities. Three of the programs were specially prepared for beginners just learning DSP; two present demo versions of professional software used by DSP designers. 
Preview 10.1 Point, Line, and Edge Detection
10.1.1 Point Detection
10.1.2 Line Detection
10.1.3 Edge Detection Using Function edge
10.2 Line Detection Using the Hough Transform
10.2.1 Background
10.2.2 Toolbox Hough Functions
10.3 Thresholding 10.3.1 Foundation
10.3.2 Basic Global Thresholding
10.3.3 Optimum Global Thresholding Using Otus's Method
10.3.4 Using Image Smoothing to Improve Global Thresholding
10.3.5 Using Edges to Improve Global Thresholding
10.3.6 Variable Thresholding Based on Local Statistics
10.3.7 Image Thresholding Using Moving Averages
10.4 Region-Based Segmentation
10.4.1 Basic Formulation
10.4.2 Region Growing
10.4.3 Region Splitting and Merging
10.5 Segmentation Using the Watershed Transform
10.5.1 Watershed Segmentation Using the Distance Transform
10.5.2 Watershed Segmentation Using Gradients
10.5.3 Marker-Controlled Watershed Segmentation
Summary.

Chapter 11 Representation and Description
Preview
11.1 Background.
11.1.1 Functions for Extracting Regions and Their Boundaries
11.1.2 Some Additional MATLAB and Toolbox Functions Used in This Chapter
11.1.3 Some Basic Utility M-Functions
11.2 Representation
11.2.1 Chain Codes
11.2.2 Polygonal Approximations Using Minimum-Perimeter Polygons
11.2.3 Signatures
11.2.4 Boundary Segments
11.2.5 Skeletons
11.3 Boundary Descriptors
11.3.1 Some Simple Descriptors
11.3.2 Shape Numbers
11.3.3 Fourier Descriptors
11.3.4 Statistical Moments
11.3.5 Corners
11.4 Regional Descriptors
11.4.1 Function regionprops
11.4.2 Texture
11.4.3 Moment Invariants
11.5 Using Principal Components for Description
Summary
Appendix A M-Function
Summary
Appendix B ICE and MATLAB Graphical User Interfaces
Appendix C Additional Custom M-functions
Bibliography
Index.
Chapter 15: General Linear Least-Squares and Nonlinear Regression
Chapter 16: Fast Fourier Transform
Chapter 17: Polynomial Interpolation
Chapter 18: Splines and Piecewise Interpolation
Part Five: Integration and Differentiation
Chapter 19: Numerical Integration Formulas
Chapter 20: Numerical Integration of Functions
Chapter 21: Numerical Differentiation
Part Six: Ordinary Differential Equations
Chapter 22: Initial-Value Problems
Chapter 23: Adaptive Methods and Stiff Systems
Chapter 24: Boundary-Value Problems
Appendix A: MATLAB Built-in Functions
Appendix B: MATLAB M-file Functions
Bibliography
Index
Electrical Engineering

15 Constrained Optimization
16 Case Studies: Optimization
Part 5 Curve Fitting
17 Least-Squares Regression
18 Interpolation
19 Fourier Approximation
20 Case Studies: Curve Fitting
Part 6 Numerical Differentiation and Integration
21 Newton-Cotes Integration Formulas
22 Integration of Equations
23 Numerical Differentiation
24 Case Studies: Numerical Integration and Differentiation
Part 7 Ordinary Differential Equations
25 Runge-Kutta Methods
26 Stiffness and Multistep Methods
27 Boundary-Value and Eigenvalue Problems
28 Case Studies: Ordinary Differential Equations
Part 8 Partial Differential Equations
29 Finite Difference: Elliptic Equations
30 Finite Difference: Parabolic Equations
31 Finite-Element Method
32 Case Studies: Partial Differential Equations
Appendix A The Fourier Series
Appendix B Getting Started with Matlab
Bibliography
Index

Probability & Random Processes

INTERNATIONAL EDITION
PROBABILITY, RANDOM VARIABLES AND STOCHASTIC PROCESSES WITH ERRATA SHEET
4th Edition
by Athanasios Papoulis and S Unnikrishna Pillai, both of Polytechnic University.
2002 / 864 pages
ISBN: 9780072817256 (with Errata Sheet) - (Out of Print)
ISBN: 9780071226615 [IE] (with Errata Sheet)
www.mhhe.com/engcs/electrical/papoulis

The fourth edition of Probability, Random Variables and Stochastic Processes has been updated significantly from the previous edition, and it now includes co-author S. Unnikrishna Pillai of Polytechnic University. The book is intended for a senior/graduate level course in probability and is aimed at students in electrical engineering, math, and physics departments. The authors' approach is to develop the subject of probability theory and stochastic processes as a deductive discipline and to illustrate the theory with basic applications of engineering interest. Approximately 1/3 of the text is new material—this material maintains the style and spirit of previous editions. In order to bridge the gap between concepts and applications, a number of additional examples have been added for further clarity, as well as several new topics.

CONTENTS
Part 1 Probability and Random Variables.
1 The Meaning of Probability.
2 The Axioms of Probability.
3 Repeated Trials.
4 The Concept of a Random Variable.
5 Functions of One Random Variable.
6 Two Random Variables.
7 Sequences of Random Variables.
8 Statistics.
Part 2 Stochastic Processes.
9 General Concepts.
10 Random Walk and Other Applications.
11 Spectral Representation.
12 Spectral Estimation.
13 Mean Square Estimation.
14 Entropy.
15 Markov Chains.
16 Markov Processes and Queueing Theory

INTERNATIONAL EDITION
PROBABILITY, RANDOM VARIABLES AND STOCHASTIC SIGNAL PRINCIPLES
4th Edition
by Peyton Peebles, University of Florida, Gainesville
2001 / 480 pages
ISBN: 9780073660073 (Out of Print)
ISBN: 9780071181815 [IE]
www.mhhe.com/peebles

The fourth edition of "Probability, Random Variables and Random Signal Principles" continues the success of previous editions with its concise introduction to probability theory for the junior-senior level course in electrical engineering. The book offers a careful, logical organization which stresses fundamentals and includes almost 900 student exercises and abundant practical applications for engineers to understand probability concepts.

The most important new material in this edition relates to discrete-time random processes and sequences, and other topics in the general area of digital signal processing, such as the DT linear system.

CONTENTS
1 Probability.
2 The Random Variable.
3 Operations on one Random Variable—Expectation.
4 Multiple Random Variables.
5 Operations of Multiple Random Variables.
7 Random Processes-Spectral Characteristics.
8 Linear Systems with Random Inputs.
9 Optimum Linear Systems.
10 Some Practical Applications of the Theory.
Appendix A Review of the Impulse Function.
Appendix B Gaussian Distribution Function.
Appendix C Useful Mathematical Quantities.
Appendix D Review of Fourier Transforms.
Appendix E Table of Useful Fourier Transforms.
Appendix F Some Probability Densities and Distributions.
Appendix G Some Mathematical Topics of Interest.
Microcomputers, Microprocessors and Chips

Advanced Microprocessor

INTERNATIONAL EDITION
MICROPROCESSORS PRINCIPLES AND APPLICATIONS
2nd Edition
by Charles M Gilmore
1995 / 544 pages
ISBN: 9780071139656 [IE]
(A Glencoe/McGraw-Hill Title)

Designed for use in one-semester courses, this Second Edition provides thorough coverage of 8-bit processor architecture, instructions, and applications as well as an introduction to 16-bit and 32-bit processors. To add to the text's realism and practicality, three 8-bit and 16-bit processors are used as examples. Topics covered include interfacing, troubleshooting, development systems and developing technologies, making this one of the most complete introductions available. Plenty of examples, illustrations, exercises, and problems are provided to reinforce students' understanding of the material. This new edition also includes performance objectives and critical thinking questions for every chapter.

CONTENTS
What Is The Microprocessor?
The Decimal And Binary Number Systems
Processor Arithmetic
Basic Microprocessor Architectural Concepts
Inside The Microprocessor
An Introduction To Microprocessor Instructions
Communicating With The Microprocessor
Two 8-bit Microprocessors: The Z80 And 6802
The Microcontroller: A Single Chip Microprocessor
Advanced Microprocessors
Memory
Mass Storage
Microprocessor I/O
An Introduction To Programming
Operating Systems And System Software
Servicing Microprocessor-based Products
Developing Microprocessor-based Products
New Developments In Microprocessor Technology

General Reference

Design in Electrical Engineering

INTERNATIONAL EDITION
DESIGN FOR ELECTRICAL AND COMPUTER ENGINEERS
by Ralph Ford, Penn State Erie Behrend College, and Chris Coulston, Penn State Erie Behrend College
2008 (August 2007) / Softcover / 336 pages
ISBN: 9780073380353
ISBN: 9780071263474 [IE]

www.mhhe.com/fordcoulston

This book is written for students and teachers engaged in electrical and computer engineering (ECE) design projects, primarily in the senior year. It guides students and faculty through the steps necessary for the successful execution of design projects. The objective of the text is to provide a treatment of the design process in ECE with a sound academic basis that is integrated with practical application. It has a strong guiding vision -- that a solid understanding of the Design Process, Design Tools, and the right mix of Professional Skills are critical for project and career success. This text is unique in providing a comprehensive design treatment for ECE.

CONTENTS
Part I – The Engineering Design Process
Chapter 1: The Engineering Design Process
Chapter 2: Project Selection and Needs Identification
Chapter 3: The Requirements Specification
Chapter 4: Concept Generation and Evaluation
Part II – Design Tools
Chapter 5: System Design I: Functional Decomposition
Chapter 6: System Design II: Behavior Models
Chapter 7: Testing
Chapter 8: System Reliability
Part III – Professional Skills
Chapter 9: Teams and Teamwork
Chapter 10: Project Management
Chapter 11: Ethical and Legal Issues
Chapter 12: Oral Presentations
Appendices
References
Appendix A Glossary
Appendix B Decision Making with Analytical Hierarchy Process
Appendix C Component Failure Rate Data
Appendix D Manufacturer Datasheets
Index
Professional References

STANDARD HANDBOOK FOR ELECTRICAL ENGINEERS
16th Edition
by H. Wayne Beaty, and Donald G. Fink (deceased)
2013 (September 2012) / Hardcover / 2064 pages
ISBN: 9780071762328
(A Professional Reference Title)

CONTENTS
Section 1. Units, Symbols, Constants, Definitions, and Conversion Factors
Section 2. Electric and Magnetic Circuits
Section 3. Measurements and Instruments
Section 4. Properties of Materials
Section 5. Generation
Section 6. Prime Movers
Section 7. Alternating-Current Generators
Section 8. Direct-Current Generators
Section 9. Hydroelectric Power Generation
Section 10. Power System Components
Section 11. Alternate Sources of Power
Section 12. Electric Power System Economics
Section 13. Project Economics
Section 14. Transmission Systems
Section 15. Direct Current Power Transmission
Section 16. Power-System Operations
Section 17. Substations
Section 18. Power Distribution
Section 19. Wiring Design for Commercial and Industrial Buildings
Section 20. Motors and Drives
Section 21. Industrial and Commercial Applications of Electric Power
Section 22. Power Electronics
Section 23. Power Quality and Reliability
Section 24. Grounding Systems
Section 25. Computer Applications in the Electric Power Industry
Section 26. Illumination
Section 27. Lightning and Overvoltage Protection
Section 28. Standards in Electrotechnology, Telecommunications, and Information Technology

MASTER HANDBOOK OF SOUND STUDIO CONSTRUCTION
by Ken C. Pohlmann, and University of Miami
2013 (December 2012) / Softcover / 320 pages
ISBN: 9780071772747
(A Professional Reference Title)

Master Handbook of Sound Studio Construction provides expert advice and detailed examples for anyone contemplating the construction or renovation of an acoustically sensitive room. The first part of the book offers specific details on 10 types of rooms, including recording studios, control rooms, and home theaters. The remainder of the book contains several tutorial chapters on acoustics-related topics, such as wall and floor construction and heating and ventilation. Information on dozens of manufacturers and companies involved in the acoustic and home studio industry is included. This book is the perfect companion to Master Handbook of Acoustics.

CONTENTS
1. Introduction to Room Design
2. Announce Booth
3. Recording Studio for Classical Music
4. Recording Studio for Popular Music
5. Recording Studio with Variable Acoustics
6. Control Rooms
7. Audio/Video/Film Workroom
8. Teleconference Room
9. Home Personal Project Studio
10. Home Media Room
11. Home Theater
12. Site Selection and Noise Control
13. Sound Diffusing Materials
14. Sound Absorbing Materials
15. Sound Reflecting Materials
16. Wall Construction
17. Floor/Ceiling Construction
18. Windows and Doors
19. HVAC System
20. Room Performance and Evaluation

PRACTICAL ELECTRONICS FOR INVENTORS
3rd Edition
by Paul Scherz
2013 (September 2012) / Softcover / 1008 pages
ISBN: 9780071771337
(A Professional Reference Title)

CONTENTS
Chapter 1 Introduction to Electronics
Chapter 2 Theory
Chapter 3 Basic Electronics Components
Chapter 4 Hands-On Electronics
Chapter 5 Analog Circuits
Chapter 6 Digital Circuits
Chapter 7 Mixed-Signal Circuits
Chapter 8 Input/Output Devices
Chapter 9 Sensors
Chapter 10 Electromechanical Devices
Chapter 11 Remote Control
Appendix A
Appendix B
Electrical Engineering

ELECTRICAL SAFETY HANDBOOK
4th Edition
by John Cadick, Mary Capelli-Schellpfeffer, Dennis K. Neitzel, and Al Winfield
2012 (February 2012) / Hardcover / 640 pages
ISBN: 9780071745130
(A Professional Reference Title)

Electrical Safety Handbook, Fourth Edition is written by experts in electrical construction safety and medicine as a practical guide for electrical workers and others exposed to electrical hazards. This easy-to-use, illustrated guide provides vital safety information for industrial, commercial, and home-office based electrical systems. With its wealth of information on all the major electrical standards, it is the comprehensive reference professionals can trust.

CONTENTS
Ch. 1. Hazards of Electricity
Ch. 2. Basic Physics of Electrical Hazards
Ch. 3. Electrical Safety Equipment
Ch. 4. Safety Procedures and Methods
Ch. 5. Grounding of Electrical Systems and Equipment
Ch. 6. Electrical Maintenance and Engineering and Their Relationship to Safety
Ch. 7. Regulatory and Legal Safety Requirements and Standards
Ch. 8. Accident Prevention, Accident Investigation, Rescue, and First Aid
Ch. 9. Medical Aspects of Electrical Trauma
Ch. 10. Low-Voltage Safety Synopsis
Ch. 11. Medium- and High-Voltage Safety Synopsis
Ch. 12. Human Factors in Electrical Safety
Ch. 13. Safety Management and Organizational Structure
Ch. 14. Safety Training Methods and Systems

BRILLIANT LED PROJECTS
by Nick Dossis
2012 (April 2012) / Softcover / 160 pages
ISBN: 9780071778220
(A Professional Reference Title)

Brilliant LED Projects reveals how to build inventive, affordable, and impressive LED projects using a selection of components that includes single-color LEDs, bi-color and tri-color LEDs, RBG LEDs, 7-segment displays, dot matrix displays, and IR LEDs. The projects use a variety of digital integrated circuits to achieve the desired results. You’ll learn to work with CMOS 4000-range ICs, 555 timers, bargraph drivers, and the 16F84 PIC microcontroller.

This hands-on guide opens with a clear explanation of the book’s intentions, the tools needed, and the basic concepts. It includes an overview of the various LED components, example clock and driver circuit building blocks, illumination and flashing LED projects, sequencers (strings of flashing LEDs), and multiplexers. Every chapter illustrates important concepts and techniques that produce fascinating electronic displays. Programming code, when needed, is available for download.

CONTENTS
Introduction
Acknowledgments
1. Before we get started
Part I. Illumination & Flasher Projects
2. Basic LED Circuits—How to make an LED flashlight
3. ‘Green’ Pocket LED Flashlight
4. Basic Single LED Flasher
5. LED Bike Flasher
6. Color Changing Light Box
7. Mini-Digital Display Score Board
Part II. Sequencer Projects
8. Experimental LED Sequencer Circuit
9. Color Changing Disco Lights
10. Binary Ripple Counter—Mainframe Computer Simulator
11. Flickering LED Candle
12. LED Scanner
13. LED Light Sword
Part III. Multiplexer (POV) Projects
15. Basic LED Matrix/POV Concepts—How to build a 3-Digit Counter
16. Color Changing Display—Backpack Illuminator
17. Digital Oscilloscope Screen
18. Experimental Low-Res Shadow Camera
19. Groovy Light Stick
20. Dot Matrix Counter
21. Moving Message Destiny Predictor
Appendix 1—Useful Resources

ELECTRICAL POWER SYSTEMS QUALITY
3rd Edition
by Roger C. Dugan, Senior Consultant with Electrotek Concepts Inc, Knoxville Tn, Mark F. F. McGranaghan, Surya Santoso, and H. Wayne Crane
2012 (February 2012) / Hardcover / 592 pages
ISBN: 9780071761550
(A Professional Reference Title)

Electrical Power Systems Quality, Third Edition addresses the causes of power quality problems and explains how to prevent these problems in the clearest and most complete manner. The information is presented without the inclusion of heavy-duty equations, making it easily readable and accessible to utility engineers, industrial plant technicians, and power quality consultants.

CONTENTS
Ch. 1. Introduction
Ch. 2. Terms and Definitions
Ch. 3. Voltage Sags
Ch. 4. Interruptions
Ch. 5. Transient Overvoltages
Ch. 6. Fundamentals of Harmonics
Ch. 7. Applied Harmonics
Ch. 8. Long-Duration Voltage Variations
Ch. 9. Power Quality Benchmarking
Ch. 10. Distributed Generation and Power Quality
Ch. 11. Wiring and Grounding
Ch. 12. Power Quality Monitoring

SEMICONDUCTOR PROCESS RELIABILITY IN PRACTICE
by Zhenghao Gan, Waisum Wong, and Jun J. Liou
2012 (April 2012) / Hardcover / 528 pages
ISBN: 9780071754279
(A Professional Reference Title)

Featuring detailed descriptions and analyses of reliability and qualification for semiconductor device manufacturing, Semiconductor Process Reliability in Practice contains numerous practical examples and discusses verifying test structures and underlying physics and theory. With continuous scaling down of semiconductor technology, process reliability has become one of the key factors limiting further scaling down; therefore, emerging reliability challenges as technology evolves make this book a timely, essential resource.
Written in a step-by-step format, this practical guide begins by covering direct current (DC), voltage, resistance, circuits, cells, and batteries. The book goes on to discuss alternating current (AC), power supplies, wire, and cable. Magnetism and electromagnetic effects are also addressed. Detailed examples and concise explanations make it easy to understand the material. End-of-chapter quizzes and a final exam help reinforce key concepts.

Simple enough for a beginner, but challenging enough for an advanced student, Electricity DeMYSTiFieD, Second Edition, powers up your understanding of this essential subject.

**CONTENTS**

How to Use This Book

PART I: DIRECT CURRENT
1. A Circuit Diagram Sampler
2. Charge, Current, Voltage, and Resistance
3. Ohm’s Law, Power, and Energy
4. Simple DC Circuits
5. Cells and Batteries
Test: Part I

PART II: ALTERNATING CURRENT
6. What is Alternating Current?
7. Electricity in the Home
8. Power Supplies
9. Wire and Cable
Test: Part II

PART III: MAGNETISM
10. What is Magnetism?
11. Electromagnetic Effects
12. Practical Magnetism
Test: Part III

FINAL EXAM
Appendix 1: Answers to Quiz, Test, and Exam Questions
Appendix 2: Symbols used in Schematic Diagrams
Suggested Additional References

---

**SMART GRID NETWORKING AND COMMUNICATIONS**

*by Krzysztof Iniewski*

2012 (April 2012) / Hardcover / 320 pages
ISBN: 9780071787741

(A Professional Reference Title)

**CONTENTS**

Ch 1. Historical & Future Developments in the Energy Sector
Ch 2. Smart Grid Communications & Standardization
Ch 3. Smart Grid Applications in Energy Generation and Transmission
Ch 4. Smart Grid Applications from Energy Distribution to Customer
Ch 5. Sensing, Automation, and Control Protocols
Ch 6. Wireless Communications for Smart Grids
Ch 7. Wireline Communications for Smart Grids
Ch 8. Fiber Optical Communications for Smart Grids
Ch 9. Interoperability and Routing between Communications Technologies
Ch 10. Smart Grid Management and Architecture (Cyber Security)
Ch 11. Next-Generation Smart Grid Control Centers
Ch 12. Smart Grid Case Studies and Field Trials

---

**ADVANCED COPPER-GOLD WIRE-STUD INTERCONNECTION TECHNOLOGIES**

*by John H. Lau, and Hong Meng Ho*

2012 (April 2012) / Hardcover / 480 pages
ISBN: 9780071785167

(A Professional Reference Title)

Advanced Copper-Gold Wire-Stud Interconnection Technologies covers the latest advances in using low-cost copper wire, copper stud, and gold stud bonding techniques for the semiconductor chips used in today’s electronic products.

Take advantage of the cost effectiveness and performance efficiency of copper and gold studs and maximize their use in 2D and 3D IC packaging and 3D IC integration system-in-package (SiP) using the cutting-edge bonding techniques in this professional guide.

**CONTENTS**

1. Introduction to Semiconductor and Packaging Technologies
2. Conventional Au Wire Bonding
3. Conventional Au Stud Bumps
4. Cu Wire Bonding Problems
5. Ultrasonic Bonding Systems and Technologies of Cu Wire Bonding
6. Bonding Wire Metallurgy and Characteristics that can Affect Bonding, Reliability, or Testing of Cu Wire Bonding
7. Process Technology Affecting Cu Wire Bonding
8. Cu Wire Bond Testing
9. Cu-Al Intermetallic Compounds and Other Metallic Interface Reactions in Cu Wire Bonding
10. The Effect of Plating, Bond Pad Technology and Reliability on Cu Wire Bonding
11. Cleaning to Improve Bondability and Reliability of Cu Wire Bonding
12. Mechanical Problems in Cu Wire Bonding
13. Advanced and Specialized Wire Bonding Technologies when using Cu Wire Bonding
14. Overview of Materials and Material Science of Cu/Low K Devices that Affect Cu Wire Bonding and Packaging
15. Overview of Process Modeling and Simulation on Cu Wire Bonding
16. Package Level Reliability of Cu Wire Bonded Device
17. Cu Stud Bonding
Electrical Engineering

THROUGH-SILICON VIAS (TSVS) FOR 3D INTEGRATION
by John H. Lau
2012 (May 2012) / Hardcover / 480 pages
ISBN: 9780071785143
(A Professional Reference Title)
Through-Silicon Vias (TSVs) for 3D Integration covers cutting-edge developments in 3D ICs—essential for the development of low-cost, high-performance electronic and optoelectronic products. The book proposes that every chip or interposer could have two surfaces with circuits. This detailed guide discusses TSV manufacturing yield and hidden costs and includes characterization and reliability data for 3D IC integration. The in-depth information in the book provides context for all aspects of 3D IC integration. The book covers the latest in TSV manufacturing yield and hidden costs and includes characterization and reliability data for 3D IC integration.

CONTENTS
1. Introduction to Microelectronics and Nanoelectronics
2. Origin and Evolution of 3D Integration
3. Trends and Outlook of 3D IC Packaging
4. Through-Silicon Vias (TSVs) Technology
5. Challenges and Outlook of 3D Si Integration
6. Challenges and Outlook of 3D IC Integration
7. Thin-Wafer Strength Measurements
8. Thin-Wafer Handling
9. Low-Cost Microbumping
10. C2C and C2W Bonding with Microbumps
11. Low Temperature Bonding
12. Electromigration of Microbump Assemblies
13. Memory Stacking Methods
14. Active TSV Interposers
15. Passive TSV Interposers
16. Thermal Management of 3D IC Integration
17. 3D IC and CIS Integration
18. 3D IC and MEMS Integration
19. 3D IC and LED Integration
20. Embedded 3D Hybrid IC and Opto-electronic Integration in Organic Substrates

ARDUINO ROBOT BONANZA
by Gordon McComb
2012 (February 2012) / Softcover / 464 pages
ISBN: 9780071782777
(A Professional Reference Title)
Arduino Robot Bonanza explains how to build a wide variety of robots that roll, walk, talk, crawl, slither—and even sing insults—with the Arduino microcontroller platform. From the author of the bestselling Robot Builder’s Bonanza, this book teaches embedded microcontroller programming and reveals the world of robotics. The book guides you, step by step, through the construction of seven rewarding and educational robot projects. Each robot is designed to explore multiple facets of the growing fields of embedded hardware, microcontroller programming, real-world sensory systems, and human-machine interaction. All of the projects are affordable and all are reproducible using parts available from a wide variety of sources.

CONTENTS
Ch 1. Ins and Outs of the Arduino Microcontroller
Ch 2. Arduino as a Robot Brain
Ch 3. Connecting Things to the Arduino
Ch 4. Enhancing Your Robot with Sensors
Ch 5. Expanding the Arduino
Ch 6. Layout and Design
Ch 7. The TestBot Test Platform
Ch 8. Mini Kissing Bug
Ch 9. Animatronic Parrot
Ch 10. Your Robot Avatar
Ch 11. Slithering Snake
Ch 12. 18-Servo WalkerBot
Ch 13. PC-based Autonomous Robot
Ch 14. Crash Course in Electronics
Ch 15. Learning the Arduino Programming Language
Ch 16. Setting Up Your Robotics Laboratory

HANDBOOK OF ULTRA-SHORT PULSE LASERS FOR BIOMEDICAL AND MEDICAL APPLICATIONS
by Joseph Neev, Femto-Sec Tech, Inc.
2012 (May 2012) / Hardcover / 800 pages
ISBN: 9780071627320
(A Professional Reference Title)
Handbook of Ultra-Short Pulse Lasers for Biomedical and Medical Applications is written for biophotonics scientists and engineers who are collaborating with medical professions in developing the medical tools which utilizes ultra-short pulse lasers. The book illustrates fundamental physics of USPLs and how they interact with human tissues through ample examples of practical applications. Medical professionals who are interested in the latest updates of laser surgery and diagnosis through laser imaging will also benefit from this book.

CONTENTS
Part I. USPL (Ultra-short Pulse Lasers) Technology Review;
Chapter 1. Physics of USPL;
Chapter 2. USPL Delivery I;
Chapter 3. USPL Delivery II;
Chapter 4. USPL Pulse Analysis;
Part II. Biomedical Applications Overview;
Chapter 5. Interaction of USPL with Cell and Organelles;
Chapter 6. Surgery with Femto Second Pulses on Cell and Organelles;
Chapter 7. Ultrashort Laser Light to Visualize and Manipulate the Structure and Dynamics of Neurovascular Tissue;
Part III. Surgical and Medical Applications;
Chapter 8. Applications of USPL Pulse Lasers to Skin and Dermatology;
Chapter 9. Ophthalmic Applications of Femtosecond Lasers;
Chapter 10. Surgical Applications of Femtosecond Lasers Surgery;
Chapter 11. Dental Applications of Femtosecond Lasers;
Chapter 12. Applications of USP Lasers to Spinal Cord Surgery and Neurology;
Part IV. Imaging and Diagnostics;
Chapter 13. USPL and Optical Coherent Tomography (OCT);
Chapter 14. Terahertz Imaging;
Chapter 15. User of USP Lasers for 3rd Harmonic and nonlinear Microscopy;
Chapter 16. Confocal 3 Photon / Multiphoton Imaging
HIGH PERFORMANCE INTEGRATED CIRCUIT DESIGN
by Emre Salman, and Eby G. Friedman
2012 (June 2012) / Hardcover / 704 pages
ISBN: 9780071635769
(A Professional Reference Title)
High Performance Integrated Circuit Design introduces a step-by-step approach offering in-depth coverage for each step of circuit design. This book is for the mixed-signal integrated circuit (IC) designer. Seamless interconnect circuit designs are the key for the mixed signal System-on-Chip (SoC) circuit designs. The challenges are how to synchronize the time domain or the frequency domain clock among the highly populated components on a chip in high speed. This book addresses those challenges.

HOW TO BUILD A SMALL BUDGET RECORDING STUDIO FROM SCRATCH
4th Edition
by Mike Shea
2012 (April 2012) / Softcover / 416 pages
ISBN: 9780071782715
(A Professional Reference Title)
How to Build a Small Budget Recording Studio from Scratch, Fourth Edition provides detailed plans for constructing real-world recording studios, all built, tested, and acoustically adjusted for optimal sound. Learn how to construct everything from the ground up, including the studios, all built, tested, and acoustically adjusted for optimal sound. Learn how to construct everything from the ground up, including the floor, ceiling, walls, and equipment; what materials to use; and how to test the finished structure for frequency response and reverberation time. Mathematical processes are discussed, but without confusing technical aspects. No detail is left out, as coverage includes silencing HVAC duct work, doors, electrical wiring, and lighting.

CONTENTS
PART I: Introduction
Acoustics; Reverb; Standards; Test
Part II: Brick and Mortar
My Studio—How Big and What Shape; Elements Common to All Studios; Audiovisual Budget Recording Studio; Studio Built in a Residence; A Small Studio for Instruction and Campus Radio; Small Ad Studio for TV/V Radio Jingles; Multitrack in a Two-Car Garage; Building a Studio from Scratch for Radio Production; Studios for a Commercial Radio Station; One Control Room for Two Studios; A Video Mini-Studio; A Video and Multitrack Studio; A Screening Facility for Film and Video; Multiple Studios
Part III: Modern, Pre-Manufactured Acoustics
Assemble/Remodel/Correct/Rectify/Grow/Polish/Rejuvenate/Recondition/Enhance/Revise; Acoustic Products and Remedies; New Acoustic Panels; New Acoustic Developments; Importance of Cleaning; Diffusion; Diffusion; Bits and Pieces of Acoustic Lore; Dual Room Functions; Control Room Monitors
Part IV: How Music Instruments Produce and Propagate Sound Resonance; Note Duration; Attack; Wolf tones; Impedance; Sound Radiation; Sound Transmission; Radiators and Resonators; Some Specific Sound Producing Mechanisms; Tines, Rods, and Tongues; Strings and Tubes; Reeds and Brass; Bows; Hollow Bodied Instruments; Drums; Tambourines; Microphone Placement.
On the Web:
Acoustic Equations; Reading Blueprints; List of Manufacturers of Acoustic Materials; Metal Wall Stud Update; Update to Acoustic Ratings of Duct Silencers.

AN INTRODUCTION TO CONTEMPORARY REMOTE SENSING EARTH FROM SPACE
by Qihao Weng
2012 (March 2012) / Hardcover / 336 pages
ISBN: 9780071740111
(A Professional Reference Title)
An Introduction to Contemporary Remote Sensing from Space covers the latest developments in remote sensing and imaging science, especially those relevant to undergraduate students. Remote sensing is the technology behind revolutionary applications such as Google Earth. The information in this book will help you to optimize portable equipment design by understanding and selecting most ideal spatial imagery technique. This versatile book serves lower-division undergraduate students as a textbook and may also be used as a reference tool for various remote sensing workshops as well as for professionals and researchers in academia, government, and industries to acquire updated information on the newest developments in the field.

HIGH FREQUENCY OVER THE HORIZON RADAR
Dr. Giuseppe Aureliano Fabrizio
2011 / Hardcover / 688 pages
ISBN: 9780071621274
(A Professional Reference Title)
High Frequency Over-the-Horizon Radar provides comprehensive details on modern developments in high frequency over-the-horizon (OTH) radar by capturing significant advances made in this area over the past two decades. This authoritative text offers a thorough and accurate treatment of essential aspects, ranging from the physical principles of operation and system design issues, through to signal processing methods, and their practical application to live data recorded by actual OTH radar systems. The strength of the book is its clear explanation of the signal processing aspects, including mathematical descriptions of adaptive processing techniques, an area that has become a cornerstone for the effective operation of OTH radar.

CONTENTS
Chapter 1 Introduction
Chapter 12 Fundamental Principles
Chapter 2 Skywave Propagation
Chapter 3 Statistical Representation
Chapter 4 Conventional Processing
Chapter 5 Surface-Wave Radar
Chapter 6 Signal Models
Chapter 7 Deterministic Description
Chapter 8 Channel Simulator
Chapter 9 Study Case
Chapter 10 Adaptive Beamforming
Chapter 11 Space-Time Adaptive Processing
Chapter 12 GLRT-Based Detection
Chapter 13 Blind Waveform Estimation
Chapter 14 References
Appendix A Complex Sample ACS Distribution
Appendix B Space-Time Separability
Appendix C Modal Decomposition
TRANSIENTS IN ELECTRICAL SYSTEMS
Analysis, Recognition, and Mitigation
by J.C. Das
2010 (April 2010) / Hardcover / 928 pages
ISBN: 9780071622486
(A Professional Reference Title)

Written by a senior consultant for a major power utility corporation, this professional reference explains how to identify the origin of disturbances in electrical systems and analyze them for effective mitigation and control. The book contains case studies of simulations on EMTP, a globally recognized software used to analyze transients. Solved examples and problems are included at the end of each chapter. This comprehensive reference will help power electrical engineers create stable system operations.

CONTENTS
Chapter 1: Introduction to Transients in Electrical Systems
Chapter 2: Transients in Lumped Circuits
Chapter 3: Control Systems-Analysis, Operation and Stability
Chapter 4: Transmission Lines, Wave Propagation
Chapter 5: Lighting Strokes on Transmission Lines, Shielding
Chapter 6: Capacitor Switching Transients
Chapter 7: Transmission Lines, Switching Transients
Chapter 8: Interruption of AC Currents
Chapter 9: Short-Circuit Transients
Chapter 10: Transient Behavior of Synchronous Generators
Chapter 11: Transient behavior of Synchronous and Induction Motors
Chapter 12: Power System Stability
Chapter 13: Excitation Systems and Power System Stabilizers
Chapter 14: transient Response of Transformers and Windings
Chapter 15: Very Fast Transients-Gas Insulated Substations
Chapter 16: Transients in Power Electronic Equipment
Chapter 17: Flicker, Auto Bus Transfer and Other Transients
Chapter 18: Insulation Coordination
Chapter 19: Surge Protection of Low Voltage Systems
Chapter 20: Application of Surge Arresters
Chapter 21: Grounding Systems and Transients
Chapter 22: Lightning Protection of Structures
Chapter 23: Transients in DC Systems

CHALCOGENIDE GLASSES FOR INFRARED OPTICS
by A. Ray Hilton
2010 (January 2010) / Hardcover / 304 pages
ISBN: 9780071596978
(A Professional Reference Title)

An essential resource for infrared optical system engineers, this volume shows how to master hands-on techniques to yield high-quality chalcogenide glasses. Important details on their applications is also included. The book contains proprietary fabrication techniques of chalcogenide glasses from Amorphous Materials, Inc., and Texas Instruments.

CONTENTS
Ch 1. Transmission of Light by Solids
Ch 2. Chalcogenide Glasses
Ch 3. Glass Production
Ch 4. Careful Characterization of Glass Properties
Ch 5. Conventional Lens Fabrication, Spherical Surfaces
Ch 6. Unconventional Lens Fabrication, Aspheric Surfaces, Kinos
Ch 7. Other Applications
A. Extrusion
B. Fiber Drawing
C. Fiber Applications
D. Infrared Fiber Imaging Bundles
Ch 8. Crystal Materials Produced at AMI
Ch 9. Other Infrared Optical Materials

NANOSCALE CMOS VLSI CIRCUITS
Design for Manufacturability
by Sandip Kundu, and Aswin Sreedhar
2010 (June 2010) / Hardcover / 256 pages
ISBN: 9780071635196
(A Professional Reference Title)

Covering defect analysis, equipment, and lithographic control evaluations, this book offers a holistic approach for VLSI circuit designers to evaluate and analyze IC circuit designs from the manufacturability point of view. This practical guide is ideal for design engineers, managers, students, and academics interested in understanding the sources of semiconductor chip failures and how these problems can be mitigated through design.

CONTENTS
1. Introduction
1.1. Current trends in CMOS VLSI Design
1.2. What is Design for Manufacturability
1.2.1. Why is it important
1.2.2. Economics of DFM
1.3. What is Design for Reliability
1.3.1. Traditional definition
1.3.2. Expanded definition
1.3.3. Why is this an important topic
1.4. Summary
2. Semiconductor Manufacturing
2.1. Introduction
2.2. Fabrication Process
2.3. Lithography Simulation
2.3.1. Fraunhofer Diffraction
2.3.2. Aerial Image Formation
2.4. Importance of Aerial imaging simulation
2.5. Inverse Lithography Simulation
2.6. Summary
3. Lithographic Process Variability
3.1. Introduction
3.2. Variability in Gate Length & Width
3.3. Threshold Voltage Variability
3.4. Metal CMP
Glossary
Appendix C Useful Physical Quantities and Units of Measurement
Appendix B Quick RF Reference Sheet
Chapter 7 Project Management
Chapter 6 Microwave Deployment
Chapter 5 Microwave Network Design
Chapter 4 Planning the Microwave Network
Chapter 3 Microwave Link Design
Chapter 2 Basics of Microwave Communications
Chapter 1 Transmission Network Fundamentals

PHOTONICS ESSENTIALS
2nd Edition
by Harvey Lehpamer
2010 (April 2010) / Hardcover / 400 pages
ISBN: 9780071701228
(A Professional Reference Title)

Microwave Transmission Networks, Second Edition covers all stages of microwave network build-out from initial planning and feasibility studies to real system deployment. Emphasis is given to practical guidelines. The book discusses planning and creating the business case for microwave networks, including advantages and disadvantages—essential for decision makers.

The second edition will contain all new diagrams and tables to reflect new and updated standards and information. New sections include new technologies implemented in microwave point-to-point radios (Ethernet), as well as Adaptive Modulation. Newly opened millimeter-wave bands and their applications in licensed and license-exempt (Ethernet), as well as Adaptive Modulation. Newly opened millimeter-wave bands and their applications in licensed and license-exempt.

PHOTONICS AND LASER ENGINEERING
Principles, Devices, and Applications
by Alphan Sennaroglu
2010 (October 2009) / Hardcover / 320 pages
ISBN: 9780071629355
(A Professional Reference Title)

This unique book teaches photonics through the hands-on measurement techniques common to all photonic devices. Perfect for students and engineers looking for practical expertise rather than abstract theory, this tutorial does more than explain the workings of photonic applications in standard devices like lasers and photodetectors—it offers worked examples of measurement and characterization problems. Filled with these real-world examples that feature commercially available instruments, this practice-based book enables you to analyze, characterize, and handle any kind of photonic device.

CONTENTS
Part I: Introductory Concepts;
Chapter 1. Introduction;
Chapter 2. Electrons and Photons;
Part II: Photonic Devices;
Chapter 3. Photodiodes;
Chapter 4. Electrical Response Time of Diodes;
Chapter 5. Photoconductivity;
Chapter 6. Light-Emitting Diodes;
Chapter 7. Organic Light-Emitting Diodes;
Chapter 8. Lasers;
Part III: Advanced Topics;
Chapter 9. Direct Modulation of Laser Diodes;
Chapter 10. Optical Fibers and Optical Fiber Amplifiers;
Part V: Characterizing Photonic Devices in the Laboratory;
Chapter 11. Measurements in Photonics;
Chapter 12. Experimental Photonics: Device Characterization in the Laboratory;
Index

PHOTONICS ESSENTIALS
2nd Edition
by Thomas P. Pearsall
2010 (November 2009) / Hardcover / 704 pages
ISBN: 9780071606080
(A Professional Reference Title)

Written by an internationally acclaimed expert, this comprehensive volume provides the background in theoretical physics necessary to understand practical applications of lasers and optics. Photonics and Laser Engineering Principles, Devices, and Applications discusses theories of electromagnetism, geometrical optics, quantum mechanics, and laser physics and connects them to relevant implementations in areas such as fiber optics, optical detection, laser resonator design, and semiconductor lasers. Each chapter contains detailed equations, sample problems, and solutions to reinforce the concepts presented.

CONTENTS
Preface;
Acknowledgements;
Notation;
Chapter 1. Electromagnetic Wave Theory of Light with Applications;
Chapter 2. Geometrical Optics;
Chapter 3. Laser Beams and Resonators;
Chapter 4. Light-Matter Interactions;
Chapter 5. Quantum Theory of Light-Matter Interactions;
Chapter 6. Lasers;
Chapter 7. Semiconductor Lasers;
Chapter 8. Anisotropic Media and Modulation of Light;
Chapter 9. Noise and Optical Detection;
Chapter 10. Dielectric Waveguides and Optical Fibers;
Chapter 11. Nonlinear Optics;
Appendix A. Background on Hermite Polynomials;
Appendix B. Some Fundamental Constants;
Index

MICROWAVE TRANSMISSION NETWORKS
2nd Edition
by Harvey Lehpamer
2010 (April 2010) / Hardcover / 400 pages
ISBN: 9780071701228
(A Professional Reference Title)

Microwave Transmission Networks, Second Edition covers all stages of microwave network build-out from initial planning and feasibility studies to real system deployment. Emphasis is given to practical guidelines. The book discusses planning and creating the business case for microwave networks, including advantages and disadvantages—essential for decision makers.

The second edition will contain all new diagrams and tables to reflect new and updated standards and information. New sections include new technologies implemented in microwave point-to-point radios (Ethernet), as well as Adaptive Modulation. Newly opened millimeter-wave bands and their applications in licensed and license-exempt broadband microwave radios will be discussed. Based on customer feedback on the Project Management chapter, a new FAQ section has been added regarding microwave links. Information on regulatory and ethical issues and conflicts of interests during international projects is included, content that is not provided in other microwave engineering texts.

CONTENTS
Chapter 1 Transmission Network Fundamentals
Chapter 2 Basics of Microwave Communications
Chapter 3 Microwave Link Design
Chapter 4 Planning the Microwave Network
Chapter 5 Microwave Network Design
Chapter 6 Microwave Deployment
Chapter 7 Project Management
Appendix A American Cable Stranding
Appendix B Quick RF Reference Sheet
Appendix C Useful Physical Quantities and Units of Measurement
Glossary

3.5. Interconnect linewidth variation
3.6. Interconnect LER
3.7. Summary
4. Lithographic Control
4.1. Introduction
4.2. Physical design rules check
4.2.1. The end of Boolean Rule-based checks
4.2.2. Model-based design rule checks
4.2.3. Cost vs accuracy of model-based checks
4.3. Resolution Enhancement Techniques (RET)
4.3.1. Proximity Correction & SRAFs
4.3.2. Phase shift Masking
4.3.3. Off-Axis Illumination
SMALL ANTENNAS
Modern Miniaturization Techniques & Applications
by John Volakis, Chi-Chih Chen, and Kyohei Fujimoto
2010 (June 2010) / Hardcover / 400 pages
ISBN: 9780071625531
(A Professional Reference Title)

As the world of wireless applications continues to explode, the need for smaller, more powerful antennas increases exponentially. This authoritative guide provides the most up-to-date techniques for designing and building antennas of the future. Written by experts at the forefront of research in this area, this book details the newest antenna design, miniaturization and wideband methods, via material loading, wave slow down techniques, and shaping. For the first time in any publication, the new class of metamaterial antennas are also covered. The book combines theory and basic design techniques with numerous practical applications for narrowband and wideband antennas.

CONTENTS
1 Electrically Small Antenna Properties
2 Wideband Electrically Small Antennas
3 Impedance Matching Techniques
4 Antenna Size Reduction Techniques
5 Miniature Wideband Spirals
6 Low Profile Small Antennas
7 Metamaterial Basics
8 Metamaterial Antennas
9 Textile and RFID Antennas
10 Physically Constrained Antennas
Appendix A: Glossary
Appendix B: References

Invitation to Publish
McGraw-Hill is interested to review your textbook proposals for publication. Please contact your local McGraw-Hill office or email to asiapub@mcgraw-hill.com.

Visit McGraw-Hill Education (Asia)
Website: http://www.mheducation.asia/publish/
# Title Index

## A

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Computer Architecture: Parallelism, Scalability, Programmability</td>
<td>Hwang</td>
<td>38,164</td>
</tr>
<tr>
<td>Advanced Copper-Gold Wire-Stud Interconnection Technologies</td>
<td>Lau</td>
<td>187</td>
</tr>
<tr>
<td>Advanced Programming Using Visual Basic 2008, 4e</td>
<td>Bradley</td>
<td>89</td>
</tr>
<tr>
<td>Algorithms</td>
<td>Dasgupta</td>
<td>21</td>
</tr>
<tr>
<td>Analog Communication</td>
<td>Rao</td>
<td>165</td>
</tr>
<tr>
<td>Analysis and Design of Digital Integrated Circuits, 3e</td>
<td>Hodges</td>
<td>136</td>
</tr>
<tr>
<td>Annual Editions: Technologies, Social Media and Society, 17e</td>
<td>De Palma</td>
<td>112,116</td>
</tr>
<tr>
<td>Annual Editions: Technologies, Social Media and Society, 18e</td>
<td>De Palma</td>
<td>111,116</td>
</tr>
<tr>
<td>Antennas, 3e</td>
<td>Kraus</td>
<td>144</td>
</tr>
<tr>
<td>Application Cases in Management Information Systems, 5e</td>
<td>Morgan</td>
<td>111</td>
</tr>
<tr>
<td>Applied C: An Introduction and More</td>
<td>Fischer</td>
<td>9</td>
</tr>
<tr>
<td>Applied Circuit Analysis</td>
<td>Sadiku</td>
<td>129,132</td>
</tr>
<tr>
<td>Applied Numerical Methods with MatLab for Engineers and Scientists, 3e</td>
<td>Chapra</td>
<td>24,182</td>
</tr>
<tr>
<td>Arduino Robot Bonanza</td>
<td>McComb</td>
<td>188</td>
</tr>
<tr>
<td>ASP.Net 4.0 Programming</td>
<td>Kanjilal</td>
<td>96</td>
</tr>
<tr>
<td>Assembly Language Programming and Organization of the IBM PC</td>
<td>Yu</td>
<td>34</td>
</tr>
</tbody>
</table>

## B

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Electrical &amp; Electronics Engineering</td>
<td>Singh</td>
<td>123</td>
</tr>
<tr>
<td>Basic Electrical Engineering</td>
<td>Kulshreshtha</td>
<td>125</td>
</tr>
<tr>
<td>Basic Electrical Engineering, 3e</td>
<td>Kothari</td>
<td>125</td>
</tr>
<tr>
<td>Basic Electricity: A Text-Lab Manual, 7e</td>
<td>Zbar</td>
<td>127</td>
</tr>
<tr>
<td>Basic Electronics for Scientists, 5e</td>
<td>Brophy</td>
<td>131</td>
</tr>
<tr>
<td>Bioinformatics: A Computing Perspective</td>
<td>Gopal</td>
<td>60</td>
</tr>
<tr>
<td>Brilliant LED Projects</td>
<td>Dossis</td>
<td>186</td>
</tr>
<tr>
<td>Business Driven Information Systems, 3e</td>
<td>Baltzhan</td>
<td>102,107</td>
</tr>
<tr>
<td>Business Driven Technology,4e</td>
<td>Baltzhan</td>
<td>109</td>
</tr>
<tr>
<td>Business Driven Technology,5e</td>
<td>Baltzhan</td>
<td>104</td>
</tr>
</tbody>
</table>

## C

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC for Engineers and Scientists with Companion CD</td>
<td>Cheng</td>
<td>10</td>
</tr>
<tr>
<td>C Programming for Engineering and Computer Science</td>
<td>Tan</td>
<td>11</td>
</tr>
<tr>
<td>C Programming: A Concise Q&amp;A Approach, 2e</td>
<td>Tan</td>
<td>8</td>
</tr>
<tr>
<td>Chalcogenide Glasses for Infrared Optics</td>
<td>Hilton</td>
<td>190</td>
</tr>
<tr>
<td>Circuits and Networks, 4e</td>
<td>Sudhakar</td>
<td>174</td>
</tr>
<tr>
<td>CMOS Digital Integrated Circuits Analysis and Design, 3e</td>
<td>Kang</td>
<td>136</td>
</tr>
<tr>
<td>Communication Electronics, 3e</td>
<td>Frenzel</td>
<td>169</td>
</tr>
<tr>
<td>Communication Network, 2e</td>
<td>Leon-Garcia</td>
<td>55,173</td>
</tr>
<tr>
<td>Communication Systems, 5e</td>
<td>Carlsson</td>
<td>166</td>
</tr>
<tr>
<td>Communication Theory</td>
<td>Thomas</td>
<td>167</td>
</tr>
<tr>
<td>Title</td>
<td>Author</td>
<td>Pages</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Comprehensive Introduction to Object-Oriented Programming with Java, A</td>
<td>Wu (Otani)</td>
<td>15</td>
</tr>
<tr>
<td>Computer Architecture and Logic Design</td>
<td>Bartee</td>
<td>32, 37, 151</td>
</tr>
<tr>
<td>Computer Architecture and Organization, 3e</td>
<td>Hayes</td>
<td>37</td>
</tr>
<tr>
<td>Computer Architecture: An Embedded Approach</td>
<td>McLaughlin</td>
<td>35, 162</td>
</tr>
<tr>
<td>Computer Graphics, 2e</td>
<td>Harrington</td>
<td>58</td>
</tr>
<tr>
<td>Computer Networks: A Top Down Approach</td>
<td>Forouzan</td>
<td>52</td>
</tr>
<tr>
<td>Computer Networks: An Open Source Approach</td>
<td>Lin</td>
<td>52</td>
</tr>
<tr>
<td>Computer Organization and Embedded Systems, 6e</td>
<td>Hamacher</td>
<td>161</td>
</tr>
<tr>
<td>Computer Organization, 6e</td>
<td>Hamacher</td>
<td>35</td>
</tr>
<tr>
<td>Computer System Organization</td>
<td>Jotwani</td>
<td>37</td>
</tr>
<tr>
<td>Computing Essentials 2013, Complete Edition</td>
<td>O’Leary</td>
<td>70</td>
</tr>
<tr>
<td>Computing Now</td>
<td>McGraw-Hill</td>
<td>69</td>
</tr>
<tr>
<td>Contemporary Communication Systems</td>
<td>Mesiya</td>
<td>165</td>
</tr>
<tr>
<td>Control Systems Engineering</td>
<td>Palani</td>
<td>152</td>
</tr>
<tr>
<td>Control Systems: Problems and Solutions</td>
<td>Varmah</td>
<td>152</td>
</tr>
<tr>
<td>Corporate Information Strategy and Management: Text and Cases, 8e</td>
<td>Applegate</td>
<td>116</td>
</tr>
<tr>
<td>Cryptography and Network Security</td>
<td>Forouzan</td>
<td>53</td>
</tr>
<tr>
<td>CSS &amp; XHTML: The Complete Reference</td>
<td>Powell</td>
<td>97</td>
</tr>
<tr>
<td>CWNA Certified Wireless Network Administrator &amp; CWSP Certified Wireless Security Professional</td>
<td>Carpenter</td>
<td>95</td>
</tr>
<tr>
<td>All-In-One Exam Guide</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### D

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Communications and Network Security</td>
<td>Carr</td>
<td>115</td>
</tr>
<tr>
<td>Data Communications and Networking, 4e</td>
<td>Forouzan</td>
<td>173</td>
</tr>
<tr>
<td>Data Communications and Networking, 5e</td>
<td>Forouzan</td>
<td>54, 172</td>
</tr>
<tr>
<td>Data Communications and Networks, 2e</td>
<td>Godbole</td>
<td>55, 92</td>
</tr>
<tr>
<td>Data Structures and the Standard Template Library</td>
<td>Collins</td>
<td>23</td>
</tr>
<tr>
<td>Data Warehouse Mentor, The</td>
<td>Laberge</td>
<td>61</td>
</tr>
<tr>
<td>Database Management Systems</td>
<td>Gupta</td>
<td>56</td>
</tr>
<tr>
<td>Database Management Systems, 3e</td>
<td>Ramakrishnan</td>
<td>57</td>
</tr>
<tr>
<td>Database System Concepts, 6e</td>
<td>Silberschatz</td>
<td>57</td>
</tr>
<tr>
<td>Decision Support and Data Warehouse Systems</td>
<td>Mailach</td>
<td>115</td>
</tr>
<tr>
<td>Design for Electrical and Computer Engineers</td>
<td>Ford</td>
<td>184</td>
</tr>
<tr>
<td>Design of Analog CMOS Integrated Circuits</td>
<td>Razavi</td>
<td>135</td>
</tr>
<tr>
<td>Design with Operational Amplifiers and Analog Integrated Circuits, 3e</td>
<td>Franco</td>
<td>138</td>
</tr>
<tr>
<td>Digital Communication</td>
<td>Rao</td>
<td>167</td>
</tr>
<tr>
<td>Digital Communications, 5e</td>
<td>Proakis</td>
<td>168</td>
</tr>
<tr>
<td>Digital Control and State Variable Methods, 3e</td>
<td>Gopal</td>
<td>153</td>
</tr>
<tr>
<td>Digital Electronics: Principles and Applications</td>
<td>Mandal</td>
<td>146</td>
</tr>
<tr>
<td>Title</td>
<td>Author</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------</td>
<td>------</td>
</tr>
<tr>
<td>Digital Electronics: Principles and Applications, 7e</td>
<td>Tokheim</td>
<td>147</td>
</tr>
<tr>
<td>Digital Image Processing</td>
<td>Jayaraman</td>
<td>181</td>
</tr>
<tr>
<td>Digital Image Processing Using MatLab, 2e</td>
<td>Gonzalez</td>
<td>179</td>
</tr>
<tr>
<td>Digital Principles and Design with CD-ROM</td>
<td>Givone</td>
<td>31,150</td>
</tr>
<tr>
<td>Digital Signal Processing</td>
<td>Schuler</td>
<td>179</td>
</tr>
<tr>
<td>Digital Signal Processing with Student CD-Rom, 4e</td>
<td>Mitra</td>
<td>178</td>
</tr>
<tr>
<td>Digital Signal Processing, 2e</td>
<td>Poornachandra</td>
<td>178</td>
</tr>
<tr>
<td>Digital Signal Processing, 2e</td>
<td>Salivahanan</td>
<td>177</td>
</tr>
<tr>
<td>Digital Signal Processors: Architecture, Programming and Applications, 2e</td>
<td>Venkataramani</td>
<td>178</td>
</tr>
<tr>
<td>Discrete Mathematics and Its Applications, 6e</td>
<td>Rosen</td>
<td>27</td>
</tr>
<tr>
<td>Discrete Mathematics and Its Applications, 7e</td>
<td>Rosen</td>
<td>26</td>
</tr>
<tr>
<td>Discrete Mathematics By Example</td>
<td>Simpson</td>
<td>28</td>
</tr>
<tr>
<td>Electric Machinery and Power Systems Fundamentals</td>
<td>Chapman</td>
<td>157</td>
</tr>
<tr>
<td>Electric Machinery Fundamentals, 5e</td>
<td>Chapman</td>
<td>156</td>
</tr>
<tr>
<td>Electric Machinery, 6e</td>
<td>Fitzgerald</td>
<td>157</td>
</tr>
<tr>
<td>Electric Machines, 4e</td>
<td>Kothari</td>
<td>157</td>
</tr>
<tr>
<td>Electric Motors and Control Systems</td>
<td>Petruzella</td>
<td>154</td>
</tr>
<tr>
<td>Electrical Power Systems Quality, 3e</td>
<td>Dugan</td>
<td>186</td>
</tr>
<tr>
<td>Electrical Principles for the Electrical Trades, Volume 1, 6e</td>
<td>Jenneson</td>
<td>123</td>
</tr>
<tr>
<td>Electrical Principles for the Electrical Trades, Volume 2, 6e</td>
<td>Jenneson</td>
<td>123</td>
</tr>
<tr>
<td>Electrical Safety Handbook, 4e</td>
<td>Cadick</td>
<td>186</td>
</tr>
<tr>
<td>Electrical Wiring Practice, Volume 1, 7e</td>
<td>Pethebridge</td>
<td>125</td>
</tr>
<tr>
<td>Electrical Wiring Practice, Volume 2, 7e</td>
<td>Pethebridge</td>
<td>124</td>
</tr>
<tr>
<td>Electricity Demystified, 2e</td>
<td>Gibilisco</td>
<td>187</td>
</tr>
<tr>
<td>Electricity: Principles and Applications with Student Data CD-Rom, 8e</td>
<td>Fowler</td>
<td>124</td>
</tr>
<tr>
<td>Electricity/Electronics Fundamentals: A Text-Lab Manual, 4e</td>
<td>Zbar</td>
<td>127,130</td>
</tr>
<tr>
<td>Electromagnetics, 5e</td>
<td>Kraus</td>
<td>143</td>
</tr>
<tr>
<td>Electronic Communication, 6e</td>
<td>Shrader</td>
<td>170</td>
</tr>
<tr>
<td>Electronic Instrumentation, 3e</td>
<td>Kalsi</td>
<td>155</td>
</tr>
<tr>
<td>Electronics Principles, 7e</td>
<td>Malvino</td>
<td>137</td>
</tr>
<tr>
<td>Electronics: Principles and Applications with Student Data CD-Rom, 8e</td>
<td>Schuler</td>
<td>137</td>
</tr>
<tr>
<td>Elementary Numerical Analysis: An Algorithmic Approach, 3e</td>
<td>Conte</td>
<td>26</td>
</tr>
<tr>
<td>Elements of Power System Analysis, 4e</td>
<td>Stevenson</td>
<td>161</td>
</tr>
<tr>
<td>Embedded Systems, 2e</td>
<td>Kamal</td>
<td>164</td>
</tr>
<tr>
<td>Engineering Circuit Analysis, 8e</td>
<td>Hayt</td>
<td>133</td>
</tr>
<tr>
<td>Engineering Electromagnetics, 8e</td>
<td>Hayt</td>
<td>142</td>
</tr>
<tr>
<td>Enterprise Resource Planning</td>
<td>Goyal</td>
<td>117</td>
</tr>
<tr>
<td>Essentials of Business Driven Information Systems</td>
<td>Baltzan</td>
<td>104</td>
</tr>
<tr>
<td>Even More Excellent HTML with HTML Reference Guide, 2e</td>
<td>Gottlieber</td>
<td>90</td>
</tr>
<tr>
<td>Exploring Python</td>
<td>Budd</td>
<td>21</td>
</tr>
</tbody>
</table>
# Title Index

## F

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourier Transform and Its Applications, The, 3e</td>
<td>Bracewell</td>
<td>156</td>
</tr>
<tr>
<td>Fundamentals of Digital and Computer Design with VHDL</td>
<td>Sandige</td>
<td>28,147</td>
</tr>
<tr>
<td>Fundamentals of Digital Logic with Verilog Design, 2e</td>
<td>Brown</td>
<td>30,149</td>
</tr>
<tr>
<td>Fundamentals of Digital Logic with VHDL Design with CD-ROM, 3e</td>
<td>Brown</td>
<td>30,149</td>
</tr>
<tr>
<td>Fundamentals of Electric Circuits, 4e</td>
<td>Alexander</td>
<td>134</td>
</tr>
<tr>
<td>Fundamentals of Electric Circuits, 5e</td>
<td>Alexander</td>
<td>132</td>
</tr>
<tr>
<td>Fundamentals of Electrical Engineering</td>
<td>Rizzoni</td>
<td>126</td>
</tr>
<tr>
<td>Fundamentals of Semiconductor Devices</td>
<td>Anderson</td>
<td>141</td>
</tr>
<tr>
<td>Fundamentals of Wireless Networking</td>
<td>Price</td>
<td>93</td>
</tr>
<tr>
<td>Fundamentals Signals Systems</td>
<td>Roberts</td>
<td>176</td>
</tr>
</tbody>
</table>

## G

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grob's Basic Electronics, 11e</td>
<td>Schultz</td>
<td>129</td>
</tr>
<tr>
<td>Grob's Basic Electronics: Fundamentals of DC &amp; AC Circuits with Simulation CD</td>
<td>Schultz</td>
<td>130</td>
</tr>
</tbody>
</table>

## H

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hacking Exposed Computer Forensics, 2e</td>
<td>Philipp</td>
<td>62</td>
</tr>
<tr>
<td>Handbook of Ultra-Short Pulse Lasers for Biomedical and Medical Applications</td>
<td>Neev</td>
<td>188</td>
</tr>
<tr>
<td>Harley Hahn’s Guide to Unix and Linux</td>
<td>Hahn</td>
<td>39,41</td>
</tr>
<tr>
<td>High Frequency Over the Horizon Radar</td>
<td>Fabrizio</td>
<td>189</td>
</tr>
<tr>
<td>High Performance Integrated Circuit Design</td>
<td>Salman</td>
<td>189</td>
</tr>
<tr>
<td>How to Build A Small Budget Recording Studio from Scratch, 4e</td>
<td>Shea</td>
<td>189</td>
</tr>
<tr>
<td>HVDC Transmission</td>
<td>Kamakshaiah</td>
<td>166</td>
</tr>
</tbody>
</table>

## I

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Systems Development, 4e</td>
<td>Avison</td>
<td>113</td>
</tr>
<tr>
<td>Information Systems Essentials, 3e</td>
<td>Haag</td>
<td>104</td>
</tr>
<tr>
<td>Information Technology for Retailing</td>
<td>Khurana</td>
<td>111</td>
</tr>
<tr>
<td>Introduction to Business Data Mining</td>
<td>Olson</td>
<td>118</td>
</tr>
<tr>
<td>Introduction to Computer Graphics</td>
<td>Krishnamurthy</td>
<td>58</td>
</tr>
<tr>
<td>Introduction to Computer Science Using Java, An, 2e</td>
<td>Kamin</td>
<td>16</td>
</tr>
<tr>
<td>Introduction to Computing Systems: From Bits to Gates to C and Beyond, 2e</td>
<td>Patt</td>
<td>5</td>
</tr>
<tr>
<td>Introduction to Contemporary Remote Sensing Earth from Space, An</td>
<td>Weng</td>
<td>189</td>
</tr>
<tr>
<td>Introduction to Database Systems</td>
<td>Bressan</td>
<td>58</td>
</tr>
<tr>
<td>Introduction to Embedded Systems</td>
<td>Shibu</td>
<td>38</td>
</tr>
<tr>
<td>Introduction to Information Systems Project Management, 2e</td>
<td>Olson</td>
<td>115</td>
</tr>
<tr>
<td>Introduction to Information Systems, 15e</td>
<td>O'Brien</td>
<td>103,110</td>
</tr>
<tr>
<td>Introduction to Information Systems, 16e</td>
<td>O'Brien</td>
<td>102,107</td>
</tr>
<tr>
<td>Introduction to Languages and the Theory of Computation, 4e</td>
<td>Martin</td>
<td>6,32</td>
</tr>
<tr>
<td>Introduction to Logic and Computer Design with CD</td>
<td>Marcovitz</td>
<td>31,150</td>
</tr>
<tr>
<td>Introduction to Logic Design, 3e</td>
<td>Marcovitz</td>
<td>29,145</td>
</tr>
<tr>
<td>Introduction to Mechatronics and Measurement Systems, 4e</td>
<td>Alciatore</td>
<td>155</td>
</tr>
<tr>
<td>Title</td>
<td>Author</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------</td>
<td>------</td>
</tr>
<tr>
<td>Introduction to Object-Oriented Analysis and Design</td>
<td>Schach</td>
<td>114</td>
</tr>
<tr>
<td>Introduction to Object-Oriented Programming with Java, An, 5e</td>
<td>Wu</td>
<td>12</td>
</tr>
<tr>
<td>Introduction to Programming with Java: A Problem-Solving Approach</td>
<td>Dean</td>
<td>15</td>
</tr>
<tr>
<td>Introduction to Radar Systems, 3e</td>
<td>Skolnik</td>
<td>144</td>
</tr>
<tr>
<td>Introduction to Semiconductor Devices, An</td>
<td>Neamen</td>
<td>140</td>
</tr>
<tr>
<td>Introduction to the Design and Analysis of Algorithms</td>
<td>Lee</td>
<td>22</td>
</tr>
<tr>
<td>Introduction to Video Game Design and Development with Student CD</td>
<td>Sauter</td>
<td>91</td>
</tr>
<tr>
<td>IT Auditing Using Controls to Protect Information Assets, 2e</td>
<td>Davis</td>
<td>94</td>
</tr>
<tr>
<td>Java 5.0 Program Design</td>
<td>Cohoon</td>
<td>16</td>
</tr>
<tr>
<td>Java in Two Semesters, 3e</td>
<td>Charatan</td>
<td>13</td>
</tr>
<tr>
<td>Java Programming: A Comprehensive Introduction</td>
<td>Schildt</td>
<td>11</td>
</tr>
<tr>
<td>Java Programming: A Practical Approach</td>
<td>Xavier</td>
<td>12</td>
</tr>
<tr>
<td>Java Programming: From the Ground Up</td>
<td>Bravaco</td>
<td>13</td>
</tr>
<tr>
<td>Java: An Object-Oriented Language</td>
<td>Smith</td>
<td>17</td>
</tr>
<tr>
<td>Java: The Complete Reference, 8e</td>
<td>Schildt</td>
<td>61</td>
</tr>
<tr>
<td>Javascript: A Beginner’s Guide, 3e</td>
<td>Pollock</td>
<td>97</td>
</tr>
<tr>
<td>Just Enough Unix, 5e</td>
<td>Andersen</td>
<td>42</td>
</tr>
<tr>
<td>Local Area Networks</td>
<td>Forouzan</td>
<td>51</td>
</tr>
<tr>
<td>Local Area Networks with CD-Rom, 2e</td>
<td>Keiser</td>
<td>51,174</td>
</tr>
<tr>
<td>M: Information Systems, 2e</td>
<td>Baltzan</td>
<td>101,106</td>
</tr>
<tr>
<td>Mac OS X System Administration</td>
<td>Hart-Davis</td>
<td>96</td>
</tr>
<tr>
<td>Machine Learning</td>
<td>Mitchell</td>
<td>59</td>
</tr>
<tr>
<td>Making Microsoft Outlook 2010 Work For You</td>
<td>Nordell</td>
<td>87</td>
</tr>
<tr>
<td>Management Information Systems, 10e</td>
<td>O’Brien</td>
<td>108</td>
</tr>
<tr>
<td>Management Information Systems for the Information Age, 8e</td>
<td>Haag</td>
<td>110</td>
</tr>
<tr>
<td>Management Information Systems for the Information Age, 9e</td>
<td>Haag</td>
<td>107</td>
</tr>
<tr>
<td>Managerial Issues of Enterprise Resource Planning Systems</td>
<td>Olson</td>
<td>118</td>
</tr>
<tr>
<td>Master Handbook of Sound Studio Construction</td>
<td>Pohlmann</td>
<td>185</td>
</tr>
<tr>
<td>Microelectronic Circuit Design, 4e</td>
<td>Jaeger</td>
<td>138</td>
</tr>
<tr>
<td>Microelectronics Circuit Analysis and Design, 4e</td>
<td>Neamen</td>
<td>139</td>
</tr>
<tr>
<td>Microprocessors Principles and Applications, 2e</td>
<td>Gilmore</td>
<td>184</td>
</tr>
<tr>
<td>Microsoft 2007 Brief: A Professional Approach</td>
<td>Hinkle</td>
<td>75</td>
</tr>
<tr>
<td>Microsoft Excel 2007: A Professional Approach</td>
<td>Stewart</td>
<td>82</td>
</tr>
<tr>
<td>Microsoft Office 2010 Now: A Skills Approach</td>
<td>Triad Interactive</td>
<td>73</td>
</tr>
<tr>
<td>Microsoft Office Access 2010: A Case Approach, Complete</td>
<td>O’Leary</td>
<td>83</td>
</tr>
<tr>
<td>Microsoft Office Access 2010: A Lesson Approach, Complete</td>
<td>O’Leary</td>
<td>84</td>
</tr>
<tr>
<td>Title</td>
<td>Author</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------</td>
<td>------</td>
</tr>
<tr>
<td>Microsoft Office Excel 2010: A Case Approach, Complete</td>
<td>O'Leary</td>
<td>81</td>
</tr>
<tr>
<td>Microsoft Office Excel 2010: A Case Approach, Introductory</td>
<td>O'Leary</td>
<td>80</td>
</tr>
<tr>
<td>Microsoft Office Excel 2010: A Professional Approach, Complete</td>
<td>Stewart</td>
<td>81</td>
</tr>
<tr>
<td>Microsoft Office Powerpoint 2010: A Case Approach, Introductory</td>
<td>O'Leary</td>
<td>84</td>
</tr>
<tr>
<td>Microsoft Office Powerpoint 2010: A Lesson Approach, Complete</td>
<td>Graves</td>
<td>85</td>
</tr>
<tr>
<td>Microsoft Office Word 2010: A Case Approach, Complete</td>
<td>O'Leary</td>
<td>78</td>
</tr>
<tr>
<td>Microsoft Office Word 2010: A Case Approach, Introductory</td>
<td>O'Leary</td>
<td>73,77</td>
</tr>
<tr>
<td>Microsoft Office Word 2010: A Lesson Approach, Complete</td>
<td>Hinkle</td>
<td>74,80</td>
</tr>
<tr>
<td>Microsoft Powerpoint 2010: A Case Approach, Complete</td>
<td>O'Leary</td>
<td>85</td>
</tr>
<tr>
<td>Microwave Engineering, 2e</td>
<td>Das</td>
<td>143</td>
</tr>
<tr>
<td>Microwave Transmission Networks, 2e</td>
<td>Lehpamer</td>
<td>191</td>
</tr>
<tr>
<td>Mobile Application Security</td>
<td>Dwivedi</td>
<td>62</td>
</tr>
<tr>
<td>Modern Digital Electronics, 4e</td>
<td>Jain</td>
<td>145</td>
</tr>
<tr>
<td>Modern Power System Analysis, 3e</td>
<td>Kothari</td>
<td>160</td>
</tr>
<tr>
<td>Modern Power System Analysis, 4e</td>
<td>Kothari</td>
<td>159</td>
</tr>
<tr>
<td>Multimedia Technologies</td>
<td>Banerji</td>
<td>60</td>
</tr>
<tr>
<td>Multimedia: Making It Work, 8e</td>
<td>Vaughan</td>
<td>61,94</td>
</tr>
</tbody>
</table>

**N**

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nanoscale CMOS VLSI Circuits</td>
<td>Kundu</td>
<td>190</td>
</tr>
<tr>
<td>Network Analysis &amp; Synthesis</td>
<td>Ghosh</td>
<td>174</td>
</tr>
<tr>
<td>Neural Networks: A Classroom Approach</td>
<td>Kumar</td>
<td>59,154</td>
</tr>
<tr>
<td>Numerical Methods for Engineers, 6e</td>
<td>Chapra</td>
<td>25,182</td>
</tr>
</tbody>
</table>

**O**

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object Oriented Programming with C++, 5e</td>
<td>Balagurusamy</td>
<td>19</td>
</tr>
<tr>
<td>Object Oriented Programming with Java</td>
<td>Buyya</td>
<td>14</td>
</tr>
<tr>
<td>Object-Oriented and Classical Software Engineering, 8e</td>
<td>Schach</td>
<td>43</td>
</tr>
<tr>
<td>Object-Oriented Design Using Java</td>
<td>Skrien</td>
<td>14,49</td>
</tr>
<tr>
<td>Object-Oriented Software Engineering</td>
<td>Schach</td>
<td>45</td>
</tr>
<tr>
<td>Object-Oriented Software Engineering: Practical Software Development Using UML and Java, 2e</td>
<td>Lethbridge</td>
<td>45</td>
</tr>
<tr>
<td>Object-Oriented Systems Analysis and Design Using UML, 4e</td>
<td>Bennett</td>
<td>113</td>
</tr>
<tr>
<td>Object-Oriented Systems Analysis, 4e</td>
<td>Bennett</td>
<td>48</td>
</tr>
<tr>
<td>Object-Oriented Technology, 2e</td>
<td>Tsang</td>
<td>42</td>
</tr>
<tr>
<td>Objects Have Class: An Introduction to Programming with Java with CD-Rom and OLC</td>
<td>Poplawski</td>
<td>17</td>
</tr>
<tr>
<td>OCP Java SE6 Programmer Practice Exams (Exam 310-065)</td>
<td>Bates</td>
<td>94</td>
</tr>
<tr>
<td>Office 2007 Windows Vista Version</td>
<td>O'Leary</td>
<td>76</td>
</tr>
<tr>
<td>Operating Systems: A Concept-Based Approach, 2e</td>
<td>Dhamdhere</td>
<td>40</td>
</tr>
<tr>
<td>Operating Systems: A Spiral Approach</td>
<td>Elmasri</td>
<td>40</td>
</tr>
<tr>
<td>Optical Fiber Communications, 4e [International Edition]</td>
<td>Keiser</td>
<td>170</td>
</tr>
<tr>
<td>Oracle VM Implementation and Administration Guide</td>
<td>Whalen</td>
<td>62</td>
</tr>
<tr>
<td>Title</td>
<td>Author</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>Parallel Programming in C with MPI and Open MP</td>
<td>Quinn</td>
<td>7</td>
</tr>
<tr>
<td>Peter Norton’s Computing Fundamentals, 6e</td>
<td>Norton</td>
<td>69</td>
</tr>
<tr>
<td>Peter Norton’s Introduction to Computers, 6e</td>
<td>Norton</td>
<td>72</td>
</tr>
<tr>
<td>Photonics and Laser Engineering</td>
<td>Sennaroglu</td>
<td>191</td>
</tr>
<tr>
<td>Photonics Essentials, 2e</td>
<td>Pearsall</td>
<td>191</td>
</tr>
<tr>
<td>PMP Certification: A Beginner’s Guide</td>
<td>Angel</td>
<td>95</td>
</tr>
<tr>
<td>Power Electronics</td>
<td>Hart</td>
<td>158</td>
</tr>
<tr>
<td>Power Electronics, 3e</td>
<td>Lander</td>
<td>158</td>
</tr>
<tr>
<td>Power System Analysis</td>
<td>Grainger</td>
<td>161</td>
</tr>
<tr>
<td>Power System Protection and Switchgear</td>
<td>Bhuvanesh</td>
<td>160</td>
</tr>
<tr>
<td>Power System Protection and Switchgear, 2e</td>
<td>Ram</td>
<td>159</td>
</tr>
<tr>
<td>Practical Electronics for Inventors, 3e</td>
<td>Scherz</td>
<td>185</td>
</tr>
<tr>
<td>Practical Object-Oriented Design with UML, 2e</td>
<td>Priestley</td>
<td>48,50</td>
</tr>
<tr>
<td>Principles and Applications of Electrical Engineering, 5e</td>
<td>Rozzoni</td>
<td>126</td>
</tr>
<tr>
<td>Principles of Computer Security: Security+ and Beyond</td>
<td>Conklin</td>
<td>92</td>
</tr>
<tr>
<td>Principles of Computer Security: Security+ and Beyond, 2e</td>
<td>Conklin</td>
<td>98</td>
</tr>
<tr>
<td>Principles of Electromagnetics</td>
<td>Mahapatra</td>
<td>142</td>
</tr>
<tr>
<td>Principles of Electronic Communication Systems, 3e</td>
<td>Frenzel</td>
<td>168</td>
</tr>
<tr>
<td>Principles of Electronic Materials and Device, 3e</td>
<td>Kasap</td>
<td>141</td>
</tr>
<tr>
<td>Principles of Voice and Data Communications</td>
<td>Bates</td>
<td>93,114</td>
</tr>
<tr>
<td>Probability, Random Variables and Random Signal Principles, 4e</td>
<td>Peebles</td>
<td>183</td>
</tr>
<tr>
<td>Probability, Random Variables and Stochastic Processes with Errata Sheet, 4e</td>
<td>Papoulis</td>
<td>183</td>
</tr>
<tr>
<td>Programmable Logic Controllers, 4e</td>
<td>Petruzella</td>
<td>151</td>
</tr>
<tr>
<td>Programming in ANSI C, 5e</td>
<td>Balagurusamy</td>
<td>9</td>
</tr>
<tr>
<td>Programming in C#, 3e</td>
<td>Balagurusamy</td>
<td>17,19</td>
</tr>
<tr>
<td>Programming in C++: Lessons and Applications</td>
<td>D’Orazio</td>
<td>20</td>
</tr>
<tr>
<td>Programming in Visual Basic 2010</td>
<td>Bradley</td>
<td>88</td>
</tr>
<tr>
<td>Programming in Visual Basic 6.0 Update Edition with CD</td>
<td>Bradley</td>
<td>90</td>
</tr>
<tr>
<td>Programming in Visual C# 2008, 3e</td>
<td>Bradley</td>
<td>18,89</td>
</tr>
<tr>
<td>Programming Languages, 2e</td>
<td>Tucker</td>
<td>6</td>
</tr>
<tr>
<td>Programming with Java: A Primer, 4e</td>
<td>Balagurusamy</td>
<td>14</td>
</tr>
<tr>
<td>PSpice for Basic Circuit Analysis, 2e</td>
<td>Tront</td>
<td>134</td>
</tr>
<tr>
<td>PSpice for Basic Microelectronics</td>
<td>Tront</td>
<td>139</td>
</tr>
<tr>
<td>Schaum’s Outline of Operating Systems</td>
<td>Harris</td>
<td>40</td>
</tr>
<tr>
<td>Schaum’s Outline of Software Engineering</td>
<td>Gustafson</td>
<td>46</td>
</tr>
<tr>
<td>Schaum’s Outline of Analog and Digital Communications, 2e</td>
<td>Hsu</td>
<td>168</td>
</tr>
<tr>
<td>Schaum’s Outline of Basic Circuit Analysis, 2e</td>
<td>O’Malley</td>
<td>135</td>
</tr>
<tr>
<td>Schaum’s Outline of Basic Electrical Engineering, 2e</td>
<td>Cathey</td>
<td>128</td>
</tr>
<tr>
<td>Schaum’s Outline of Basic Electricity, 2e</td>
<td>Gussow</td>
<td>128</td>
</tr>
<tr>
<td>Title</td>
<td>Author</td>
<td>Pages</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Schaum’s Outline of Basic Mathematics for Electricity and Electronics, 2e</td>
<td>Beiser</td>
<td>128,131</td>
</tr>
<tr>
<td>Schaum’s Outline of Computer Architecture</td>
<td>Carter</td>
<td>38,164</td>
</tr>
<tr>
<td>Schaum’s Outline of Computer Graphics, 2e</td>
<td>Plastock</td>
<td>58</td>
</tr>
<tr>
<td>Schaum’s Outline of Computer Networking</td>
<td>Tittel</td>
<td>55</td>
</tr>
<tr>
<td>Schaum’s Outline of Data Structures with C++</td>
<td>Hubbard</td>
<td>24</td>
</tr>
<tr>
<td>Schaum’s Outline of Data Structures with Java, 2e</td>
<td>Hubbard</td>
<td>22</td>
</tr>
<tr>
<td>Schaum’s Outline of Digital Signal Processing, 2e</td>
<td>Hayes</td>
<td>179</td>
</tr>
<tr>
<td>Schaum’s Outline of Electric Circuits, 5e</td>
<td>Nahvi</td>
<td>135</td>
</tr>
<tr>
<td>Schaum’s Outline of Electric Machines and Electromechanics, 2e</td>
<td>Nasar</td>
<td>158</td>
</tr>
<tr>
<td>Schaum’s Outline of Electromagnetics, 3e</td>
<td>Edminister</td>
<td>143</td>
</tr>
<tr>
<td>Schaum’s Outline of Electronic Devices and Circuits, 2e</td>
<td>Cathey</td>
<td>139</td>
</tr>
<tr>
<td>Schaum’s Outline of Essential Computer Mathematics</td>
<td>Lipschutz</td>
<td>28</td>
</tr>
<tr>
<td>Schaum’s Outline of Feedback and Control Systems, 2e</td>
<td>DiStefano</td>
<td>153</td>
</tr>
<tr>
<td>Schaum’s Outline of Fundamentals of Computing with C++</td>
<td>Hubbard</td>
<td>20</td>
</tr>
<tr>
<td>Schaum’s Outline of Fundamentals of SQL Programming</td>
<td>Mata-Toledo</td>
<td>56</td>
</tr>
<tr>
<td>Schaum’s Outline of Guide to UML, 2e</td>
<td>Bennett</td>
<td>48</td>
</tr>
<tr>
<td>Schaum’s Outline of HTML</td>
<td>Mercer</td>
<td>91</td>
</tr>
<tr>
<td>Schaum’s Outline of Introduction to Computer Science</td>
<td>Mata-Toledo</td>
<td>5</td>
</tr>
<tr>
<td>Schaum’s Outline of Introduction to Digital Systems</td>
<td>Palmer</td>
<td>151</td>
</tr>
<tr>
<td>Schaum’s Outline of Principles of Computer Science</td>
<td>Tymann</td>
<td>5,18</td>
</tr>
<tr>
<td>Schaum’s Outline of Programming with C, 2e</td>
<td>Gottfried</td>
<td>10</td>
</tr>
<tr>
<td>Schaum’s Outline of Programming with C++, 2e</td>
<td>Hubbard</td>
<td>20</td>
</tr>
<tr>
<td>Schaum’s Outline of Programming with Fortran 77</td>
<td>Mayo</td>
<td>21</td>
</tr>
<tr>
<td>Schaum’s Outline of Programming with Java, 2e</td>
<td>Hubbard</td>
<td>18</td>
</tr>
<tr>
<td>Schaum’s Outline of Signals and Systems</td>
<td>Hsu</td>
<td>177</td>
</tr>
<tr>
<td>Schaum’s Outline of Visual Basic</td>
<td>Gottfried</td>
<td>90</td>
</tr>
<tr>
<td>Scientific Computing, 2e</td>
<td>Heath</td>
<td>25</td>
</tr>
<tr>
<td>Semiconductor Physics and Devices, 4e</td>
<td>Neamen</td>
<td>140</td>
</tr>
<tr>
<td>Semiconductor Process Reliability in Practice</td>
<td>Gan</td>
<td>186</td>
</tr>
<tr>
<td>Signals &amp; Systems, 2e</td>
<td>Nagarath</td>
<td>176</td>
</tr>
<tr>
<td>Signals and Systems</td>
<td>Nagoorkani</td>
<td>175</td>
</tr>
<tr>
<td>Signals and Systems, 2e</td>
<td>Roberts</td>
<td>175</td>
</tr>
<tr>
<td>Signals and Systems, 2e</td>
<td>Poornachandra</td>
<td>176</td>
</tr>
<tr>
<td>SIMGrader for Microsoft Office 2010</td>
<td>Triad Interactive</td>
<td>86</td>
</tr>
<tr>
<td>Simulation Modeling and Analysis, 4e</td>
<td>Law</td>
<td>34</td>
</tr>
<tr>
<td>Simulation Using ProModel, 3e</td>
<td>Harrell</td>
<td>33</td>
</tr>
<tr>
<td>Simulation with Arena, 5e</td>
<td>Kelton</td>
<td>33</td>
</tr>
<tr>
<td>Small Antennas</td>
<td>Volakis</td>
<td>192</td>
</tr>
<tr>
<td>Smart Grid Networking and Communications</td>
<td>Iniewski</td>
<td>187</td>
</tr>
<tr>
<td>Software Engineering: A Practitioner’s Approach, 7e</td>
<td>Pressman</td>
<td>44</td>
</tr>
<tr>
<td>Software Project Management, 5e</td>
<td>Hughes</td>
<td>50</td>
</tr>
<tr>
<td>Software Quality Assurance</td>
<td>Limaye</td>
<td>47</td>
</tr>
<tr>
<td>Title</td>
<td>Author</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------</td>
<td>------</td>
</tr>
<tr>
<td>Software Testing</td>
<td>Limaye</td>
<td>60</td>
</tr>
<tr>
<td>SQL: The Complete Reference, 3e</td>
<td>Groff</td>
<td>95</td>
</tr>
<tr>
<td>Standard Handbook for Electrical Engineers, 16e</td>
<td>Beaty</td>
<td>185</td>
</tr>
<tr>
<td>Structuring Data and Building Algorithms, Updated Edition</td>
<td>Chai</td>
<td>23</td>
</tr>
<tr>
<td>Survey of Operating Systems, 3e</td>
<td>Holcombe</td>
<td>86</td>
</tr>
<tr>
<td>Systems Analysis and Design Methods, 7e</td>
<td>Whitten</td>
<td>112</td>
</tr>
<tr>
<td>Systems Programming</td>
<td>Dhamdhere</td>
<td>7</td>
</tr>
<tr>
<td>TCP/IP Protocol Suite, 4e</td>
<td>Forouzan</td>
<td>53</td>
</tr>
<tr>
<td>Test Your Skills in C, 2e</td>
<td>Selvi</td>
<td>9</td>
</tr>
<tr>
<td>Through-Silicon Vias (TSVS) for 3D Integration</td>
<td>Lau</td>
<td>188</td>
</tr>
<tr>
<td>Transients in Electrical Systems</td>
<td>Das</td>
<td>190</td>
</tr>
<tr>
<td>Using Information Technology, Complete Edition, 10e</td>
<td>Williams</td>
<td>71</td>
</tr>
<tr>
<td>Using Information Technology, Complete Edition, 9e</td>
<td>Williams</td>
<td>72</td>
</tr>
<tr>
<td>Using Information Technology, Introductory Edition, 10e</td>
<td>Williams</td>
<td>67</td>
</tr>
<tr>
<td>Using Information Technology, Introductory Edition, 9e</td>
<td>Williams</td>
<td>68</td>
</tr>
<tr>
<td>VMWare Vsphere 4 Implementation</td>
<td>Laverick</td>
<td>96</td>
</tr>
<tr>
<td>Web Engineering: A Practitioner’s Approach</td>
<td>Pressman</td>
<td>44</td>
</tr>
<tr>
<td>Windows 7</td>
<td>O’Leary</td>
<td>74</td>
</tr>
<tr>
<td>Windows 7 Quicksteps</td>
<td>Matthews</td>
<td>97</td>
</tr>
<tr>
<td>Wireless Communications</td>
<td>Singal</td>
<td>171</td>
</tr>
<tr>
<td>Wireless Mobility Handbook</td>
<td>Reid</td>
<td>97</td>
</tr>
<tr>
<td>World Wide Web Design with HTML</td>
<td>Xavier</td>
<td>91</td>
</tr>
<tr>
<td>Your Unix/Linux: The Ultimate Guide, 3e</td>
<td>Das</td>
<td>41</td>
</tr>
</tbody>
</table>
## Author Index

**A**
- Alciatore
  - *Introduction to Mechatronics and Measurement Systems, 4e*
  - 155
- Alexander
  - *Fundamentals of Electric Circuits, 4e*
  - 134
- Alexander
  - *Fundamentals of Electric Circuits, 5e*
  - 132
- Andersen
  - *Just Enough Unix, 5e*
  - 42
- Anderson
  - *Fundamentals of Semiconductor Devices*
  - 141
- Angel
  - *PMP Certification: A Beginner’s Guide*
  - 95
- Applegate
  - *Corporate Information Strategy and Management: Text and Cases, 8e*
  - 116
- Avison
  - *Information Systems Development, 4e*
  - 113

**B**
- Balagurusamy
  - *Object Oriented Programming with C++, 5e*
  - 19
- Balagurusamy
  - *Programming in ANSI C, 5e*
  - 9
- Balagurusamy
  - *Programming in C#, 3e*
  - 17, 19
- Balagurusamy
  - *Programming with Java: A Primer, 4e*
  - 14
- Baltzan
  - *Business Driven Information Systems, 3e*
  - 102, 107
- Baltzan
  - *Business Driven Technology, 4e*
  - 109
- Baltzan
  - *Business Driven Technology, 5e*
  - 104
- Baltzan
  - *Essentials of Business Driven Information Systems*
  - 104
- Baltzan
  - *M: Information Systems, 2e*
  - 101, 106
- Banerji
  - *Multimedia Technologies*
  - 60
- Bartee
  - *Computer Architecture and Logic Design*
  - 32, 37, 151
- Bates
  - *OCP Java SE6 Programmer Practice Exams (Exam 310-065)*
  - 94
- Bates
  - *Principles of Voice and Data Communications*
  - 93, 114
- Beizer
  - *Schaum’s Outline of Basic Mathematics for Electricity and Electronics, 2e*
  - 128, 131
- Bennett
  - *Object-Oriented Systems Analysis and Design Using UML, 4e*
  - 113
- Bennett
  - *Object-Oriented Systems Analysis, 4e*
  - 48
- Bennett
  - *Schaum’s Outline of Guide to UML, 2e*
  - 48
- Bhuvanesh
  - *Power System Protection and Switchgear*
  - 160
- Bracewell
  - *Fourier Transform and Its Applications, The, 3e*
  - 156
- Bradley
  - *Advanced Programming Using Visual Basic 2008, 4e*
  - 89
- Bradley
  - *Programming in Visual Basic 2010*
  - 88
- Bradley
  - *Programming in Visual Basic 6.0 Update Edition with CD*
  - 90
- Bradley
  - *Programming in Visual C# 2008, 3e*
  - 18, 89
- Bravaco
  - *Java Programming: From the Ground Up*
  - 13
- Bressan
  - *Introduction to Database Systems*
  - 58
- Brophy
  - *Basic Electronics for Scientists, 5e*
  - 131
- Brown
  - *Fundamentals of Digital Logic with Verilog Design, 2e*
  - 30, 149
- Brown
  - *Fundamentals of Digital Logic with VHDL Design with CD-ROM, 3e*
  - 30, 149
- Budd
  - *Exploring Python*
  - 21
- Buyya
  - *Object Oriented Programming with Java*
  - 14
### Author Index

#### C
- **Cadick**
  - Electrical Safety Handbook, 4e
  - 186
- **Carlson**
  - Communication Systems, 5e
  - 166
- **Carpenter**
  - CWNA Certified Wireless Network Administrator & CWSP Certified Wireless Security Professional All-In-One Exam Guide
  - 95
- **Carr**
  - Data Communications and Network Security
  - 115
- **Carter**
  - Schaum's Outline of Computer Architecture
  - 38,164
- **Cathey**
  - Schaum's Outline of Basic Electrical Engineering, 2e
  - 128
  - Schaum's Outline of Electronic Devices and Circuits, 2e
  - 139
- **Chai**
  - Structuring Data and Building Algorithms, Updated Edition
  - 23
- **Chapman**
  - Electric Machinery and Power Systems Fundamentals
  - 157
  - Electric Machinery Fundamentals, 5e
  - 156
- **Chapra**
  - Applied Numerical Methods with MatLab for Engineers and Scientists, 3e
  - 24,182
  - Numerical Methods for Engineers, 6e
  - 25,182
- **Charatan**
  - Java in Two Semesters, 3e
  - 13
- **Cheng**
  - C for Engineers and Scientists with Companion CD
  - 10
- **Cohoon**
  - Java 5.0 Program Design
  - 16
- **Collins**
  - Data Structures and the Standard Template Library
  - 23
- **Conklin**
  - Principles of Computer Security: Security+ and Beyond
  - 92
  - Principles of Computer Security: Security+ and Beyond, 2e
  - 98
- **Conte**
  - Elementary Numerical Analysis: An Algorithmic Approach, 3e
  - 26

#### D
- **D’Orazio**
  - Programming in C++: Lessons and Applications
  - 20
- **Das**
  - Microwave Engineering, 2e
  - 143
  - Transients in Electrical Systems
  - 190
  - Your Unix/Linux: The Ultimate Guide, 3e
  - 41
- **Dasgupta**
  - Algorithms
  - 21
- **Davis**
  - IT Auditing Using Controls to Protect Information Assets, 2e
  - 94
- **De Palma**
  - Annual Editions: Technologies, Social Media and Society, 17e
  - 112,116
  - Annual Editions: Technologies, Social Media and Society, 18e
  - 111,116
- **Dean**
  - Introduction to Programming with Java: A Problem-Solving Approach
  - 15
- **Dhamdhere**
  - Operating Systems: A Concept-Based Approach, 2e
  - 40
  - Systems Programming
  - 7
- **DiStefano**
  - Schaum's Outline of Feedback and Control Systems, 2e
  - 153
- **Dossis**
  - Brilliant LED Projects
  - 186
- **Dugan**
  - Electrical Power Systems Quality, 3e
  - 186
- **Dwivedi**
  - Mobile Application Security
  - 62

#### E
- **Edminister**
  - Schaum’s Outline of Electromagnetics, 3e
  - 143
- **Elmasri**
  - Operating Systems: A Spiral Approach
  - 40
<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabrizio</td>
<td>High Frequency Over the Horizon Radar</td>
<td>189</td>
</tr>
<tr>
<td>Fischer</td>
<td>Applied C: An Introduction and More</td>
<td>9</td>
</tr>
<tr>
<td>Fitzgerald</td>
<td>Electric Machinery, 6e</td>
<td>157</td>
</tr>
<tr>
<td>Ford</td>
<td>Design for Electrical and Computer Engineers</td>
<td>184</td>
</tr>
<tr>
<td>Forouzan</td>
<td>Computer Networks: A Top Down Approach</td>
<td>52</td>
</tr>
<tr>
<td>Forouzan</td>
<td>Cryptography and Network Security</td>
<td>53</td>
</tr>
<tr>
<td>Forouzan</td>
<td>Data Communications and Networking, 4e</td>
<td>173</td>
</tr>
<tr>
<td>Forouzan</td>
<td>Data Communications and Networking, 5e</td>
<td>54,172</td>
</tr>
<tr>
<td>Forouzan</td>
<td>Local Area Networks</td>
<td>51</td>
</tr>
<tr>
<td>Forouzan</td>
<td>TCP/IP Protocol Suite, 4e</td>
<td>53</td>
</tr>
<tr>
<td>Fowler</td>
<td>Electricity: Principles and Applications with Student Data CD-Rom, 8e</td>
<td>124</td>
</tr>
<tr>
<td>Franco</td>
<td>Design with Operational Amplifiers and Analog Integrated Circuits, 3e</td>
<td>138</td>
</tr>
<tr>
<td>Frenzel</td>
<td>Communication Electronics, 3e</td>
<td>169</td>
</tr>
<tr>
<td>Frenzel</td>
<td>Principles of Electronic Communication Systems, 3e</td>
<td>168</td>
</tr>
<tr>
<td>Gan</td>
<td>Semiconductor Process Reliability in Practice</td>
<td>186</td>
</tr>
<tr>
<td>Ghosh</td>
<td>Network Analysis &amp; Synthesis</td>
<td>174</td>
</tr>
<tr>
<td>Gibilisco</td>
<td>Electricity Demystified, 2e</td>
<td>187</td>
</tr>
<tr>
<td>Gilmore</td>
<td>Microprocessors Principles and Applications, 2e</td>
<td>184</td>
</tr>
<tr>
<td>Givone</td>
<td>Digital Principles and Design with CD-ROM</td>
<td>31,150</td>
</tr>
<tr>
<td>Godbole</td>
<td>Data Communications and Networks, 2e</td>
<td>55,92</td>
</tr>
<tr>
<td>Gonzalez</td>
<td>Digital Image Processing Using MatLab, 2e</td>
<td>179</td>
</tr>
<tr>
<td>Gopal</td>
<td>Bioinformatics: A Computing Perspective</td>
<td>60</td>
</tr>
<tr>
<td>Gopal</td>
<td>Digital Control and State Variable Methods, 3e</td>
<td>153</td>
</tr>
<tr>
<td>Gottfried</td>
<td>Schaum's Outline of Programming with C, 2e</td>
<td>10</td>
</tr>
<tr>
<td>Gottfried</td>
<td>Schaum's Outline of Visual Basic</td>
<td>90</td>
</tr>
<tr>
<td>Gottlieber</td>
<td>Even More Excellent HTML with HTML Reference Guide, 2e</td>
<td>90</td>
</tr>
<tr>
<td>Goyal</td>
<td>Enterprise Resource Planning</td>
<td>117</td>
</tr>
<tr>
<td>Grainger</td>
<td>Power System Analysis</td>
<td>161</td>
</tr>
<tr>
<td>Graves</td>
<td>Microsoft Office Powerpoint 2010: A Lesson Approach, Complete</td>
<td>85</td>
</tr>
<tr>
<td>Groff</td>
<td>SQL: The Complete Reference, 3e</td>
<td>95</td>
</tr>
<tr>
<td>Gupta</td>
<td>Database Management Systems</td>
<td>56</td>
</tr>
<tr>
<td>Gussow</td>
<td>Schaum's Outline of Basic Electricity, 2e</td>
<td>128</td>
</tr>
<tr>
<td>Gustafson</td>
<td>Schaum's Outline of Software Engineering</td>
<td>46</td>
</tr>
<tr>
<td>Haag</td>
<td>Information Systems Essentials, 3e</td>
<td>104</td>
</tr>
<tr>
<td>Haag</td>
<td>Management Information Systems for the Information Age, 8e</td>
<td>110</td>
</tr>
<tr>
<td>Haag</td>
<td>Management Information Systems for the Information Age, 9e</td>
<td>107</td>
</tr>
<tr>
<td>Hahn</td>
<td>Harley Hahn's Guide to Unix and Linux</td>
<td>39,41</td>
</tr>
<tr>
<td>Hamacher</td>
<td>Computer Organization and Embedded Systems, 6e</td>
<td>161</td>
</tr>
</tbody>
</table>
### Author Index

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamacher</td>
<td>Computer Organization, 6e</td>
<td>35</td>
</tr>
<tr>
<td>Harrell</td>
<td>Simulation Using ProModel, 3e</td>
<td>33</td>
</tr>
<tr>
<td>Harrington</td>
<td>Computer Graphics, 2e</td>
<td>58</td>
</tr>
<tr>
<td>Harris</td>
<td>Schaum’s Outline of Operating Systems</td>
<td>40</td>
</tr>
<tr>
<td>Hart</td>
<td>Power Electronics</td>
<td>156</td>
</tr>
<tr>
<td>Hart-Davis</td>
<td>Mac OS X System Administration</td>
<td>96</td>
</tr>
<tr>
<td>Hayes</td>
<td>Computer Architecture and Organization, 3e</td>
<td>37</td>
</tr>
<tr>
<td>Hayes</td>
<td>Schaum’s Outline of Digital Signal Processing, 2e</td>
<td>179</td>
</tr>
<tr>
<td>Hayt</td>
<td>Engineering Circuit Analysis, 8e</td>
<td>133</td>
</tr>
<tr>
<td>Hayt</td>
<td>Engineering Electromagnetics, 8e</td>
<td>142</td>
</tr>
<tr>
<td>Heath</td>
<td>Scientific Computing, 2e</td>
<td>25</td>
</tr>
<tr>
<td>Hilton</td>
<td>Chalcogenide Glasses for Infrared Optics</td>
<td>190</td>
</tr>
<tr>
<td>Hinkle</td>
<td>Microsoft 2007 Brief: A Professional Approach</td>
<td>75</td>
</tr>
<tr>
<td>Hinkle</td>
<td>Microsoft Office Word 2010: A Lesson Approach, Complete</td>
<td>74, 80</td>
</tr>
<tr>
<td>Hodges</td>
<td>Analysis and Design of Digital Integrated Circuits, 3e</td>
<td>136</td>
</tr>
<tr>
<td>Holcombe</td>
<td>Survey of Operating Systems, 3e</td>
<td>86</td>
</tr>
<tr>
<td>Hsu</td>
<td>Schaum’s Outline of Analog and Digital Communications, 2e</td>
<td>168</td>
</tr>
<tr>
<td>Hsu</td>
<td>Schaum’s Outline of Signals and Systems</td>
<td>177</td>
</tr>
<tr>
<td>Hubbard</td>
<td>Schaum’s Outline of Data Structures with C++</td>
<td>24</td>
</tr>
<tr>
<td>Hubbard</td>
<td>Schaum’s Outline of Data Structures with Java, 2e</td>
<td>22</td>
</tr>
<tr>
<td>Hubbard</td>
<td>Schaum’s Outline of Fundamentals of Computing with C++</td>
<td>20</td>
</tr>
<tr>
<td>Hubbard</td>
<td>Schaum’s Outline of Programming with C++, 2e</td>
<td>20</td>
</tr>
<tr>
<td>Hubbard</td>
<td>Schaum’s Outline of Programming with Java, 2e</td>
<td>18</td>
</tr>
<tr>
<td>Hughes</td>
<td>Software Project Management, 5e</td>
<td>50</td>
</tr>
<tr>
<td>Hwang</td>
<td>Advanced Computer Architecture: Parallelism, Scalability, Programmability</td>
<td>38, 164</td>
</tr>
<tr>
<td>Iniewski</td>
<td>Smart Grid Networking and Communications</td>
<td>187</td>
</tr>
<tr>
<td>Jaegar</td>
<td>Microelectronic Circuit Design, 4e</td>
<td>138</td>
</tr>
<tr>
<td>Jain</td>
<td>Modern Digital Electronics, 4e</td>
<td>145</td>
</tr>
<tr>
<td>Jayaraman</td>
<td>Digital Image Processing</td>
<td>181</td>
</tr>
<tr>
<td>Jenneson</td>
<td>Electrical Principles for the Electrical Trades, Volume 1, 6e</td>
<td>123</td>
</tr>
<tr>
<td>Jenneson</td>
<td>Electrical Principles for the Electrical Trades, Volume 2, 6e</td>
<td>123</td>
</tr>
<tr>
<td>Jotwani</td>
<td>Computer System Organization</td>
<td>37</td>
</tr>
<tr>
<td>Kalsi</td>
<td>Electronic Instrumentation, 3e</td>
<td>155</td>
</tr>
<tr>
<td>Kamakshaiah</td>
<td>HVDC Transmission</td>
<td>166</td>
</tr>
<tr>
<td>Kamal</td>
<td>Embedded Systems, 2e</td>
<td>164</td>
</tr>
<tr>
<td>Kamin</td>
<td>Introduction to Computer Science Using Java, , An, 2e</td>
<td>16</td>
</tr>
<tr>
<td>Kang</td>
<td>CMOS Digital Integrated Circuits Analysis and Design, 3e</td>
<td>136</td>
</tr>
</tbody>
</table>
## Author Index

<table>
<thead>
<tr>
<th>Author</th>
<th>Book Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kanjilal</td>
<td>ASP.Net 4.0 Programming</td>
<td>96</td>
</tr>
<tr>
<td>Kasap</td>
<td>Principles of Electronic Materials and Device, 3e</td>
<td>141</td>
</tr>
<tr>
<td>Keiser</td>
<td>Local Area Networks with CD-Rom, 2e</td>
<td>51,174</td>
</tr>
<tr>
<td>Keiser</td>
<td>Optical Fiber Communications, 4e [International Edition]</td>
<td>170</td>
</tr>
<tr>
<td>Keiser</td>
<td>Optical Fiber Communications, 4e [US Edition]</td>
<td>171</td>
</tr>
<tr>
<td>Kelton</td>
<td>Simulation with Arena, 5e</td>
<td>33</td>
</tr>
<tr>
<td>Khurana</td>
<td>Information Technology for Retailing</td>
<td>111</td>
</tr>
<tr>
<td>Kothari</td>
<td>Basic Electrical Engineering, 3e</td>
<td>125</td>
</tr>
<tr>
<td>Kothari</td>
<td>Electric Machines, 4e</td>
<td>157</td>
</tr>
<tr>
<td>Kothari</td>
<td>Modern Power System Analysis, 3e</td>
<td>160</td>
</tr>
<tr>
<td>Kothari</td>
<td>Modern Power System Analysis, 4e</td>
<td>159</td>
</tr>
<tr>
<td>Kraus</td>
<td>Antennas, 3e</td>
<td>144</td>
</tr>
<tr>
<td>Kraus</td>
<td>Electromagnetics, 5e</td>
<td>143</td>
</tr>
<tr>
<td>Krishnamurthy</td>
<td>Introduction to Computer Graphics</td>
<td>58</td>
</tr>
<tr>
<td>Kulshreshtha</td>
<td>Basic Electrical Engineering</td>
<td>125</td>
</tr>
<tr>
<td>Kumar</td>
<td>Neural Networks: A Classroom Approach</td>
<td>59,154</td>
</tr>
<tr>
<td>Kundu</td>
<td>Nanoscale CMOS VLSI Circuits</td>
<td>190</td>
</tr>
<tr>
<td>Laberge</td>
<td>Data Warehouse Mentor, The</td>
<td>61</td>
</tr>
<tr>
<td>Lander</td>
<td>Power Electronics, 3e</td>
<td>158</td>
</tr>
<tr>
<td>Lau</td>
<td>Advanced Copper-Gold Wire-Stud Interconnection Technologies</td>
<td>187</td>
</tr>
<tr>
<td>Lau</td>
<td>Through-Silicon Vias (TSVS) for 3D Integration</td>
<td>188</td>
</tr>
<tr>
<td>Laverick</td>
<td>VMWare Vsphere 4 Implementation</td>
<td>96</td>
</tr>
<tr>
<td>Law</td>
<td>Simulation Modeling and Analysis, 4e</td>
<td>34</td>
</tr>
<tr>
<td>Lee</td>
<td>Introduction to the Design and Analysis of Algorithms</td>
<td>22</td>
</tr>
<tr>
<td>Lehpamer</td>
<td>Microwave Transmission Networks, 2e</td>
<td>191</td>
</tr>
<tr>
<td>Leon-Garcia</td>
<td>Communication Network, 2e</td>
<td>55,173</td>
</tr>
<tr>
<td>Lethbridge</td>
<td>Object-Oriented Software Engineering: Practical Software Development Using UML and Java, 2e</td>
<td>45</td>
</tr>
<tr>
<td>Limaye</td>
<td>Software Quality Assurance</td>
<td>47</td>
</tr>
<tr>
<td>Limaye</td>
<td>Software Testing</td>
<td>60</td>
</tr>
<tr>
<td>Lin</td>
<td>Computer Networks: An Open Source Approach</td>
<td>52</td>
</tr>
<tr>
<td>Lipschutz</td>
<td>Schaum's Outline of Essential Computer Mathematics</td>
<td>28</td>
</tr>
<tr>
<td>Mahapatra</td>
<td>Principles of Electromagnetics</td>
<td>142</td>
</tr>
<tr>
<td>Mallach</td>
<td>Decision Support and Data Warehouse Systems</td>
<td>115</td>
</tr>
<tr>
<td>Malvino</td>
<td>Electronics Principles, 7e</td>
<td>137</td>
</tr>
<tr>
<td>Mandal</td>
<td>Digital Electronics: Principles and Applications</td>
<td>146</td>
</tr>
<tr>
<td>Marcovitz</td>
<td>Introduction to Logic and Computer Design with CD</td>
<td>31,150</td>
</tr>
<tr>
<td>Marcovitz</td>
<td>Introduction to Logic Design, 3e</td>
<td>29,145</td>
</tr>
<tr>
<td>Martin</td>
<td>Introduction to Languages and the Theory of Computation, 4e</td>
<td>6,32</td>
</tr>
<tr>
<td>Mata-Toledo</td>
<td>Schaum’s Outline of Fundamentals of SQL Programming</td>
<td>56</td>
</tr>
<tr>
<td>Author</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Mata-Toledo</td>
<td>Schaum's Outline of Introduction to Computer Science</td>
<td>5</td>
</tr>
<tr>
<td>Matthews</td>
<td>Windows 7 Quicksteps</td>
<td>97</td>
</tr>
<tr>
<td>Mayo</td>
<td>Schaum's Outline of Programming with Fortran 77</td>
<td>21</td>
</tr>
<tr>
<td>McComb</td>
<td>Arduino Robot Bonanza</td>
<td>188</td>
</tr>
<tr>
<td>McGraw-Hill</td>
<td>Computing Now</td>
<td>69</td>
</tr>
<tr>
<td>McLoughlin</td>
<td>Computer Architecture: An Embedded Approach</td>
<td>35,162</td>
</tr>
<tr>
<td>Mercer</td>
<td>Schaum's Outline of HTML</td>
<td>91</td>
</tr>
<tr>
<td>Meliya</td>
<td>Contemporary Communication Systems</td>
<td>165</td>
</tr>
<tr>
<td>Mitchell</td>
<td>Machine Learning</td>
<td>59</td>
</tr>
<tr>
<td>Mitra</td>
<td>Digital Signal Processing with Student CD-Rom, 4e</td>
<td>178</td>
</tr>
<tr>
<td>Morgan</td>
<td>Application Cases in Management Information Systems, 5e</td>
<td>111</td>
</tr>
<tr>
<td>Nagoorkani</td>
<td>Signals and Systems</td>
<td>175</td>
</tr>
<tr>
<td>Nagarath</td>
<td>Signals &amp; Systems, 2e</td>
<td>176</td>
</tr>
<tr>
<td>Nahvi</td>
<td>Schaum's Outline of Electric Circuits, 5e</td>
<td>135</td>
</tr>
<tr>
<td>Nasar</td>
<td>Schaum's Outline of Electric Machines and Electromechanics, 2e</td>
<td>158</td>
</tr>
<tr>
<td>Neamen</td>
<td>Introduction to Semiconductor Devices, An</td>
<td>140</td>
</tr>
<tr>
<td>Neamen</td>
<td>Microelectronics Circuit Analysis and Design, 4e</td>
<td>139</td>
</tr>
<tr>
<td>Neamen</td>
<td>Semiconductor Physics and Devices, 4e</td>
<td>140</td>
</tr>
<tr>
<td>Neev</td>
<td>Handbook of Ultra-Short Pulse Lasers for Biomedical and Medical Applications</td>
<td>188</td>
</tr>
<tr>
<td>Nordell</td>
<td>Making Microsoft Outlook 2010 Work For You</td>
<td>87</td>
</tr>
<tr>
<td>Norton</td>
<td>Peter Norton's Computing Fundamentals, 6e</td>
<td>69</td>
</tr>
<tr>
<td>Norton</td>
<td>Peter Norton's Introduction to Computers, 6e</td>
<td>72</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Computing Essentials 2012, Complete Edition, 22e</td>
<td>71</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Computing Essentials 2013, Complete Edition</td>
<td>70</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Computing Essentials 2013, Introductory Edition</td>
<td>67</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Microsoft Office Access 2010: A Case Approach, Complete</td>
<td>83</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Microsoft Office Access 2010: A Case Approach, Introductory</td>
<td>82</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Microsoft Office Access 2010: A Lesson Approach, Complete</td>
<td>84</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Microsoft Office Excel 2010: A Case Approach, Complete</td>
<td>81</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Microsoft Office Excel 2010: A Case Approach, Introductory</td>
<td>80</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Microsoft Office Powerpoint 2010: A Case Approach, Introductory</td>
<td>84</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Microsoft Office Word 2010: A Case Approach, Complete</td>
<td>78</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Microsoft Office Word 2010: A Case Approach, Introductory</td>
<td>73,77</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Microsoft Powerpoint 2010: A Case Approach, Complete</td>
<td>85</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Office 2007 Windows Vista Version</td>
<td>76</td>
</tr>
<tr>
<td>O'Leary</td>
<td>Windows 7</td>
<td>74</td>
</tr>
<tr>
<td>O'Brien</td>
<td>Introduction to Information Systems, 15e</td>
<td>103,110</td>
</tr>
<tr>
<td>O'Brien</td>
<td>Introduction to Information Systems, 16e</td>
<td>102,107</td>
</tr>
<tr>
<td>Author</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>O’Brien</td>
<td>Management Information Systems, 10e</td>
<td>108</td>
</tr>
<tr>
<td>O’Malley</td>
<td>Schaum’s Outline of Basic Circuit Analysis, 2e</td>
<td>135</td>
</tr>
<tr>
<td>Olson</td>
<td>Introduction to Business Data Mining</td>
<td>118</td>
</tr>
<tr>
<td>Olson</td>
<td>Introduction to Information Systems Project Management, 2e</td>
<td>115</td>
</tr>
<tr>
<td>Olson</td>
<td>Managerial Issues of Enterprise Resource Planning Systems</td>
<td>118</td>
</tr>
<tr>
<td>Palani</td>
<td>Control Systems Engineering</td>
<td>152</td>
</tr>
<tr>
<td>Palmer</td>
<td>Schaum’s Outline of Introduction to Digital Systems</td>
<td>151</td>
</tr>
<tr>
<td>Papoulis</td>
<td>Probability, Random Variables and Stochastic Processes with Errata Sheet, 4e</td>
<td>183</td>
</tr>
<tr>
<td>Patt</td>
<td>Introduction to Computing Systems: From Bits to Gates to C and Beyond, 2e</td>
<td>5</td>
</tr>
<tr>
<td>Pearsall</td>
<td>Photonics Essentials, 2e</td>
<td>191</td>
</tr>
<tr>
<td>Peebles</td>
<td>Probability, Random Variables and Random Signal Principles, 4e</td>
<td>183</td>
</tr>
<tr>
<td>Pethebridge</td>
<td>Electrical Wiring Practice, Volume 1, 7e</td>
<td>125</td>
</tr>
<tr>
<td>Pethebridge</td>
<td>Electrical Wiring Practice, Volume 2, 7e</td>
<td>124</td>
</tr>
<tr>
<td>Petruzella</td>
<td>Electric Motors and Control Systems</td>
<td>154</td>
</tr>
<tr>
<td>Petruzella</td>
<td>Programmable Logic Controllers, 4e</td>
<td>151</td>
</tr>
<tr>
<td>Philipp</td>
<td>Hacking Exposed Computer Forensics, 2e</td>
<td>62</td>
</tr>
<tr>
<td>Plastock</td>
<td>Schaum’s Outline of Computer Graphics, 2e</td>
<td>58</td>
</tr>
<tr>
<td>Pohmann</td>
<td>Master Handbook of Sound Studio Construction</td>
<td>185</td>
</tr>
<tr>
<td>Pollock</td>
<td>Javascript: A Beginner’s Guide, 3e</td>
<td>97</td>
</tr>
<tr>
<td>Poornachandra</td>
<td>Digital Signal Processing, 2e</td>
<td>178</td>
</tr>
<tr>
<td>Poornachandra</td>
<td>Signals and Systems, 2e</td>
<td>176</td>
</tr>
<tr>
<td>Poplawski</td>
<td>Objects Have Class: An Introduction to Programming with Java with CD-Rom and OLC</td>
<td>17</td>
</tr>
<tr>
<td>Powell</td>
<td>CSS &amp; XHTML: The Complete Reference, 5e</td>
<td>97</td>
</tr>
<tr>
<td>Pressman</td>
<td>Software Engineering: A Practitioner’s Approach, 7e</td>
<td>44</td>
</tr>
<tr>
<td>Pressman</td>
<td>Web Engineering: A Practitioner’s Approach</td>
<td>44</td>
</tr>
<tr>
<td>Price</td>
<td>Fundamentals of Wireless Networking</td>
<td>93</td>
</tr>
<tr>
<td>Priestley</td>
<td>Practical Object-Oriented Design with UML, 2e</td>
<td>48,50</td>
</tr>
<tr>
<td>Proakis</td>
<td>Digital Communications, 5e</td>
<td>168</td>
</tr>
<tr>
<td>Quinn</td>
<td>Parallel Programming in C with MPI and Open MP</td>
<td>7</td>
</tr>
<tr>
<td>Ram</td>
<td>Power System Protection and Switchgear, 2e</td>
<td>159</td>
</tr>
<tr>
<td>Ramakrishnan</td>
<td>Database Management Systems, 3e</td>
<td>57</td>
</tr>
<tr>
<td>Rao</td>
<td>Analog Communication</td>
<td>165</td>
</tr>
<tr>
<td>Rao</td>
<td>Digital Communication</td>
<td>167</td>
</tr>
<tr>
<td>Razavi</td>
<td>Design of Analog CMOS Integrated Circuits</td>
<td>135</td>
</tr>
<tr>
<td>Reid</td>
<td>Wireless Mobility Handbook</td>
<td>97</td>
</tr>
<tr>
<td>Rizzoni</td>
<td>Fundamentals of Electrical Engineering</td>
<td>126</td>
</tr>
<tr>
<td>Rizzoni</td>
<td>Principles and Applications of Electrical Engineering, 5e</td>
<td>126</td>
</tr>
<tr>
<td>Author</td>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Roberts</td>
<td>Fundamentals Signals Systems</td>
<td>176</td>
</tr>
<tr>
<td>Roberts</td>
<td>Signals and Systems, 2e</td>
<td>175</td>
</tr>
<tr>
<td>Rosen</td>
<td>Discrete Mathematics and Its Applications, 6e</td>
<td>27</td>
</tr>
<tr>
<td>Rosen</td>
<td>Discrete Mathematics and Its Applications, 7e</td>
<td>26</td>
</tr>
<tr>
<td>Sadiku</td>
<td>Applied Circuit Analysis</td>
<td>129,132</td>
</tr>
<tr>
<td>Salivahanan</td>
<td>Digital Signal Processing, 2e</td>
<td>177</td>
</tr>
<tr>
<td>Salman</td>
<td>High Performance Integrated Circuit Design</td>
<td>189</td>
</tr>
<tr>
<td>Sandige</td>
<td>Fundamentals of Digital and Computer Design with VHDL</td>
<td>28,147</td>
</tr>
<tr>
<td>Saultor</td>
<td>Introduction to Video Game Design and Development with Student CD</td>
<td>91</td>
</tr>
<tr>
<td>Schach</td>
<td>Introduction to Object-Oriented Analysis and Design</td>
<td>114</td>
</tr>
<tr>
<td>Schach</td>
<td>Object-Oriented and Classical Software Engineering, 8e</td>
<td>43</td>
</tr>
<tr>
<td>Schach</td>
<td>Object-Oriented Software Engineering</td>
<td>45</td>
</tr>
<tr>
<td>Scherz</td>
<td>Practical Electronics for Inventors, 3e</td>
<td>185</td>
</tr>
<tr>
<td>Schildt</td>
<td>Java Programming: A Comprehensive Introduction</td>
<td>11</td>
</tr>
<tr>
<td>Schildt</td>
<td>Java: The Complete Reference, 8e</td>
<td>61</td>
</tr>
<tr>
<td>Schuler</td>
<td>Digital Signal Processing</td>
<td>179</td>
</tr>
<tr>
<td>Schuler</td>
<td>Electronics: Principles and Applications with Student Data CD-Rom, 8e</td>
<td>137</td>
</tr>
<tr>
<td>Schultz</td>
<td>Grob’s Basic Electronics, 11e</td>
<td>129</td>
</tr>
<tr>
<td>Schultz</td>
<td>Grob’s Basic Electronics: Fundamentals of DC &amp; AC Circuits with Simulation CD</td>
<td>130</td>
</tr>
<tr>
<td>Selvi</td>
<td>Test Your Skills in C, 2e</td>
<td>9</td>
</tr>
<tr>
<td>Sennaroglu</td>
<td>Photonics and Laser Engineering</td>
<td>191</td>
</tr>
<tr>
<td>Shea</td>
<td>How to Build A Small Budget Recording Studio from Scratch, 4e</td>
<td>189</td>
</tr>
<tr>
<td>Shibu</td>
<td>Introduction to Embedded Systems</td>
<td>38</td>
</tr>
<tr>
<td>Shrader</td>
<td>Electronic Communication, 6e</td>
<td>170</td>
</tr>
<tr>
<td>Silberschatz</td>
<td>Database System Concepts, 6e</td>
<td>57</td>
</tr>
<tr>
<td>Simpson</td>
<td>Discrete Mathematics By Example</td>
<td>28</td>
</tr>
<tr>
<td>Singal</td>
<td>Wireless Communications</td>
<td>171</td>
</tr>
<tr>
<td>Singh</td>
<td>Basic Electrical &amp; Electronics Engineering</td>
<td>123</td>
</tr>
<tr>
<td>Skolnik</td>
<td>Introduction to Radar Systems, 3e</td>
<td>144</td>
</tr>
<tr>
<td>Skrien</td>
<td>Object-Oriented Design Using Java</td>
<td>14,49</td>
</tr>
<tr>
<td>Smith</td>
<td>Java: An Object-Oriented Language</td>
<td>17</td>
</tr>
<tr>
<td>Stevenson</td>
<td>Elements of Power System Analysis, 4e</td>
<td>161</td>
</tr>
<tr>
<td>Stewart</td>
<td>Microsoft Excel 2007: A Professional Approach</td>
<td>82</td>
</tr>
<tr>
<td>Stewart</td>
<td>Microsoft Office Excel 2010: A Professional Approach, Complete</td>
<td>81</td>
</tr>
<tr>
<td>Sudhakar</td>
<td>Circuits and Networks, 4e</td>
<td>174</td>
</tr>
</tbody>
</table>
## Author Index

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tan</td>
<td>C Programming for Engineering and Computer Science</td>
<td>11</td>
</tr>
<tr>
<td>Tan</td>
<td>C Programming: A Concise Q&amp;A Approach, 2e</td>
<td>8</td>
</tr>
<tr>
<td>Thomas</td>
<td>Communication Theory</td>
<td>167</td>
</tr>
<tr>
<td>Tittel</td>
<td>Schaum's Outline of Computer Networking</td>
<td>55</td>
</tr>
<tr>
<td>Tokheim</td>
<td>Digital Electronics: Principles and Applications, 7e</td>
<td>147</td>
</tr>
<tr>
<td>Triad Interactive</td>
<td>Microsoft Office 2010 Now: A Skills Approach</td>
<td>73</td>
</tr>
<tr>
<td>Triad Interactive</td>
<td>SiMGrader for Microsoft Office 2010</td>
<td>86</td>
</tr>
<tr>
<td>Tront</td>
<td>PSpice for Basic Circuit Analysis, 2e</td>
<td>134</td>
</tr>
<tr>
<td>Tront</td>
<td>PSpice for Basic Microelectronics</td>
<td>139</td>
</tr>
<tr>
<td>Tsang</td>
<td>Object-Oriented Technology, 2e</td>
<td>42</td>
</tr>
<tr>
<td>Tucker</td>
<td>Programming Languages, 2e</td>
<td>6</td>
</tr>
<tr>
<td>Tymann</td>
<td>Schaum's Outline of Principles of Computer Science</td>
<td>5,18</td>
</tr>
<tr>
<td>Varmah</td>
<td>Control Systems: Problems and Solutions</td>
<td>152</td>
</tr>
<tr>
<td>Vaughan</td>
<td>Multimedia: Making It Work, 8e</td>
<td>61,94</td>
</tr>
<tr>
<td>Venkataramani</td>
<td>Digital Signal Processors: Architecture, Programming and Applications, 2e</td>
<td>178</td>
</tr>
<tr>
<td>Volakis</td>
<td>Small Antennas</td>
<td>192</td>
</tr>
<tr>
<td>Weng</td>
<td>Introduction to Contemporary Remote Sensing Earth from Space, An</td>
<td>189</td>
</tr>
<tr>
<td>Whalen</td>
<td>Oracle VM Implementation and Administration Guide</td>
<td>62</td>
</tr>
<tr>
<td>Whitten</td>
<td>Systems Analysis and Design Methods, 7e</td>
<td>112</td>
</tr>
<tr>
<td>Williams</td>
<td>Using Information Technology, Complete Edition, 10e</td>
<td>71</td>
</tr>
<tr>
<td>Williams</td>
<td>Using Information Technology, Complete Edition, 9e</td>
<td>72</td>
</tr>
<tr>
<td>Williams</td>
<td>Using Information Technology, Introductory Edition, 10e</td>
<td>67</td>
</tr>
<tr>
<td>Williams</td>
<td>Using Information Technology, Introductory Edition, 9e</td>
<td>68</td>
</tr>
<tr>
<td>Wu</td>
<td>Introduction to Object-Oriented Programming with Java, An, 5e</td>
<td>12</td>
</tr>
<tr>
<td>Wu (Otani)</td>
<td>Comprehensive Introduction to Object-Oriented Programming with Java, A</td>
<td>15</td>
</tr>
<tr>
<td>Xavier</td>
<td>Java Programming: A Practical Approach</td>
<td>12</td>
</tr>
<tr>
<td>Xavier</td>
<td>World Wide Web Design with HTML</td>
<td>91</td>
</tr>
<tr>
<td>Yu</td>
<td>Assembly Language Programming and Organization of the IBM PC</td>
<td>34</td>
</tr>
<tr>
<td>Zbar</td>
<td>Basic Electricity: A Text-Lab Manual, 7e</td>
<td>127</td>
</tr>
<tr>
<td>Zbar</td>
<td>Electricity/Electronics Fundamentals: A Text-Lab Manual, 4e</td>
<td>127,130</td>
</tr>
</tbody>
</table>
Professors/lecturers who are interested to review titles listed in this catalog for text adoption consideration, please complete this request form and fax to your local McGraw-Hill office (see inside back cover for fax number) or to McGraw-Hill Singapore.

- Requests for examination copies are subject to approval. McGraw-Hill reserve the right to refuse any requests which do not relate to teaching.
- Please make copies of this form if necessary.

### REQUESTED BY

<table>
<thead>
<tr>
<th>Name</th>
<th>Room #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Department</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Tel</td>
<td>Fax</td>
</tr>
<tr>
<td>Email address</td>
<td></td>
</tr>
</tbody>
</table>

### COMP REQUEST

Please indicate ISBN No, Author & Title

1) 

2) 

3) 

4) 

5) 

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>Commencement Date</td>
</tr>
<tr>
<td>Decision Date</td>
<td>□ Individual Decision □ Group Decision</td>
</tr>
<tr>
<td>Current Text Used</td>
<td></td>
</tr>
</tbody>
</table>
Please include me in your mailing list for information on McGraw-Hill books.

Please email information on McGraw-Hill books to my email address at

I am already on your mailing list but my address has changed. Please update my record to the following new address.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Department</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>Postal Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email address</th>
<th>Tel</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBJECT OF INTEREST**

- Accounting
- Advertising
- Business Management
- Finance & Investment
- Marketing
- Economics
- Human Resource Management
- Insurance & Real Estate
- Training
- Computing
- Aeronautical & Aerospace Engineering
- Architecture & Urban Planning
- Chemical Engineering
- Civil Engineering
- Construction
- Electronics & Communications
- Electrical Engineering
- General Engineering
- Industrial & Plant Engineering
- Mechanical Engineering
- Medical Science
- Dentistry
- Nursing
- Agriculture
- Biology
- Chemistry
- Forestry
- Geography & Geology
- Physics & Astronomy
- Zoology
- Mathematics & Statistics
- Art & Humanities
- Education
- English
- English as a 2nd Language/ELT
- Foreign Language
- Health & Nutrition
- History
- Law
- Library Science
- Mass Communication
- Music
- Philosophy & Religion
- Physical Education
- Political Science
- Psychology
- Sociology

Please return by fax at (65) 6862 3354 to McGraw-Hill Education (Asia) Singapore office.
<table>
<thead>
<tr>
<th>Country</th>
<th>Address</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHINA</strong></td>
<td>(Representative Office) McGraw-Hill Int’l Enterprises, Inc, Suite 906, 9/F, SP Tower A</td>
<td>Tel: (86-10) 6279 0299 Fax: (86-10) 6279 0292 eMail: <a href="mailto:instructorchina@mcgraw-hill.com">instructorchina@mcgraw-hill.com</a></td>
</tr>
<tr>
<td></td>
<td>Tsinghua Science Park No. 1, Zhongguancun East Road Haidian District Beijing 100084, P R China</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tel: (86-10) 6279 0299 Fax: (86-10) 6279 0292 eMail: <a href="mailto:instructorchina@mcgraw-hill.com">instructorchina@mcgraw-hill.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>HONG KONG</strong></td>
<td>McGraw-Hill Int’l Enterprises, Inc, Suites 2906-10, Tower 2 Times Square 1, Matheson Street, Causeway Bay Hong Kong</td>
<td>Tel: (85-2) 2730 6640 Fax: (85-2) 2730 2085 eMail: <a href="mailto:miehk_mhe@mcgraw-hill.com">miehk_mhe@mcgraw-hill.com</a></td>
</tr>
<tr>
<td><strong>INDIA</strong></td>
<td>(also servicing Bangladesh, Pakistan, Nepal &amp; Sri Lanka) Tata McGraw-Hill Education Private Limited B-4, Sector 63 Distt Gautam Budh Nagar Noida, UP-201301, India</td>
<td>Tel: (91-12) 438 3400 Fax: (91-12) 438 3401 - 403 eMail: <a href="mailto:saurabh_sharma@mcgraw-hill.com">saurabh_sharma@mcgraw-hill.com</a></td>
</tr>
<tr>
<td></td>
<td>Tel: (91-12) 438 3400 Fax: (91-12) 438 3401 - 403 eMail: <a href="mailto:saurabh_sharma@mcgraw-hill.com">saurabh_sharma@mcgraw-hill.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>INDONESIA</strong></td>
<td>PT Media Global Edukasi Imperium Design 27 Lippo Karawaci Tangerang 15810 Indonesia</td>
<td>Tel: (62-21) 28899 961 / 28899 962 Fax: (62-21) 65702417 eMail: <a href="mailto:info@mge.co.id">info@mge.co.id</a></td>
</tr>
<tr>
<td><strong>JAPAN</strong></td>
<td>McGraw-Hill Education Japan 3F, Ascend Shimbashi 6-19-19 Shimbashi, Minato-ku Tokyo 105-0004 Japan</td>
<td>Tel: (81-3) 5408 1888 Fax: (81-3) 5408 1880 eMail: <a href="mailto:mhejpnm@mcgraw-hill.com">mhejpnm@mcgraw-hill.com</a></td>
</tr>
<tr>
<td></td>
<td>Tel: (81-3) 5408 1888 Fax: (81-3) 5408 1880 eMail: <a href="mailto:mhejpnm@mcgraw-hill.com">mhejpnm@mcgraw-hill.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>KOREA</strong></td>
<td>McGraw-Hill Korea Inc 3F, Ji-Woo Bldg 376-12 Seokyo-Dong Mapo-Ku Seoul 121-210, Korea</td>
<td>Tel: (82-2) 325 2351 Fax: (82-2) 325 2371 eMail: <a href="mailto:miekr_mhe@mcgraw-hill.com">miekr_mhe@mcgraw-hill.com</a></td>
</tr>
<tr>
<td></td>
<td>Tel: (82-2) 325 2351 Fax: (82-2) 325 2371 eMail: <a href="mailto:miekr_mhe@mcgraw-hill.com">miekr_mhe@mcgraw-hill.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>MALAYSIA</strong></td>
<td>McGraw-Hill Malaysia Sdn Bhd No. 40, Jalan Pengacara U1/48 Temasya Industrial Park 40150 Shah Alam Selangor Darul Ehsan, Malaysia</td>
<td>Tel: (60-3) 7627 6888 Fax: (60-3) 7627 6838 eMail: <a href="mailto:msia_mhe@mcgraw-hill.com">msia_mhe@mcgraw-hill.com</a></td>
</tr>
<tr>
<td></td>
<td>Tel: (60-3) 7627 6888 Fax: (60-3) 7627 6838 eMail: <a href="mailto:msia_mhe@mcgraw-hill.com">msia_mhe@mcgraw-hill.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>PHILIPPINES</strong></td>
<td>(Appointed Agent) Ideacademy Inc. Unit LG5 Alfaro Place 146 L.P. Leviste Street Salcedo Village Makati City, Metro Manila Philippines Tel: (63-2) 519 2672 / 519 2675 Fax: (63-2) 519 2676 eMail: <a href="mailto:myla_katzav@ideacademyinc.biz">myla_katzav@ideacademyinc.biz</a></td>
<td></td>
</tr>
<tr>
<td><strong>TAIWAN</strong></td>
<td>McGraw-Hill Int’l Enterprises, Inc 7/F, No: 53 Bo-Ai Road Taipei 100 Taiwan</td>
<td>Tel: (886-2) 2311 3000 Fax: (886-2) 2388 8822 eMail: <a href="mailto:mietw_mhe@mcgraw-hill.com">mietw_mhe@mcgraw-hill.com</a></td>
</tr>
<tr>
<td></td>
<td>Tel: (886-2) 2311 3000 Fax: (886-2) 2388 8822 eMail: <a href="mailto:mietw_mhe@mcgraw-hill.com">mietw_mhe@mcgraw-hill.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>THAILAND</strong></td>
<td>McGraw-Hill Int’l Enterprises, Inc 40/27 Soi Inthamara 8 Suthisarn Road, Phayathai Bangkok 10400, Thailand Tel: (66-2) 615 6555 Fax: (66-2) 615 6500 eMail: <a href="mailto:mieth_mhe@mcgraw-hill.com">mieth_mhe@mcgraw-hill.com</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tel: (66-2) 615 6555 Fax: (66-2) 615 6500 eMail: <a href="mailto:mieth_mhe@mcgraw-hill.com">mieth_mhe@mcgraw-hill.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>VIETNAM</strong></td>
<td>(Representative Office) McGraw-Hill Int’l Enterprises, Inc The Nomad Offices Level 16 &amp; 17 Gemadept Tower 6 Le Thanh Ton Street Ben Nghe Ward, District 1 Ho Chi Minh City Vietnam Tel: (84-8) 6255 6829; (84-8) 6255 6889 Fax: (84-8) 6255 6801 eMail: <a href="mailto:van_yen_quang@mcgraw-hill.com">van_yen_quang@mcgraw-hill.com</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tel: (84-8) 6255 6829; (84-8) 6255 6889 Fax: (84-8) 6255 6801 eMail: <a href="mailto:van_yen_quang@mcgraw-hill.com">van_yen_quang@mcgraw-hill.com</a></td>
<td></td>
</tr>
</tbody>
</table>
Preventing Students for the World That Awaits

McGraw-Hill Higher Education empowers instructors to help students succeed academically now and into the future by providing flexible, superior-quality solutions that serve the needs of instructors and students end to end - from textbooks and digital instructional content and tools to innovate subject mastery, experiential learning and assignment/assessment solutions.

Connect.
We connect instructors and students to valuable course content and resources - and we connect instructors and students to each other - with the best traditional and digital teaching tools.

Learn.
We enable greater learning and deeper comprehension with the highest-quality tools and content that let students engage with their coursework when, where and however they learn best.

Succeed.
We provide the learning resources students need to connect success in the classroom with success in the world that awaits.