Dfx V4 User Guide

Image sharpness is one of photography's yin/yang propositions. Soft focus can impair a photograph, and just as readily enhance it—in some cases, greatly enhance it. What we perceive as blur, a in very much the same manner as deep shadows or overexposed highlights. By minimizing or concealing certain details in the image by selectively throwing areas out of focus at will, the photogra attention through the image as he or she intends. Like the rest stops in a piece of music, creatively manipulated zones of softness can totally govern a photograph's overall impact. There are doz sharpness in any part of an image, and three important reasons for a photographer to be fluent in his or her ability to create a soft-focus look: (1) to emphasize important picture details by subo to reduce or remove details of a subject that undermine a picture's intent, and (3) to create a mood impression, an aura, that suggests something about a subject that doesn't actually appear in Cornfield surveys in detail the art of selectively using soft focus in your photography. Readers will learn about the history of soft-focus photography, then move to technical discussions for creat advantage of spherical aberrations, circles of confusion, and bokeh—the way a lens, due to its unique properties and specific aperture shape, renders image areas that lie outside of the focus ran "bad" bokeh). Next, readers will move on to a study of post-capture image manipulations using Photoshop and third-party plugins in order to re-create traditional effects. Finally, the author inclu available optical and digital products intended for the creative application of soft-focus effects. Armed with the tools needed to produce a predictable soft-focus look, readers will be able to expa for enhanced artistic expression and stand-out work that will draw clients and generate client referrals.

Provides an introduction to numerical methods for students in engineering. It uses Python 3, an easy-to-use, high-level programming language.

This book details the foundations, new developments and methods, applications, and current challenges of systems engineering (SE). It provides key insights into SE as a concept and as an approa the entire lifecycle (requirements, design, production, and exploitation) of complex engineering systems, such as spacecraft, aircraft, power plants, and ships. Written by leading international expe achievements of the holistic, transdisciplinary approach of SE as state of the art both in research and practice using case study examples from originating at universities and companies such as Boeing, and COMAC. The reader obtains a comprehensive insight into the still existing challenges of the concept of SE today and the various forms in which SE is applied in a variety of areas.

Want to create a solid, manufacturable PCB the first time? Well, you're in luck. Get the only book you will ever need to upgrade your PCB knowledge and launch your career to new heights. Forge learn all the things industry experts wish they knew when starting out. With over 100 pages of content including checklists, pro-tips, and detailed illustrations, you'll gain decades of wisdom in a Hitchhikers Guide to PCB Design to be entertained and learn - How to create a robust and manufacturable PCB layout beyond routing the rats - Why it's important to incorporate DFX (Design for topics it covers - Who your project stakeholders are and why their involvement is essential for design success - PCB Design best practices you need to know and more BONUS- You can get a FRI by visiting the EMA Design Automation website.

Music Lover's Guide

Intuitive Probability and Random Processes using MATLAB®

Permanent Magnet Motor Technology

Advanced Calculus

Product Lifecycle Management for Digital Transformation of Industries

IBM z15 (8562) Technical Guide

Digital business has been driving the transformation of underlying information technology (IT) infrastructure to be more efficient, secure, adaptive, and integrated. IT must be able to handle the explosive growth of mobile clients and employees. It also must be able to process enormous amounts of data to provide deep and real-time insights to help achieve the greatest business impact. This IBM® Redbooks® publication addresses the new IBM z SystemsTM single frame, the IBM z13s server. IBM z Systems servers are the trusted enterprise platform for integrating data, transactions, and insight. A data-centric infrastructure must always be available with a 99.999% or better availability, have flawless data integrity, and be secured from misuse. It needs to be an integrated infrastructure that can support new applications. It also needs to have integrated capabilities that can provide new mobile capabilities with real-time analytics delivered by a secure cloud infrastructure. IBM z13s servers are designed with improved scalability, performance, security, resiliency, availability, and virtualization. The superscalar design allows z13s servers to deliver a record level of capacity over the prior single frame z Systems server. In its maximum configuration, the z13s server is powered by up to 20 client characterizable microprocessors (cores) running at 4.3 GHz. This configuration can run more than 18,000 millions of instructions per second (MIPS) and up to 4 TB of client memory. The IBM z13s Model N20 is estimated to provide up to 100% more total system capacity than the IBM zEnterprise® BC12 Model H13. This book provides information about the IBM z13s server and its functions, features, and associated software support. Greater detail is offered in areas relevant to technical planning. It is intended for systems engineers, consultants, planners, and anyone who wants to understand the IBM z SystemsTM functions and plan for their usage. It is not intended as an introduction to mainframes. Readers are expected to be generally familiar with existing IBM z Systems technology and terminology.

This book features cutting-edge research presented at the second international conference on Artificial Intelligence in Renewable Energetic Systems, IC-AIRES2018, held on 24–26 November 2018, at the High School of Commerce, ESC-Koléa in Tipaza, Algeria. Today, the fundamental challenge of integrating renewable energies into the design of smart cities is more relevant than ever. While based on the advent of big data and the use of information and communication technologies, smart cities must now respond to cross-cutting issues involving urban development, energy and environmental constraints; further, these cities must also explore how they can integrate more sustainable energies. Sustainable energies are a major determinant of smart cities' longevity. From an environmental and technological standpoint, these energies offer an optimal power supply to the electric network while creating significantly less pollution. This requires flexibility, i.e., the availability of supply and demand. The end goal of any smart city is to improve the quality of life for all citizens (both in the city and in the countryside) in a way that is sustainable and respectful of the environment. This book encourages the reader to engage in the preservation of our environment, every moment, every day, so as to help build a clean and healthy future, and to think of the future generations who will one day inherit our planet. Further, it equips those whose work involves energy systems and those engaged in modelling artificial intelligence to combine their expertise for the benefit of the scientific community and humanity as a whole.

This textbook, suitable for an early undergraduate up to a graduate course, provides an overview of many basic principles and techniques needed for modern data analysis. In particular, this book was

designed and written as preparation for students planning to take rigorous Machine Learning and Data Mining courses. It introduces key conceptual tools necessary for data analysis, including concentration of measure and PAC bounds, cross validation, gradient descent, and principal component analysis. It also surveys basic techniques in supervised (regression and classification) and unsupervised learning (dimensionality reduction and clustering) through an accessible, simplified presentation. Students are recommended to have some background in calculus, probability, and linear algebra. Some familiarity with programming and algorithms is useful to understand advanced topics on computational techniques.

Although Problems is an accretion of multiple authorship over several centuries, it offers a fascinating technical view of Peripatetic method and thought. Aristotle of Stagirus (384-322 BCE), the great Greek philosopher, researcher, logician, and scholar, studied with Plato at Athens and taught in the Academy (367-347). Subsequently he spent three years in Asia Minor at the court of his former pupil Hermeias, where he married Pythias, one of Hermeias' relations. After some time at Mitylene, he was appointed in 343/2 by King Philip of Macedon to be tutor of his teen-aged son Alexander. After Philip's death in 336, Aristotle became head of his own school (of "Peripatetics"), the Lyceum at Athens. Because of anti-Macedonian feeling there after Alexander's death in 323, he withdrew to Chalcis in Euboea, where he died the following year. Problems, the third-longest work in the Aristotelian corpus, contains thirty-eight books covering more than 900 problems about living things, meteorology, ethical and intellectual virtues, parts of the human body, and miscellaneous questions. Although Problems is an accretion of multiple authorship over several centuries, it offers a fascinating technical view of Peripatetic method and thought. Rhetoric to Alexander, which provides practical advice to orators, was likely composed during the period of Aristotle's tutorship of Alexander, perhaps by Anaximenes, another of Alexander's tutors. Both Problems and Rhetoric to Alexander replace the earlier Loeb edition by Hett and Rackham, with texts and translations incorporating the latest scholarship.

Foundations, Developments and Challenges

Managing, Editing, and Sharing Your Photos

Fox and McDonald's Introduction to Fluid Mechanics

A Physical Introduction to Fluid Mechanics

PC Magazine

Successful IoT Device/Edge and Platform Security Deployment

One of the construction industry's longest-running, most relied-on references, The Gypsum Construction Handbook was first published by the U.S. Gypsum Company in 1904. For more than a century and through several editions, the book has become a trusted standard. This new 6th edition is an illustrated, comprehensive, and authoritative guide on all facets of gypsum construction. You'll find the newest product developments, installation methods, fire- and sound-rated construction information, illustrated framing-to-finish application instructions, estimating and planning information, and more. System descriptions – together with full data on products, accessories, tools, equipment, and applications – help plan and estimate projects and ensure compliance with performance criteria. Cost- and time-saving techniques keep the work on budget. New in the sixth edition are chapters on sustainable construction methods and products, building movement, fire resistance, heat transfer, sound transmission, and vapor/moisture control. The Handbook covers both new construction and repair and remodeling and includes: framing drywall and veneer plaster joint treatment and plaster finishing interior cement board ceilings conventional plaster

This package contains the following components: -0132273594: Physics for Scientists & Engineers Vol. 2 (Chs 21-35) -0132274000: Physics for Scientists & Engineers with Modern Physics, Vol. 3 (Chs 36-44) -013613923X: Physics for Scientists & Engineers Vol. 1 (Chs 1-20) with MasteringPhysics(tm)

Supplies the most essential concepts and methods necessary to capitalize on the innovations of industrial automation, including mathematical fundamentals, ergonometrics, industrial robotics, government safety regulations, and economic analyses.

This open access book explores the concept of Industry 4.0, which presents a considerable challenge for the production and service sectors. While digitization initiatives are usually integrated into the central corporate strategy of larger companies, smaller firms often have problems putting Industry 4.0 paradigms into practice. Small and medium-sized enterprises (SMEs) possess neither the human nor financial resources to systematically investigate the potential and risks of introducing Industry 4.0. Addressing this obstacle, the international team of authors focuses on the development of smart manufacturing concepts, logistics solutions and managerial models specifically for SMEs. Aiming to provide methodological frameworks and pilot solutions for SMEs during their digital transformation, this innovative and timely book will be of great use to scholars researching technology management, digitization and small business, as well as practitioners within manufacturing companies.

Using JOGL and Java3D

Stochastic Processes

A Complete Guide to the Portrait Photographer's Most Powerful Imaging Tool

File Stations

Classical Electromagnetic Theory

Renewable Energy for Smart and Sustainable Cities

OpenGL, which has been bound in C, is a seasoned graphics library for scientists and engineers. As we know, Java is a rapidly growing language becoming the de facto standard of Computer Science learning and application development platform as many undergraduate computer science programs are adopting Java in place of C/C++. Released by Sun Microsystems in June 2003, the recent OpenGL binding with Java, JOGL, provides students, scientists, and engineers a new venue of graphics learning, research, and applications. Overview This book aims to be a shortcut to graphics theory and programming in JOGL. Specifically, it covers OpenGL programming in Java, using JOGL, along with concise computer graphics theories. It covers all graphics basics and several advanced topics without including some implementation details that are not necessary in graphics applications. It also covers some basic concepts in Java programming for C/C++ programmers. It is designed as a textbook for students who know programming basics already. It is an excellent shortcut to learn 3D graphics for scientists and engineers who understand Java programming. It is also a good reference for C/C++ graphics vi Preface programmers to learn Java and JOGL. This book is a companion to Guide to Graphics Software Tools (Springer-Verlag, New York, ISBN 0-387-95049-4), which covers a smaller graphics area with similar examples in C but has a comprehensive list of graphics software tools. Organization and Features This book concisely introduces graphics theory and programming in Java with JOGL.

The importance of permanent magnet (PM) motor technology and its impact on electromechanical drives has grown exponentially since the publication of the bestselling second edition. The PM brushless motor market has grown considerably faster than the overall motion control market. This rapid growth makes it essential for electrical and electromechanical engineers and students to stay up-to-date on developments in modern electrical motors and drives, including their control, simulation, and CAD. Reflecting innovations in the development of PM motors for electromechanical drives, Permanent Magnet Motor Technology: Design and Applications, Third Edition demonstrates the construction of PM motor drives and supplies ready-to-implement solutions to common roadblocks along the way. This edition supplies fundamental equations and calculations for determining and evaluating system performance, efficiency, reliability, and cost. It explores modern computer-aided design of PM motors, including the finite element approach, and explains how to select PM motors to meet the specific requirements of electrical drives. The numerous examples, models, and diagrams provided in each chapter facilitate a lucid understanding of motor operations and characteristics. This 3rd edition of a bestselling reference has been thoroughly revised to include: Chapters on high speed motors and micromotors Advances in permanent magnet motor technology Additional numerical examples and illustrations An increased effort to bridge the gap between theory and industrial applications Modified research results The growing global trend toward energy conservation makes it quite possible that the era of the PM brushless motor drive is just around the corner. This reference book will give engineers, researchers, and graduate-level students the comprehensive understanding required to develop the breakthroughs that will push this exciting technology to the forefront.

This definitive textbook provides a solid introduction to discrete and continuous stochastic processes, tackling a complex field in a way that instils a deep understanding of the relevant mathematical principles, and develops an intuitive grasp of the way these principles can be applied to modelling real-world systems. It includes a careful review of elementary probability and detailed coverage of Poisson, Gaussian and Markov processes with richly varied queuing applications. The theory and applications of inference, hypothesis testing, estimation, random walks, large deviations, martingales and investments are developed. Written by one of the world's leading information theorists, evolving over twenty years of graduate classroom teaching and enriched by over 300 exercises, this is an exceptional resource for anyone looking to develop their understanding of stochastic processes.

This IBM® Redbooks® publication describes the features and functions the latest member of the IBM Z® platform, the IBM z15TM (machine type 8561). It includes information about the IBM z15 processor design, I/O innovations, security features, and supported operating systems. The z15 is a state-of-the-art data and transaction system that delivers advanced capabilities, which are vital to any digital transformation. The z15 is designed for enhanced modularity, which is in an industry standard footprint. This system excels at the following tasks: Making use of multicloud integration services Securing data with pervasive encryption Accelerating digital transformation with agile service delivery Transforming a transactional platform into a data powerhouse Getting more out of the platform with IT Operational Analytics Accelerating digital transformation with agile service delivery Revolutionizing business processes Blending open source and Z technologies This book explains how this system uses new innovations and traditional Z strengths to satisfy growing demand for cloud, analytics, and open source technologies. With the z15 as the base, applications can run in a trusted, reliable, and secure environment that improves operations and lessens business risk.

IBM z13s Technical Guide

Revised

Global Product Development

Handbook Of Industrial Automation

Numerical Methods in Engineering with Python 3

IBM z15 (8561) Technical Guide

Through ten editions, Fox and McDonald's Introduction to Fluid Mechanics has helped students understand the physical concepts, basic principles, and analysis methods of fluid mechanics. This market-leading textbook provides a balanced, systematic approach to mastering critical concepts with the proven Fox-McDonald solution methodology. In-depth yet accessible chapters present governing equations, clearly state assumptions, and relate mathematical results to corresponding physical behavior. Emphasis is placed on the use of control volumes to support a practical, theoretically-inclusive problem-solving approach to the subject. Each comprehensive chapter includes numerous, easy-to-follow examples that illustrate good solution technique and explain challenging points. A broad range of carefully selected topics describe how to apply the governing equations to various problems, and explain physical concepts to enable students to model real-world fluid flow situations. Topics include flow measurement, dimensional analysis and similitude, flow in pipes, ducts, and open channels, fluid machinery, and more. To enhance student learning, the book incorporates numerous pedagogical features including chapter summaries and learning objectives, end-of-chapter problems, useful equations, and design and open-ended problems that encourage students to apply fluid mechanics principles to the design of devices and

systems.

This IBM® Redpaper publication introduces System Recovery Boost, which is a new function of the IBM z15TM system. System Recovery Boost delivers substantially faster system shutdown and restart, short duration recovery process boosts for sysplex events, and fast catch-up of an accumulated backlog of work after specific events (such as system restart).

Break down the misconceptions of the Internet of Things by examining the different security building blocks available in Intel Architecture (IA) based IoT platforms. This open access book reviews the threat pyramid, secure boot, chain of trust, and the SW stack leading up to defense-in-depth. The IoT presents unique challenges in implementing security and Intel has both CPU and Isolated Security Engine capabilities to simplify it. This book explores the challenges to secure these devices to make them immune to different threats originating from within and outside the network. The requirements and robustness rules to protect the assets vary greatly and there is no single blanket solution approach to implement security. Demystifying Internet of Things Security provides clarity to industry professionals and provides and overview of different security solutions What You'll Learn Secure devices, immunizing them against different threats originating from inside and outside the networkGather an overview of the different security building blocks available in Intel Architecture (IA) based IoT platformsUnderstand the threat pyramid, secure boot, chain of trust, and the software stack leading up to defense-in-depth Who This Book Is For Strategists, developers, architects, and managers in the embedded and Internet of Things (IoT) space trying to understand and implement the security in the IoT devices/platforms.

The theory of crossed products is extremely rich and intriguing. There are applications not only to operator algebras, but to subjects as varied as noncommutative geometry and mathematical physics. This book provides a detailed introduction to this vast subject suitable for graduate students and others whose research has contact with crossed product C^*-algebras. In addition to providing the basic definitions and results, the main focus of this book is the fine ideal structure of crossed products as revealed by the study of induced representations via the Green-Mackey-Rieffel machine. In particular, there is an in-depth analysis of the imprimitivity theorems on which Rieffel's theory of induced representations and Morita equivalence of C^*-algebras are based. There is also a detailed treatment of the generalized Effros-Hahn conjecture and its proof due to Gootman, Rosenberg, and Sauvageot. This book is meant to be self-contained and accessible to any graduate student coming out of a first course on operator algebras. There are appendices that deal with ancillary subjects, which while not central to the subject, are nevertheless crucial for a complete understanding of the material. Some of the appendices will be of independent interest. To view another book by this author, please visit Morita Equivalence and Continuous-Trace C^*-Algebras.

Basic Linear Design

Theory for Applications

Systems Engineering in Research and Industrial Practice

PC Mag

Design and Applications, Third Edition

The Independent Guide to IBM-standard Personal Computing

This textbook treats the broad range of modern acoustics from the basics of wave propagation in solids and fluids to applications such as noise control and cancellation, underwater acoustics, music and music synthesis, sonoluminescence, and medical diagnostics with ultrasound. The new edition is up-to-date and forward-looking in approach. Additional coverage of the opto-acoustics and sonoluminescence phenomena is included. New problems have been added throughout.

This IBM® Redbooks® publication describes the features and functions the latest member of the IBM Z® platform, the IBM z15TM Model T02 (machine type 8562). It includes information about the IBM z15 processor design, I/O innovations, security features, and supported operating systems. The z15 is a state-of-the-art data and transaction system that delivers advanced capabilities, which are vital to any digital transformation. The z15 is designed for enhanced modularity, which is in an industry standard footprint. This system excels at the following tasks: Making use of multicloud integration services Securing data with pervasive encryption Accelerating digital transformation with agile service delivery Transforming a transactional platform into a data powerhouse Getting more out of the platform with IT Operational Analytics Accelerating digital transformation with agile service delivery Revolutionizing business processes Blending open source and Z technologies This book explains how this system uses new innovations and traditional Z strengths to satisfy growing demand for cloud, analytics, and open source technologies. With the z15 as the base, applications can run in a trusted, reliable, and secure environment that improves operations and lessens business risk.

This book constitutes the refereed proceedings of the 13th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2016, held in Columbia, SC, USA, in July 2016. The 57 revised full papers presented were carefully reviewed and selected from 77 submissions. The papers are organized in the following topical sections: knowledge sharing, re-use and preservation; collaborative development architectures; interoperability and systems integration; lean product development and the role of PLM; PLM and innovation; PLM tools; cloud computing and PLM tools; traceability and performance; building information modeling; big data analytics and business intelligence; information lifecycle management; industry 4.0; metrics, standards and regulation; and product, service and systems.

*Uncover Effective Engineering Solutions to Practical Problems With its clear explanation of fundamental principles and emphasis on real world applications, this practical text will motivate readers to learn. The author connects theory and analysis to practical examples drawn from engineering practice. Readers get a better understanding of how they can apply these concepts to develop engineering answers to various problems. By using simple examples that illustrate basic principles and more complex examples representative of engineering applications throughout the text, the author also shows readers how fluid mechanics is relevant to the engineering field. These examples will help them develop problem-solving skills, gain physical insight into the material, learn how and when to use approximations and make assumptions, and understand when these approximations might break down. Key Features of the Text * The underlying physical concepts are highlighted rather than focusing on the mathematical equations. * Dimensional reasoning is emphasized as well as the interpretation of the results. * An introduction to engineering in the environment is included to spark reader interest. * Historical references throughout the chapters provide readers with the rich history of fluid mechanics.*

Problems

The Science and Applications of Acoustics

Challenges, Opportunities and Requirements

Crossed Products of C*-algebras

Design for Excellence in Electronics Manufacturing

A Photographer's Guide to Manipulating Focus

In questions of science, the authority of a thousand is not worth the humble reasoning of a single individual. Galileo Galilei, physicist and astronomer (1564-1642) This book is a second edition of "Classical Electromagnetic Theory" which derived from a set of lecture notes compiled over a number of years of teaching elect- magnetic theory to fourth year physics and electrical engineering students. These students had a previous exposure to electricity and magnetism, and the material from the ?rst four and a half chapters was presented as a review. I believe that the book makes a reasonable transition between the many excellent elementary books such as Gri?th's Introduction to Electrodynamics and the obviously graduate level books such as Jackson's Classical Electrodynamics or Landau and Lifshitz' Elect- dynamics of Continuous Media. If the students have had a previous exposure to Electromagnetictheory, allthematerialcanbereasonablycoveredintwosemesters. Neophytes should probable spend a semester on the ?rst four or ?ve chapters as well as, depending on their mathematical background, the Appendices B to F. For a shorter or more elementary course, the material on spherical waves, waveguides, and waves in anisotropic media may be omitted without loss of continuity.

The Indispensable Guide to Lightroom CCManaging, Editing, and Sharing Your PhotosRocky Nook, Inc.IBM z15 (8561) Technical GuideIBM Redbooks This unique book is a photographer's guide to the powerful medium of the environmental portrait. It explores in lucid detail the many "moving parts" of this imaging style, including the techniques and creative processes that drive some of this genre's finest contemporary practitioners. In Environmental Portraiture, author Jim Cornfield puts his readers behind the viewfinder to help them successfully master what he calls "the portrait photographer's most high-powered tool." In a series of detailed tutorial chapters and study models, Cornfield unpacks every practical aspect of the environmental portrait scenario, including research, location scouting, lighting interior and exterior environments, props and wardrobe, lens selection, composition, color, and after-capture. Along with this wealth of comprehensive nuts-and-bolts information, the book probes the deep structure of environmental portraiture—the blend of a sitter's backstory with the meaningful visual clues in their surroundings. He introduces such concepts as "portraitcraft," "cognitive weight," and "the ideas and emotions quotient," among the many dimensions of an environmental portrait that create eye-opening revelations about the person in front of your lens. A separate section of the book is devoted to a prestigious roster of contemporary environmental portraitists, specifically recruited for this book to explore in-depth selected samples from their diverse portfolios. They bring with them a score of insights, tips and fascinating anecdotes that demonstrate their individualized approaches to this versatile branch of the photographer's craft. Written for professionals, amateurs and serious students of photography, this book is both a guide and inspiration to creating powerful, communicative environmental portraiture.

This book showcases over 100 cutting-edge research papers from the 4th International Conference on Research into Design (ICoRD'13) – the largest in India in this area – written by eminent researchers from over 20 countries, on the design process, methods and tools, for supporting global product development (GPD). The special features of the book are the variety of insights into the GPD process, and the host of methods and tools at the cutting edge of all major areas of design research for its support. The main benefit of this book for researchers in engineering design and GPD are access to the latest quality research in this area; for practitioners and educators, it is exposure to an empirically validated suite of methods and tools that can be taught and practiced.

ICoRD'13

Industry 4.0 for SMEs

Mathematical Foundations for Data Analysis

The Soft Touch

Physics for Scientists & Engineers

Potential Failure Mode and Effects Analysis (FMEA)

Intuitive Probability and Random Processes using MATLAB® is an introduction to probability and random processes that merges theory with practice. Based on the author's belief that only "hands-on" experience with the material can promote intuitive understanding, the approach is to motivate the need for theory using MATLAB examples, followed by theory and analysis, and finally descriptions of "real-world" examples to acquaint the reader with a wide variety of applications. The latter is intended to answer the usual question "Why do we have to study this?" Other salient features are: *heavy reliance on computer simulation for illustration and student exercises *the incorporation of MATLAB programs and code segments *discussion of discrete random variables followed by continuous random variables to minimize confusion *summary sections at the beginning of each chapter *in-line equation explanations *warnings on common errors and pitfalls *over 750 problems designed to help the reader assimilate and extend the concepts Intuitive Probability and Random Processes using MATLAB® is intended for undergraduate and first-year graduate students in engineering. The practicing engineer as well as others having the appropriate mathematical background will also benefit from this book. About the Author Steven M. Kay is a Professor of Electrical Engineering at the University of Rhode Island and a leading expert in signal processing. He has received the Education Award "for outstanding contributions in education and in writing scholarly books and texts..." from the IEEE Signal Processing society and has been listed as among the 250 most cited researchers in the

world in engineering.

Combining concepts from topology and algorithms, this book delivers what its title promises: an introduction to the field of computational topology. Starting with motivating problems in both mathematics and computer science and building up from classic topics in geometric and algebraic topology, the third part of the text advances to persistent homology. This point of view is critically important in turning a mostly theoretical field of mathematics into one that is relevant to a multitude of disciplines in the sciences and engineering. The main approach is the discovery of topology through algorithms. The book is ideal for teaching a graduate or advanced undergraduate course in computational topology, as it develops all the background of both the mathematical and algorithmic aspects of the subject from first principles. Thus the text could serve equally well in a course taught in a mathematics department or computer science department.

An authoritative guide to optimizing design for manufacturability and reliability from a team of experts Design for Excellence in Electronics Manufacturing is a comprehensive, state-of-the-art book that covers design and reliability of electronics. The authors—noted experts on the topic—explain how using the DfX concepts of design for reliability, design for manufacturability, design for environment, design for testability, and more, reduce research and development costs and decrease time to market and allow companies to confidently issue warranty coverage. By employing the concepts outlined in Design for Excellence in Electronics Manufacturing, engineers and managers can increase customer satisfaction, market share, and long-term profits. In addition, the authors describe the best practices regarding product design and show how the practices can be adapted for different manufacturing processes, suppliers, use environments, and reliability expectations. This important book: Contains a comprehensive review of the design and reliability of electronics Covers a range of topics: establishing a reliability program, design for the use environment, design for manufacturability, and more Includes technical information on electronic packaging, discrete components, and assembly processes Shows how aspects of electronics can fail under different environmental stresses Written for reliability engineers, electronics engineers, design engineers, component engineers, and others, Design for Excellence in Electronics Manufacturing is a comprehensive book that reveals how to get product design right the first time.

PCMag.com is a leading authority on technology, delivering Labs-based, independent reviews of the latest products and services. Our expert industry analysis and practical solutions help you make better buying decisions and get more from technology.

The Gypsum Construction Handbook

Artificial Intelligence in Renewable Energetic Systems

Introducing IBM Z System Recovery Boost

An Introduction

Environmental Portraiture

13th IFIP WG 5.1 International Conference, PLM 2016, Columbia, SC, USA, July 11-13, 2016, Revised Selected Papers

An authorised reissue of the long out of print classic textbook, Advanced Calculus by the late Dr Lynn Loomis and Dr Shlomo Sternberg both of Harvard University has been a revered but hard to find textbook for the advanced calculus course for decades. This book is based on an honors course in advanced calculus that the authors gave in the 1960's. The foundational material, presented in the unstarred sections of Chapters 1 through 11, was normally covered, but different applications of this basic material were stressed from year to year, and the book therefore contains more material than was covered in any one year. It can accordingly be used (with omissions) as a text for a year's course in advanced calculus, or as a text for a three-semester introduction to analysis. The prerequisites are a good grounding in the calculus of one variable from a mathematically rigorous point of view, together with some acquaintance with linear algebra. The reader should be familiar with limit and continuity type arguments and have a certain amount of mathematical sophistication. As possible introductory texts, we mention Differential and Integral Calculus by R Courant, Calculus by T Apostol, Calculus by M Spivak, and Pure Mathematics by G Hardy. The reader should also have some experience with partial derivatives. In overall plan the book divides roughly into a first half which develops the calculus (principally the differential calculus) in the setting of normed vector spaces, and a second half which deals with the calculus of differentiable manifolds.

Reference Manual

Foundations of 3D Graphics Programming

Demystifying Internet of Things Security

The Hitchhiker's Guide to PCB Design

Computational Topology

Introduction to the Theory of Numbers