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Introduction to Aircraft Flight Mechanics Japanese Gardens Revealed and Explained PC Mag *Basic Electrical Engineering* **A Student's Manual for A First Course in General Relativity** *Signals and Systems in Biomedical Engineering* Gas Turbine Theory Problem Book for First Year Calculus **Marine Hydrodynamics, 40th anniversary edition Fundamentals of Fluid Lubrication** *Basic Engineering Mathematics An Introduction to Mathematical Modeling* **Peterson's Stress Concentration Factors** *The G Factor* **Air Trails Pictorial** BMW R850, R1100, R1150 and R1200C* 1993-2005 **A Beginner's Guide to Structural Equation Modeling** *Control System Design Mathematical Statistics with Mathematica* Nonlinear Dynamics and Chaos Kubernetes in Action Acoustic Emission **Heat Pumps Handbook of Structural Equation Modeling Handbook for the Accident Reconstructionist High Power Laser Propulsion** *Fatigue under Thermal and Mechanical Loading: Mechanisms, Mechanics and Modelling Computational Fluid Dynamics: Principles and Applications* **Philosophy and Computing Compound Control Methodology for Flight Vehicles** Python Geospatial Development Essentials **Industrial X-Ray Computed Tomography Frequent Pattern Mining The Quartz Crystal Microbalance in Soft Matter Research** Camel in Action Heresy and Citizenship **Web Components in Action Data Analysis & Decision Making with Microsoft Excel Stress Concentration Factors Activiti in Action**

Gas Turbine Theory Apr 27 2022 When the First Edition of this book was written in 1951, the gas turbine was just becoming established as a powerplant for military aircraft. It took another decade before the gas turbine was introduced to civil aircraft, and this market developed so rapidly that the passenger liner was rendered obsolete. Other markets like naval propulsion, pipeline compression and electrical power applications grew steadily. In recent years the gas turbine, in combination with the steam turbine, has played an ever-increasing role in power generation. Despite the rapid advances in both output and efficiency, the basic theory of the gas turbine has remained unchanged. The layout of this new edition is broadly similar to the original, but greatly expanded and updated, comprising an outline of the basic theory, aerodynamic design of individual components, and the prediction of off-design performance. The addition of a chapter devoted to the mechanical design of gas turbines greatly enhances the scope of the book. Descriptions of engine developments and current markets make this book useful to both students and practising engineers.

Basic Engineering Mathematics Dec 24 2021 Now in its seventh edition, Basic Engineering Mathematics is an established textbook that has helped thousands of students to succeed in their exams. Mathematical theories are explained in a straightforward manner, being supported by practical engineering examples and applications in order to ensure that readers can relate theory to practice. The extensive and thorough topic coverage makes this an ideal text for introductory level engineering courses. This title is supported by a companion website with resources for both students and lecturers, including lists of essential formulae, multiple choice tests, and full solutions for all 1,600 further questions.

Stress Concentration Factors Jul 27 2019 Good,No Highlights,No Markup,all pages are intact, Slight Shelfwear,may have the corners slightly dented, may have slight color changes/slightly damaged spine.

Camel in Action Nov 30 2019 Summary Camel in Action, Second Edition is the most complete Camel book on the market. Written by core developers of Camel and the authors of the highly acclaimed first edition, this book distills their experience and practical insights so that you can tackle integration tasks like a pro. Forewords by James Strachan and Dr. Mark Little Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Apache Camel is a Java framework that implements enterprise integration patterns (EIPs) and comes with over 200 adapters to third-party systems. A concise DSL lets you build integration logic into your app with just a few lines of Java or XML. By using Camel, you benefit from the testing and experience of a large and vibrant open source community. About the Book Camel in Action, Second Edition is the definitive guide to the Camel framework. It starts with core concepts like sending, receiving, routing, and transforming data. It then goes in depth on many topics such as how to develop, debug, test, deal with errors, secure, scale, cluster, deploy, and monitor your Camel applications. The book also discusses how to run Camel with microservices, reactive systems, containers, and in the cloud. What's Inside Coverage of all relevant EIPs Camel microservices with Spring Boot Camel on Docker and Kubernetes Error handling, testing, security, clustering, monitoring, and deployment Hundreds of examples in Java and XML About the Reader Readers

should be familiar with Java. This book is accessible to beginners and invaluable to experts. About the Author Claus Ibsen is a senior principal engineer working for Red Hat specializing in cloud and integration. He has worked on Apache Camel for the last nine years where he heads the project. Claus lives in Denmark. Jonathan Anstey is an engineering manager at Red Hat and a core Camel contributor. He lives in Newfoundland, Canada. Table of Contents Part 1 - First steps Meeting Camel Routing with Camel Part 2 - Core Camel Transforming data with Camel Using beans with Camel Enterprise integration patterns Using components Part 3 - Developing and testing Microservices Developing Camel projects Testing RESTful web services Part 4 - Going further with Camel Error handling Transactions and idempotency Parallel processing Securing Camel Part 5 - Running and managing Camel Running and deploying Camel Management and monitoring Part 6 - Out in the wild Clustering Microservices with Docker and Kubernetes Camel tooling Bonus online chapters Available at https://www.manning.com/books/camel-in-action-second-edition and in electronic versions of this book: Reactive Camel Camel and the IoT by Henryk Konsek

Marine Hydrodynamics, 40th anniversary edition Feb 23 2022 A textbook that offers a unified treatment of the applications of hydrodynamics to marine problems. The applications of hydrodynamics to naval architecture and marine engineering expanded dramatically in the 1960s and 1970s. This classic textbook, originally published in 1977, filled the need for a single volume on the applications of hydrodynamics to marine problems. The book is solidly based on fundamentals, but it also guides the student to an understanding of engineering applications through its consideration of realistic configurations. The book takes a balanced approach between theory and empirics, providing the necessary theoretical background for an intelligent evaluation and application of empirical procedures. It also serves as an introduction to more specialized research methods. It unifies the seemingly diverse problems of marine hydrodynamics by examining them not as separate problems but as related applications of the general field of hydrodynamics. The book evolved from a first-year graduate course in MIT's Department of Ocean Engineering. A knowledge of advanced calculus is assumed. Students will find a previous introductory course in fluid dynamics helpful, but the book presents the necessary fundamentals in a self-contained manner. The 40th anniversary of this pioneering book offers a foreword by John Grue. Contents Model Testing • The Motion of a Viscous Fluid • The Motion of an Ideal Fluid • Lifting Surfaces • Waves and Wave Effects • Hydrodynamics of Slender Bodies

An Introduction to Mathematical Modeling Nov 22 2021 Accessible text features over 100 reality-based examples pulled from the science, engineering, and operations research fields. Prerequisites: ordinary differential equations, continuous probability. Numerous references. Includes 27 black-and-white figures. 1978 edition.

Signals and Systems in Biomedical Engineering May 29 2022 In the past few years Biomedical Engineering has received a great deal of attention as one of the emerging technologies in the last decade and for years to come, as witnessed by the many books, conferences, and their proceedings. Media attention, due to the applications-oriented advances in Biomedical Engineering, has also increased. Much of the excitement

comes from the fact that technology is rapidly changing and new technological adventures become available and feasible every day. For many years the physical sciences contributed to medicine in the form of expertise in radiology and slow but steady contributions to other more diverse fields, such as computers in surgery and diagnosis, neurology, cardiology, vision and visual prosthesis, audition and hearing aids, artificial limbs, biomechanics, and biomaterials. The list goes on. It is therefore hard for a person unfamiliar with a subject to separate the substance from the hype. Many of the applications of Biomedical Engineering are rather complex and difficult to understand even by the not so novice in the field. Much of the hardware and software tools available are either too simplistic to be useful or too complicated to be understood and applied. In addition, the lack of a common language between engineers and computer scientists and their counterparts in the medical profession, sometimes becomes a barrier to progress.

Acoustic Emission Jan 13 2021 This monograph analyses in detail the physical aspects of the elastic waves radiation during deformation or fracture of materials. It presents the methodological bases for the practical use of acoustic emission device, and describes the results of theoretical and experimental researches of evaluation of the crack growth resistance of materials, selection of the useful AE signals. The efficiency of this methodology is shown through the diagnostics of various-purpose industrial objects. The authors obtain results of experimental researches with the help of the new methods and facilities.

Kubernetes in Action Feb 11 2021 Summary Kubernetes in Action is a comprehensive guide to effectively developing and running applications in a Kubernetes environment. Before diving into Kubernetes, the book gives an overview of container technologies like Docker, including how to build containers, so that even readers who haven't used these technologies before can get up and running. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Kubernetes is Greek for "helmsman," your guide through unknown waters. The Kubernetes container orchestration system safely manages the structure and flow of a distributed application, organizing containers and services for maximum efficiency. Kubernetes serves as an operating system for your clusters, eliminating the need to factor the underlying network and server infrastructure into your designs. About the Book Kubernetes in Action teaches you to use Kubernetes to deploy container-based distributed applications. You'll start with an overview of Docker and Kubernetes before building your first Kubernetes cluster. You'll gradually expand your initial application, adding features and deepening your knowledge of Kubernetes architecture and operation. As you navigate this comprehensive guide, you'll explore high-value topics like monitoring, tuning, and scaling. What's Inside Kubernetes' internals Deploying containers across a cluster Securing clusters Updating applications with zero downtime About the Reader Written for intermediate software developers with little or no familiarity with Docker or container orchestration systems. About the Author Marko Luksa is an engineer at Red Hat working on Kubernetes and OpenShift. Table of Contents PART 1 - OVERVIEW Introducing Kubernetes First steps with Docker and Kubernetes PART 2 - CORE CONCEPTS Pods: running containers in Kubernetes Replication and other controllers: deploying managed pods Services: enabling clients to discover and talk to pods Volumes: attaching disk storage to containers ConfigMaps and Secrets: configuring applications Accessing pod metadata and other resources from applications Deployments: updating applications declaratively StatefulSets: deploying replicated stateful applications PART 3 - BEYOND THE BASICS Understanding Kubernetes internals Securing the Kubernetes API server Securing cluster nodes and the network Managing pods' computational resources Automatic scaling of pods and cluster nodes Advanced scheduling Best practices for developing apps Extending Kubernetes

Handbook of Structural Equation Modeling Nov 10 2020 The first comprehensive structural equation modeling (SEM) handbook, this accessible volume offers broad and deep coverage of both the mechanics of SEM and specific SEM strategies and applications. The editor, contributors, and editorial advisory board are leading methodologists who have organized the book to move from simpler material to more statistically complex modeling approaches. Sections cover the foundations of SEM; statistical underpinnings, from assumptions to model modifications; steps in implementation, from data preparation through writing the SEM report; and basic and advanced applications, including new and emerging topics in SEM, such as intensive longitudinal assessments, dyadic data, brain imaging, and genotyping. Each chapter provides conceptually oriented descriptions, fully explicated analyses, and engaging examples that

reveal modeling possibilities for use with readers' data. Many of the chapters also include access to data and syntax files at the companion website, allowing readers to try their hands at reproducing the authors' results.

Mathematical Statistics with Mathematica Apr 15 2021 This book and software package presents a unified approach for doing mathematical statistics with Mathematica. The mathStatica software empowers users to easily solve difficult problems and tackle tricky multivariate distributions, generating functions, inversion theorems, symbolic maximum likelihood estimation, and unbiased estimation. An ideal companion for researchers and students in statistics, econometrics, engineering, physics, psychometrics, economics, finance, biometrics and the social sciences. The package includes 2 cross-platform CDs containing mathStatica: the Application Pack for mathematical statistics, an interactive version of the book, and a trial version of Mathematica 4.1.

A Student's Manual for A First Course in General Relativity Jun 29 2022 This comprehensive student manual has been designed to accompany the leading textbook by Bernard Schutz, A First Course in General Relativity, and uses detailed solutions, cross-referenced to several introductory and more advanced textbooks, to enable self-learners, undergraduates and postgraduates to master general relativity through problem solving. The perfect accompaniment to Schutz's textbook, this manual guides the reader step-by-step through over 200 exercises, with clear easy-to-follow derivations. It provides detailed solutions to almost half of Schutz's exercises, and includes 125 brand new supplementary problems that address the subtle points of each chapter. It includes a comprehensive index and collects useful mathematical results, such as transformation matrices and Christoffel symbols for commonly studied spacetimes, in an appendix. Supported by an online table categorising exercises, a Maple worksheet and an instructors' manual, this text provides an invaluable resource for all students and instructors using Schutz's textbook.

A Beginner's Guide to Structural Equation Modeling Jun 17 2021 The second edition features: a CD with all of the book's Amos, EQS, and LISREL programs and data sets; new chapters on importing data issues related to data editing and on how to report research; an updated introduction to matrix notation and programs that illustrate how to compute these calculations; many more computer program examples and chapter exercises; and increased coverage of factors that affect correlation, the 4-step approach to SEM and hypothesis testing, significance, power, and sample size issues. The new edition's expanded use of applications make this book ideal for advanced students and researchers in psychology, education, business, health care, political science, sociology, and biology. A basic understanding of correlation is assumed and an understanding of the matrices used in SEM models is encouraged.

BMW R850, R1100, R1150 and R1200C* 1993-2005 Jul 19 2021 R850R 1996-1998 (U.S.) and 1995-2001 (U.K.); R850C 2000-2001 (U.K.); R850GS 2000-2001 (U.K.); R1100GS 1995-1999 (U.S.) and 1994-2000 (U.K.); R1100R 1995-2001 (U.S. and U.K.); R1100RS 1993-2001 (U.S.) and 1993-2002 (U.K.); R1100RT 1996-2001 (U.S.) and 1995

Introduction to Aircraft Flight Mechanics Nov 03 2022 Suitable for use in undergraduate aeronautical engineering curricula, this title is written for those first encountering the topic by clearly explaining the concepts and derivations of equations involved in aircraft flight mechanics. It also features insights about the A-10 based upon the author's career experience with this aircraft.

Heat Pumps Dec 12 2020 The text describes the main features of currently available heat pumps, focusing on system operation and interactions with external heat sources. In fact, before choosing a heat pump, several aspects must be assessed in detail: the actual climate of the installation site, the building's energy requirements, the heating system, the type of operation etc. After discussing the general working principles, the book describes the main components of compression machines – for EHPs, GHPs and CO_2 heat pumps. It then addresses absorption heat pumps and provides additional details on the behavior of two-fluid mixtures. The book presents a performance comparison for the different types, helping designers choose the right one for their needs, and discusses the main refrigerants. Notes on helpful additional literature, websites and videos, also concerning relevant European regulations, round out the coverage. This book will be of interest to all engineers and technicians whose work involves heat pumps. It will also benefit students in energy engineering degree programs who want to deepen their understanding of heat pumps.

Peterson's Stress Concentration Factors Oct 22 2021 The bible of stress concentration factors—updated to reflect today's advances in stress analysis This book establishes and maintains a system of data classification for all the applications of stress and strain analysis, and expedites their synthesis into CAD applications. Filled with all of the latest developments in stress and strain analysis, this Fourth Edition presents stress concentration factors both graphically and with formulas, and the illustrated index allows readers to identify structures and shapes of interest based on the geometry and loading of the location of a stress concentration factor. Peterson's Stress Concentration Factors, Fourth Edition includes a thorough introduction of the theory and methods for static and fatigue design, quantification of stress and strain, research on stress concentration factors for weld joints and composite materials, and a new introduction to the systematic stress analysis approach using Finite Element Analysis (FEA). From notches and grooves to shoulder fillets and holes, readers will learn everything they need to know about stress concentration in one single volume. Peterson's is the practitioner's go-to stress concentration factors reference Includes completely revised introductory chapters on fundamentals of stress analysis; miscellaneous design elements; finite element analysis (FEA) for stress analysis Features new research on stress concentration factors related to weld joints and composite materials Takes a deep dive into the theory and methods for material characterization, quantification and analysis methods of stress and strain, and static and fatigue design Peterson's Stress Concentration Factors is an excellent book for all mechanical, civil, and structural engineers, and for all engineering students and researchers.

Fatigue under Thermal and Mechanical Loading: Mechanisms, Mechanics and Modelling Aug 08 2020 The International Symposium "Fatigue under Thermal and Mechanical Loading", held at Petten (The Netherlands) on May 22-24, 1995, was jointly organized by the Institute for Advanced Materials of The Joint Research Centre, E. C. , and by the Societe Fran~se de Metallurgie et de Materiaux. The fast heating and cooling cycles experienced by many high temperature components cause thermally induced stresses, which often operate in combination with mechanical loads. The resulting thermal / mechanical fatigue cycle leads to material degradation mechanisms and failure modes typical of service cycles. The growing awareness that the synergism between the combined thermal and mechanical loads can not be reproduced by means of isothermal tests, has resulted in an increasing interest in thermal and thermo-mechanical fatigue testing. This trend has been reinforced by the constant pull by industry for more performant, yet safer high temperature systems, pushing the materials to the limit of their properties. Dedicated ASTM meetings in particular have set the scene for this area of research. The proceedings of the symposium organized by D. A. Spera and D. F. Mowbray in 1975 provided a reference book on thermal fatigue which reflects the knowledge and experimental capabilities of the mid-seventies.

Basic Electrical Engineering Jul 31 2022 For close to 30 years, 「Basic Electrical Engineering」 has been the go-to text for students of Electrical Engineering. Emphasis on concepts and clear mathematical derivations, simple language coupled with systematic development of the subject aided by illustrations makes this text a fundamental read on the subject. Divided into 17 chapters, the book covers all the major topics such as DC Circuits, Units of Work, Power and Energy, Magnetic Circuits, fundamentals of AC Circuits and Electrical Instruments and Electrical Measurements in a straightforward manner for students to understand.

Japanese Gardens Revealed and Explained Oct 02 2022 Japanese Gardens - Revealed and Explained is comprehensive and thorough in its coverage of the subject of Japanese gardens and provides the reader with a journey through their history, meaning and eye catching beauty. All aspects of Japanese gardens and gardening are covered from design to ingredients and it even covers subjects like pruning techniques as well as numerous suggestions of what to plant in a Japanese garden courtesy of Master gardener L.H. Bailey. Discover Zen gardens (sometimes known as Japanese Rock gardens) and the deliberate ease of their appearance on the eye,meaning and design.This book is suitable for beginners right the way through to more experienced enthusiasts of Japanese gardens. Lovingly put together by the author and editor Russ Chard - a Japanese garden enthusiast and writer for over 10 years.Weblinks are included to Youtube videos to see how the author built a small space Japanese Zen garden at his home. This book is not plumped up with photographs, just 70 pages of pure Japanese garden information. The subject is complicated but Japanese gardens - Revealed and Explained is in plain English and simplified and explained for ease of learning. Anyone with ambitions to create and build a Japanese garden or Zen garden would find this book

a very useful companion to their dream and plans through to the finished garden.

Python Geospatial Development Essentials Apr 03 2020 This book provides you with the resources to successfully develop your own GIS application in Python. The book begins by walking you through the loading and saving of data structures before you start to build the look and feel of your application and create its interactive map window. You'll then move on to managing, editing, and analyzing spatial data from within the application and finish with instructions for packaging the application for distribution. By the end of the book, you should be able to use your GIS application as a template for further development, with the potential to expand and customize it to suit your needs.

Web Components in Action Sep 28 2019 Summary Web Components are a standardized way to build reusable custom elements for web pages and applications using HTML, CSS, and JavaScript. A Web Component is well-encapsulated, keeping its internal structure separate from other page elements so they don't collide with the rest of your code. In Web Components in Action you'll learn to design, build, and deploy reusable Web Components from scratch. Foreword by Gray Norton. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology The right UI can set your sites and web applications apart from the ordinary. Using the Web Components API, you can build Custom Elements and then add them to your pages with just a simple HTML tag. This standards-based design approach gives you complete control over the style and behavior of your components and makes them radically easier to build, share, and reuse between projects. About the Book Web Components in Action teaches you to build and use Web Components from the ground up. You'll start with simple components and component-based applications, using JavaScript, HTML, and CSS. Then, you'll customize them and apply best design practices to maximize reusability. Through hands-on projects, you'll learn to build production-ready Web Components for any project, including color pickers, advanced applications using 3D models, mixed reality, and machine learning. What's inside Creating reusable Custom Elements without a framework Using the Shadow DOM for ultimate component encapsulation Leveraging newer JS features to organize and reuse code Fallback strategies for using Web Components on older browsers About the Reader Written for web developers experienced with HTML, CSS, and JavaScript. About the Author Ben Farrell is a Senior Experience Developer at Adobe working on the Adobe Design Prototyping Team. Table of Contents PART 1 - FIRST STEPS The framework without a framework Your first Web Component Making your component reuseable The component lifecycle Instrumenting a better web app through modules PART 2 - WAYS TO IMPROVE YOUR COMPONENT WORKFLOW Markup Managed Templating your content with HTML The Shadow DOM Shadow CSS Shadow CSS rough edges PART 3 - PUTTING YOUR COMPONENTS TOGETHER A real-world UI component Building and supporting older browsers Component testing Events and application data flow Hiding your complexities

Control System Design May 17 2021 Introduction to state-space methods covers feedback control; state-space representation of dynamic systems and dynamics of linear systems; frequency-domain analysis; controllability and observability; shaping the dynamic response; more. 1986 edition.

PC Mag Sep 01 2022 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.

Heresy and Citizenship Oct 29 2019 Heresy and Citizenship examines the anti-heretical campaigns in late-medieval Augsburg, Rothenburg ob der Tauber, Strasbourg, and other cities. By focusing on the unprecedented period of persecution between 1390 and 1404, this study demonstrates how heretical presence in cities was exploited in ecclesiastical, political, and social conflicts between the cities and their external rivals, and between urban elites. These anti-heretical campaigns targeted Waldensians who believed in lay preaching and simplified forms of Christian worship. Groups of individuals identified as Waldensians underwent public penance, execution, or expulsion. In each case, the course and outcome of inquisitions reveal tensions between institutions within each city, most often between city councils and local bishops or archbishops. In such cases, competing sides used the persecution of heresy to assert their authority over others. As a result, persecution of urban Waldensians acquired meaning beyond mere correction of religious error. By placing the anti-heretical campaigns of this period in their socio-political and religious context, Heresy and Citizenship also engages with studies of social and political conflict in

late medieval towns. It examines the role the exclusion of religiously and socially deviant groups played in the development of urban governments, and the rise of ideologies of good citizenship and the common good. It will be of interest to scholars and students interested in medieval urban and religious history, and the history of heresy and its persecution.

Activiti in Action Jun 25 2019 Summary Activiti in Action is a comprehensive tutorial designed to introduce developers to the world of business process modeling using Activiti. Before diving into the nuts and bolts of Activiti, this book presents a solid introduction to BPMN 2.0 from a developer's perspective. About the Technology Activiti streamlines the implemention of your business processes: with Activiti Designer you draw your business process using BPMN. Its XML output goes to the Activiti Engine which then creates the web forms and performs the communications that implement your process. It's as simple as that. Activiti is lightweight, integrates seamlessly with standard frameworks, and includes easy-to-use design and management tools. About the Book Activiti in Action introduces developers to business process modeling with Activiti. You'll start by exploring BPMN 2.0 from a developer's perspective. Then, you'll quickly move to examples that show you how to implement processes with Activiti. You'll dive into key areas of process modeling, including workflow, ESB usage, process monitoring, event handling, business rule engines, and document management integration. Written for business application developers. Familiarity with Java and BPMN is helpful but not required. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Activiti from the ground up Dozens of real-world examples Integrate with standard Java tooling Table of Contents PART 1 INTRODUCING BPMN 2.0 AND ACTIVITI Introducing the Activiti framework BPMN 2.0: what's in it for developers? Introducing the Activiti tool stack Working with the Activiti process engine PART 2 IMPLEMENTING BPMN 2.0 PROCESSES WITH ACTIVITI Implementing a BPMN 2.0 process Applying advanced BPMN 2.0 and extensions Dealing with error handling Deploying and configuring the Activiti Engine Exploring additional Activiti modules PART 3 ENHANCING BPMN 2.0 PROCESSES Implementing advanced workflow Integrating services with a BPMN 2.0 process Ruling the business rule engine Document management using Alfresco Business monitoring and Activiti PART 4 MANAGING BPMN 2.0 PROCESSES? Managing the Activiti Engine

Philosophy and Computing Jun 05 2020 Philosophy and Computing explores each of the following areas of technology: the digital revolution; the computer; the Internet and the Web; CD-ROMs and Mulitmedia; databases, textbases, and hypertexts; Artificial Intelligence; the future of computing. Luciano Floridi shows us how the relationship between philosophy and computing provokes a wide range of philosophical questions: is there a philosophy of information? What can be achieved by a classic computer? How can we define complexity? What are the limits of quantam computers? Is the Internet an intellectual space or a polluted environment? What is the paradox in the Strong Artificial Intlligence program? Philosophy and Computing is essential reading for anyone wishing to fully understand both the development and history of information and communication technology as well as the philosophical issues it ultimately raises.

The Quartz Crystal Microbalance in Soft Matter Research Jan 01 2020 This book describes the physics of the second-generation quartz crystal microbalance (QCM), a fundamental method of analysis for soft matter at interfaces. From a device for measuring film thickness in vacuum, the quartz crystal microbalance (QCM) has in the past two decades evolved into a versatile instrument for analyzing soft matter at solid/liquid and solid/gas interfaces that found applications in diverse fields including the life sciences, material science, polymer research and electrochemistry. As a consequence of this success, the QCM is now being used by scientists with a wide variety of backgrounds to study an impressive diversity of samples, with intricate data analysis methods being elaborated along the way. It is for these practitioners of the QCM that the book is written. It brings across basic principles behind the technique and the data analysis methods in sufficient detail to be educational and in a format that is accessible to anyone with an undergraduate level knowledge of any of the physical or natural sciences. These principles concern the analysis of acoustic shear waves and build on a number of fundamental physical concepts which many users of the technique do not usually come across. They have counterparts in optical spectroscopy, electrical engineering, quantum mechanics, rheology and mechanics, making this book a useful educational resource beyond the QCM itself. The main focus is the physics of QCM, but as the book describes the behavior of the QCM when exposed to films, droplets, polymer brushes, particles, vesicles, nanobubbles and stick-slip, it also offers insight into the behavior of soft matter at interfaces in a more general sense.

Handbook for the Accident Reconstructionist Oct 10 2020

Compound Control Methodology for Flight Vehicles May 05 2020 "Compound Control Methodology for Flight Vehicles" focuses on new control methods for flight vehicles. In this monograph, the concept of compound control is introduced. It is demonstrated that both Sliding Mode Control (SMC) and Active Disturbance Rejection Control (ADRC) have their own advantages and limitations, i.e., chattering of SMC and the observability of extended state observer (ESO), respectively. It is shown that compound control combines their advantages and improves the performance of the closed-loop systems. The book is self-contained, providing sufficient mathematical foundations for understanding the contents of each chapter. It will be of significant interest to scientists and engineers engaged in the field of flight vehicle control.

Industrial X-Ray Computed Tomography Mar 03 2020 X-ray computed tomography has been used for several decades as a tool for measuring the three-dimensional geometry of the internal organs in medicine. However, in recent years, we have seen a move in manufacturing industries for the use of X-ray computed tomography; first to give qualitative information about the internal geometry and defects in a component, and more recently, as a fully-quantitative technique for dimensional and materials analysis. This trend is primarily due to the ability of X-ray computed tomography to give a high-density and multi-scale representation of both the external and internal geometry of a component, in a non-destructive, non-contact and relatively fast way. But, due to the complexity of X-ray computed tomography, there are remaining metrological issues to solve and the specification standards are still under development. This book will act as a one-stop-shop resource for students and users of X-ray computed tomography in both academia and industry. It presents the fundamental principles of the technique, detailed descriptions of the various components (hardware and software), current developments in calibration and performance verification and a wealth of example applications. The book will also highlight where there is still work to do, in the perspective that X-ray computed tomography will be an essential part of Industry 4.0.

The G Factor Sep 20 2021 The g factor--general mental ability--is the major construct for understanding both individual differences and the average differences between groups (race and sex) in educational and occupational attainment. It is also germane to social issues of national importance. Jensen fully and clearly explains the psychometric, statistical, genetic, and physiological basis of g, as well as the major theoretical challenges to the concept. For decades a key construct in differential psychology, the g factor's significance for the brain sciences as well as for education, sociology, anthropology, evolutionary psychology, economics, and public policy is clearly evident in this, the most comprehensive treatment of g available.

Frequent Pattern Mining Jan 31 2020 This comprehensive reference consists of 18 chapters from prominent researchers in the field. Each chapter is self-contained, and synthesizes one aspect of frequent pattern mining. An emphasis is placed on simplifying the content, so that students and practitioners can benefit from the book. Each chapter contains a survey describing key research on the topic, a case study and future directions. Key topics include: Pattern Growth Methods, Frequent Pattern Mining in Data Streams, Mining Graph Patterns, Big Data Frequent Pattern Mining, Algorithms for Data Clustering and more. Advanced-level students in computer science, researchers and practitioners from industry will find this book an invaluable reference.

Data Analysis & Decision Making with Microsoft Excel Aug 27 2019 Master data analysis, modeling, and spreadsheet use with DATA ANALYSIS AND DECISION MAKING WITH MICROSOFT EXCEL! With a teach-by-example approach, student-friendly writing style, and complete Excel integration, this quantitative methods text provides you with the tools you need to succeed. Margin notes, boxed-in definitions and formulas in the text, enhanced explanations in the text itself, and stated objectives for the examples found throughout the text make studying easy. Problem sets and cases provide realistic examples that enable you to see the relevance of the material to your future as a business leader. The CD-ROMs packaged with every new book include the following add-ins: the Palisade Decision Tools Suite (@RISK, StatTools, PrecisionTree, TopRank, and RISKOptimizer); and SolverTable, which allows you to do sensitivity analysis. All of these add-ins have been revised for Excel 2007.

Problem Book for First Year Calculus Mar 27 2022

Air Trails Pictorial Aug 20 2021

Fundamentals of Fluid Lubrication Jan 25 2022

<u>Nonlinear Dynamics and Chaos</u> Mar 15 2021 This textbook is aimed at newcomers to nonlinear dynamics and chaos, especially students taking a first course in the subject. The presentation stresses analytical methods, concrete examples, and geometric intuition. The theory is developed systematically, starting with first-order differential equations and their bifurcations, followed by phase plane analysis, limit cycles and their bifurcations, and culminating with the Lorenz equations, chaos, iterated maps, period doubling, renormalization, fractals, and strange attractors.

Computational Fluid Dynamics: Principles and Applications Jul 07 2020 Computational Fluid Dynamics (CFD) is an important design tool in engineering and also a substantial research tool in various physical sciences as well as in biology. The objective of this book is to provide university students with a solid foundation for understanding the numerical methods employed in today's CFD and to familiarise them with modern CFD codes by hands-on experience. It is also intended for engineers and scientists starting to work in the field of CFD or for those who apply CFD codes. Due to the detailed index, the text can serve as a reference handbook too. Each chapter includes an extensive bibliography, which provides an excellent basis for further studies.

High Power Laser Propulsion Sep 08 2020 This book gives an in-depth analysis of the physical phenomena of thrust production by laser radiation, as well as laser propulsion engines, and laser-propelled vehicles. It brings together into a unified context accumulated up-to-date information on laser propulsion research, considering propulsion phenomena, laser propulsion techniques, design of vehicles with laser propulsion engines, and high-power laser systems to provide movement for space vehicles. In particular, the reader will find detailed coverage of: designs of laser propulsion engines, operating as both air-breathing and ramjet engines to launch vehicles into LEOs; Assembly of vehicles whereby laser power from a remote laser is collected and directed into a propulsion engine; and, the laser-adaptive systems that control a laser beam to propel vehicles into orbits by delivering laser power through the Earth's atmosphere. This book is essential reading for researchers and professionals involved in laser propulsion.