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Thermodynamics 2006

cd rom contains engineering equation solver limited academic version with homework problems interactive thermodynamics tutorial

Thermodynamics 1998

this text aims to present the key topics in thermodynamics in an accessible manner using a physical intuitive approach rather than a highly mathematical one over 1000 illustrations are used to illustrate the topics and the worked examples are also illustrated with sketches and process diagrams

Thermodynamics: An Engineering Approach 2014-01-07

thermodynamics an engineering approach eighth edition covers the basic principles of thermodynamics while presenting a wealth of real world engineering examples so students get a feel for how thermodynamics is applied in engineering practice this text helps students develop an intuitive understanding by emphasizing the physics and physical arguments cengel and boles explore the various facets of thermodynamics through careful explanations of concepts and use of numerous practical examples and figures having students develop necessary skills to bridge the gap between knowledge and the confidence to properly apply their knowledge mcgraw hill is proud to offer connect with the eighth edition of cengel boles thermodynamics an engineering approach connect is the only integrated learning system that empowers students by continuously adapting to deliver precisely what they need when they need it how they need it so that your class time is more engaging and effective problems are graded automatically and the results are recorded immediately track individual student performance by question assignment or in relation to the class overall with detailed grade reports

Thermodynamic Approaches in Engineering Systems 2016-05-20

thermodynamic approaches in engineering systems responds to the need for a synthesizing volume that throws light upon the extensive field of thermodynamics from a chemical engineering perspective that applies basic ideas and key results from the field to chemical engineering problems this book outlines and interprets the most valuable achievements in applied non equilibrium thermodynamics obtained within the recent fifty years it synthesizes nontrivial achievements of thermodynamics in important branches of chemical and biochemical engineering readers will gain an update on what has been achieved what new research problems could be stated and what kind of further studies should be developed within specialized research presents clearly structured chapters beginning with an introduction elaboration of the process and results summarized in a conclusion written by a first class expert in the field of advanced methods in thermodynamics provides a synthesis of recent thermodynamic developments in practical systems presents very elaborate literature discussions from the past fifty years

Thermodynamics 2014-08

thermodynamics an engineering approach eighth edition covers the basic principles of thermodynamics while presenting a wealth of real world engineering examples so students get a feel for how thermodynamics is applied in engineering practice this text helps students develop an intuitive understanding by emphasizing the physics and physical arguments cengel and boles explore the various facets of thermodynamics through careful explanations of concepts and use of numerous practical examples and figures having students develop necessary skills to bridge the gap between knowledge and the confidence to properly apply their knowledge mcgraw hill is proud to offer connect with the eighth edition of cengel boles thermodynamics an engineering approach this innovative and powerful new system helps your students learn more efficiently and gives you the ability to assign homework problems simply and easily problems are graded automatically and the results are recorded immediately track individual student performance bt question assignment or in realtion to the class overall with detailed grade reports connectplus provides students with all the advantages of connect plus 24 7 access to an ebook cengel s thermodynamics eighth edition includes the power of mcgraw hill s learnsmart a proven adaptive learning system that helps students learn faster study more efficiently and retain more knowledge through a series of adaptive questions this innovative study tool pinpoints concepts the student does not understand and maps out a personalized plan for success

Inelasticity of Materials 2009-07-09

with the advent of a host of new materials ranging from shape memory alloys to biomaterials to multiphase alloys acquiring the capacity to model inelastic behavior and to choose the right model in a commercial analysis software has become a pressing need for practicing engineers even with the traditional materials there is a continued emphasis on optimizing and extending their full range of capability in the applications this textbook builds upon the existing knowledge of elasticity and thermodynamics and allows the reader to gain confidence in extending one s skills in understanding and analyzing problems in inelasticity by reading this textbook and working through the assigned exercises the reader will gain a level of comfort and competence in developing and using inelasticity models thus the book serves as a valuable book for practicing engineers and senior level undergraduate graduate level students in the mechanical civil aeronautical metallurgical and other disciplines the book is written in three parts part 1 is primarily focused on lumped parameter models and simple structural elements such as trusses and beams this is suitable for an advanced undergraduate class with just a strength of materials background part ii is focused on small deformation multi dimensional inelasticity and is suitable for a beginning graduate class sufficient material is included on how to numerically implement an inelastic model and solve either using a simple stress function type of approach or using commercial software case studies are included as examples there is also an extensive discussion of thermodynamics in the context of small deformations part iii focuses on more advanced situations such as finite deformation inelasticity thermodynamical ideas and crystal plasticity more advanced case studies are included in this part this textbook takes a new task or scenario based approach to teaching and learning inelasticity the book is written in an active learning style that appeals to engineers and students who wish to design or analyze structures and components that are subject to inelasticity the book incorporates thermodynamical considerations into the modeling right from an early stage extensive discussions are provided throughout the book on the thermodynamical underpinnings of the models this textbook is the first to make extensive use of matlab to implement many inelasticity models it includes the use of concepts such as airy

stress functions to solve plane problems for inelastic materials the matlab codes are listed in the appendix for one to modify with their own models and requirements step by step procedures for formulations and calculations are provided for the reader to readily adapt to the inelastic problems that he or she attempts to solve a large number of problems exercises and projects for one to teach or learn from are included these can be assigned as homework in class exercises or projects the book is written in a modular fashion which provides adequate flexibility for adaptation in classes that cater to different audiences such as senior level students graduate students research scholars and practicing engineers

A System Engineering Approach to Imaging 1998

this textbook addresses imaging from the system engineering point of view examining advantages and disadvantages of imaging in various spectral regions focuses on imaging principles and system concepts rather than devices intended as a senior year undergraduate or graduate level engineering textbook a solution manual is included

Composite Materials 2017-03-15

composite materials concurrent engineering approach covers different aspects of concurrent engineering approaches in the development of composite products it is an equally valuable reference for teachers students and industry sectors including information and knowledge on concurrent engineering for composites that are gathered together in one comprehensive resource contains information that is specially designed for concurrent engineering studies includes new topics on conceptual design in the context of concurrent engineering for composite materials selection in the context of concurrent engineering for composites written by an expert in both areas concurrent engineering and composites provides information on green composites

Operationalising e-Democracy through a System Engineering Approach in Mauritius and Australia 2020-01-07

this book describes how the systems engineering se methodology can be used to harness technology and enhance democracy within any political system moreover it provides a practical roadmap for countries and politicians who are willing to change their existing system of governance to one that allows the people to have a meaningful say in this regard the book compares and contrasts two countries mauritius and australia highlighting how se and e democracy can be implemented in different contexts

An Integrated Approach to Software Engineering 1997

this textbook provides an introduction to software engineering for undergraduate students of computer science its emphasis is on a case study approach in which a project is developed through the course of the book illustrating the different activities of software development the sequence of chapters is essentially the same as the sequence of activities performed during a typical software project all activities including quality assurance and control activities are described in each chapter as integral activities for that phase of the development process similarly the author carefully introduces appropriate metrics for controlling and assessing the software process this book is intended for students who have had no previous training in software engineering and is suitable for a one semester course in this new edition two trends are clearly highlighted software processes and object orientation from reviews of the first edition i can recommend this book for classroom adoption or individual study computing reviews overall the book is very readable and exceptionally well organized exposes the reader to many current sophistictaed formal and quantitative methods american scientist

Advanced Petroleum Reservoir Simulation 2016-08-11

this second edition of the original volume adds significant new innovations for revolutionizing the processes and methods used in petroleum reservoir simulations with the advent of shale drilling hydraulic fracturing and underbalanced drilling has come a virtual renaissance of scientific methodologies in the oil and gas industry new ways of thinking are being pioneered and dr islam and his team have for years now been at the forefront of these important changes this book clarifies the underlying mathematics and physics behind reservoir simulation and makes it easy to have a range of simulation results along with their respective probability this makes the risk analysis based on knowledge rather than guess work the book offers by far the strongest tool for engineers and managers to back up reservoir simulation predictions with real science the book adds transparency and ease to the process of reservoir simulation in way never witnessed before finally no other book provides readers complete access to the 3d 3 phase reservoir simulation software that is available with this text a must have for any reservoir engineer or petroleum engineer working upstream whether in exploration drilling or production this text is also a valuable textbook for advanced students and graduate students in petroleum or chemical engineering departments

Web Engineering: Modelling and Implementing Web Applications 2007-11-20

engineering modelling and implementing applications presents the state of the art approaches for obtaining a correct and complete software product from conceptual schemas represented via well known design notations describing mature and consolidated approaches to developing complex applications this edited volume is divided into three parts and covers the challenges web application developers face design issues for web applications and how to measure and evaluate web applications in a consistent way with contributions from leading researchers in the field this book will appeal to researchers and students as well as to software engineers software architects and business analysts

Mechatronics in Medicine A Biomedical Engineering Approach 2011-11-04

cutting edge coverage of mechatronics in medical systems mechatronics in medicine a biomedical engineering approach describes novel solutions for utilizing mechatronics to design innovative accurate and intelligent medical devices and optimize conventional medical instruments after an introduction to mechatronics the book addresses sensing technologies actuators and feedback sensors mechanisms and

mechanical devices and processing and control systems artificial intelligence expert systems and medical imaging are also covered this pioneering guide concludes by discussing applications of mechatronics in medicine and biomedical engineering and presenting seven real world medical case studies in depth details on sensing technology electromechanical fluid pneumatic power and other types of actuators feedback sensors mechanisms mechanical devices and their functions principles and methods of processing and controlling mechatronics systems artificial intelligence expert systems artificial neural networks fuzzy systems and neuro fuzzy systems medical imaging including ultrasound mri ct scan and nuclear imaging medical case studies in mechatronics

Nano-Engineering of High Strength Steels 2024-01-03

this book offers new insights into the process of adjusting nanostructures in high strength steels to achieve enhanced mechanical properties it summarizes the state of the art nanoengineering approaches such as precipitation engineering interface engineering and short range ordering engineering the book explores the nanostructure process property relationships in various high strength steels including trip twip mbip in high mn steels hmns medium mn steels mmns bearing steels tool steels and more the author investigates a novel approach to control the phase transformation process during deformation and or thermal treatment in steels employing both experimental and theoretical tools

Mathematical Approaches to Software Quality 2006-08-27

this book provides a comprehensive introduction to various mathematical approaches to achieving high quality software an introduction to mathematics that is essential for sound software engineering is provided as well as a discussion of various mathematical methods that are used both in academia and industry the mathematical approaches considered include z specification language vienna development methods vdm irish school of vdm vdm approach of dijkstra and hoare classical engineering approach of parnas cleanroom approach developed at ibm software reliability and unified modelling language uml additionally technology transfer of the mathematical methods to industry is considered the book explains the main features of these approaches and applies mathematical methods to solve practical problems written with both student and professional in mind this book assists the reader in applying mathematical methods to solve practical problems that are relevant to software engineers

Thermodynamics 2002

the 4th edition of cengel boles thermodynamics an engineering approach takes thermodynamics education to the next level through its intuitive and innovative approach a long time favorite among students and instructors alike because of its highly engaging student oriented conversational writing style this book is now the to most widely adopted thermodynamics text in theu s and in the world

Engineering Information Security 2015-12-01

engineering information security covers all aspects of information security using a systematic engineering approach and focuses on the viewpoint of how to control access to information includes a discussion about protecting storage of private keys scada cloud sensor and ad hoc networks covers internal operations security processes of monitors review exceptions and plan remediation over 15 new sections instructor resources such as lecture slides assignments quizzes and a set of questions organized as a final exam if you are an instructor and adopted this book for your course please email ieeeproposals wiley com to get access to the additional instructor materials for this book

Software Engineering in the Era of Cloud Computing 2020-01-01

this book focuses on the development and implementation of cloud based complex software that allows parallelism fast processing and real time connectivity software engineering se is the design development testing and implementation of software applications and this discipline is as well developed as the practice is well established whereas the cloud software engineering cse is the design development testing and continuous delivery of service oriented software systems and applications software as a service paradigm however with the emergence of the highly attractive cloud computing cc paradigm the tools and techniques for se are changing cc provides the latest software development environments and the necessary platforms relatively easily and inexpensively it also allows the provision of software applications equally easily and on a pay as you go basis business requirements for the use of software are also changing and there is a need for applications in big data analytics parallel computing ai natural language processing and biometrics etc these require huge amounts of computing power and sophisticated data management mechanisms as well as device connectivity for internet of things iot environments in terms of hardware software communication and storage cc is highly attractive for developing complex software that is rapidly becoming essential for all sectors of life including commerce health education and transportation the book fills a gap in the se literature by providing scientific contributions from researchers and practitioners focusing on frameworks methodologies applications benefits and inherent challenges barriers to engineering software using the cc paradigm

Risk Analysis in Engineering 2016-04-27

based on the author s 20 years of teaching risk analysis in engineering techniques tools and trends presents an engineering approach to probabilistic risk analysis pra it emphasizes methods for comprehensive pra studies including techniques for risk management the author assumes little or no prior knowledge of risk analysis on the p

Reconstruction of Software Component Architectures and Behaviour Models Using

Static and Dynamic Analysis 2014-07-30

model based performance prediction systematically deals with the evaluation of software performance to avoid for example bottlenecks estimate execution environment sizing or identify scalability limitations for new usage scenarios such performance predictions require up to date software performance models this book describes a new integrated reverse engineering approach for the reconstruction of parameterised software performance models software component architecture and behaviour

Machine Design for Technology Students 2020-10-26

this book is intended for students taking a machine design course leadimachig to a mechanical engineering technology degree it can be adapted to a machine design course for mechanical engineering students or used as a reference for adopting systems engineering into a design course the book introduces the fundamentals of systems engineering the concept of synthesis and the basics of trade off studies it covers the use of a functional flow block diagram to transform design requirements into the design space to identify all success modes the book discusses fundamental stress analysis for structures under axial torsional or bending loads in addition the book discusses the development of analyzing shafts under combined loads by using mohr s circle and failure mode criterion chapter 3 provides an overview of fatigue and the process to develop the shaft sizing equations under dynamic loading conditions chapter 4 discusses power equations and the nomenclature and stress analysis for spur and straight bevel gears and equations for analyzing gear trains other machine component topics include derivation of the disc clutch and its relationship to compression springs derivation of the flat belt equations roller and ball bearing life equations roller chains and keyways chapter 5 introduces the area of computational machine design and provides codes for developing simple and powerful computational methods to solve cross product required to calculate the torques and bending moments on shafts 1d stress analysis reaction loads on support bearings mohr s circle shaft sizing under dynamic loading and cone clutch the final chapter shows how to integrate systems engineering into machine design for a capstone project as a project based collaborative design methodology the chapter shows how each design requirement is transformed through the design space to identify the proper engineering equations

Advanced Thermodynamics for Engineers 1996-11-01

although the basic theories of thermodynamics are adequately covered by a number of existing texts there is little literature that addresses more advanced topics in this comprehensive work the author redresses this balance drawing on his twenty five years of experience of teaching thermodynamics at undergraduate and postgraduate level to produce a definitive text to cover thoroughly advanced syllabuses the book introduces the basic concepts which apply over the whole range of new technologies considering a new approach to cycles enabling their irreversibility to be taken into account a detailed study of combustion to show how the chemical energy in a fuel is converted into thermal energy and emissions an analysis of fuel cells to give an understanding of the direct conversion of chemical energy to electrical power a detailed study of property relationships to enable more sophisticated analyses to be made of both high and low temperature plant and irreversible thermodynamics whose principles might hold a key to new ways of efficiently covering energy to power e g solar energy fuel cells worked examples are included in most of the chapters followed by exercises with solutions by developing thermodynamics from an explicitly equilibrium perspective showing how all systems attempt to reach a state of equilibrium and the effects of these systems when they cannot the result is an unparalleled insight into the more advanced considerations when converting any form of energy into power that will prove invaluable to students and professional engineers of all disciplines

Software Engineering 2021-07-20

software engineering a methodical approach second edition provides a comprehensive but concise introduction to software engineering it adopts a methodical approach to solving software engineering problems proven over several years of teaching with outstanding results the book covers concepts principles design construction implementation and management issues of software engineering each chapter is organized systematically into brief reader friendly sections with itemization of the important points to be remembered diagrams and illustrations also sum up the salient points to enhance learning additionally the book includes the author s original methodologies that add clarity and creativity to the software engineering experience new in the second edition are chapters on software engineering projects management support systems software engineering frameworks and patterns as a significant building block for the design and construction of contemporary software systems and emerging software engineering frontiers the text starts with an introduction of software engineering and the role of the software engineer the following chapters examine in depth software analysis design development implementation and management covering object oriented methodologies and the principles of object oriented information engineering the book reinforces an object oriented approach to the early phases of the software development life cycle it covers various diagramming techniques and emphasizes object classification and object behavior the text features comprehensive treatments of project management aids that are commonly used in software engineering an overview of the software design phase including a discussion of the software design process design strategies architectural design interface design database design and design and development standards user interface design operations design design considerations including system catalog product documentation user message management design for real time software design for reuse system security and the agile effect human resource management from a software engineering perspective software economics software implementation issues that range from operating environments to the marketing of software software maintenance legacy systems and re engineering this textbook can be used as a one semester or two semester course in software engineering augmented with an appropriate case or rad tool it emphasizes a practical methodical approach to software engineering avoiding an overkill of theoretical calculations where possible the primary objective is to help students gain a solid grasp of the activities in the software development life cycle to be confident about taking on new software engineering projects

Handbook of Research on Modern Systems Analysis and Design Technologies and Applications 2008-07-31

this book provides a compendium of terms definitions and explanations of concepts in various areas of systems and design as well as a vast collection of cutting edge research articles from the field s leading experts provided by publisher

New Innovations in Engineering Education and Naval Engineering 2020-02-19

this book naval engineering comprises information on different interdependent technical aspects important in the development of a ship project in its entirety part one of this book introduces cutting edge research on the key issues of the latest advances in developing a successful engineering curriculum in designing an innovative learning and teaching method and in promoting consistent standards in engineering education part two provides a wider perspective in the area of naval engineering and presents its relevant challenges and new opportunities the chapters included in this book cover the related concepts of technical sustainable and social innovation that have a substantial influence on the society and the stakeholders this book intends to provide a wider perspective for the naval engineering field it presents relevant challenges as well as new opportunities

Bee-Inspired Protocol Engineering 2008-11-30

honey bee colonies demonstrate robust adaptive efficient agent based communications and task allocations without centralized controls desirable features in network design this book introduces a multipath routing algorithm for packet switched telecommunication networks based on techniques observed in bee colonies the algorithm beehive is dynamic simple efficient robust and flexible and it represents an important step towards intelligent networks that optimally manage resources the author guides the reader in a survey of nature inspired routing protocols and communication techniques observed in insect colonies he then offers the design of a scalable framework for nature inspired routing algorithms and he examines a practical application using real networks of linux routers he also utilizes formal techniques to analytically model the performance of nature inspired routing algorithms in the last chapters of the book he introduces an immune inspired security framework for nature inspired algorithms and uses the wisdom of the hive for routing in ad hoc and sensor networks finally the author provides a comprehensive bibliography to serve as a reference for nature inspired solutions to networking problems this book bridges the gap between natural computing and computer networking what sets this book apart from other texts on this subject is its natural engineering approach in which the challenges and objectives of a real world system are identified before its solution nature inspired or otherwise is discussed this balanced exposition of the book makes it equally suitable for telecommunication network designers and theorists and computer science researchers engaged with artificial intelligence agents and nature inspired techniques

Designing Maintainable Software 2012-12-06

aimed at improving a programmers ability for altering code to fit changing requirements and for detecting and correcting errors this book argues for a new way of thinking about maintaining software it proposes the use of a set of human factors principles that govern the programmer software event world interactions and form the core of the maintenance process the book is thus highly valuable for systems analysts and programmers managers seeking to reduce costs researchers looking at solutions to the maintenance problem and students learning to write clear unambiguous programs

Site Reliability Engineering 2016-03-23

the overwhelming majority of a software system s lifespan is spent in use not in design or implementation so why does conventional wisdom insist that software engineers focus primarily on the design and development of large scale computing systems in this collection of essays and articles key members of google s site reliability team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build deploy monitor and maintain some of the largest software systems in the world you II learn the principles and practices that enable google engineers to make systems more scalable reliable and efficient lessons directly applicable to your organization this book is divided into four sections introduction learn what site reliability engineering is and why it differs from conventional it industry practices principles examine the patterns behaviors and areas of concern that influence the work of a site reliability engineer sre practices understand the theory and practice of an sre s day to day work building and operating large distributed computing systems management explore google s best practices for training communication and meetings that your organization can use

Software Development Techniques for Constructive Information Systems Design 2013-03-31

software development and information systems design have a unique relationship but are often discussed and studied independently however meticulous software development is vital for the success of an information system software development techniques for constructive information systems design focuses the aspects of information systems and software development as a merging process this reference source pays special attention to the emerging research trends and experiences in this area which is bound to enhance the reader s understanding of the growing and ever adapting field academics researchers students and working professionals in this field will benefit from this publication s unique perspective

The Business Rule Revolution 2006

learn from an anthology of contributing authors and experts who share step by step how to justify and manage the roi for the br approach the book covers the business s perspective and the technology perspective authors represent the healthcare industry financial services experience state and federal government experience and senior practitioners spanning many industries this book accomplishes the following 1 it is for managers and decision makers who make things happen in their organization 2 it addresses brs as a leverage for agility compliance and corporate intelligence as a key mechanism for engineering the business itself 3 it is not meant to be read cover to cover business people will focus on section 2 technical people will focus on section 3 4 together the sections provide a step by step management approach that crosses business and it barriers 5 real case studies are written by real people in well respected corporations government agencies consultancies and software vendors 6 leading technology is highlighted 7 present the possibilities that br approach can achieve for both business and it

Aircraft Design 2012-11-20

a comprehensive approach to the air vehicle design process using the principles of systems engineering due to the high cost and the risks associated with development complex aircraft systems have become a prime candidate for the adoption of systems engineering methodologies this book presents the entire process of aircraft design based on a systems engineering approach from conceptual design phase through to preliminary design phase and to detail design phase presenting in one volume the methodologies behind aircraft design this book covers the components and the issues affected by design procedures the basic topics that are essential to the process such as aerodynamics flight stability and control aero structure and aircraft performance are reviewed in various chapters where required based on these fundamentals and design requirements the author explains the design process in a holistic manner to emphasise the integration of the individual components into the overall design throughout the book the various design options are considered and weighed against each other to give readers a practical understanding of the process overall readers with knowledge of the fundamental concepts of aerodynamics propulsion aero structure and flight dynamics will find this book ideal to progress towards the next stage in their understanding of the topic furthermore the broad variety of design techniques covered ensures that readers have the freedom and flexibility to satisfy the design requirements when approaching real world projects key features provides full coverage of the design aspects of an air vehicle including aeronautical concepts design techniques and design flowcharts features end of chapter problems to reinforce the learning process as well as fully solved design examples at component level includes fundamental explanations for aeronautical engineering students and practicing engineers features a solutions manual to sample questions on the book s companion website companion website wiley com go sadraey

A Service Engineering Method for Knowledge-Intense Person-Oriented Services 2015-01-01

keine angaben

Designing for Privacy and its Legal Framework 2018-11-03

this book discusses the implementation of privacy by design in europe a principle that has been codified within the european data protection regulation gdpr while privacy by design inspires hope for future privacy sensitive designs it also introduces the need for a common understanding of the legal and technical concepts of privacy and data protection by pursuing an interdisciplinary approach and comparing the problem definitions and objectives of both disciplines this book bridges the gap between the legal and technical fields in order to enhance the regulatory and academic discourse the research presented reveals the scope of legal principles and technical tools for privacy protection and shows that the concept of privacy by design goes beyond the principle of the gdpr the book presents an analysis of how current regulations delegate the implementation of technical privacy and data protection measures to developers and describes how policy design must evolve in order to implement privacy by design and default principles

Selective Oxidation by Heterogeneous Catalysis 2012-12-06

selective oxidation by heterogeneous catalysis covers one of the major areas of industrial petrochemical production outlining open questions and new opportunities it gives keys for the interpretation and analysis of data and design of new catalysts and reactions and provides guidelines for future research a distinctive feature of this book is the use of concept by example rather than reporting an overview of the literature results the authors have selected some representative examples the in depth analysis of which makes it possible to clarify the fundamental but new concepts necessary for a better understanding of the new opportunities in this field and the design of new catalysts or catalytic reactions attention is given not only to the catalyst itself but also to the use of the catalyst inside the process thus evidencing the relationship between catalyst design and engineering aspects of the process this book provides suggestions for new innovative directions of research and indications on how to reconsider the field of selective oxidation from different perspectives outlining that is not a mature field of research but that new important breakthroughs can be derived from fundamental and applied research suggestions are offered on how to use less conventional approaches in terms of both catalyst design and analysis of the data

Collaborative Technologies and Applications for Interactive Information Design: Emerging Trends in User Experiences 2009-08-31

this book covers emerging topics in collaboration 2 0 and social computing provided by publisher

Body Area Networks 2013-04-18

body area networks bans are networks of wireless sensors and medical devices embedded in clothing worn on or implanted in the body and have the potential to revolutionize healthcare by enabling pervasive healthcare however due to their critical applications affecting human health challenges arise when designing them to ensure they are safe for the user sustainable without requiring frequent battery replacements and secure from interference and malicious attacks this book lays the foundations of how bans can be redesigned from a cyber physical systems perspective cps to overcome these issues introducing cutting edge theoretical and practical techniques and taking into account the unique environment coupled characteristics of bans the book examines how we can re imagine the design of safe secure and sustainable bans it features real world case studies suggestions for further investigation and project ideas making it invaluable for anyone involved in pervasive and mobile healthcare telemedicine medical apps and other cyber physical systems

A Practical Guide to SysML 2011-10-17

part i introduction systems engineering overview model based systems engineering3 sysml language overview sysml language overview part ii language description sysml language architecture organizing the model with packages modeling structure with blocks modeling constraints with parametrics modeling flow based behavior with activities modeling message based behavior with interactions modeling event based behavior with state machines modeling functionality with use cases modeling text based requirements and their relationship to design modeling cross cutting relationships with allocations customizing sysml for specific domains part iii modeling examples water distiller example using functional analysis residential security system example using the object oriented systems engineering method part iv transitioning to model based systems engineering integrating sysml into a systems development environment deploying sysml into an organization appendixes a 1 sysml reference guide a 2 cross ref

Railway Research 2015-12-16

this book focuses on selected research problems of contemporary railways the first chapter is devoted to the prediction of railways development in the nearest future the second chapter discusses safety and security problems in general precisely from the system point of view in the third chapter both the general approach and a particular case study of a critical incident with regard to railway safety are presented in the fourth chapter the question of railway infrastructure studies is presented which is devoted to track superstructure in the fifth chapter the modern system for the technical condition monitoring of railway tracks is discussed the compact on board sensing device is presented the last chapter focuses on modeling railway vehicle dynamics using numerical simulation where the dynamical models are exploited

Commercial Data Mining 2014-01-29

whether you are brand new to data mining or working on your tenth predictive analytics project commercial data mining will be there for you as an accessible reference outlining the entire process and related themes in this book you II learn that your organization does not need a huge volume of data or a fortune 500 budget to generate business using existing information assets expert author david nettleton guides you through the process from beginning to end and covers everything from business objectives to data sources and selection to analysis and predictive modeling commercial data mining includes case studies and practical examples from nettleton s more than 20 years of commercial experience real world cases covering customer loyalty cross selling and audience prediction in industries including insurance banking and media illustrate the concepts and techniques explained throughout the book illustrates cost benefit evaluation of potential projects includes vendor agnostic advice on what to look for in off the shelf solutions as well as tips on building your own data mining tools approachable reference can be read from cover to cover by readers of all experience levels includes practical examples and case studies as well as actionable business insights from author s own experience

Handbook of Research on Web 2.0, 3.0, and X.0: Technologies, Business, and Social Applications 2009-11-30

this book provides a comprehensive reference source on next generation technologies and their applications provided by publisher

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