

N2 Electrical Trade Theory April 2013

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MITRE Systems Engineering Guide - 2012-06-05

Convex Optimization - Stephen Boyd 2004-03-08

A comprehensive introduction to the tools, techniques and applications of convex optimization.

Dream Differently - Vince M. Bertram 2017-08-01

To get the most out of your college education, you need to choose your classes wisely -- and increasingly, that means choosing STEM. Today's job seekers should have at least a basic understanding of trigonometry and other science, technology, engineering, and math (STEM) fields. The U.S. Bureau of Labor Statistics projects more than 1.3 million job openings in math and computer-related fields by 2022. The purpose of this book is not to push you into a STEM career; it is simply to provide you with information and perspective, as well as a few questions that, if answered honestly, will help you plot out an educational and career pathway that will help you achieve your dreams.

III-Nitride Semiconductors and Their Modern Devices - Bernard Gil 2013-08-22

All recent developments of nitrides and of their technology are gathered here in a single book, with chapters written by world leaders in the field.

Electricity and Magnetism - Edward M. Purcell 2013-01-21

For 50 years, Edward M. Purcell's classic textbook has introduced students to the world of electricity and magnetism. The third edition has been brought up to date and is now in SI units. It features hundreds of new examples, problems, and figures, and contains discussions of real-life applications. The textbook covers all the standard introductory topics, such as electrostatics, magnetism, circuits, electromagnetic waves, and electric and magnetic fields in matter. Taking a nontraditional approach, magnetism is derived as a relativistic effect. Mathematical concepts are introduced in parallel with the physics topics at hand, making the motivations clear. Macroscopic phenomena are derived rigorously from the underlying microscopic physics. With worked examples, hundreds of illustrations, and nearly 600 end-of-chapter problems and exercises, this textbook is ideal for electricity and magnetism courses. Solutions to the exercises are available for instructors at www.cambridge.org/Purcell-Morin.

Probability and Statistics for Computer Scientists - Michael Baron 2013-08-05

Student-Friendly Coverage of Probability, Statistical Methods, Simulation, and Modeling Tools Incorporating feedback from instructors and researchers who used the previous edition, *Probability and Statistics for Computer Scientists, Second Edition* helps students understand general methods of stochastic modeling, simulation, and data analysis; make o

The 48 Laws of Power in Practice - Jon Waterlow 2017-03-20

Robert Greene's *The 48 Laws of Power* has shaken up the lives of millions. It's wielded by successful business executives, leading actors and musicians, and even by criminal kingpins. But how can you apply its lessons to your life? Perhaps you want to become a modern Machiavelli. Perhaps you want to escape the daily grind and realise your true potential and your dreams. Or maybe you're just tired of finding yourself the victim of other people's games. But with 48 Laws to choose from and a strong possibility that any one of them might seem like a radical overhaul of your habits and thought processes, it can seem overwhelming or impossible to put the Laws into practice. Help is at hand. Drawing on our major podcast series, *Exploring The 48 Laws of Power*, this book provides all you need to put the Laws into practice and make lasting changes to your life. We reveal the 3 Most Powerful Laws (the ones you should start with, and on which all the others build) and the 4 Indispensable Power Principles (the specific rules of thumb and social 'hacks' which explain how the Laws really work in the world today). Armed with this knowledge, *The 48 Laws of Power* won't be a cool book you glanced through and then shelved. It will change your life.

The Handbook of Work Based Learning - Ian Cunningham 2016-03-03

Organizational leaders, governments and trade unions all agree that learning is fundamental to organizational and economic success. The question is how it should best be supported. *The Handbook of Work Based Learning* delivers a compelling answer to this question. Learning needs to be based in the realities of organizational life. This unique, groundbreaking handbook provides a definitive guide to the set of strategies, tactics and methods for supporting work based learning. The three main parts of the Handbook, which focus in turn on strategies, tactics and methods, are written for both the learner and the professional developer alike. Each includes a description of the process (strategy, tactic or method), provides examples of what it looks like in action, explains the benefits and the likely limitations and provides a set of operating hints for applying the process. Nothing has been neglected, so alongside detailed descriptions of what to do and how to do it, the authors have included the Declaration on Learning, created by thirteen of the major figures in the field of organizational learning, a section guiding you towards routes for gaining qualifications, along with a well-researched set of references and further reading.

Principles of Electric Machines and Power Electronics - Paresh Chandra Sen 2021-02-25

Introduction to Business Information Systems - Rolf T. Wigand 2003-05-21

After describing the functions of the PC and the role of computers in local and global networks, the authors explain the fundamentals of data management, as well as the support of firms' functions and processes through information processing. The concepts utilized are deployed in a multitude of modern and integrated application systems in manufacturing and service industries. These application examples make up the core of the book. Many application examples illustrate the methodologies addressed.

Game Theory, Alive - Anna R. Karlin 2017-04-27

We live in a highly connected world with multiple self-interested agents interacting and myriad opportunities for conflict and cooperation. The goal of game theory is to understand these opportunities. This book presents a rigorous introduction to the mathematics of game theory without losing sight of the joy of the subject. This is done by focusing on theoretical highlights (e.g., at least six Nobel Prize winning results are developed from scratch) and by presenting exciting connections of game theory to other fields such as computer science (algorithmic game theory), economics (auctions and matching markets), social choice (voting theory), biology (signaling and evolutionary stability), and learning theory. Both classical topics, such as zero-sum games, and modern topics, such as sponsored search auctions, are covered. Along the way, beautiful mathematical tools used in game theory are introduced, including convexity, fixed-point theorems, and probabilistic arguments. The book is appropriate for a first course in game theory at either the undergraduate or graduate level, whether in mathematics, economics, computer science, or statistics. The importance of game-theoretic thinking transcends the academic setting—for every action we take, we must consider not only its direct effects, but also how it influences the incentives of others.

Understanding Machine Learning - Shai Shalev-Shwartz 2014-05-19

Introduces machine learning and its algorithmic paradigms, explaining the principles behind automated learning approaches and the considerations underlying their usage.

Renewable and Efficient Electric Power Systems - Gilbert M. Masters 2005-01-03

This is a comprehensive textbook for the new trend of distributed power generation systems and renewable energy sources in electric power systems. It covers the complete range of topics from fundamental concepts to major technologies as well as advanced topics for power

consumers. An Instructor's Manual presenting detailed solutions to all the problems in the book is available from the Wiley editorial department -- to obtain the manual, send an email to ialine@wiley.com

Plagiarism, the Internet, and Student Learning - Wendy Sutherland-Smith 2008-04-24

Written for Higher Education educators, managers and policy-makers, *Plagiarism, the Internet and Student Learning* combines theoretical understandings with a practical model of plagiarism and aims to explain why and how plagiarism developed. It offers a new way to conceptualize plagiarism and provides a framework for professionals dealing with plagiarism in higher education. Sutherland-Smith presents a model of plagiarism, called the plagiarism continuum, which usefully informs discussion and direction of plagiarism management in most educational settings. The model was developed from a cross-disciplinary examination of plagiarism with a particular focus on understanding how educators and students perceive and respond to issues of plagiarism. The evolution of plagiarism, from its birth in Law, to a global issue, poses challenges to international educators in diverse cultural settings. The case studies included are the voices of educators and students discussing the complexity of plagiarism in policy and practice, as well as the tensions between institutional and individual responses. A review of international studies plus qualitative empirical research on plagiarism, conducted in Australia between 2004-2006, explain why it has emerged as a major issue. The book examines current teaching approaches in light of issues surrounding plagiarism, particularly Internet plagiarism. The model affords insight into ways in which teaching and learning approaches can be enhanced to cope with the ever-changing face of plagiarism. This book challenges Higher Education educators, managers and policy-makers to examine their own beliefs and practices in managing the phenomenon of plagiarism in academic writing.

Essentials of Computational Chemistry - Christopher J. Cramer 2013-04-29

Essentials of Computational Chemistry provides a balanced introduction to this dynamic subject. Suitable for both experimentalists and theorists, a wide range of samples and applications are included drawn from all key areas. The book carefully leads the reader through the necessary equations providing information explanations and reasoning where necessary and firmly placing each equation in context.

Preparation and Characterization of Materials - J Honig 2012-12-02

Preparation and Characterization of Materials brings together the proceedings of the Indo-U.S. Workshop on the Preparation and Characterization of Materials, held on February 19-23, 1981, at the Indian Institute of Science in Bangalore, India. The papers focus on advances and developments in the preparation and characterization of materials such as ferroics, layered materials, metal oxides and other electronic materials, amorphous materials including glasses, and high-temperature ceramics. This book is comprised of 25 chapters and begins with a discussion on crystal growth and other preparation techniques, touching on topics such as solid state synthesis of complex oxides and preparation of soft ferrites. The application of neutron scattering techniques and analytical electron microscopy to materials research and materials science is then considered, along with the dielectric and electro-optic applications of ferroics and the preparation and characterization of synthetic layered inorganic ion exchangers. Subsequent chapters deal with metal oxides and other electronic materials; glasses and other amorphous materials; and high-temperature ceramics such as silicon nitride. This monograph will be of interest to materials scientists and engineers as well as students and researchers in materials science.

Economics of the International Coal Trade - Lars Schernikau 2017-01-02

This book is the 2nd edition of the *Economics of the International Coal Trade*. Coal is the single most important source of power on our planet and today accounts for 40% of electricity generation and 30% of primary energy. The world's appetite for energy is still far from being met. Until 2050, an additional 6+ billion people will require access to proper power. "Why Coal Continues to Power the World" introduces the reader to the global coal business; its importance; its source; its global demand, supply and trade; its use; its environmental impact; and its future. Despite recent price hikes, coal does not appear to be a popular subject today, which may explain the little attention it receives in the scientific community. Since writing the first edition during the commodity super cycle in 2006-2008, the world has changed. How has this impacted the global world of coal? This book is useful to energy economists, businessmen, politicians, university professors, high school teachers, students and anyone with an interest in how the world is powered. It is

also helpful to anyone studying climate change and global warming. This new edition of the book includes previously not covered special sections on: * Coal analysis and sampling with a special section on moisture * A technical summary of all key coking coal characteristics in Appendix 2 * Coking coal, iron ore and the steel industry * Cement and petcoke markets * Global gas markets and the shale gas revolution in the US * Nuclear energy and the history of the oil market * Renewable energy and the German „Energiewende“ * Power plant technology and CO2 sequestration and processing * The role of CO2 and why man-made CO2 does not cause global warming Apart from giving an in-depth overview of the global coal business, in this book the author argues that coal is far from “dead”. Some of my key messages are contrary to popular beliefs: The importance of coal will further increase in absolute and likely even in relative terms for decades to come. Man-made CO2 has no effect on global temperatures and combustion of fossil fuels does not influence the weather. We cannot stop the advance of coal, we can only make this process as environmentally sustainable as humanly possible. Therefore, mankind needs to embrace coal as the “bridge” from the Oil Age to the Solar Age (through the “New Energy Revolution”). (4) Industrialized nations have to invest in coal and in all means to more efficiently burn coal in order to truly help the global environment and reduce global dust, SOX, and NOX emissions.

Data Structures and Algorithms in Python - Michael T. Goodrich 2013-03-08

Based on the authors' market leading data structures books in Java and C++, this textbook offers a comprehensive, definitive introduction to data structures in Python by authoritative authors. *Data Structures and Algorithms in Python* is the first authoritative object-oriented book available for the Python data structures course. Designed to provide a comprehensive introduction to data structures and algorithms, including their design, analysis, and implementation, the text will maintain the same general structure as *Data Structures and Algorithms in Java* and *Data Structures and Algorithms in C++*.

Beyond Goals - Susan David 2016-04-15

What is there in developmental relationships beyond setting and striving to achieve goals? The presence of goals in coaching and mentoring programs has gone largely unquestioned, yet evidence is growing that the standard prescription of SMART, challenging goals is not always appropriate - and even potentially dangerous - in the context of a complex and rapidly changing world. *Beyond Goals* advances standard goal-setting theory by bringing together cutting-edge perspectives from leaders in coaching and mentoring. From psychology to neuroscience, from chaos theory to social network theory, the contributors offer diverse and compelling insights into both the advantages and limitations of goal pursuit. The result is a more nuanced understanding of goals, with the possibility for practitioners to bring greater impact and sophistication to their client engagements. The implications of this reassessment are substantial for all those practicing as coaches and mentors, or managing coaching or mentoring initiatives in organizations.

Carbon Dioxide Capture and Storage - IPCC 2005-12-19

IPCC Report on sources, capture, transport, and storage of CO2, for researchers, policy-makers and engineers.

Commodity Option Pricing - Iain J. Clark 2014-03-05

Commodity Option Pricing: A Practitioner's Guide covers commodity option pricing for quantitative analysts, traders or structurers in banks, hedge funds and commodity trading companies. Based on the author's industry experience with commodity derivatives, this book provides a thorough and mathematical introduction to the various market conventions and models used in commodity option pricing. It introduces the various derivative products typically traded for commodities and describes how these models can be calibrated and used for pricing and risk management. The book has been developed with input from traders and examples using real world data, together with relevant up to date academic research. The book includes practical descriptions of market conventions and quote codes used in commodity markets alongside typical products seen in broker quotes and used in calibration. Also discussed are commodity models and their mathematical derivation and volatility surface modelling for traded commodity derivatives. Gold, silver and other precious metals are addressed, including gold forward and gold lease rates, as well as copper, aluminium and other base metals, crude oil and natural gas, refined energy and electricity. There are also sections on the products encountered in commodities such as crack spread and spark spread options and alternative commodities such as carbon emissions, weather derivatives, bandwidth and telecommunications trading, plastics and freight. *Commodity Option*

Pricing is ideal for anyone working in commodities or aiming to make the transition into the area, as well as academics needing to familiarize themselves with the industry conventions of the commodity markets.

Elements of Information Theory - Thomas M. Cover 2012-11-28

The latest edition of this classic is updated with new problem sets and material. The Second Edition of this fundamental textbook maintains the book's tradition of clear, thought-provoking instruction. Readers are provided once again with an instructive mix of mathematics, physics, statistics, and information theory. All the essential topics in information theory are covered in detail, including entropy, data compression, channel capacity, rate distortion, network information theory, and hypothesis testing. The authors provide readers with a solid understanding of the underlying theory and applications. Problem sets and a telegraphic summary at the end of each chapter further assist readers. The historical notes that follow each chapter recap the main points. The Second Edition features: * Chapters reorganized to improve teaching * 200 new problems * New material on source coding, portfolio theory, and feedback capacity * Updated references. Now current and enhanced, the Second Edition of *Elements of Information Theory* remains the ideal textbook for upper-level undergraduate and graduate courses in electrical engineering, statistics, and telecommunications.

Chemical Engineering Design - Gavin Towler 2012-01-25

Chemical Engineering Design, Second Edition, deals with the application of chemical engineering principles to the design of chemical processes and equipment. Revised throughout, this edition has been specifically developed for the U.S. market. It provides the latest US codes and standards, including API, ASME and ISA design codes and ANSI standards. It contains new discussions of conceptual plant design, flowsheet development, and revamp design; extended coverage of capital cost estimation, process costing, and economics; and new chapters on equipment selection, reactor design, and solids handling processes. A rigorous pedagogy assists learning, with detailed worked examples, end of chapter exercises, plus supporting data, and Excel spreadsheet calculations, plus over 150 Patent References for downloading from the companion website. Extensive instructor resources, including 1170 lecture slides and a fully worked solutions manual are available to adopting instructors. This text is designed for chemical and biochemical engineering students (senior undergraduate year, plus appropriate for capstone design courses where taken, plus graduates) and lecturers/tutors, and professionals in industry (chemical process, biochemical, pharmaceutical, petrochemical sectors). New to this edition: Revised organization into Part I: Process Design, and Part II: Plant Design. The broad themes of Part I are flowsheet development, economic analysis, safety and environmental impact and optimization. Part II contains chapters on equipment design and selection that can be used as supplements to a lecture course or as essential references for students or practicing engineers working on design projects. New discussion of conceptual plant design, flowsheet development and revamp design. Significantly increased coverage of capital cost estimation, process costing and economics. New chapters on equipment selection, reactor design and solids handling processes. New sections on fermentation, adsorption, membrane separations, ion exchange and chromatography. Increased coverage of batch processing, food, pharmaceutical and biological processes. All equipment chapters in Part II revised and updated with current information. Updated throughout for latest US codes and standards, including API, ASME and ISA design codes and ANSI standards. Additional worked examples and homework problems. The most complete and up to date coverage of equipment selection. 108 realistic commercial design projects from diverse industries. A rigorous pedagogy assists learning, with detailed worked examples, end of chapter exercises, plus supporting data and Excel spreadsheet calculations plus over 150 Patent References, for downloading from the companion website. Extensive instructor resources: 1170 lecture slides plus fully worked solutions manual available to adopting instructors.

Exploring Leadership - Susan R. Komives 2009-09-25

This is the thoroughly revised and updated second edition of the best-selling book *Exploring Leadership*. The book is designed to help college students understand that they are capable of being effective leaders and to guide them in developing their leadership potential. *Exploring Leadership* incorporates new insights and material developed in the course of the authors' work in the field. The second edition contains expanded and new chapters and also includes the relational leadership model, uses a more global context and examples that relate to a wide variety of disciplines, contains a new section which emphasizes ways to

work to accomplish change, and concludes with concrete strategies for activism.

Engineering Science N1 - 2000

Vehicle Propulsion Systems - Lino Guzzella 2007-09-21

The authors of this text have written a comprehensive introduction to the modeling and optimization problems encountered when designing new propulsion systems for passenger cars. It is intended for persons interested in the analysis and optimization of vehicle propulsion systems. Its focus is on the control-oriented mathematical description of the physical processes and on the model-based optimization of the system structure and of the supervisory control algorithms.

Strategic and Performance Management in the Public Sector - Frans Minnaar 2012

"Public administration comprises two integrated components, namely the political process in terms of which government policy is formulated, and a management process in terms of how this policy must be implemented. The introduction of strategic and performance management systems and procedures in the public sector has become international standard practice, often resulting in a comprehensive redesign of the traditionally bureaucratic legislative framework -- strategic management links the government organisation to the community, thus incorporating the actual needs of the community in government's planning, while performance management gears the organisation towards service delivery. Strategic and performance management in the public sector provides an integrated management model for 21st century government organisations. This book is a step-by-step presentation of the strategic and performance management process, starting with government policies and culminating in a comprehensive performance management system. It contains practical examples, activities, relevant legislation boxes and supplementary material for further understanding."--Jacket.

Microwave Engineering - David M. Pozar 2011-11-22

Pozar's new edition of *Microwave Engineering* includes more material on active circuits, noise, nonlinear effects, and wireless systems. Chapters on noise and nonlinear distortion, and active devices have been added along with the coverage of noise and more material on intermodulation distortion and related nonlinear effects. On active devices, there's more updated material on bipolar junction and field effect transistors. New and updated material on wireless communications systems, including link budget, link margin, digital modulation methods, and bit error rates is also part of the new edition. Other new material includes a section on transients on transmission lines, the theory of power waves, a discussion of higher order modes and frequency effects for microstrip line, and a discussion of how to determine unloaded.

What's the Point of School? - Guy Claxton 2013-10-01

Why the education system is failing our kids and how we can start the revolution that will save our schools. With their emphasis on regurgitated knowledge and stressful exams, today's schools actually do more harm than good. Guiding readers past the sterile debates about City Academies and dumbed-down exams, Claxton proves that education's key responsibility should be to create enthusiastic learners who will go on to thrive as adults in a swiftly-changing, dynamic world. Students must be encouraged to sharpen their wits, ask questions, and think for themselves - all without chucking out Shakespeare or the Periodic Table. Blending down-to-earth examples with the latest advances in brain science, and written with passion, wit, and authority, this brilliant book will inspire teachers, parents, and readers of all backgrounds to join a practical revolution and foster in the next generation a natural curiosity and the spirit of adventure.

Software-Defined Radio for Engineers - Alexander M. Wyglinski 2018-04-30

Based on the popular Artech House classic, *Digital Communication Systems Engineering with Software-Defined Radio*, this book provides a practical approach to quickly learning the software-defined radio (SDR) concepts needed for work in the field. This up-to-date volume guides readers on how to quickly prototype wireless designs using SDR for real-world testing and experimentation. This book explores advanced wireless communication techniques such as OFDM, LTE, WLA, and hardware targeting. Readers will gain an understanding of the core concepts behind wireless hardware, such as the radio frequency front-end, analog-to-digital and digital-to-analog converters, as well as various processing technologies. Moreover, this volume includes chapters on timing estimation, matched filtering, frame synchronization message decoding, and source coding. The orthogonal frequency division multiplexing is explained and details about HDL code generation and deployment are

provided. The book concludes with coverage of the WLAN toolbox with OFDM beacon reception and the LTE toolbox with downlink reception. Multiple case studies are provided throughout the book. Both MATLAB and Simulink source code are included to assist readers with their projects in the field.

Teaching Engineering, Second Edition - Phillip C. Wankat 2015-01-15

The majority of professors have never had a formal course in education, and the most common method for learning how to teach is on-the-job training. This represents a challenge for disciplines with ever more complex subject matter, and a lost opportunity when new active learning approaches to education are yielding dramatic improvements in student learning and retention. This book aims to cover all aspects of teaching engineering and other technical subjects. It presents both practical matters and educational theories in a format useful for both new and experienced teachers. It is organized to start with specific, practical teaching applications and then leads to psychological and educational theories. The "practical orientation" section explains how to develop objectives and then use them to enhance student learning, and the "theoretical orientation" section discusses the theoretical basis for learning/teaching and its impact on students. Written mainly for PhD students and professors in all areas of engineering, the book may be used as a text for graduate-level classes and professional workshops or by professionals who wish to read it on their own. Although the focus is engineering education, most of this book will be useful to teachers in other disciplines. Teaching is a complex human activity, so it is impossible to develop a formula that guarantees it will be excellent. However, the methods in this book will help all professors become good teachers while spending less time preparing for the classroom. This is a new edition of the well-received volume published by McGraw-Hill in 1993. It includes an entirely revised section on the Accreditation Board for Engineering and Technology (ABET) and new sections on the characteristics of great teachers, different active learning methods, the application of technology in the classroom (from clickers to intelligent tutorial systems), and how people learn.

A First Course in Probability - Sheldon M. Ross 2002

This market-leading introduction to probability features exceptionally clear explanations of the mathematics of probability theory and explores its many diverse applications through numerous interesting and motivational examples. The outstanding problem sets are a hallmark feature of this book. Provides clear, complete explanations to fully explain mathematical concepts. Features subsections on the probabilistic method and the maximum-minimums identity. Includes many new examples relating to DNA matching, utility, finance, and applications of the probabilistic method. Features an intuitive treatment of probability—intuitive explanations follow many examples. The Probability Models Disk included with each copy of the book, contains six probability models that are referenced in the book and allow readers to quickly and easily perform calculations and simulations.

Hughes Electrical Technology - Edward Hughes 1995-01-01

Covering the fundamentals of electrical technology and using these to introduce the application of electrical and electronic systems, this text had been updated to include recent developments in technology. It avoids unnecessary mathematics and features improved teaching aids, including: worked examples; updated and graded review questions; colour diagrams and chapter summaries. It is designed for use by students on NC, HNC and HND courses in electrical and electronic engineering.

Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - United Nations Economic Commission for Europe 2015-06-19

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) addresses classification and labelling of chemicals by types of hazards. It provides the basis for worldwide harmonization of rules and regulations on chemicals and aims at enhancing the protection of human health and the environment during their handling, transport and use by ensuring that the information about their physical, health and environmental hazards is available. The sixth revised edition includes, inter alia, a new hazard class for desensitized explosives and a new hazard category for pyrophoric gases; miscellaneous amendments intended to further clarify the criteria for some hazard classes (explosives, specific target organ toxicity following single exposure, aspiration hazard, and hazardous to the aquatic environment) and to complement the information to be included in section 9 of the Safety

Data Sheet; revised and further rationalized precautionary statements; and an example of labelling of a small packaging in Annex 7.

Iterative Methods for Sparse Linear Systems - Yousef Saad

2003-04-01

Mathematics of Computing -- General.

Oil and Gas Production Handbook: An Introduction to Oil and Gas Production - Havard Devold 2013

Essentials of Metaheuristics (Second Edition) - Sean Luke

2012-12-20

Interested in the Genetic Algorithm? Simulated Annealing? Ant Colony Optimization? Essentials of Metaheuristics covers these and other metaheuristics algorithms, and is intended for undergraduate students, programmers, and non-experts. The book covers a wide range of algorithms, representations, selection and modification operators, and related topics, and includes 71 figures and 135 algorithms great and small. Algorithms include: Gradient Ascent techniques, Hill-Climbing variants, Simulated Annealing, Tabu Search variants, Iterated Local Search, Evolution Strategies, the Genetic Algorithm, the Steady-State Genetic Algorithm, Differential Evolution, Particle Swarm Optimization, Genetic Programming variants, One- and Two-Population Competitive Coevolution, N-Population Cooperative Coevolution, Implicit Fitness Sharing, Deterministic Crowding, NSGA-II, SPEA2, GRASP, Ant Colony Optimization variants, Guided Local Search, LEM, PBIL, UMDA, cGA, BOA, SAMUEL, ZCS, XCS, and XCSF.

Twenty Lectures on Algorithmic Game Theory - Tim Roughgarden

2016-08-30

Computer science and economics have engaged in a lively interaction over the past fifteen years, resulting in the new field of algorithmic game theory. Many problems that are central to modern computer science, ranging from resource allocation in large networks to online advertising, involve interactions between multiple self-interested parties. Economics and game theory offer a host of useful models and definitions to reason about such problems. The flow of ideas also travels in the other direction, and concepts from computer science are increasingly important in economics. This book grew out of the author's Stanford University course on algorithmic game theory, and aims to give students and other newcomers a quick and accessible introduction to many of the most important concepts in the field. The book also includes case studies on online advertising, wireless spectrum auctions, kidney exchange, and network management.

Information Theory, Inference and Learning Algorithms - David J. C.

MacKay 2003-09-25

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Grid Converters for Photovoltaic and Wind Power Systems - Remus

Teodorescu 2011-07-28

Grid converters are the key player in renewable energy integration. The high penetration of renewable energy systems is calling for new more stringent grid requirements. As a consequence, the grid converters should be able to exhibit advanced functions like: dynamic control of active and reactive power, operation within a wide range of voltage and frequency, voltage ride-through capability, reactive current injection during faults, grid services support. This book explains the topologies, modulation and control of grid converters for both photovoltaic and wind power applications. In addition to power electronics, this book focuses on the specific applications in photovoltaic wind power systems where grid condition is an essential factor. With a review of the most recent grid requirements for photovoltaic and wind power systems, the book discusses these other relevant issues: modern grid inverter topologies for photovoltaic and wind turbines islanding detection methods for photovoltaic systems synchronization techniques based on second order generalized integrators (SOGI) advanced synchronization techniques with robust operation under grid unbalance condition grid filter design and active damping techniques power control under grid fault conditions, considering both positive and negative sequences Grid Converters for Photovoltaic and Wind Power Systems is intended as a coursebook for graduated students with a background in electrical engineering and also for professionals in the evolving renewable energy industry. For people from academia interested in adopting the course, a set of slides is available for download from the website.

www.wiley.com/go/grid_converters