Digital Control Engineering Fadali

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100 Years of Deception Alan R. Adaschik 2015-06-25 The citizens of the United States have been played for fools for the past 100 years. Very few of us know what is behind the events that have shaped our world. Most Americans assume that information provided by the news, radio and television industries is the truth. And most of it is! However, it is also true that on critical issues we only get part of the story and important information is deliberately left out. 100 Years of Deception begins by establishing that passage of the Federal Reserve Act in 1913 constituted an overthrow of our government. Since then, the conspirators have pulled the strings that make us dance and controlled our Nation's media to keep us in the dark and compliant. The conspirators eventually infiltrated most of the key institutions of our society. Through propaganda and undue influence they have shaped how Americans view the world and left us hopelessly brainwashed. This book not only demonstrates that our government was overthrown, it also provides an accounting of the catastrophic consequences the world has suffered because of these conspirators and offers proposals for rectifying our deplorable state of affairs. As Americans, we owe it to ourselves and our children to seek the truth and put an end to the 100 Years of Deception that shaped the world within which we live.

Digital Control Engineering M. Sami Fadali 2012 Digital controllers are part of nearly all modern personal, industrial, and transportation systems. Every senior or graduate student of electrical, chemical or mechanical engineering should therefore be familiar with the basic theory of digital controllers. This new text covers the fundamental principles and applications of digital control engineering, with emphasis on engineering design. Fadali and Visioli cover analysis and design of digitally controlled systems and describe applications of digital controls in a wide range of fields. With worked examples and Matlab applications in every chapter and many end-of-chapter assignments, this text provides both theory and practice for those coming to digital control engineering for the first time, whether as a student or practicing engineer. Extensive Use of computational tools: Matlab sections at end of each chapter show how to implement concepts from the chapter Frees the student from the drudgery of mundane calculations and allows him to consider more subtle aspects of control system analysis and design An engineering approach to digital controls: emphasis throughout the book is on design of control systems. Mathematics is used to help explain concepts, but throughout the text discussion is tied to design and implementation. For example coverage of analog controls in chapter 5 is not simply a review, but is used to show how analog control systems map to digital control systems Review of Background Material: contains review material to aid understanding of digital control analysis and design. Examples include discussion of discrete-time systems in time domain and frequency domain (reviewed from linear systems course) and root locus design in s-domain and z-domain (reviewed from feedback control course) Inclusion of Advanced

Topics In addition to the basic topics required for a one semester senior/graduate class, the text includes some advanced material to make it suitable for an introductory graduate level class or for two quarters at the senior/graduate level. Examples of optional topics are state-space methods, which may receive brief coverage in a one semester course, and nonlinear discrete-time systems Minimal Mathematics Prerequisites The mathematics background required for understanding most of the book is based on what can be reasonably expected from the average electrical, chemical or mechanical engineering senior. This background includes three semesters of calculus, differential equations and basic linear algebra. Some texts on digital control require more

Dr. Pestana's Surgery Notes Carlos Pestana 2020-09-01 Always study with the most up-to-date prep! Look for Dr. Pestana's Surgery Notes, ISBN 9781506276427, on sale October 5, 2021. Publisher's Note: Products purchased from third-party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitles included with the product.

Digital Control Engineering M. Sami Fadali 2009-01-01

Data Science and Intelligent Systems Radek Silhavy 2021-11-16 This book constitutes the second part of refereed proceedings of the 5th Computational Methods in Systems and Software 2021 (CoMeSySo 2021) proceedings. The real-world problems related to data science and algorithm design related to systems and software engineering are presented in this papers. Furthermore, the basic research' papers that describe novel approaches in the data science, algorithm design and in systems and software engineering are included. The CoMeSySo 2021 conference is breaking the barriers, being held online. CoMeSySo 2021 intends to provide an international forum for the discussion of the latest high-quality research results

Applications of Various Fuzzy Sliding Mode Controllers in Induction Motor Drives Ali Saghafinia 2016 The book Applications of Various Fuzzy Sliding Mode Controllers in Induction Motor Drives contains publications on various fuzzy sliding mode speed controllers (FSMCs) based on the boundary layer

approaches in the area of an indirect field-oriented control (IFOC) for Induction Motor (IM) drive, which include development and implementation FSMCs and related ?elds. The publications within Applications of Various Fuzzy Sliding Mode Controllers in Induction Motor Drives cover signi?cant and recent developments of both foundational and applicable character in the field. With the exception of some basic notions in sliding mode control (SMC), field-oriented control (FOC), and fuzzy theory, the book is completely self-contained. Important concepts in FSMCs and its use in high performance IM are carefully motivated and introduced. Specifically, the authors have excluded any technical material that does not contribute directly to the understanding of SMC, FOC or fuzzy theory. Many other excellent textbooks are available today that discuss fuzzy, FOC and SMC in much more technical detail than that which is provided here.

Control System Design Bernard Friedland 2012-03-08 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.

Control Techniques for LCL-Type Grid-Connected Inverters Xinbo Ruan 2017-07-26 This book focuses on control techniques for LCL-type grid-connected inverters to improve system stability, control performance and suppression ability of grid current harmonics. Combining a detailed theoretical analysis with design examples and experimental validations, the book offers an essential reference guide for graduate students and researchers in power electronics, as well as engineers engaged in developing grid-connected inverters for renewable energy generation systems.

Linear System Theory Wilson J. Rugh 1996 Linear System Theory, Second Edition, outlines the basic theory of linear systems in a unified, accessible, and careful manner, with parallel, independent treatment of continuous-time and discrete-time linear systems.

Passive and Active Structural Vibration Control in Civil Engineering T.T. Soong 2014-05-04 Base isolation, passive energy dissipation and active

control represent three innovative technologies for protection of structures under environmental loads. Increasingly, they are being applied to the design of new structures or to the retrofit of existing structures against wind, earthquakes and other external loads. This book, with contributions from leading researchers from Japan, Europe, and the United States, presents a balanced view of current research and world-wide development in this exciting and fast expanding field. Basic principles as well as practical design and implementational issues associated with the application of base isolation systems and passive and active control devices to civil engineering structures are carefully addressed. Examples of structural applications are presented and extensively discussed.

Introduction to Robust Estimation and Hypothesis Testing Rand R. Wilcox 2005-01-22 This revised book provides a thorough explanation of the foundation of robust methods, incorporating the latest updates on R and S-Plus, robust ANOVA (Analysis of Variance) and regression. It guides advanced students and other professionals through the basic strategies used for developing practical solutions to problems, and provides a brief background on the foundations of modern methods, placing the new methods in historical context. Author Rand Wilcox includes chapter exercises and many real-world examples that illustrate how various methods perform in different situations. Introduction to Robust Estimation and Hypothesis Testing, Second Edition, focuses on the practical applications of modern, robust methods which can greatly enhance our chances of detecting true differences among groups and true associations among variables. * Covers latest developments in robust regression * Covers latest improvements in ANOVA * Includes newest rank-based methods * Describes and illustrated easy to use software

Digital Control Engineering M. Sami Fadali 2012-08-21 Digital controllers are part of nearly all modern personal, industrial, and transportation systems. Every senior or graduate student of electrical, chemical or mechanical engineering should therefore be familiar with the basic theory of digital controllers. This new text covers the fundamental principles and applications of digital control engineering, with emphasis on engineering design. Fadali and Visioli cover analysis and design of digitally controlled systems and describe applications of digital controls in a wide range of fields. With worked examples and Matlab applications in every chapter and many end-of-chapter assignments, this text provides both theory and practice for those coming to digital control engineering for the first time, whether as a student or practicing engineer. Extensive Use of computational tools: Matlab sections at end of each chapter show how to implement concepts from the chapter Frees the student from the drudgery of mundane calculations and allows him to consider more subtle aspects of control system analysis and design An engineering approach to digital controls: emphasis throughout the book is on design of control systems. Mathematics is used to help explain concepts, but throughout the text discussion is tied to design and implementation. For example coverage of analog controls in chapter 5 is not simply a review, but is used to show how analog control systems map to digital control systems Review of Background Material: contains review material to aid understanding of digital control analysis and design. Examples include discussion of discrete-time systems in time domain and frequency domain (reviewed from linear systems course) and root locus design in s-domain and z-domain (reviewed from feedback control course) Inclusion of Advanced Topics In addition to the basic topics required for a one semester senior/graduate class, the text includes some advanced material to make it suitable for an introductory graduate level class or for two quarters at the senior/graduate level. Examples of optional topics are state-space methods, which may receive brief coverage in a one semester course, and nonlinear discrete-time systems Minimal Mathematics Prerequisites The mathematics background required for understanding most of the book is based on what can be reasonably expected from the average electrical, chemical or mechanical engineering senior. This background includes three semesters of calculus, differential equations and basic linear algebra. Some texts on digital control require more

Digital Control Engineering M. Sami Fadali 2019-12-01 Digital controllers are part of nearly

all modern personal, industrial, and transportation systems. Every senior or graduate student of electrical, chemical, or mechanical engineering should therefore be familiar with the basic theory of digital controllers. This new text covers the fundamental principles and applications of digital control engineering, with emphasis on engineering design. Fadali and Visioli cover analysis and design of digitally controlled systems and describe applications of digital control in a wide range of fields. With worked examples and Matlab applications in every chapter and many end-of-chapter assignments, this text provides both theory and practice for those coming to digital control engineering for the first time, whether as a student or practicing engineer. This new edition covers new topics such as Model Predictive Control and Linear Matrix Inequalities. To engage students, it has more illustrations and simple examples; the mathematical notation is reduced where possible, and it also includes intermediate mathematical steps in derivations. Companion website features resources for instructors, including Powerpoint slides and solutions. Extensive use of CAD Packages: Matlab and Simulink sections at the end of each chapter show how to implement concepts from the chapter. Contains review material to aid understanding of digital control analysis and design. Includes some advanced material to make it suitable for an introductory graduate level class or for two quarters at the senior/graduate level. The mathematics background required for understanding most of the book is based on what can be reasonably expected from the average electrical, chemical, or mechanical engineering senior.

Modern Statistics for the Social and Behavioral Sciences Rand Wilcox 2011-08-05 In addition to learning how to apply classic statistical methods, students need to understand when these methods perform well, and when and why they can be highly unsatisfactory. Modern Statistics for the Social and Behavioral Sciences illustrates how to use R to apply both standard and modern methods to correct known problems with classic techniques. Numerous illustrations provide a conceptual basis for understanding why practical problems with classic methods were missed for so many years, and why modern techniques have practical value. Designed for a two-semester, introductory course for graduate students in the social sciences, this text introduces three major advances in the field: Early studies seemed to suggest that normality can be assumed with relatively small sample sizes due to the central limit theorem. However, crucial issues were missed. Vastly improved methods are now available for dealing with non-normality. The impact of outliers and heavy-tailed distributions on power and our ability to obtain an accurate assessment of how groups differ and variables are related is a practical concern when using standard techniques, regardless of how large the sample size might be. Methods for dealing with this insight are described. The deleterious effects of heteroscedasticity on conventional ANOVA and regression methods are much more serious than once thought. Effective techniques for dealing heteroscedasticity are described and illustrated. Requiring no prior training in statistics, Modern Statistics for the Social and Behavioral Sciences provides a graduate-level introduction to basic, routinely used statistical techniques relevant to the social and behavioral sciences. It describes and illustrates methods developed during the last half century that deal with known problems associated with classic techniques. Espousing the view that no single method is always best, it imparts a general understanding of the relative merits of various techniques so that the choice of method can be made in an informed manner.

Recent Advances in Materials and Modern Manufacturing I. A. Palani

Design and Applications of Active Integrated Antennas Mohammad S. Sharawi 2018-05-31 This comprehensive new resource guides professionals in the latest methods used when designing active integrated antennas (AIA) for wireless communication devices for various standards. This book provides complete design procedures for the various elements of such active integrated antennas such as the matching network, the amplifier/active element as well as the antenna. This book offers insight into how active integration and co-design between the active components (amplifier, oscillator, mixer, diodes) and the antenna can provide better power transfer, higher gains, increased efficiencies, switched beam patterns and smaller

design footprints. It introduces the co-design approach of active integrated antennas and its superior performance over conventional methods. Complete design examples are given of active integrated antenna systems for narrow and wideband applications as well as for multiple-input-multiple-output (MIMO) systems. Readers find the latest design methods for narrow and broadband RF matching networks. This book provides a complete listing of performance metrics for active integrated antennas. The book serves as a complete reference and design guide in the area of AIA.

Unified Design of Steel Structures Louis F. Geschwindner 2011-12-20 Geschwindner's 2nd edition of Unified Design of SteelStructures provides an understanding that structural analysisand design are two integrated processes as well as the necessaryskills and knowledge in investigating, designing, and detailingsteel structures utilizing the latest design methods according tothe AISC Code.The goal is to prepare readers to work in designoffices as designers and in the field as inspectors. This new edition is compatible with the 2011 AISC code as wellas marginal references to the AISC manual for design examples andillustrations, which was seen as a real advantage by the surveyrespondents. Furthermore, new sections have been added on: DirectAnalysis, Torsional and flexural-torsional buckling of columns,Filled HSS columns, and Composite column interaction. Morereal-world examples are included in addition to new use ofthree-dimensional illustrations in the book and in the imagegallery; an increased number of homework problems; and mediaapproach Solutions Manual, Image Gallery.

Basic Antennas Joel R. Hallas 2008
Advanced Control Engineering Roland Burns 2001-11-07 Advanced Control Engineering provides a complete course in control engineering for undergraduates of all technical disciplines. Included are real-life case studies, numerous problems, and accompanying MatLab programs.

Hacker's Delight Henry S. Warren 2003 A red-hot wake-up call? Reporter Macy Reynolds is the new "Yankee girl" in Tranquil Waters, Texas. Having recently inherited a large home and the local newspaper, she's also got a nasty case of cold shoulder from the town. Her only fan is the enormous dog she's just adopted--a dog who is about to land Macy into some deep (and incredibly hot) marine waters.... She was in red high heels and soaked to the skin, trying to shove the reluctant Great Dane into her car. And that was all it took for Lieutenant Blake Michaels to realize just how badly he wanted Macy. Still haunted by his past--and she by hers--neither of them is looking for anything serious. But there's something demanding and carnal in play. The only way to satisfy it? One hot little fling...

Sampling in Digital Signal Processing and Control Arie Feuer 2012-12-06 Undoubtably one of the key factors influencing recent technology has been the advent of high speed computational tools. Virtually every advanced engi neering system we come in contact with these days depends upon some form of sampling and digital signal processing. Well known examples are digital tele phone systems, digital recording of audio signals and computer control. These developments have been matched by the appearance of a plethora of books which explain a variety of analysis, synthesis and design tools applica ble to sampled-data systems. The reader might therefore wonder what is distinc tive about the current book. Our observation of the existing literature is that the underlying continuous-time system is usually forgotten once the samples are tak en. The alternative point of view, adopted in this book, is to formulate the analy sis in such a way that the user is constantly reminded of the presence of the under lying continuous-time signals. We thus give emphasis to two aspects of sampled-data analysis: Firstly, we formulate the various algorithms so that the appropriate contin uous-time case is approached as the sampling rate increases. Secondly we place emphasis on the continuous-time output response rath er than simply focusing on the sampled response.

Studyguide for Digital Control Engineering Cram101 Textbook Reviews 2013-05 Never HIGHLIGHT a Book Again Includes all testable terms, concepts, persons, places, and events. Cram101 Just the FACTS101 studyguides gives all of the outlines, highlights, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is

Textbook Specific. Accompanies: 9780872893795. This item is printed on demand.

Applications from Engineering with MATLAB Concepts Jan Valdman 2016-07-07 The book presents a collection of MATLAB-based chapters of various engineering background. Instead of giving exhausting amount of technical details, authors were rather advised to explain relations of their problems to actual MATLAB concepts. So, whenever possible, download links to functioning MATLAB codes were added and a potential reader can do own testing. Authors are typically scientists with interests in modeling in MATLAB. Chapters include image and signal processing, mechanics and dynamics, models and data identification in biology, fuzzy logic, discrete event systems and data acquisition systems.

DIGITAL CONTROL (With CD) Kannan M. Moudgalya 2009-08-01 Market_Desc: " Engineering and postgraduate students in control engineering and electronic engineering." Practicing control systems engineers and researchers in this field." Engineers needing to learn digital control Special Features: " Developed from three existing lecture courses on digital control, systems identification and intermediate process control" Includes numerous examples, problems, solutions and Matlab code." Highlights the advantages of the polynomial approach." Assumes little or no prior knowledge of analogue control." Offers a very thorough treatment of the z-transform and frequency-domain analysis." Includes a thorough treatment of identification." Attempts the tuning of PID controllers using model-based control techniques." Concludes each chapter with a 2018 problems' section.The distinguishing feature of the Indian edition of this book is the accompanying CD which contains:- A ten minute video introduction to the book, using slides- Set of chapter wise presentation slides for teachers with animation- Set of slides for students, with four slides on one page- Matlab code, in zip format and also as individual files, arranged in a directory structure- Scilab code in the same format as the Matlab code- Scilab software, using which one can install Scilab- Spoken tutorial on Scilab that explains how to install Scilab About The Book: This book is about the

design of digital controllers. An attempt has been made to present digital control from scratch. The book is organized into five parts. The first deals with modeling, the second concerned with the topic of signal processing, the third devoted to identification of plants from measurements, fourth section looks at the transfer function approach to control design and the last section is devoted to state space techniques for control design. The topics of observers, Kalman filter and combined controller and observer have also been included.

Electromechanics and Robotics Andrey Ronzhin 2021-08-28 This book features selected papers presented at the 16th International Conference on Electromechanics and Robotics 'Zavalishin's Readings' – ER(ZR) 2021, held in St. Petersburg, Russia, on April 14–17, 2021. The contributions, written by professionals, researchers and students, cover topics in the field of automatic control systems, electromechanics, electric power engineering and electrical engineering, mechatronics, robotics, automation and vibration technologies. The Zavalishin's Readings conference was established as a tribute to the memory of Dmitry Aleksandrovich Zavalishin (1900–1968) – a Russian scientist, corresponding member of the USSR Academy of Sciences, and founder of the school of valve energy converters based on electric machines and valve converters energy. The first conference was organized by the Institute of Innovative Technologies in Electromechanics and Robotics at the Saint Petersburg State University of Aerospace Instrumentation in 2006. The 2021 conference was held with XV International Conference "Vibration-2021. Vibration technologies, mechatronics and controlled machines" and VI International Conference "Electric drive, electrical technology and electrical equipment of enterprises", and was organized by St. Petersburg State University of Aerospace Instrumentation (SUAI), St. Petersburg Federal Research Center of the Russian Academy of Sciences (SPC RAS), Southwest State University (SWSU) and Ufa State Oil Technical University (USPTU).

Discrete-time Control Systems Katsuhiko Ogata 1995 A comprehensive treatment of the analysis and design of discrete-time control systems which provides a gradual development

of the theory by emphasizing basic concepts and avoiding highly mathematical arguments. The text features comprehensive treatment of pole placement, state observer design, and quadratic optimal control.

Power Electronics and Renewable Energy Systems C. Kamalakannan 2017-05-04 The book is a collection of high-quality peer-reviewed research papers presented in the Proceedings of International Conference on Power Electronics and Renewable Energy Systems (ICPERES 2014) held at Rajalakshmi Engineering College, Chennai, India. These research papers provide the latest developments in the broad area of Power Electronics and Renewable Energy. The book discusses wide variety of industrial, engineering and scientific applications of the emerging techniques. It presents invited papers from the inventors/originators of new applications and advanced technologies.

Endogenous and Exogenous Regulation and Control of Physiological Systems Robert B. Northrop 2020-11-26 From a biomedical engineering perspective, this book takes an analytic, quantitative approach to describing the basic components of physiological regulators and control systems (PRCs). In Endogenous and Exogenous Regulation and Control of Physiological Systems, the author provides grounding in the classical methods of designing linear and nonlinear systems. He also offers state-of-the-art material on the potential of PRCs to treat immune system ailments, most notably AIDS and cancer. The book focuses on certain "wet" physiological regulators, such as those using endocrine hormones as parametric control substances. Endogenous and Exogenous Regulation and Control of Physiological Systems includes simulations that illustrate model validations and the putative control of cancer and HIV proliferation. It explores novel, untried immunotherapies on the cutting-edge of PRC treatment and explores the latest technologies.

Digital Control System Analysis and Design Charles L. Phillips 1990

Reconfigurable Switched-Capacitor Power Converters Dongsheng Ma 2012-07-25 This book provides readers specializing in ultra-low power supply design for self-powered applications an invaluable reference on reconfigurable switched capacitor power converters. Readers will benefit from a comprehensive introduction to the design of robust power supplies for energy harvesting and self-power applications, focusing on the use of reconfigurable switched capacitor based DC-DC converters, which is ideal for such applications. Coverage includes all aspects of switched capacitor power supply designs, from fundamentals, to reconfigurable power stages, and sophisticated controller designs.

Control Design Techniques in Power Electronics Devices Hebertt Sira-Ramirez 2010-10-22 This book deals specifically with control theories relevant to the design of control units for switched power electronics devices, for the most part represented by DC–DC converters and supplies, by rectifiers of different kinds and by inverters with varying topologies. The theoretical methods for designing controllers in linear and nonlinear systems are accompanied by multiple case studies and examples showing their application in the emerging field of power electronics.

Analog Automation and Digital Feedback Control Techniques Jean Mbihi 2018-05-08 This book covers various modern theoretical, technical, practical and technological aspects of computerized numerical control and control systems of deterministic and stochastic dynamical processes.

Applications of Soft Computing Jörn Mehnen 2009-09-30 WSC2008Chair's Welcome Message Dear Colleague, The World Soft Computing (WSC) conference is an annual international online conference on applied and theoretical soft computing technology. This WSC 2008 is the thirteenth conference in this series and it has been a great success. We received a lot of excellent paper submissions which were peer-reviewed by an international team of experts. Only60 papers out of111 submissions were selected for online publication. This assured a high quality standard for this online conference. The corresponding online statistics are a proof of the great world-wide interest in the WSC 2008 conference. The conference website had a total of33,367di?erent human user accessesfrom43 countries with around100 visitors every day,151 people signed up to WSC to discuss their scienti?c disciplines in our chat rooms and the forum. Also audio and slide presentations allowed a detailed discussion of

the papers. The submissions and discussions showed that there is a wide range of soft computing applications to date. The topics covered by the conference range from applied to theoretical aspects of fuzzy, neuro-fuzzy and rough sets over to neural networks to single and multi-objective optimisation. Contributions aboutparticleswarmoptimisation,geneexpression programming,clustering, classi?cation,supportvectormachines,quantumev olutionandagentsystems have also been received. One whole session was devoted to soft computing techniques in computer graphics, imaging, vision and signal processing.

A Course in Fuzzy Systems and Control Li-Xin Wang 1997 Provides a comprehensive, self-tutorial course in fuzzy logic and its increasing role in control theory. It summarizes the important results of the field in a well-structured framework.

Digital Control Engineering M. Gopal 1988
Modern Digital Control Systems Raymond G. Jacquot 2019-01-22 This work presents traditional methods and current techniques of incorporating the computer into closed-loop dynamic systems control, combining conventional transfer function design and state variable concepts. Digital Control Designer - an award-winning software program which permits the solution of highly complex problems - is available on the CR

Advanced Technologies in Robotics and Intelligent Systems Sergey Yu. Misyurin 2020-01-01 This volume gathers the latest advances, innovations, and applications in the field of intelligent systems such as robots, cyber-physical and embedded systems, as presented by leading international researchers and engineers at the International Conference on Intelligent Technologies in Robotics (ITR), held in Moscow, Russia on October 21-23, 2019. It covers highly diverse topics, including robotics, design and machining, control and dynamics, bio-inspired systems, Internet of Thing, Big Data, RFID technology, blockchain, trusted software, cyber-physical systems (CFS) security, development of CFS in manufacturing, protection of information in CFS, cybersecurity of CFS. The contributions, which were selected by means of a rigorous international peer-review process, highlight numerous exciting ideas that will spur novel

research directions and foster multidisciplinary collaboration among different specialists, demonstrating that intelligent systems will drive the technological and societal change in the coming decades.

Enhancing E-learning with Media-rich Content and Interactions Richard Caladine 2008 Online learning is transcending from the text-rich educational experience of the past to a video- and audio-rich learning transformation. The greater levels of media-rich content and media-rich interaction that are currently prevalent in online leisure experiences will help to increase e-learning's future efficiency and effectiveness. ""Enhancing E-Learning with Media-Rich Content and Interactions"" presents instructional designers, educators, scholars, and researchers with the necessary foundational elements, theoretical underpinnings, and practical guidance to aid in the technology selection and design of effective online learning experiences by integrating media-rich interactions and content.

Sliding Mode Control In Engineering Wilfrid Perruquetti 2002-01-29 Provides comprehensive coverage of the most recent developments in the theory of non-Archimedean pseudo-differential equations and its application to stochastics and mathematical physics--offering current methods of construction for stochastic processes in the field of p-adic numbers and related structures. Develops a new theory for parabolic equat

Advances in Swarm Intelligence Ying Tan 2021-07-07 his two-volume set LNCS 12689-12690 constitutes the refereed proceedings of the 12th International Conference on Advances in Swarm Intelligence, ICSI 2021, held in Qingdao, China, in July 2021. The 104 full papers presented in this volume were carefully reviewed and selected from 177 submissions. They cover topics such as: Swarm Intelligence and Nature-Inspired Computing; Swarm-based Computing Algorithms for Optimization; Particle Swarm Optimization; Ant Colony Optimization; Differential Evolution; Genetic Algorithm and Evolutionary Computation; Fireworks Algorithms; Brain Storm Optimization Algorithm; Bacterial Foraging Optimization Algorithm; DNA Computing Methods; Multi-Objective Optimization; Swarm Robotics and Multi-Agent

System; UAV Cooperation and Control; Machine   Learning; Data Mining; and Other Applications.