

M Gopal Digital System Solution

Corrosion in Amine Treating Units, Second Edition presents a fully updated resource with a broadened focus that includes corrosion in not only refining operations, but also in oil and gas production. New sections have been added on inhibition, corrosion modeling and metallic coatings. More detailed descriptions of the degradation mechanisms and Integrity Operating Windows (IOW) are now included, as is more in-depth information on guidelines for what sections and locations are most vulnerable to corrosion and how to control corrosion in amine units e.g., using corrosion Loop descriptions and providing indicative integrity operating windows for operation to achieve a suitable life expectancy. Provides new insights on the degradation mechanisms occurring in amine treating units and the locations within the unit where they occur Discusses how to mitigate and control corrosion in amine units Provides guidance for setting up corrosion control documents and inspection and maintenance plans for amine treating units

"This book covers a wide range of the most current research in the development of innovative web-based learning solutions, specifically facilitating and augmenting learning in diverse contemporary organizational settings"--Provided by publisher.

About the book... The book provides an integrated treatment of continuous-time and discrete-time systems for two courses at postgraduate level, or one course at undergraduate and one course at postgraduate level. It covers mainly two areas of modern control theory, namely: system theory, and multivariable and optimal control. The coverage of the former is quite exhaustive while that of latter is adequate with significant provision of the necessary topics that enables a research student to comprehend various technical papers. The stress is on interdisciplinary nature of the subject. Practical control problems from various engineering disciplines have been drawn to illustrate the potential concepts. Most of the theoretical results have been presented in a manner suitable for digital computer programming along with the necessary algorithms for numerical computations.

Digital Innovation for Healthcare in COVID-19 Pandemic: Strategies and Solutions

Conventional and Neuro-Fuzzy Control Systems

Publishers' Trade List Annual

From Grand Challenges to Great Solutions: Digital Transformation in the Age of COVID-19

Understanding Information Retrieval Systems

Imitation Market Modeling in Digital Economy

Resource Management for Distributed Multimedia Systems addresses the problems and challenges of handling several continuous- media data streams in networked multimedia environments. The work demonstrates how resource management mechanisms can be integrated into a stream handling system. The resulting system includes functions for Quality of Service (QoS) calculations, scheduling, determination of resource requirements, and methods to reduce resource requirements. The work explains the following: a suitable system architecture and resource management scheme that allows for the provision and enforcement of QoS guarantee, resource scheduling mechanisms for CPU and buffer space, mechanisms to measure and collect resource requirements, methods to extend resource management to future scenarios by allowing the reservation of resources in advance and offering sealing mechanisms. Resource Management for Distributed Multimedia Systems is a comprehensive view of resource management for a broad technical audience that includes computer scientists and engineers involved in developing multimedia applications.

Focuses on the first control systems course of BTech, JNTU, this book helps the student prepare for further studies in modern control system design. It offers a profusion of examples on various aspects of study.

Going beyond the traditional field of robotics to include other mobile vehicles, Mobile Intelligent Autonomous Systems describes important theoretical concepts, techniques, approaches, and applications that can be used to build truly mobile intelligent autonomous systems (MIAS). It offers a comprehensive treatment of robotics and MIAS, as well as r

Digital Control and State Variable Methods

Principles and Design

Digital Control Engineering

Journal of the Institution of Engineers (India).

Principles and Design, 2/e

Theory and Perspectives

True Digital Control: Statistical Modelling and Non-Minimal State Space Design develops a true digital control design philosophy that encompasses data-based model identification, through to control algorithm design, robustness evaluation and implementation. With a heritage from both classical and modern control system synthesis, this book is supported by detailed practical examples based on the authors' research into environmental, mechatronic and robotics systems. Treatment of both statistical modelling and control design in one cover is unusual and highlights the important connections between these disciplines. Starting from the ubiquitous proportional-integral controller, and with essential concepts such as pole assignment introduced using straightforward algebra and block diagrams, this book addresses the needs of those students, researchers and engineers, who would like to advance their knowledge of control theory and practice into the state space domain; and academics whose interest is to learn more about non-minimal state variable feedback control systems. Such non-minimal state feedback is utilised as a unifying framework for generalised digital control system design. This approach provides a gentle learning curve, from which potentially difficult topics, such as optimal, stochastic and multivariable control, can be introduced and assimilated in an interesting and straightforward manner. Key features: Covers both system identification and control system design in a unified manner Includes practical design case studies and simulation examples Considers recent research into time-variable and state-dependent parameter modelling and control, essential elements of adaptive and nonlinear control system design, and the delta-operator (the discrete-time equivalent of the differential operator) systems Accompanied by a website hosting MATLAB examples *True Digital Control: Statistical Modelling and Non-Minimal State Space Design* is a comprehensive and practical guide for students and professionals who wish to further their knowledge in the areas of modern control and system identification.

Digital Control Engineering: New Age International Digital Control and State Variable Methods Conventional and Neuro-Fuzzy Control Systems

ICTs and Sustainable Solutions for the Digital Divide: Theory and Perspectives focuses on Information and Communication Technologies for Development (ICT4D), which includes any technology used for communication and information. This publication researches the social side of computing, the users, and the design of systems that meet the needs of "ordinary" users.

Blockchain and Other Emerging Technologies for Digital Business Strategies

September 21-23, 1994, Cincinnati, Ohio

Management, Types, and Standards

Robotics, CAD/CAM Market Place, 1985

A Course in Modern Control System

Electrical Engineering Division

The third edition of Digital Control and State Variable Methods presents control theory relevant to the analysis and design of computer-control systems. Meant for the undergraduate and postgraduate courses on advanced control systems, this text provides an up-to-date treatment of digital control, state variable analysis and design, and nonlinear control.

This book constitutes revised selected papers from the 20th Workshop on e-Business, WeB 2021, which took place virtually on December 11, 2021. The purpose of WeB is to provide a forum for researchers and practitioners to discuss findings, novel ideas, and lessons learned to address major challenges and map out the future directions for e-Business. The WeB 2021 theme was "From Grand Challenges to Great Solutions: Digital Transformation in the Age of COVID-19." The 8 papers included in this volume were carefully reviewed and selected from a total of 24 submissions. The contributions are organized in topical sections as follows: digital innovation and transformation, and e-commerce and social media.

Modern Control Systems, 12e, is ideal for an introductory undergraduate course in control systems for engineering students. Written to be equally useful for all engineering disciplines, this text is organized around the concept of control systems theory as it has been developed in the frequency and time domains. It provides coverage of classical control, employing root locus design, frequency and response design using Bode and Nyquist plots. It also covers modern control methods based on state variable models including pole placement design techniques with full-state feedback controllers and full-state observers. Many examples throughout give students ample opportunity to apply the theory to the design and analysis of control systems. Incorporates computer-aided design and analysis using MATLAB and LabVIEW MathScript.

Digital Control System Analysis and Design

ICTs and Sustainable Solutions for the Digital Divide: Theory and Perspectives

Health Technologies and Innovations to Effectively Respond to the COVID-19 Pandemic

Digital Remote Sensing

True Digital Control

Modern Control Systems

Digital Innovation for Healthcare in COVID-19 Pandemic: Strategies and Solutions provides comprehensive knowledge and insights on the application of information technologies in the healthcare sector, sharing experiences from leading researchers and academics from around the world. The book presents innovative ideas, solutions and examples to deal with one of the major challenges of the world, a global problem with health, economic and political dimensions. Advanced information technologies can play a key role in solving problems generated by the COVID-19 outbreak. The book addresses how science, technology and innovation can provide advances and solutions to new global health challenges. This is a valuable resource for researchers, clinicians, healthcare workers, policymakers and members of the biomedical field who are interested in learning how digital technologies can help us avoid and solve global disease dissemination. Presents real-world cases with experiences of applications of healthcare solutions during the pandemic of COVID-19 Discusses new approaches, theories and tools developed during an unprecedented health situation and how they can be used afterwards Encompasses information on preparedness for future outbreaks to make less costly and more effective healthcare responses to crises

On behalf of the NDT 2010 conference, the Program Committee and Charles University in Prague, Czech Republic, we welcome you to the proceedings of the Second International Conference on 'Networked Digital Technologies' (NDT 2010). The NDT 2010 conference explored new advances in digital and Web technology applications. It brought together researchers from various areas of computer and information sciences who addressed both theoretical and applied aspects of Web technology and Internet applications. We hope that the discussions and exchange of ideas that took place will contribute to advancements in the technology in the near future. The conference received 216 papers, out of which 85 were accepted, resulting in an acceptance rate of 39%. These accepted papers are authored by researchers from 34 countries covering many significant areas of Web applications. Each paper was evaluated by a minimum of two reviewers. Finally, we believe that the proceedings document the best research in the studied areas. We express our thanks to the Charles University in Prague, Springer, the authors and the organizers of the conference.

Test Prep for Control Systems—GATE, PSUS AND ES Examination

National Conference on Environmental Problem-Solving with Geographic Information Systems

Resource Management for Distributed Multimedia Systems

CONTROL SYSTEMS

Improved Platforms, Tools, and Applications

Analysis and Design

Pakistan Journal of Scientific Research

The new edition of POWER SYSTEM ANALYSIS AND DESIGN provides students with an introduction to the basic concepts of power systems along with tools to aid them in applying these skills to real world situations. Physical concepts are highlighted while also giving necessary attention to mathematical techniques. Both theory and modeling are developed from simple beginnings so that they can be readily extended to new and complex situations. The authors incorporate new tools and material to aid students with design issues and reflect recent trends in the field. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

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

This comprehensive text on control systems is designed for undergraduate students pursuing courses in electronics and communication engineering, electrical and electronics engineering, telecommunication engineering, electronics and instrumentation engineering, mechanical engineering, and biomedical engineering. Appropriate for self-study, the book will also be useful for AMIE and IETE students. Written in a student-friendly readable manner, the book, now in its Second Edition, explains the basic fundamentals and concepts of control systems in a clearly understandable form. It is a balanced survey of theory aimed to provide the students with an in-depth insight into system behaviour and control of continuous-time control systems. All the solved and unsolved problems in this book are classroom tested, designed to illustrate the topics in a clear and thorough way. NEW

TO THIS EDITION* One new chapter on digital control systems* Complete answers with figures* Root locus plots and Nyquist plots redrawn as per MATLAB output* MATLAB programs at the end of each chapter* Glossary at the end of chapters KEY FEATURES* Includes several fully worked-out examples to help students master the concepts involved. * Provides short questions with answers at the end of each chapter to help students prepare for exams confidently. * Offers fill in the blanks and objective type questions with answers at the end of each chapter to quiz students on key learning points. * Gives chapter-end review questions and problems to assist students in reinforcing their knowledge. Solution Manual is available for adopting faculty.

Statistical Modelling and Non-Minimal State Space Design

Problems and Solutions in Signals and Systems

IETE Technical Review

20th Workshop on e-Business, WeB 2021, Virtual Event, December 11, 2021, Revised Selected Papers

Power System Analysis and Design

Control Systems (As Per Latest Untu Syllabus)

This book includes the best studies on the results of the International Scientific and Practical Conference "New behaviors of market players in the digital economy," which was held by the Institute of Scientific Communications on July 8, 2021, online, in YouTube format. This book is devoted to the study of digital economy markets from the standpoint of various market players—society (consumers), entrepreneurship, and the state—from the standpoint of various sciences—economic, managerial, social, and legal—which ensures the multidisciplinary of the book. The uniqueness of the book lies in the application of a new scientific and methodological approach to the study of digital economy markets—simulation modeling. The advantages of a game-based scientific and methodological approach to reducing the uncertainty of economic processes and systems—a combination of quantitative and qualitative analytical methods, a systematic consideration of economic processes and systems from a socio-economic point of view—make it especially suitable for studying digital economy markets. The book identifies the impact of globalization and digitalization on the modern economy and industry markets. The trends and features of the use of advanced technologies in the digital economy markets are studied. The modern practices of business management and business integration in the digital economy are considered. The foundations of economic security and sustainable development of markets and enterprises in the digital economy are revealed. The book is suitable for scientists studying the markets of the digital economy, who will find it scientific and methodological recommendations and developments on the application of game theory, as well as ready simulation models of the digital economy markets.

This book presents information about the application of various flexible AC transmission system devices to wind energy conversion systems. Devices such as unified power flow controllers, superconducting magnetic energy storage and static synchronous compensators are covered in this book. Chapters detail features of the topology and basic control systems of each device. Additionally, case studies are presented where necessary to demonstrate practical applications. This book is a reference for students and technicians studying wind power and AC transmission systems in advanced engineering courses.

Most of the business sectors consider the Digital Twin concept as the next big thing in the industry. A current state analysis of their digital counterparts helps in the prediction of the future of physical assets. Organizations obtain better insights on their product performance through the implementation of Digital Twins, and the applications of the technology are frequently in sectors such as manufacturing, automobile, retail, health care, smart cities, industrial IoT, etc. This book explores the latest developments and covers the significant challenges, issues, and advances in Digital Twin Technology. It will be an essential resource for anybody involved in related industries, as well as anybody interested in learning more about this nascent technology. This book includes: The future, present, and past of Digital Twin Technology. Digital twin technologies across the Internet of Drones, which developed various perceptive and autonomous capabilities, towards different control strategies such as object detection, navigation, security, collision avoidance, and backup. These approaches help to deal with the expansive growth of big data solutions. The recent digital twin concept in agriculture, which offers the vertical framing by

IoT installation development to enhance the problematic food supply situation. It also allows for significant energy savings practices. It is highly required to overcome those challenges in developing advanced imaging methods of disease detection & prediction to achieve more accuracy in large land areas of crops. The welfare of upcoming archetypes such as digitalization in forensic analysis. The ideas of digital twin have arisen to style the corporeal entity and associated facts reachable software and customers over digital platforms. Wind catchers as earth building: Digital Twins vs. green sustainable architecture.

Electronics & Telecommunication Engineering Division

Solutions and Innovations in Web-Based Technologies for Augmented Learning: Improved Platforms, Tools, and Applications

Journal of the Institution of Electronics and Telecommunication Engineers

Corrosion in Amine Treating Units

In order to be effective for their users, information retrieval (IR) systems should be adapted to the specific needs of particular environments. The huge and growing array of types of information retrieval systems in use today is on display in Understanding Information Retrieval Systems: Management, Types, and Standards, which addresses Part of the McGraw-Hill Core Concepts Series. Control Systems: Principles and Design is a textbook for a control systems course at the advanced undergraduate level. The book presents a balanced approach, incorporating the frequency-response, root locus and state-variable methods as well as discussing the digital control of systems. M integrated throughout the book, so that practical applications are emphasized over theory. About the Core Concepts in Electrical Engineering Series:As advances in networking and communications bring the global academic community even closer together, it is essential that textbooks recognize and respond to this shift. It is in this spirit t Concepts in Electrical Engineering Series. The series will offer textbooks for the global electrical engineering curriculum that are reasonably priced, innovative, dynamic, and will cover fundamental subject areas studied by Electrical and Computer Engineering students. Written with a global perspective and presenting the latest in technology

backgrounds a solid foundation in key engineering subjects.

Control Systems

Modern Control System Theory

Networked Digital Technologies, Part II

Mobile Intelligent Autonomous Systems

Second International Conference, NDT 2010, Prague, Czech Republic, July 7-9, 2010 Proceedings

Digital Twin Technology