

## Signals Systems Wordpress

WordPress for Web Developers is a complete guide for web designers and developers who want to begin building and administering sites with WordPress. This book is an update of Beginning WordPress 3, freshened and clarified for web developers who want to make the most of WordPress. You'll start by learning WordPress basics, including how to publish content, add media, and manage users. Then you'll dig deeper into your WordPress server administration, including domain mapping, security, and importing and migrating. The book then steps up a gear with an introduction to developing for WordPress, perfect for developers and designers with some PHP experience, who want to learn to create custom themes and plugins. WordPress is the most popular open source blogging and content management system in the world. Its flexible, user-friendly system can be extended with thousands of freely available themes and plugins. This book will teach you how to make the most of WordPress's built-in features, how to find the right themes and plugins for your projects, and how to build your own custom features. You'll learn to:

"This book satisfies the need for methodological consideration and tools for data collection, analysis and presentation in virtual communities, covering studies on various types of virtual communities, making this reference a comprehensive source of research for those in the social sciences and humanities"--Provided by publisher.

This book presents 50 selected peer-reviewed reports from the 2016 International Conference on "Physics and Mechanics of New Materials and Their Applications", PHENMA 2016 (Surabaya, Indonesia, 19–22 July, 2016). The Proceedings are devoted to processing techniques, physics, mechanics, and applications of advanced materials. As such, they examine a wide spectrum of nanostructures, ferroelectric crystals, materials and composites, as well as other promising materials with special properties. They present nanotechnology approaches, modern environmentally friendly piezoelectric and ferromagnetic techniques, and physical and mechanical studies of the structural and physical-mechanical properties of the materials discussed. Further, a broad range of original mathematical and numerical methods is applied to solve various technological, mechanical and physical problems, which are interesting for applications. Great attention is devoted to novel devices with high accuracy, longevity and extended possibilities to work in wide temperature and pressure ranges, aggressive media, etc., which show improved characteristics, defined by the developed materials and composites, opening new possibilities to study different physico-mechanical processes and phenomena.

This book summarizes the latest developments in imaging techniques and other new diagnostic methods as applied to the neurodegenerative disorders.

This volume of Smart Innovation, Systems and Technologies contains accepted papers presented in IIH-MSP-2016, the 12th International Conference on Intelligent Information Hiding and Multimedia Signal Processing. The conference this year was technically co-sponsored by Tainan Chapter of IEEE Signal Processing Society, Fujian University of Technology, Chaoyang University of Technology, Taiwan Association for Web Intelligence Consortium, Fujian Provincial Key Laboratory of Big Data Mining and Applications (Fujian University of Technology), and Harbin Institute of Technology Shenzhen Graduate School. IIH-MSP 2016 is held in 21-23, November, 2016 in Kaohsiung, Taiwan. The conference is an international forum for the researchers and professionals in all areas of information hiding and multimedia signal processing.

This book provides a comprehensive survey of the security and privacy research advancements in Internet of Things (IoT). The book lays the context for the discussion by introducing a system model for IoT. Since IoT is very varied and has been introduced in many different contexts, the system model introduced plays a crucial role in integrating the concepts into a coherent framework. After the system model, the book introduces the vulnerable features of the IoT. By providing a comprehensive discussion of the vulnerable features, the book highlights the problem areas of IoT that should be studied concerning security and privacy. Using the vulnerable features as a motivation, the book presents a vast survey of existing security and privacy approaches for IoT. The survey is a good way for the reader to pick up interesting directions of research that have already been explored and also hints at directions that could take additional investigation. Finally, the book presents four case studies that provide a detailed view of how some of the security and privacy concerns are addressed in specific problem areas.

Readers develop an understanding of the core principles of IS and how it is practiced today with PRINCIPLES OF INFORMATION SYSTEMS, 13th edition. This edition combines the latest research with the most current coverage available as content highlights IS-related careers. Readers explore the challenges and risks of computer crimes, hacking, and cyberterrorism as well as the most current research on big data, analytics, and global IS and social networking. In addition, readers examine business intelligence; cloud computing; e-commerce; enterprise systems; ethical, legal, and social issues of information systems; mobile computing; project management; strategic planning; and systems acquisition. Readers learn how information systems can increase profits and reduce costs as they explore new information on artificial intelligence, change management, data governance, energy and environmental concerns, Internet of Everything, Internet censorship and net neutrality, virtual teams, and more. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This two-volume set LNCS 12777 and 12778 constitutes the thoroughly refereed proceedings of the 12th International Conference on Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management, DHM 2021, which was held virtually as part of the 23rd HCI International Conference, HCII 2021, in July 2021. The total of 1276 papers and 241 posters included in the 39 HCII 2021 proceedings volumes was carefully reviewed and selected from 5222 submissions. DHM 2021 includes a total of 56 papers; they were organized in topical sections named: Part I, Human Body, Motion and Behavior: Ergonomics, human factors and occupational health; human body and motion modeling; and language, communication and behavior modeling. Part II, AI, Product and Service: Rethinking healthcare; artificial intelligence applications and ethical issues; and digital human modeling in product and service design.

The Handbook of Research Management is a unique tool for the newly promoted research leader. Larger-scale projects are becoming more common throughout the social sciences and humanities, housed in centres, institutes and programmes. Talented researchers find themselves faced with new challenges to act as managers and leaders rather than as individual scholars. They are responsible for the careers and professional development of others, and for managing interactions with university administrations and external stakeholders. Although many scientific and technological disciplines have long been organized in this way, few resources have been created to help new leaders understand their roles and responsibilities and to reflect on their practice. This Handbook has been created by the

combined experience of a leading social scientist and a chief executive of a major international research development institution and funder. The editors have recruited a truly global team of contributors to write about the challenges they have encountered in the course of their careers, and to provoke readers to think about how they might respond within their own contexts. This book will be a standard work of reference for new research leaders, in any discipline or country, looking for help and inspiration. The editorial commentaries extend its potential use in support of training events or workshops where groups of new leaders can come together and explore the issues that are confronting them.

With an emphasis on applications of computational models for solving modern challenging problems in biomedical and life sciences, this book aims to bring collections of articles from biologists, medical/biomedical and health science researchers together with computational scientists to focus on problems at the frontier of biomedical and life sciences. The goals of this book are to build interactions of scientists across several disciplines and to help industrial users apply advanced computational techniques for solving practical biomedical and life science problems. This book is for users in the fields of biomedical and life sciences who wish to keep abreast with the latest techniques in signal and image analysis. The book presents a detailed description to each of the applications. It can be used by those both at graduate and specialist levels.

This book constitutes the proceedings of the 10th International IFIP WG 8.9 Working Conference on Research and Practical Issues of Enterprise Information Systems, CONFENIS 2016, held in Vienna, Austria, in December 2016. The conference provided an international forum for the broader IFIP community to discuss the latest research findings in the area of EIS and specifically aimed at facilitating the exchange of ideas and advances on all aspects and developments of EIS. The 25 papers presented in this volume were carefully reviewed and selected from 63 submissions. They were organized in topical sections on: semantic concepts and open data; customer relationship management; security and privacy issues; advanced manufacturing and management aspects; business intelligence and big data; decision support in EIS; and EIS-practices.

This unique collection synthesizes insights and evidence from innovators in consumer informatics and highlights the technical, behavioral, social, and policy issues driving digital health today and in the foreseeable future. Consumer Informatics and Digital Health presents the fundamentals of mobile health, reviews the evidence for consumer technology as a driver of health behavior change, and examines user experience and real-world technology design challenges and successes. Additionally, it identifies key considerations for successfully engaging consumers in their own care, considers the ethics of using personal health information in research, and outlines implications for health system redesign. The editors' integrative systems approach heralds a future of technological advances tempered by best practices drawn from today's critical policy goals of patient engagement, community health promotion, and health equity. Here's the inside view of consumer health informatics and key digital fields that students and professionals will find inspiring, informative, and thought-provoking. Included among the topics: • Healthcare social media for consumer informatics • Understanding usability, accessibility, and human-centered design principles • Understanding the fundamentals of design for motivation and behavior change • Digital tools for parents: innovations in pediatric urgent care • Behavioral medicine and informatics in the cancer community • Content strategy: writing for health consumers on the web • Open science and the future of data analytics • Digital approaches to engage consumers in value-based purchasing Consumer Informatics and Digital Health takes an expansive view of the fields influencing consumer informatics and offers practical case-based guidance for a broad range of audiences, including students, educators, researchers, journalists, and policymakers interested in biomedical informatics, mobile health, information science, and population health. It has as much to offer readers in clinical fields such as medicine, nursing, and psychology as it does to those engaged in digital pursuits.

Web 2.0 and Beyond: Principles and Technologies draws on the author's iceberg model of Web 2.0, which places the social Web at the tip of the iceberg underpinned by a framework of technologies and ideas. The author incorporates research from a range of areas, including business, economics, information science, law, media studies, psychology, social informatics and sociology. This multidisciplinary perspective illustrates not only the wide implications of computing but also how other areas interpret what computer science is doing. After an introductory chapter, the book is divided into three sections. The first one discusses the underlying ideas and principles, including user-generated content, the architecture of participation, data on an epic scale, harnessing the power of the crowd, openness and the network effect and Web topology. The second section chronologically covers the main types of Web 2.0 services—blogs, wikis, social networks, media sharing sites, social bookmarking and microblogging. Each chapter in this section looks at how the service is used, how it was developed and the technology involved, important research themes and findings from the literature. The final section presents the technologies and standards that underpin the operation of Web 2.0 and goes beyond this to explore such topics as the Semantic Web, cloud computing and Web Science. Suitable for nonexperts, students and computer scientists, this book provides an accessible and engaging explanation of Web 2.0 and its wider context yet is still grounded in the rigour of computer science. It takes readers through all aspects of Web 2.0, from the development of technologies to current services.

This book presents selected research papers on current developments in the fields of soft computing and signal processing from the Second International Conference on Soft Computing and Signal Processing (ICSCSP 2019). The respective contributions address topics such as soft sets, rough sets, fuzzy logic, neural networks, genetic algorithms and machine learning, and discuss various aspects of these topics, e.g. technological considerations, product implementation, and application issues.

This book is a collection of thoroughly refereed papers presented at the 27th IFIP TC 7 Conference on System Modeling and Optimization, held in Sophia Antipolis, France, in June/July 2015. The 48 revised papers were carefully reviewed and selected from numerous submissions. They cover the latest progress in their respective areas and encompass broad

aspects of system modeling and optimization, such as modeling and analysis of systems governed by Partial Differential Equations (PDEs) or Ordinary Differential Equations (ODEs), control of PDEs/ODEs, nonlinear optimization, stochastic optimization, multi-objective optimization, combinatorial optimization, industrial applications, and numerical PDEs. This book explores the use of new technologies in the area of satellite navigation receivers. In order to construct a reconfigurable receiver with a wide range of applications, the authors discuss receiver architecture based on software-defined radio techniques. The presentation unfolds in a user-friendly style and goes from the basics to cutting-edge research. The book is aimed at applied mathematicians, electrical engineers, geodesists, and graduate students. It may be used as a textbook in various GPS technology and signal processing courses, or as a self-study reference for anyone working with satellite navigation receivers.

With the growing use of new technologies and artificial intelligence (AI) applications, intelligent systems can be used to manage large amounts of existing data in healthcare domains. Having more intelligent methods for accessing data allows medical professionals to more efficiently identify the best medical practices and more concrete solutions for diagnosing and treating a multitude of rare diseases. *Intelligent Systems for Healthcare Management and Delivery* provides relevant and advanced methodological, technological, and scientific approaches related to the application of sophisticated exploitation of AI, as well as providing insight into the technologies and intelligent applications that have received growing attention in recent years such as medical imaging, EMR systems, and drug development assistance. This publication fosters a scientific debate for new healthcare intelligent systems and sophisticated approaches for enhanced healthcare services and is ideally designed for medical professionals, hospital staff, rehabilitation specialists, medical educators, and researchers.

Outcome of a session held at the 2008 meeting of the Society for American Archaeology (SAA) in Vancouver, British Columbia. This book explores the character and contours of the Asian Space Powers. At present, Asian states like China, Japan and India are found investing in space technologies with analogous social and scientific and probably with divergent military intents. Other Asian states like Israel, South Korea and Malaysia are also making investments in the space arena. States like Iran and North Korea are faulted for using space launches as a demonstrative tool to achieve strategic objectives. This work examines this entire maze of activities to unearth where these states are making these investments to accomplish their state-specific goal or are they also trying to surpass each other by engaging in competition. Explaining why and how these states are making investments towards achieving their socio-economic and strategic mandate this book infers that the possibility of Asian Space Race exists but is presently fairly diminutive.

The inclusion of experts in communicability in the software industry has allowed timeframes to speed up in the commercialization of new technological products worldwide. However, this constant evolution of software in the face of the hardware revolution opens up a host of new horizons to maintain and increase the quality of the interactive systems following a set of standardized norms and rules for the production of interactive software. Currently, we see some efforts towards this goal, but they are still partial solutions, incomplete, and flawed from the theoretical as well as practical points of view. If the quality of the interactive design is analyzed, it is left to professionals to generate systems that are efficient, reliable, user-friendly, and cutting-edge. *The Handbook of Research on Software Quality Innovation in Interactive Systems* analyzes the quality of the software applied to the interactive systems and considers the constant advances in the software industry. This book reviews the past and present of information and communication technologies with a projection towards the future, along with analyses of software, software design, phrases to use, and the purposes for software applications in interactive systems. This book is ideal for students, professors, researchers, programmers, analysts of systems, computer engineers, interactive designers, managers of software quality, and evaluators of interactive systems.

This is the first volume in a trilogy on modern Signal Processing. The three books provide a concise exposition of signal processing topics, and a guide to support individual practical exploration based on MATLAB programs. This book includes MATLAB codes to illustrate each of the main steps of the theory, offering a self-contained guide suitable for independent study. The code is embedded in the text, helping readers to put into practice the ideas and methods discussed. The book is divided into three parts, the first of which introduces readers to periodic and non-periodic signals. The second part is devoted to filtering, which is an important and commonly used application. The third part addresses more advanced topics, including the analysis of real-world non-stationary signals and data, e.g. structural fatigue, earthquakes, electro-encephalograms, birdsong, etc. The book's last chapter focuses on modulation, an example of the intentional use of non-stationary signals.

The advent of the emerging fifth generation (5G) networks has changed the paradigm of how computing, electronics, and electrical (CEE) systems are interconnected. CEE devices and systems, with the help of the 5G technology, can now be seamlessly linked in a way that is rapidly turning the globe into a digital world. Smart cities and internet of things have come to stay but not without some challenges, which must be discussed. *The Handbook of Research on 5G Networks and Advancements in Computing, Electronics, and Electrical Engineering* focuses on current technological innovations as the world rapidly heads towards becoming a global smart city. It covers important topics such as power systems, electrical engineering, mobile communications, network, security, and more. This book examines vast types of technologies and their roles in society with a focus on how each works, the impacts it has, and the future for developing a global smart city. This book is ideal for both industrial and academic researchers, scientists, engineers, educators, practitioners, developers, policymakers, scholars, and students interested in 5G technology and the future of engineering, computing, and technology in human society.

Anyone can build a blog. It's quite easy. The difficult part is keeping it relevant, technically sound, and popular. *Bloggers Boot Camp* shows you how to blog for success. It teaches you how to find a niche, find your unique voice, and how to hold a conversation with an audience. It provides information on all the right tools for the blog, and it offers best ways to promote your blog and content for maximum success and a profitable life. Though rules in creating compelling content haven't really changed, ways in which the world blogs has since the last edition. The authors have learned a lot about social media since writing the previous edition's manuscript. They understand and know how social media can make or break a blog. Microblogging is a new trend brought on by the wide utilization of social media. To that same end, networking with other bloggers and content creators on the web is another form of building one's blog and one's reputation as a writer.

This is a hands-on guide to building a successful real-time content marketing platform. It shows you how to develop, implement, monitor, and optimize tactics for developing a strategic plan that encompasses content, platform, and community management.

Including up-to-date tools and technologies, this book explains how to use the right tools for everything from creating search and social content to effectively using social media platforms. You will learn the exact areas where search and social overlap, and how to shift to a real-time and participatory approach in your publishing efforts.

Over 60 recipes that harness the power of the Raspberry Pi together with Python programming and create enthralling and captivating projects

About This Book Install your first operating system, share files over the network, and run programs remotely

Construct robots and interface with your own circuits and purpose built add-ons, as well as adapt off-the-shelf household devices using this pragmatic guide

Packed with clear, step-by-step recipes to walk you through the capabilities of Raspberry Pi

Who This Book Is For Readers are expected to be familiar with programming concepts and Python (where possible Python 3 is used), although beginners should manage with the help of a good Python reference book and background reading. No prior knowledge of the Raspberry Pi or electronics is required; however, for the hardware sections you will need some basic electronic components/household tools to build some of the projects.

What You Will Learn

- Get the Raspberry Pi set up and running for the first time
- Remotely connect to the Raspberry Pi and use your PC/laptop instead of a separate screen/keyboard
- Get to grips with text, files and creating quick menus using Python
- Develop desktop applications; handle images and process files with ease
- Make use of graphics and user control to develop your own exciting games
- Use the Raspberry Pi's powerful GPU to create 3D worlds
- Take control of the real world and interface with physical hardware, combining hardware and software for your own needs
- Measure and control processes, respond to real events and monitor through the Internet
- Learn about the Raspberry Pi hardware inputs/outputs, starting with the basics and beyond
- Expand the capabilities of the Raspberry Pi with hardware expansion / add-on modules (use analogue inputs, drive servos and motors, and use SPI/I2C)
- Create your own Pi-Rover or Pi-Hexpod driven by the Raspberry Pi
- Make use of existing hardware by modifying and interfacing with it using the Raspberry Pi

In Detail Raspberry Pi cookbook for Python Programmers is a practical guide for getting the most out of this little computer. This book begins by guiding you through setting up the Raspberry Pi, performing tasks using Python 3 and introduces the first steps to interface with electronics. As you work through each chapter you will build up your skills and knowledge and apply them as you progress throughout the book, delving further and further into the unique abilities and features of the Raspberry Pi. Later, you will learn how to automate tasks by accessing files, build applications using the popular Tkinter library and create games by controlling graphics on screen. You will harness the power of the built-in graphics processor by using Pi3D to generate your own high quality 3D graphics and environments. Connect directly to the Raspberry Pi's hardware pins to control electronics from switching on LEDs and responding to push buttons right through to driving motors and servos. Learn how to monitor sensors to gather real life data and to use it to control other devices, and view the results over the Internet. Apply what you have learnt by creating your own Pi-Rover or Pi-Hexipod robots. Finally, we will explore using many of the purpose built add-ons available for the Raspberry Pi, as well as interfacing with common household devices in new ways.

Style and approach Written in a cookbook style, the book contains a series of recipes on various topics, ranging from simple to complex. It is an easy-to-follow and step-by-step guide with examples of various feature integration suitable for any search application.

This book constitutes the refereed proceedings of the Third International Conference on Distributed, Ambient, and Pervasive Interactions, DAPI 2015, held as part of the 17th International Conference on Human-Computer Interaction, HCII 2015, held in Los Angeles, CA, USA, in August 2015, jointly with 15 other thematically conferences. The total of 1462 papers and 246 posters presented at the HCII 2015 conferences were carefully reviewed and selected from 4843 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human-computer interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. This volume contains papers addressing the following major topics: designing and developing intelligent environments; natural interaction; design and development of distributed, ambient and pervasive interactions; smart devices, objects and materials; location, motion and activity recognition; smart cities and communities; and humor in ambient intelligence.

Computer-aided diagnosis (CAD) in medicine is the result of a large amount of effort expended in the interface of medicine and computer science. As some CAD systems in medicine try to emulate the diagnostic decision-making process of medical experts, they can be considered as expert systems in medicine.

### WordPress for Web Developers An Introduction for Web Professionals

High penetration of fluctuating renewable power units, such as wind turbines and photo voltaic systems, and new heavy loads, such as electrical vehicles and heat pumps, which so far might not be controlled according to the actual distribution grid condition, but rather according to actual consumption of the devices, influences the distribution grid in several ways, and it may lead to voltage disturbances, frequency deviations and harmonic content beyond limits. Over voltages might be generated at power production which is too high, whereas under voltage might occur at heavy load situations; both phenomena might be seen at the same distribution radial, where harmonic injections can also come from the devices, if equipped with power converters. This has led to the main target object for this book being power quality in distribution grids. This book offers 10 papers regarding power quality issues at distribution grids. It looks into hosting capacity issues, stability analysis, reliability assessment, mitigation of voltage rise using reactor installation, power quality assessments, harmonic analysis and damping, frequency control in weak and isolated power systems, and the focus is therefore broad within the overall topic of power quality.

This book constitutes the thoroughly refereed post-conference proceedings of the 18th International Conference on Financial Cryptography and Data Security (FC 2014), held in Christ Church, Barbados, in March 2014. The 19 revised full papers and 12 short papers were carefully selected and reviewed from 165 abstract registrations and 138 full papers submissions. The papers are grouped in the following topical sections: payment systems, case studies, cloud and virtualization, elliptic curve cryptography, privacy-preserving systems, authentication and visual encryption, network security, mobile system security, incentives, game theory and risk, and bitcoin anonymity.

Brain-computer interfaces (BCIs) are devices that enable people to communicate via thought alone. Brain signals can be directly translated into messages or commands. Until recently, these devices were used primarily to help people who could not move. However, BCIs are now becoming practical tools for a wide variety of people, in many different situations. What will BCIs in the future be like? Who will use them, and why? This book, written by many of the top BCI researchers and developers, reviews the latest progress in the different components of BCIs. Chapters also discuss practical issues in an emerging BCI enabled community. The book is intended both for professionals and for interested laypeople who are not experts in BCI research.

This first volume, edited and authored by world leading experts, gives a review of the principles, methods and techniques of important and emerging research topics and technologies in machine learning and advanced signal processing theory. With this reference source you will: Quickly grasp a new area of research Understand the underlying principles of a topic and its application Ascertain how a topic relates to other areas and learn of the research issues yet to be resolved Quick tutorial reviews of important and emerging topics of research in machine learning Presents core principles in signal processing theory and shows their applications Reference content on core principles, technologies, algorithms and applications Comprehensive references to journal articles and other literature on which to build further, more specific and detailed knowledge Edited by leading people in the field who, through their reputation, have been able to commission experts to write on a particular topic

New communication technologies have reshaped media and politics. But who are the new power players? The Hybrid Media System is a sweeping new theory of how political communication now works. Politics is increasingly defined by organizations, groups, and individuals who are best able to blend older and newer media logics, in what Chadwick terms a hybrid system. From American presidential campaigns to WikiLeaks, from live prime ministerial debates to hotly contested political scandals, from the daily practices of journalists and campaign workers to the struggles of new activist organizations, the clash of media logics causes chaos and disintegration but also surprising new patterns of order and integration. The updated second edition features a new preface and an extensive new chapter applying the conceptual framework to the extraordinary 2016 U.S. presidential campaign, the rise of Donald Trump, and the anti-Trump resistance protests.

Revised edition of Transportation planning handbook, 2009.

With the development of advanced screening procedures and techniques, certain limitations of the existing screening processes for disease methodologies and paradigms have been noted. More accurate and less invasive screening methods are needed to diagnose and treat health disorders and diseases before symptoms appear. Pre-Screening Systems for Early Disease Prediction, Detection, and Prevention is a pivotal reference source that utilizes advanced ICT techniques to solve problems in health data collection, analysis, and interpretation, as well as improve existing health systems for the advanced screening of diseases. Using non-invasive biomedical sensor devices and internet of things technology, this book examines safer methods to accelerate disease detection and effectively treat patients while challenging previously used pre-screening processes. While highlighting topics such as the applications of machine learning, patient safety, diagnostics models, and condition management, this publication is ideally designed for healthcare specialists, researchers in health informatics, industry practitioners, and academics.

This book provides insights into the Third International Conference on Intelligent Systems and Signal Processing (eISSP 2020) held By Electronics & Communication Engineering Department of G H Patel College of Engineering & Technology, Gujarat, India, during 28–30 December 2020. The book comprises contributions by the research scholars and academicians covering the topics in signal processing and communication engineering, applied electronics and emerging technologies, Internet of Things (IoT), robotics, machine learning, deep learning and artificial intelligence. The main emphasis of the book is on dissemination of information, experience and research results on the current topics of interest through in-depth discussions and contribution of researchers from all over world. The book is useful for research community, academicians, industrialists and postgraduate students across the globe.

Going beyond the traditional field of robotics to include other mobile vehicles, this reference and "recipe book" describes important theoretical concepts, techniques, and applications that can be used to build truly mobile intelligent autonomous systems (MIAS). With the infusion of neural networks, fuzzy logic, and genetic algorithm paradigms for MIAS, it blends modeling, sensors, control, estimation, optimization, signal processing, and heuristic methods in MIAS and robotics, and includes examples and applications throughout. Offering a comprehensive view of important topics, it helps readers understand the subject from a system-theoretic and practical point of view.

What are smart cities? What are their purposes? What are the impacts resulting from their implementations? With these questions in mind, this book is compiled with the primary concern of answering readers with different profiles; from those interested in acquiring basic knowledge about the various topics surrounding the subject related to smart cities, to those who are more motivated by knowing the technical elements and the technological apparatus involving this theme. This book audience is multidisciplinary, as it will be confirmed by the various chapters addressed here. It explores different knowledge areas, such as electric power systems, signal processing, telecommunications, electronics, systems optimization, computational intelligence, real-time systems, renewable energy systems, and information systems.

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