Smart City Logistics On Cloud Computing Model

The Department of Electronics and Communication Engineering of KIET Group of Institutions, Delhi-NCR organized the 4th International Conference ICCE-2020 during November 28-29, 2020. Information compiled in this book is based on the 114 research papers of excellent quality covering different domains of Electronics and Communication Engineering, Computer Science Engineering, Information Technology, Electrical Engineering, Electronics and Instrumentation Engineering. The subject areas treated in the book are: Satellite, Radar and Microwave Techniques, Secure, Smart, and Reliable Networks, Next Generation Networks, Devices & Circuits, Signal & Image Processing, New Emerging Technologies, having the central focus on Recent Trends in Communication & Electronics (ICCE-2020). In addition, a few themes based on Special Sessions have also been conducted in ICCE-2020. The objective of the book resulting from the 4th International Conference on Recent Trends in Communication & Electronics (ICCE-2020) is to provide a resource for

the study and research work for an interested audience comprising of researchers, students, audience, and practitioners in the areas of Communications & Computing Systems.
The development of smart cities is one of the most important challenges over the next few decades. Governments and companies are leveraging billions of dollars in public and private funds for smart cities. Next generation smart cities are heavily dependent on distributed smart sensing systems and devices to monitor the urban infrastructure. The smart sensor networks serve as autonomous intelligent nodes to measure a variety of physical or environmental parameters. They should react in time, establish automated control, and collect information for intelligent decision-making. In this context, one of the major tasks is to develop advanced frameworks for the interpretation of the huge amount of information provided by the emerging testing and monitoring systems. Data Analytics for Smart Cities brings together some of the most exciting new developments in the area of integrating advanced data analytics systems into smart cities along with complementary technological paradigms such as cloud computing and Internet of

Things (IoT). The book serves as a reference for researchers and engineers in domains of advanced computation, optimization, and data mining for smart civil infrastructure condition assessment, dynamic visualization, intelligent transportation systems (ITS), cyber-physical systems, and smart construction technologies. The chapters are presented in a hands-on manner to facilitate researchers in tackling applications. Arguably, data analytics technologies play a key role in tackling the challenge of creating smart cities. Data analytics applications involve collecting, integrating, and preparing time- and space-dependent data produced by sensors, complex engineered systems, and physical assets, followed by developing and testing analytical models to verify the accuracy of results. This book covers this multidisciplinary field and examines multiple paradigms such as machine learning, pattern recognition, statistics, intelligent databases, knowledge acquisition, data visualization, high performance computing, and expert systems. The book explores new territory by discussing the cutting-edge concept of Big Data analytics for interpreting massive amounts of data in smart city

applications.
This six volume set LNCS 11063 – 11068 constitutes the thoroughly refereed conference proceedings of the 4th International Conference on Cloud Computing and Security, ICCCS 2018, held in Haikou, China, in June 2018. The 386 full papers of these six volumes were carefully reviewed and selected from 1743 submissions. The papers cover ideas and achievements in the theory and practice of all areas of inventive systems which includes control, artificial intelligence, automation systems, computing systems, electrical and informative systems. The six volumes are arranged according to the subject areas as follows: cloud computing, cloud security, encryption, information hiding, IoT security, multimedia forensics.

Abstract

Due to the high population density in urban areas worldwide, China - with the world largest population - is facing the increased pressure with respect to resource management as well. In order to sustain its economic growth, China has begun seeking new opportunities and the

smart city concept - boasting a potential market value worth trillions of RMB - seems to be an optimal solution to obtain more investment funds from international and Chinese ICT companies. This report profiles the definition of a smart city and provides insight into the government policies, current industry development strategies and new opportunities expected to create for cities undertaking the smart city initiative in China.

Smart City Emergence
Intelligent Cities
Internet of Things (IoT) for Automated and Smart Applications
Innovations in Smart Cities Applications Edition 3
Proceedings of ICETEAS 2018
Cyber-Physical Systems in the Construction Sector
Smart Societies, Infrastructure, Technologies and Applications

This book examines research topics in IoT and Cloud and Fog computing. The contributors address major issues and challenges in IoT-based solutions proposed for the Cloud. The authors discuss Cloud smart and energy efficient services in applications such as healthcare, traffic, and

farming systems. Targeted readers are from varying disciplines who are interested in designing and deploying the Cloud applications. The book can be helpful to Cloud-based IoT service providers, Cloud-based IoT service consumers, and Cloud service developers in general for getting the state-of-the-art knowledge in the emerging IoT area. The book also provides a strong foundation for researchers to advance further in this domain. Presents a variety of research related to IoT and Cloud computing; Provides the industry with new and innovative operational ideas; Pertinent to academics, researchers, and practitioners around the world.

This book highlights cutting-edge research presented at the third installment of the International Conference on Smart City Applications (SCA2018), held in Tétouan, Morocco on October 10–11, 2018. It presents original research results, new ideas, and practical lessons learned that touch on all aspects of smart city applications. The respective papers share new and highly original results by leading experts on IoT, Big Data, and Cloud technologies, and address a broad range of key challenges in smart cities, including Smart Education and Intelligent Learning Systems, Smart Healthcare, Smart Building

and Home Automation, Smart Environment and Smart Agriculture, Smart Economy and Digital Business, and Information Technologies and Computer Science, among others. In addition, various novel proposals regarding smart cities are discussed. Gathering peer-reviewed chapters written by prominent researchers from around the globe, the book offers an invaluable instructional and research tool for courses on computer and urban sciences; students and practitioners in computer science, information science, technology studies and urban management studies will find it particularly useful. Further, the book is an excellent reference guide for professionals and researchers working in mobility, education, governance, energy, the environment and computer sciences. Internet of Things (IoT) is a recent technology paradigm that creates a global network of machines and devices that are capable of communicating with each other. Security cameras, sensors, vehicles, buildings, and software are examples of devices that can exchange data between each other. IoT is recognized as one of the most important areas of future technologies and is gaining vast recognition in a wide range of applications and fields related to smart homes and cities, military, education,

hospitals, homeland security systems, transportation and autonomous connected cars, agriculture, intelligent shopping systems, and other modern technologies. This book explores the most important IoT automated and smart applications to help the reader understand the principle of using IoT in such applications.

The International Conference on "Computational Intelligence in Data Mining" (ICCIDM), after three successful versions, has reached to its fourth version with a lot of aspiration. The best selected conference papers are reviewed and compiled to form this volume. The proceedings discusses the latest solutions, scientific results and methods in solving intriguing problems in the fields of data mining, computational intelligence, big data analytics, and soft computing. The volume presents a sneak preview into the strengths and weakness of trending applications and research findings in the field of computational intelligence and data mining along with related field.

4th International Conference, ICCCS 2018, Haikou, China, June 8-10, 2018, Revised Selected Papers, Part II

Data Analytics for Smart Cities

Current Debates in Business Studies

15th CCF Conference, ChineseCSCW 2020, Shenzhen, China, November 7–9, 2020,

Revised Selected Papers
Foundations, Principles, and Applications
Emerging Trends in Expert Applications and Security

To provide the necessary security and quality assurance activities into Internet of Things (IoT)-based software development, innovative engineering practices are vital. They must be given an even higher level of importance than most other events in the field. Integrating the Internet of Things Into Software Engineering Practices provides research on the integration of IoT into the software development life cycle (SDLC) in terms of requirements management, analysis, design, coding, and testing, and provides security and quality assurance activities to IoT-based software development. The content within this publication covers agile software, language specification, and collaborative software and is designed for analysts, security experts, IoT software programmers, computer and software engineers, students, professionals, and researchers.

In this book, the authors highlight recent findings that hold the potential to improve software products or development processes; in addition, they help readers understand new concepts and technologies, and to see what it takes to migrate from old to new platforms. Some of the authors have spent most of their careers in industry, working at the frontiers of practice-based innovation, and are at the same time prominent researchers who have made significant academic contributions. Others work together with industry to test, in industrial settings, the methods they've developed in the lab. The choice of subject and authors represent the key elements of this book. Its respective chapters cover a wide range of

topics, from cloud computing to agile development, applications of data science methods, re-engineering of aging applications into modern ones, and business and requirements engineering. Taken together, they offer a valuable asset for practitioners and researchers alike.

This book constitutes the proceedings of the Second International Conference on Cloud, Networking for IoT Systems, CN4IoT 2017, and the Second EAI International Conference on ICT Infrastructures and Services for Smart Cities, IISSC 2017, held in Brindisi, Italy, in April 2017. The 26 full papers of both conferences were selected from 39 submissions. CN4IoT presents research activities on the uniform management and operation related to software defined infrastructures, in particular by analyzing limits or advantages in solutions for Cloud Networking and IoT. IISSC papers focus on ICT infrastructures (technologies, models, frameworks) and services in cities and smart communities.

The purpose of this edited book is to provide the relevant technologies and case studies in a concise format that will simplify and streamline the processing of blockchain. The goal is for the contents of this book to change the way business transformations are conducting in economic and social systems. The book examines blockchain technology, the transaction attributes, and its footprint in various fields. It offers fundamentals and terminologies used in blockchain, architecture, and various consensus mechanisms that can be deployed in areas such as healthcare, smart cities, and supply chain management. The book provides a widespread knowledge into the deployment of security countermeasures that can be implemented for a blockchain network and enables the reader to consider the management of business processes

and the implementation process in detail. The book highlights the challenges and provides various e-business case studies of security countermeasures. The book serves researchers and businesses by providing a thorough understanding of the transformation process using blockchain technology.

Second EAI International Conference, IISSC 2017 and CN4IoT 2017, Brindisi, Italy, April 20–21, 2017, Proceedings

Concepts, Applications, and Case Studies

First International Conference, SCITA 2017, Jeddah, Saudi Arabia, November 27–29, 2017, Proceedings

Recent Trends in Communication and Electronics

Smart Infrastructure and Applications

Computer Supported Cooperative Work and Social Computing

Innovation, Knowledge Systems and Digital Spaces

This book sets the modern infrastructure of smart devices and services into the perspective of the future smart cities and communities. In the course of this, it discusses the major technological solutions and steps toward integrated logistics solutions to be used in these environments with their benefits in terms of efficiency, interoperability, and sustainability. By doing so, it paves the logistician's way toward the aspired innovation society.

This book highlights original research and recent advances in various fields related to smart cities and their applications. It gathers papers presented at the Fourth International Conference on Smart City Applications (SCA19), held on October 2–4, 2019, in Casablanca, Morocco. Bringing together contributions by prominent researchers from around the globe, the book offers an invaluable instructional and research tool for courses on computer science, electrical engineering, and urban sciences. It is also an excellent reference guide for professionals, researchers, and academics in the field of smart

cities. This book covers topics including: • Smart Citizenship • Smart Education • Digital Business and Smart Governance • Smart Health Care • New Generation of Networks and Systems for Smart Cities • Smart Grids and Electrical Engineering • Smart Mobility • Smart Security • Sustainable Building • Sustainable Environment

Smart CitiesFoundations, Principles, and ApplicationsJohn Wiley & Sons

This open access book is the first to systematically introduce the principles of urban informatics and its application to every aspect of the city that involves its functioning, control, management, and future planning. It introduces new models and tools being developed to understand and implement these technologies that enable cities to function more efficiently – to become 'smart' and 'sustainable'. The smart city has quickly emerged as computers have become ever smaller to the point where they can be embedded into the very fabric of the city, as well as being central to new ways in which the population can communicate and act. When cities are wired in this way, they have the potential to become sentient and responsive, generating massive streams of 'big' data in real time as well as providing immense opportunities for extracting new forms of urban data through crowdsourcing. This book offers a comprehensive review of the methods that form the core of urban informatics from various kinds of urban remote sensing to new approaches to machine learning and statistical modelling. It provides a detailed technical introduction to the wide array of tools information scientists need to develop the key urban analytics that are fundamental to learning about the smart city, and it outlines ways in which these tools can be used to inform design and policy so that cities can become more efficient with a greater concern for environment and equity.

Advances in Smart Cities

Business opportunities and development trends of emerging

smart cities in China
IoT and IoE Driven Smart Cities
Cloud Computing and Security
Cases From Around the World
Trends and Advances
Innovations in Smart Cities Applications Edition 2

Do you want the most up-to-date knowledge on the Chinese market all in one place? Now you can have it—in a set of 3 must-reads. This three-title collection is a must-have for Western entrepreneurs and SMEs doing business in or with China. The books are packed with practical advice, applicable decision-making processes and strategy options. The Chinese Market Series set includes: The Chinese Market An essential factor for the success of entrepreneurs and professionals engaging in business in or with China is being able to understand and correctly set up a sustainable and effective corporate structure. This book discusses different company structures, applicable decision-making processes and management issues to help you choose the most suitable structure. Topics covered include tax, legal, intellectual property rights, common pitfalls, and ways to address them. The Chinese e-Merging Market This book is designed to work as a step-by-step guide to the online marketplace and social media environment in China. It provides a detailed overview of the Chinese online market and proposes a variety of strategies available to foreign companies. It contains practical advice, the latest data and relevant links for further reference that Western SMEs, investors, and entrepreneurs can use to establish their online presence in China. Trading with China This is a concise and useful handbook to Western businesses, entrepreneurs and investors doing business with or in China. It is an essential guide of great use to anyone who

considers exporting goods, services and technology to the Chinese market. It discusses major issues such as market barriers, import requirements, distribution channels, labelling, and operational challenges. The book contains industry information, updated data, key models, practical advice, and strategy options for different types of companies and industry sectors.

This book constitutes the refereed post-conference proceedings of the First International Conference on Smart Cities, Infrastructures, Technologies and Applications, SCITA 2017, held in Jeddah, Saudi Arabia, in November 2017. The 35 revised full papers were carefully reviewed and selected from 62 submissions. The papers are grouped in topical sections: infrastructure track, e-governance and transportation track, healthcare track, applications track.

This book provides a multidisciplinary view of smart infrastructure through a range of diverse introductory and advanced topics. The book features an array of subjects that include: smart cities and infrastructure, e-healthcare, emergency and disaster management, Internet of Vehicles, supply chain management, eGovernance, and high performance computing. The book is divided into five parts: Smart Transportation, Smart Healthcare, Miscellaneous Applications, Big Data and High Performance Computing, and Internet of Things (IoT). Contributions are from academics, researchers, and industry professionals around the world. Features a broad mix of topics related to smart infrastructure and smart applications, particularly high performance computing, big data, and artificial intelligence; Includes a strong emphasis on methodological aspects of infrastructure, technology and application development; Presents a substantial overview of research and

development on key economic sectors including healthcare and transportation.

The book covers current developments in the field of expert applications and security, which employ advances of next-generation communication and computational technology to shape real-world applications. It gathers selected research papers presented at the ICETEAS 2018 conference, which was held at Jaipur Engineering College and Research Centre, Jaipur, India, on February 17–18, 2018. Key topics covered include expert applications and artificial intelligence; information and application security; advanced computing; multimedia applications in forensics, security and intelligence; and advances in web technologies: implementation and security issues.

Data-Driven Mining, Learning and Analytics for Secured Smart Cities

Green Engineering and Technology

Integrating the Internet of Things Into Software Engineering Practices

Smarter People, Governance, and Solutions

Foundations for Smarter Cities and Societies

The Chinese Market Series

Advances in Production Management Systems. Smart Manufacturing and Logistics Systems: Turning Ideas into Action

This book constitutes the refereed post-conference proceedings of the 15th CCF Conference on Computer Supported Cooperative Work and Social Computing, ChineseCSCW 2020, held in Shenzhen, China, in November 2020. The 40 revised

full papers and 15 revised short papers were carefully reviewed and selected from 137 submissions. The papers of this volume are organized in topical sections on: crowdsourcing, crowd intelligence, and crowd cooperative computing; domain-specific collaborative applications; collaborative mechanisms, models, approaches, algorithms, and systems; social media and online communities; and short papers.

Internet of things (IoT) is an emerging research field that is rapidly becoming an important part of our everyday lives including home automation, smart buildings, smart things, and more. This is due to cheap, efficient, and wirelessly-enabled circuit boards that are enabling the functions of remote sensing/actuating, decentralization, autonomy, and other essential functions. Moreover, with the advancements in embedded artificial intelligence, these devices are becoming more self-aware and autonomous, hence making decisions themselves. Current research is devoted to the understanding of how decision

support systems are integrated into industrial IoT. Decision Support Systems and Industrial IoT in Smart Grid, Factories, and Cities presents the internet of things and its place during the technological revolution, which is taking place now to bring us a better, sustainable, automated, and safer world. This book also covers the challenges being faced such as relations and implications of IoT with existing communication and networking technologies; applications like practical use-case scenarios from the real world including smart cities, buildings, and grids; and topics such as cyber security, user privacy, data ownership, and information handling related to IoT networks. Additionally, this book focuses on the future applications, trends, and potential benefits of this new discipline. This book is essential for electrical engineers, computer engineers, researchers in IoT, security, and smart cities, along with practitioners, researchers, academicians, and students interested in all aspects of industrial IoT and its applications.

This two-volume set, IFIP AICT 663 and 664, constitutes the thoroughly refereed proceedings of the International IFIP WG 5.7 Conference on Advances in Production Management Systems, APMS 2022, held in Gyeongju, South Korea in September 2022. The 139 full papers presented in these volumes were carefully reviewed and selected from a total of 153 submissions. The papers of APMS 2022 are organized into two parts. The topics of special interest in the first part included: AI & Data-driven Production Management; Smart Manufacturing & Industry 4.0; Simulation & Model-driven Production Management; Service Systems Design, Engineering & Management; Industrial Digital Transformation; Sustainable Production Management; and Digital Supply Networks. The second part included the following subjects: Development of Circular Business Solutions and Product-Service Systems through Digital Twins; "Farm-to-Fork" Production Management in Food Supply Chains; Urban Mobility and City Logistics; Digital Transformation Approaches in Production Management;

Smart Supply Chain and Production in Society 5.0 Era; Service and Operations Management in the Context of Digitally-enabled Product-Service Systems; Sustainable and Digital Servitization; Manufacturing Models and Practices for Eco-Efficient, Circular and Regenerative Industrial Systems; Cognitive and Autonomous AI in Manufacturing and Supply Chains; Operators 4.0 and Human-Technology Integration in Smart Manufacturing and Logistics Environments; Cyber-Physical Systems for Smart Assembly and Logistics in Automotive Industry; and Trends, Challenges and Applications of Digital Lean Paradigm.

The bright future of green IoT will change our tomorrow environment to become healthier and green, with very high quality of service that is socially, environmentally, and economically sustainable. This book covers the most recent advances in IoT, it discusses Smart City implementation, and offers both quantitative and qualitative research. It focuses on greening things such as green communication and networking, green

design and implementations, green IoT services and applications, energy saving strategies, integrated RFIDs and sensor networks, mobility and network management, the cooperation of homogeneous and heterogeneous networks, smart objects, and green localization. This book with its wide range of related topics in IoT and Smart City, will be useful for graduate students, researchers, academicians, institutions, and professionals that are interested in exploring the areas of IoT and Smart City.

First International Conference, Smart-CT 2016, Málaga, Spain, June 15-17, 2016, Proceedings

Current Debates in Social Sciences Volume 15

shaping the society of 2030

Integrating Research and Practice in Software Engineering

Innovations, Design, and Architectural Implementation

Intelligent Logistics Systems for Smart Cities and Communities

Trends in Cloud-based IoT

This is an edited book based on the selected submissions made to the conference titled "International Conference in

Smart Cities." The project provides an innovative and new approach to holistic management of cities physical, socio-economic, environmental, transportation and political assets across all domains, typically supported by ICT and open data.

In eleven chapters this book addresses the issue of the re-emergence of China and a new global order on the world stage, with implications for the existing US hegemonic liberal international order. The Re-Emergence of China reviews the history of China's astounding economic growth and geopolitical development over the past 30 years. It explores the economic, technological, and global development of China during this period; explores the political philosophy and praxis from imperial neo-Confucian times to the present socialist regime; the cultural and social development of China and the role of the Chinese diaspora; and examines the prospects for a new international order with a major role for China.This book will fit comfortably into the required reading schedule for graduate class modules in Chinese and East Asian studies, political theory, economic development, and contemporary political history. Of particular interest will be the exploration of the role of the Chinese diaspora in modern China's development. The authors' focus on the contemporary conflict between the US and China will also be of wider interest to political commentators as well as academic researchers in Chinese studies.The Re-Emergence of China can provide a guiding narrative for academics, researchers, policymakers, industry leaders and many other relevant professionals on how global society can be reshaped in the wake of China's re-emergence in the new global era. By focusing on China's integration

with the economic and political world order, in terms of both its advances and setbacks, in addition to the historical contexts, readers can navigate the book's succinct coverage and conclusions on the development of a China polity which has become increasingly connected to the world in some ways, yet more disconnected in others.

This book features selected papers presented at the Fourth International Conference on Nanoelectronics, Circuits and Communication Systems (NCCS 2018). Covering topics such as MEMS and nanoelectronics, wireless communications, optical communications, instrumentation, signal processing, the Internet of Things, image processing, bioengineering, green energy, hybrid vehicles, environmental science, weather forecasting, cloud computing, renewable energy, RFID, CMOS sensors, actuators, transducers, telemetry systems, embedded systems, and sensor network applications in mines, it offers a valuable resource for young scholars, researchers, and academics alike.

Smart City Emergence: Cases from around the World analyzes how smart cities are currently being conceptualized and implemented, examining the theoretical underpinnings and technologies that connect theory with tangible practice achievements. Using numerous cities from different regions around the globe, the book compares how smart cities of different sizes are evolving in different countries and continents. In addition, it examines the challenges cities face as they adopt the smart city concept, separating fact from fiction, with insights from scholars, government officials and vendors currently involved in smart city implementation. Utilizes a sound and systematic research methodology Includes a review of the latest research developments

Contains, in each chapter, a brief summary of the case, an illustration of the theoretical context that lies behind the case, the case study itself, and conclusions showing learned outcomes Examines smart cities in relation to climate change, sustainability, natural disasters and community resiliency

Smart Cities

Proceedings of the International Conference on Recent Trends in Communication and Electronics (ICCE-2020), Ghaziabad, India, 28-29 November, 2020

Computational Intelligence in Data Mining

Cloud Infrastructures, Services, and IoT Systems for Smart Cities

Current State and New Trends

The Proceedings of the Third International Conference on Smart City Applications

Green Internet of Things for Smart Cities

This book is a product of the need of understanding the new debates from the perspective of business studies. First part includes the topics that define some of the contemporary issues in accounting, as well as demonstrate how accounting practices change to adapt necessities of time. Part II deals with contemporary marketing topics indicating the importance of consumer in today's business and the necessity of understanding consumers. Finally, the last part of the book, includes writing related to new methods and approaches in operation management and production that gain importance parallel to development in industry.

This is an edited book based on the selected submissions made to the conference titled "International Conference in Smart Cities". The project provides an innovative and new approach to holistic management of cities physical, socio-economic, environmental, transportation and political assets across all domains, typically supported by ICT and open data.

This volume of three books presents recent advances in modelling, planning and evaluating city logistics for sustainable and liveable cities based on the application of ICT (Information and Communication Technology) and ITS (Intelligent Transport Systems). It highlights modelling the behaviour of stakeholders who are involved in city logistics as well as planning and managing policy measures of city logistics including cooperative freight transport systems in public-private partnerships. Case studies of implementing and evaluating city logistics measures in terms of economic, social and environmental benefits from major cities around the world are also given.

This book provides detail on applying Internet of Things (IoT) and Internet of Everything (IoE) in smart cities and their design aspects related to physical and network layer models. The authors explore the possibilities of utilizing communication technologies like multi-input multi-output (MIMO), narrow-band IoT (NB-IoT), ultra-reliable low latency communications (URLLC),

enhanced mobile broadband (eMBB), and massive machine-type communications (mMTC) for successful implementation of the IoT/IoE. The authors also address the development and advancement in cloud computing to support IoT and IoE. Research on the challenges and future predictions for efficiently implementing and exploring the benefits of smart cities are also explored. The book pertains to researchers, academics, and professionals in the field. Discusses the applicability of Internet of Things (IoT) and Internet of Everything (IoE) for smart cities; Addresses different protocols, networks, and technologies related to the implementation of IoT and IoE for smart cities; Provides a detailed overview on the physical and network layer design and signal processing algorithms related to IoT and IoE.

IFIP WG 5.7 International Conference, APMS 2022, Gyeongju, South Korea, September 25–29, 2022, Proceedings, Part I

The Proceedings of the 4th International Conference on Smart City Applications

Proceeding of NCCS 2018

Re-emergence Of China, The: The New Global Era

Proceedings of the International Conference on CIDM 2017

Decision Support Systems and Industrial IoT in Smart Grid, Factories, and Cities

Convergence of Blockchain Technology and E-Business

Cyber-Physical Systems (CPSs) are mechanisms for monitoring and controlling processes using computer-based algorithms. In the construction industry, CPSs help to increase the viability of construction projects by reducing costs, time and management effort. This book aims to develop the fundamental concepts of construction project management associated with the CPSs and their applications within the modern construction industry in alignment with the scope of the Fourth Industrial Revolution (IR4.0). The book has been structured in a systematic way for easy understanding by construction industry researchers and academic faculty. The first part of the book helps readers to develop a basic understanding of the fundamental concepts of construction project management and CPSs. Followed by the second part about the CPSs implementation framework and understanding the operational concepts associated with the notion of IoT and Digital Twins within the construction industry. The third part of the book describes modelling/simulation techniques to develop the customised CPSs for construction project management. The concluding part provides an in-depth review of applications of CPSs, associated threats and security.

At the turn of the century some cities and

regions in Europe, Japan and the USA, displayed an exceptional capacity to incubate and develop new knowledge and innovations. The favourable environment for research, technology and innovation created in these areas was not immediately obvious, yet it was of great significance for a development based on knowledge, learning, and innovation. Intelligent Cities focuses on these environments of innovation, and the major models (technopoles, innovating regions, intelligent cities) for creating an environment-supporting technology, innovation, learning, and knowledge-based development. The introduction and the first chapter deal with innovation as an environmental condition, and with the geography and typology of islands of innovation. The next three parts focus on the theoretical paradigms and the planning models of the 'industrial district', the innovating region', and the 'intelligent city', which offer three alternative ways to create an environment of innovation.

This book describes various methods and recent advances in predictive computing and information security. It highlights various predictive application scenarios to discuss these breakthroughs in real-world settings. Further, it addresses state-of-art techniques and the design, development and innovative use of

technologies for enhancing predictive computing and information security. Coverage also includes the frameworks for eTransportation and eHealth, security techniques, and algorithms for predictive computing and information security based on Internet-of-Things and Cloud computing. As such, the book offers a valuable resource for graduate students and researchers interested in exploring predictive modeling techniques and architectures to solve information security, privacy and protection issues in future communication.

Escalating urbanization and energy consumption have increased the demand for green engineering solutions and intelligent systems to mitigate environmental hazards and offer a more sustainable future. Green engineering technologies help to create sustainable, eco-friendly designs and solutions with the aid of updated tools, methods, designs, and innovations. These technologies play a significant role in optimizing sustainability in various areas of energy, agriculture, waste management, and bioremediation and include green computing and artificial intelligence (AI) applications. Green Engineering and Technology: Innovations, Design, and Architectural Implementation examines the most recent advancements in green technology,

across multiple industries, and outlines the opportunities of emerging and future innovations, as well as practical real-world implementation. Features: Provides different models capable of fulfilling the criteria of energy efficiency, health and safety, renewable resources, and more Examines recycling, waste management, and bioremediation techniques as well as waste-to-energy technologies Presents business cases for adopting green technologies including electronics, manufacturing, and infrastructure projects Reviews green technologies for applications such as energy production, building construction, transportation, and industrialization Green Engineering and Technology: Innovations, Design, and Architectural Implementation serves as a useful and practical guide for practicing engineers, researchers, and students alike.

Exploring Intelligent Decision Support Systems

Urban Informatics

City Logistics 2

Predictive Computing and Information Security

Nanoelectronics, Circuits and Communication Systems

Modeling and Planning Initiatives

Concepts, Implications, and Challenges

This book constitutes the proceedings of the First International Conference on Smart

Cities, Smart-CT 2016, held in Malaga, Spain, in June 2016. The 16 papers presented in this volume were carefully reviewed and selected from 28 submissions. They topics covered include studies and tools to improve road traffic, energy consumption, logistics, frameworks to provide new services and take decisions in a holistic way, driving assistance, electric vehicles, public transport, and surveys on smart city concepts.

This book presents innovative and high-quality research regarding advanced decision support systems (DSSs). It describes the foundations, methods, methodologies, models, tools, and techniques for designing, developing, implementing and evaluating advanced DSSs in different fields, including finance, health, emergency management, industry and pollution control. Decision support systems employ artificial intelligence methods to heuristically address problems that are cannot be solved using formal techniques. In this context, technologies such as the Semantic Web, linked data, big data, and machine learning are being applied to provide integrated support for individuals and organizations to make more rational decisions. The book is organized into two parts. The first part covers decision support systems for industry, while the second part presents case studies related to clinical emergency management and pollution control.

Provides the foundations and principles needed for addressing the various challenges of developing smart cities Smart cities are emerging as a priority for research and development across the world. They open up significant opportunities in several areas, such as economic growth, health, wellness, energy efficiency, and transportation, to promote the sustainable development of cities. This book provides the basics of smart cities, and it examines the possible future trends of this technology. Smart Cities: Foundations, Principles, and Applications provides a systems science perspective in presenting the foundations and principles that span multiple disciplines for the development of smart cities. Divided into three parts—foundations, principles, and applications—Smart Cities addresses the various challenges and opportunities of creating smart cities and all that they have to offer. It also covers smart city theory modeling and simulation, and examines case studies of existing smart cities from all around the world. In addition, the book: Addresses how to develop a smart city and how to present the state of the art and practice of them all over the world Focuses on the foundations and principles needed for advancing the science, engineering, and technology of smart cities—including system design, system verification, real-time control and adaptation, Internet of Things, and test beds Covers applications of smart

cities as they relate to smart transportation/connected vehicle (CV) and Intelligent Transportation Systems (ITS) for improved mobility, safety, and environmental protection Smart Cities: Foundations, Principles, and Applications is a welcome reference for the many researchers and professionals working on the development of smart cities and smart city-related industries.

This book provides information on data-driven infrastructure design, analytical approaches, and technological solutions with case studies for smart cities. This book aims to attract works on multidisciplinary research spanning across the computer science and engineering, environmental studies, services, urban planning and development, social sciences and industrial engineering on technologies, case studies, novel approaches, and visionary ideas related to data-driven innovative solutions and big data-powered applications to cope with the real world challenges for building smart cities.

Smart cities