Rfid Equipped Forklift Trucks Eurasip

The book provides easy interpretable explanations for the key technologies involved in Electric Vehicles and Hybrid Electric Vehicles. The authors discuss the various electrical machines, drives, and controls used in EV and HEV. The book provides a detailed coverage of Regenerative Braking Systems used in EV and HEV. The book also illustrates the battery technology and battery management systems in EV and HEV. This book is intended for academicians, researchers and industrialists. In addition, this book has the following features

Discusses the various Economic and Environmental Impact of Electric and Hybrid Electric Vehicles Discusses the role of Artificial Intelligence in Electric / Hybrid Electric Vehicles Illustrates the concept of Vehicle to Grid Technology and the smart charging station infrastructure and issues involved in the same Elucidates the concept of Internet of Vehicles Presents the latest research and applications in alternate energy vehicles
This book gathers high-quality peer-reviewed research papers presented at the International Conference on Intelligent Computing and Networking (IC-ICN 2021), organized by the Computer Department, Thakur College of Engineering and

Technology, in Mumbai, Maharashtra, India, on February 26–27, 2021. The book includes innovative and novel papers in the areas of intelligent computing, artificial intelligence, machine learning, deep learning, fuzzy logic, natural language processing, human–machine interaction, big data mining, data science and mining, applications of intelligent systems in health ,care, finance, agriculture and manufacturing, high-performance computing, computer networking, sensor and wireless networks, Internet of Things (IoT), software-defined networks, cryptography, mobile computing, digital forensics, and blockchain technology.

This book constitutes the refereed

proceedings of the 5th International Conference on Advances in Visual Informatics, IVIC 2017, held in Bangi, Malaysia, in November 2017. The keynote and 72 papers presented were carefully reviewed and selected from 130 submissions. The papers are organized in the following topics: Visualization and Data Driven Technology; Engineering and Data Driven Innovation; Data Driven Societal Well-being and Applications; and Data Driven Cyber Security. Mathematics as a production factor or driving force for innovation? Those, who want to know and understand why mathematics is deeply involved in the design of products, the layout of production processes and

supply chains will find this book an indispensable and rich source. Describing the interplay between mathematical and engineering sciences the book focusses on questions like How can mathematics improve to the improvement of technological processes and products? What is happening already? Where are the deficits? What can we expect for the future? 19 articles written by mixed teams of authors of engineering, industry and mathematics offer a fascinating insight of the interaction between mathematics and engineering.
5th International Visual Informatics Conference, IVIC 2017, Bangi, Malaysia, November 28–30, 2017, Proceedings
Proceedings of SocProS 2020,

Volume 2
Data Analytics for Intelligent Transportation Systems
The Age of Intelligent Cities
Soft Computing for Problem Solving
Frontiers in Intelligent Computing: Theory and Applications
The Next Generation of Production and Service Systems
Search and Rescue Robotics
This two-volume set (LNAI 10448 and LNAI 10449) constitutes the refereed proceedings of the 9th International Conference on Collective Intelligence, ICCCI 2017, held in Nicosia, Cyprus, in September 2017. The 117 full papers presented were

carefully reviewed and selected from 248 submissions. The conference focuseson the methodology and applications of computational collective intelligence, included: multi-agent systems, knowledge engineering and semantic web, social networks and recommender systems, text processing and information retrieval, data mining methods and applications, sensor networks and internet of things, decision support & control systems, and computer vision techniques.

The book presents high-quality papers from the Fourth

International Conference on Microelectronics and Telecommunication Engineering (ICMETE 2021). It discusses the latest technological trends and advances in major research areas such as microelectronics, wireless communications, optical communication, signal processing, image processing, big data, cloud computing, artificial intelligence and sensor network applications. This book includes the contributions of national and international scientists, researchers, and engineers from both academia and the industry. The contents

of this volume will be useful to researchers, professionals, and students alike.

This book highlights state-of-the-art research on big data and the Internet of Things (IoT), along with related areas to ensure efficient and Internet-compatible IoT systems. It not only discusses big data security and privacy challenges, but also energy-efficient approaches to improving virtual machine placement in cloud computing environments. Big data and the Internet of Things (IoT) are ultimately two sides of the same coin, yet extracting, analyzing and managing IoT data poses a

serious challenge. Accordingly, proper analytics infrastructures/platforms should be used to analyze IoT data. Information technology (IT) allows people to upload, retrieve, store and collect information, which ultimately forms big data. The use of big data analytics has grown tremendously in just the past few years. At the same time, the IoT has entered the public consciousness, sparking people's imaginations as to what a fully connected world can offer. Further, the book discusses the analysis of real-time big data to derive

actionable intelligence in enterprise applications in several domains, such as in industry and agriculture. It explores possible automated solutions in daily life, including structures for smart cities and automated home systems based on IoT technology, as well as health care systems that manage large amounts of data (big data) to improve clinical decisions. The book addresses the security and privacy of the IoT and big data technologies, while also revealing the impact of IoT technologies on several scenarios in smart cities design. Intended as a comprehensive

introduction, it offers in-depth analysis and provides scientists, engineers and professionals the latest techniques, frameworks and strategies used in IoT and big data technologies.
This book concludes a trilogy that began with Intelligent Cities: Innovation, Knowledge Systems and digital spaces (Routledge 2002) and Intelligent Cities and Globalisation of Innovation Networks (Routledge 2008). Together these books examine intelligent cities as environments of innovation and collaborative problem-solving. In this final book, the focus is

on planning, strategy and governance of intelligent cities. Divided into three parts, each section elaborates upon complementary aspects of intelligent city strategy and planning. Part I is about the drivers and architectures of the spatial intelligence of cities, while Part II turns to planning processes and discusses top-down and bottom-up planning for intelligent cities. Cities such as Amsterdam, Manchester, Stockholm and Helsinki are examples of cities that have used bottom-up planning through the gradual implementation of successive

initiatives for regeneration. On the other hand, Living PlanIT, Neapolis in Cyprus, and Saudi Arabia intelligent cities have started with the top-down approach, setting up urban operating systems and common central platforms. Part III focuses on intelligent city strategies; how cities should manage the drivers of spatial intelligence, create smart environments, mobilise communities, and offer new solutions to address city problems. Main findings of the book are related to a series of models which capture fundamental aspects of

intelligent cities making and operation. These models consider structure, function, planning, strategies toward intelligent environments and a model of governance based on mobilisation of communities, knowledge architectures, and innovation cycles.

Green and Smart Technology with Sensor Applications

International Conferences, GST and SIA 2012, Jeju Island, Korea, November 28-December 2, 2012. Proceedings

Emerging Trends, Issues, and Challenges in the Brazilian Technology, Volume 1

5G and Beyond

Measure Costs Right
Software Engineering Methods in Intelligent Algorithms
Proceedings of the 7th International Conference on FICTA (2018), Volume 2
21st Annual Conference, TAROS 2020, Nottingham, UK, September 16, 2020, Proceedings

This book comprises the refereed proceedings of the two International Conference on Green and Smart Technology, GST 2012, and on Sensor and Its Applications, SIA 2012, held in Jeju Island, Korea, in November/December 2012. The papers presented were carefully reviewed and selected from

numerous submissions and focus on the various aspects of green and smart technology with sensor applications.

This book constitutes the proceedings of the 8th International Conference on Future Data and Security Engineering, FDSE 2021, which was supposed to be held in Ho Chi Minh City, Vietnam, in November 2021, but the conference was held virtually due to the COVID-19 pandemic. The 24 full papers presented together with 2 invited keynotes were carefully reviewed and selected from 168 submissions. The selected papers are organized into the following topical headings: Big Data Analytics and Distributed Systems; Advances in

Machine Learning for Big Data Analytics; Industry 4.0 and Smart City: Data Analytics and Security; Blockchain and IoT Applications; Machine Learning and Artificial Intelligence for Security and Privacy; Emerging Data Management Systems and Applications.

The Internet of ThingsEnabling Technologies, Platforms, and Use CasesCRC Press

This book relates research being implemented in three main research areas: secure connectivity and intelligent systems, real-time analytics and manufacturing knowledge and virtual manufacturing. Manufacturing SMEs and MNCs want to see how Industry 4.0 is implemented. On the other hand,

groundbreaking research on this topic is constantly growing. For the aforesaid reason, the Singapore Agency for Science, Technology and Research (A*STAR), has created the model factory initiative. In the model factory, manufacturers, technology providers and the broader industry can (i) learn how I4.0 technologies are implemented on real-world manufacturing use-cases, (ii) test process improvements enabled by such technologies at the model factory facility, without disrupting their own operations, (iii) co-develop technology solutions and (iv) support the adoption of solutions at their everyday industrial operation. The book constitutes a clear base

ground not only for inspiration of researchers, but also for companies who will want to adopt smart manufacturing approaches coming from Industry 4.0 in their pathway to digitization.
Proceedings of the First International Conference on SCI 2016, Volume 1
Proceedings of the 5th Brazilian Technology Symposium
Towards Autonomous Robotic Systems
8th International Conference, FDSE 2021, Virtual Event, November 24–26, 2021, Proceedings
SocProS 2018, Volume 2
Intelligent Computing and Networking
Proceedings of AMLTA 2020
Proceedings of IC-ICN 2021

Marko Wolf provides a comprehensive overview of the emerging area of vehicular IT security. Having identified potential threats, attacks, and attackers for current and future vehicular IT applications, the author presents practical security measures to meet the identified security requirements efficiently and dependably.

A gentle introduction to genetic algorithms. Genetic algorithms revisited: mathematical foundations. Computer implementation of a genetic algorithm. Some

applications of genetic algorithms. Advanced operators and techniques in genetic search. Introduction to genetics-based machine learning. Applications of genetics-based machine learning. A look back, a glance ahead. A review of combinatorics and elementary probability. Pascal with random number generation for fortran, basic, and cobol programmers. A simple genetic algorithm (SGA) in pascal. A simple classifier system(SCS) in pascal. Partition coefficient transforms for problem-coding

analysis.
In the event of large crises (earthquakes, typhoons, floods, ...), a primordial task of the fire and rescue services is the search for human survivors on the incident site. This is a complex and dangerous task, which - too often - leads to loss of lives among the human crisis managers themselves. This book explains how unmanned search can be added to the toolkit of the search and rescue workers, offering a valuable tool to save human lives and to speed up the search and rescue process.

The introduction of robotic tools in the world of search and rescue is not straightforward, due to the fact that the search and rescue context is extremely technology-unfriendly, meaning that very robust solutions, which can be deployed extremely quickly, are required. Multiple research projects across the world are tackling this problem and in this book, a special focus is placed on showcasing the results of the European Union ICARUS project on this subject. The ICARUS project proposes to equip first

responders with a comprehensive and integrated set of unmanned search and rescue tools, to increase the situational awareness of human crisis managers, so that more work can be done in a shorter amount of time. The ICARUS tools consist of assistive unmanned air, ground, and sea vehicles, equipped with victim-detection sensors. The unmanned vehicles collaborate as a coordinated team, communicating via ad hoc cognitive radio networking. To ensure optimal human-robot collaboration, these tools are

seamlessly integrated into the command and control equipment of the human crisis managers and a set of training and support tools is provided to them in order to learn to use the ICARUS system. The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement number 285417. The publishing of this book was funded by the EC FP7 Post-Grant Open Access Pilot programme.

Data Analytics for Intelligent

Transportation Systems provides in-depth coverage of data-enabled methods for analyzing intelligent transportation systems that includes detailed coverage of the tools needed to implement these methods using big data analytics and other computing techniques. The book examines the major characteristics of connected transportation systems, along with the fundamental concepts of how to analyze the data they produce. It explores collecting, archiving, processing, and distributing the data, designing data

infrastructures, data management and delivery systems, and the required hardware and software technologies. Users will learn how to design effective data visualizations, tactics on the planning process, and how to evaluate alternative data analytics for different connected transportation applications, along with key safety and environmental applications for both commercial and passenger vehicles, data privacy and security issues, and the role of social media data in traffic planning. Includes case

studies in each chapter that illustrate the application of concepts covered Presents extensive coverage of existing and forthcoming intelligent transportation systems and data analytics technologies Contains contributors from both leading academic and commercial researchers Explains how to design effective data visualizations, tactics on the planning process, and how to evaluate alternative data analytics for different connected transportation applications Proceedings of MRCN 2020 From Theory to Practice

Proceedings of IEMIS 2018, Volume 2
9th International Conference, ICCCI 2017, Nicosia, Cyprus, September 27-29, 2017, Proceedings, Part II
Enabling Technologies, Platforms, and Use Cases
Digital Transformation
Wireless Communications, Networking and Applications
Proceedings of WCNA 2014

This book presents high-quality peer-reviewed papers from the International Conference on Advanced Communication and Computational Technology (ICACCT) 2019 held at the National Institute of

Technology, Kurukshetra, India. The contents are broadly divided into four parts: (i) Advanced Computing, (ii) Communication and Networking, (iii) VLSI and Embedded Systems, and (iv) Optimization Techniques.The major focus is on emerging computing technologies and their applications in the domain of communication and networking. The book will prove useful for engineers and researchers working on physical, data link and transport layers of communication protocols. Also, this will be useful for industry professionals interested in manufacturing

of communication devices, modems, routers etc. with enhanced computational and data handling capacities. This informative text/reference presents a detailed review of the state of the art in industrial sensor and control networks. The book examines a broad range of applications, along with their design objectives and technical challenges. The coverage includes fieldbus technologies, wireless communication technologies, network architectures, and resource management and optimization for industrial networks. Discussions are also provided on industrial communication standards for

both wired and wireless technologies, as well as for the Industrial Internet of Things (IIoT). Topics and features: describes the FlexRay, CAN, and Modbus fieldbus protocols for industrial control networks, as well as the MIL-STD-1553 standard; proposes a dual fieldbus approach, incorporating both CAN and ModBus fieldbus technologies, for a ship engine distributed control system; reviews a range of industrial wireless sensor network (IWSN) applications, from environmental sensing and condition monitoring, to process automation; examines the wireless

networking performance, design requirements, and technical limitations of IWSN applications; presents a survey of IWSN commercial solutions and service providers, and summarizes the emerging trends in this area; discusses the latest technologies and open challenges in realizing the vision of the IIoT, highlighting various applications of the IIoT in industrial domains; introduces a logistics paradigm for adopting IIoT technology on the Physical Internet. This unique work will be of great value to all researchers involved in industrial sensor and control networks, wireless

networking, and the Internet of Things.

This book presents software engineering methods in the context of the intelligent systems. It discusses real-world problems and exploratory research describing novel approaches and applications of software engineering, software design and algorithms. The book constitutes the refereed proceedings of the Software Engineering Methods in Intelligent Algorithms Section of the 8th Computer Science On-line Conference 2019 (CSOC 2019), held on-line in April 2019.

Eight previous iterations of this text have proven to be

highly regarded and considered the definitive training guide and instructional text for first-line security officers in both the private and public sectors. The material included in the newest version covers all the subjects essential to the training of protection officers. This valuable resource and its predecessors have been utilized worldwide by the International Foundation for Protection Officers since 1988, as the core curriculum for the Certified Protection Officer (CPO) Program. The Professional Protection Officer: Practical Security Strategies and Emerging Trends provides critical

updates and fresh guidance, as well as diagrams and illustrations; all have been tailored to the training and certification needs of today's protection professionals. Offers trainers and trainees all new learning aids designed to reflect the most current information and to support and reinforce professional development Written by a cross-disciplinary contributor team consisting of top experts in their respective fields

18th International Conference, CISIM 2019, Belgrade, Serbia, September 19–21, 2019, Proceedings

Genetic Algorithms in Search, Optimization, and Machine

Learning
Advanced Machine Learning Technologies and Applications Select Proceedings of ICACCT 2019
Advances in Communication and Computational Technology
Smart Computing and Informatics
Transforming Human Experience Through Symbiotic Technologies
Implementing Industry 4.0

Human computer confluence is a research area aimed at developing an effective, even transparent, bidirectional communication between humans and computers, which has the potential to enable

new forms of sensing, perception, interaction, and understanding. This book provides a groundbreaking collection of chapters exploring the science, technology and applications of HCC, bringing together experts in neuroscience, psychology and computer science.

This book provides an accessible and comprehensive tutorial on the key enabling technologies for 5G and beyond, covering both the fundamentals and the state-of-the-art 5G standards. The book begins with a historical

overview of the evolution of cellular technologies and addresses the questions on why 5G and what is 5G. Following this, six tutorial chapters describe the fundamental technology components for 5G and beyond. These include modern advancements in channel coding, multiple access, massive multiple-input and multiple-output (MIMO), network densification, unmanned aerial vehicle enabled cellular networks, and 6G wireless systems. The second part of this book consists of five

chapters that introduce the basics of 5G New Radio (NR) standards developed by 3GPP. These include 5G architecture, protocols, and physical layer aspects. The third part of this book provides an overview of the key 5G NR evolution directions. These directions include ultra-reliable low-latency communication (URLLC) enhancements, operation in unlicensed spectrum, positioning, integrated access and backhaul, air-to-ground communication, and non-terrestrial networks with

satellite communication.
This book constitutes the proceedings of the 18th International Conference on Computer Information Systems and Industrial Management Applications, CISIM 2019, held in Belgrade, Serbia, in September 2019. The 43 full papers presented together with 3 abstracts of keynotes were carefully reviewed and selected from 70 submissions. The main topics covered by the chapters in this book are biometrics, security systems, multimedia, classification and clustering, industrial

management. Besides these, the reader will find interesting papers on computer information systems as applied to wireless networks, computer graphics, and intelligent systems. The papers are organized in the following topical sections: biometrics and pattern recognition applications; computer information systems; industrial management and other applications; machine learning and high performance computing; modelling and optimization; various aspects of computer

security.
This volume contains 74 papers presented at SCI 2016: First International Conference on Smart Computing and Informatics. The conference was held during 3-4 March 2017, Visakhapatnam, India and organized communally by ANITS, Visakhapatnam and supported technically by CSI Division V – Education and Research and PRF, Vizag. This volume contains papers mainly focused on applications of advanced intelligent techniques to video processing, medical imaging,

machine learning, sensor technologies, and network security.

From Wired Technologies to Cloud Computing and the Internet of Things

Fundamentals and Standards

Proceedings of IEMIS 2018, Volume 3

Computer Information Systems and Industrial Management

The Model Factory as the Key Enabler for the Future of Manufacturing

Practical Security Strategies and Emerging Trends

The Professional Protection Officer

Proceedings of 8th Computer Science On-line Conference 2019, Vol. 1

With the exception of written letters and personal conversations, digital technology forms the basis of nearly every means of communication and information that we use today. It is also used to control the essential elements of economic, scientific, and public and private life: security, production, mobility, media, and healthcare. Without

exaggerating it is possible to say that digital technology has become one of the foundations of our technologically oriented civilization. The benefits of modern data technology are so impressive and the potential for future applications so enormous that we cannot fail to promote its development if we are to retain our leading role in the competitive international marketplace. In this

process, security plays a vital role in each of the areas of application of digital technology — the more technological sectors are entrusted to data systems technology, the more important their reliability becomes to us. Developing digital systems further while simultaneously ensuring that they always act and respond in the best interests of people is a central goal of the technological research and development propagated and conducted

by Fraunhofer.
This book is based on a series of conferences on Wireless Communications, Networking and Applications that have been held on December 27-28, 2014 in Shenzhen, China. The meetings themselves were a response to technological developments in the areas of wireless communications, networking and applications and facilitate researchers, engineers and students

to share the latest research results and the advanced research methods of the field. The broad variety of disciplines involved in this research and the differences in approaching the basic problems are probably typical of a developing field of interdisciplinary research. However, some main areas of research and development in the emerging areas of wireless communication technology can now be

identified. The contributions to this book are mainly selected from the papers of the conference on wireless communications, networking and applications and reflect the main areas of interest: Section 1 - Emerging Topics in Wireless and Mobile Computing and Communications; Section 2 - Internet of Things and Long Term Evolution Engineering; Section 3 - Resource Allocation and Interference Management;

Section 4 - Communication Architecture, Algorithms, Modeling and Evaluation; Section 5 - Security, Privacy, and Trust; and Section 6 - Routing, Position Management and Network Topologies.

The Handbook of Unmanned Aerial Vehicles is a reference text for the academic and research communities, industry, manufacturers, users, practitioners, Federal Government, Federal and State Agencies, the

private sector, as well as all organizations that are and will be using unmanned aircraft in a wide spectrum of applications. The Handbook covers all aspects of UAVs, from design to logistics and ethical issues. It is also targeting the young investigator, the future inventor and entrepreneur by providing an overview and detailed information of the state-of-the-art as well as useful new concepts that may lead

to innovative research. The contents of the Handbook include material that addresses the needs and 'know how' of all of the above sectors targeting a very diverse audience. The Handbook offers a unique and comprehensive treatise of everything one needs to know about unmanned aircrafts, from conception to operation, from technologies to business activities, users, OEMs, reference sources, conferences, publications,

professional societies, etc. It should serve as a Thesaurus, an indispensable part of the library for everyone involved in this area. For the first time, contributions by the world's top experts from academia, industry, government and the private sector, are brought together to provide unique perspectives on the current state-of-the-art in UAV, as well as future directions. The Handbook is intended for

the expert/practitioner who seeks specific technical/business information, for the technically-oriented scientists and engineers, but also for the novice who wants to learn more about the status of UAV and UAV-related technologies. The Handbook is arranged in a user-friendly format, divided into main parts referring to: UAV Design Principles; UAV Fundamentals; UAV Sensors and Sensing Strategies; UAV

Propulsion; UAV Control; UAV Communication Issues; UAV Architectures; UAV Health Management Issues; UAV Modeling, Simulation, Estimation and Identification; MAVs and Bio-Inspired UAVs; UAV Mission and Path Planning; UAV Autonomy; UAV Sense, Detect and Avoid Systems; Networked UAVs and UAV Swarms; UAV Integration into the National Airspace; UAV-Human Interfaces and Decision Support Systems; Human Factors

and Training; UAV Logistics Support; UAV Applications; Social and Ethical Implications; The Future of UAVs. Each part is written by internationally renowned authors who are authorities in their respective fields. The contents of the Handbook supports its unique character as a thorough and comprehensive reference book directed to a diverse audience of technologists, businesses, users and potential users,

managers and decision makers, novices and experts, who seek a holistic volume of information that is not only a technical treatise but also a source for answers to several questions on UAV manufacturers, users, major players in UAV research, costs, training required and logistics issues.

As more and more devices become interconnected through the Internet of Things (IoT), there is an even greater need for

this book,which explains the technology, the internetworking, and applications that are making IoT an everyday reality. The book begins with a discussion of IoT "ecosystems" and the technology that enables them, which includes: Wireless Infrastructure and Service Discovery Protocols Integration Technologies and Tools Application and Analytics Enablement Platforms A chapter on next-generation cloud infrastructure explains

hosting IoT platforms and applications. A chapter on data analytics throws light on IoT data collection, storage, translation, real-time processing, mining, and analysis, all of which can yield actionable insights from the data collected by IoT applications. There is also a chapter on edge/fog computing. The second half of the book presents various IoT ecosystem use cases. One chapter discusses smart airports and highlights

the role of IoT integration. It explains how mobile devices, mobile technology, wearables, RFID sensors, and beacons work together as the core technologies of a smart airport. Integrating these components into the airport ecosystem is examined in detail, and use cases and real-life examples illustrate this IoT ecosystem in operation. Another in-depth look is on envisioning smart healthcare systems in a

connected world. This chapter focuses on the requirements, promising applications, and roles of cloud computing and data analytics. The book also examines smart homes, smart cities, and smart governments. The book concludes with a chapter on IoT security and privacy. This chapter examines the emerging security and privacy requirements of IoT environments. The security issues and an assortment of surmounting techniques

and best practices are also discussed in this chapter.

Smart Environments and Innovation-for-all Strategies

Internet of Things and Big Data Analytics Toward Next-Generation Intelligence

Human Computer Confluence

Security Engineering for Vehicular IT Systems

Proceedings of ICSICCS 2017

Production Factor Mathematics

Industrial Sensors and

Controls in Communication Networks Handbook of Unmanned Aerial Vehicles

This book presents the proceedings of the 7th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2018), held at Duy Tan University, Da Nang, Vietnam. The event brought together researchers, scientists, engineers, and practitioners to exchange ideas and experiences in the domain of intelligent computing theories with prospective applications

in various engineering disciplines. These proceedings are divided into two volumes. Covering broad areas of intelligent engineering informatics, with papers exploring both the theoretical and practical aspects of various areas like ANN and genetic algorithms, human–computer interaction, intelligent control optimization, intelligent e-learning systems, machine learning, mobile computing, and multi-agent systems, this volume is a valuable resource for postgraduate

students in various engineering disciplines. This book presents the refereed proceedings of the 5th International Conference on Advanced Machine Learning Technologies and Applications (AMLTA 2020), held at Manipal University Jaipur, India, on February 13 – 15, 2019, and organized in collaboration with the Scientific Research Group in Egypt (SRGE). The papers cover current research in machine learning, big data, Internet of Things, biomedical engineering,

fuzzy logic and security, as well as intelligence swarms and optimization. The book features research papers presented at the International Conference on Emerging Technologies in Data Mining and Information Security (IEMIS 2018) held at the University of Engineering & Management, Kolkata, India, on February 23–25, 2018. It comprises high-quality research by academics and industrial experts in the field of computing and communication, including full-length papers,

research-in-progress papers, case studies related to all the areas of data mining, machine learning, IoT and information security.
The volume LNAI 12228 constitute the refereed proceedings of the 21th Annual Conference "Towards Autonomous Robotics," TAROS 20120, held in Nottingham, UK, in September 2020.* The 30 full papers and 11 short papers presented were carefully reviewed and selected from 63 submissions. The papers present and discuss

significant findings and advances in autonomous robotics research and applications. They are organized in the following topical sections: soft and compliant robots; mobile robots; learning, mapping and planning; human-robot interaction; and robotic systems and applications. * The conference was held virtually due to the COVID-19 pandemic.

Mobile Radio Communications and 5G Networks

Advances in Visual Informatics

The Internet of Things

Proceedings on 25th International Joint Conference on Industrial Engineering and Operations Management – IJCIEOM
Future Data and Security Engineering
Proceedings of 5th ICMETE 2021
A New Era in Automotive Technology

This book presents the conference proceedings of the 25th edition of the International Joint Conference on Industrial Engineering and Operations Management. The conference is organized by 6 institutions (from different

countries and continents) that gather a large number of members in the field of operational management, industrial engineering and engineering management. This edition of the conference had the title: THE NEXT GENERATION OF PRODUCTION AND SERVICE SYSTEMS in order to emphasis unpredictable and very changeable future. This conference is aimed to enhance connection between academia and industry and to gather researchers and practitioners specializing in operation management, industrial engineering,

engineering management and other related disciplines from around the world.

This publication highlights the fast-moving technological advancement and infiltration of Artificial Intelligence into society. Concepts of evolution of society through interconnectivity are explored, together with how the fusion of human and technological interaction leading to Augmented Humanity is fast becoming more than just an endemic phase, but a cultural phase shift to digital societies. It aims to balance both the positive progressive outlooks such developments bring with

potential issues that may stem from innovation of this kind, such as the invasive procedures of bio hacking or ethical connotations concerning the usage of digital twins. This publication will also give the reader a good level of understanding on fundamental cyber defence principles, interactions with Critical National Infrastructure (CNI) and the Command, Control, Communications and Intelligence (C3I) decision-making framework. A detailed view of the cyber-attack landscape will be garnered; touching on the tactics, techniques and procedures

used, red and blue teaming initiatives, cyber resilience and the protection of larger scale systems. The integration of AI, smart societies, the human-centric approach and Augmented Humanity is discernible in the exponential growth, collection and use of [big] data; concepts woven throughout the diversity of topics covered in this publication; which also discusses the privacy and transparency of data ownership, and the potential dangers of exploitation through social media. As humans are become ever more interconnected, with the

prolificacy of smart wearable devices and wearable body area networks, the availability of and abundance of user data and metadata derived from individuals has grown exponentially. The notion of data ownership, privacy and situational awareness are now at the forefront in this new age.

The book features original papers by active researchers presented at the International Conference on Mobile Radio Communications and 5G Networks. It includes recent advances and upcoming technologies in the field of cellular systems,

2G/2.5G/3G/4G/5G and beyond, LTE, WiMAX, WMAN, and other emerging broadband wireless networks, WLAN, WPAN, and various home/personal networking technologies, pervasive and wearable computing and networking, small cells and femtocell networks, wireless mesh networks, vehicular wireless networks, cognitive radio networks and their applications, wireless multimedia networks, green wireless networks, standardization of emerging wireless technologies, power management and energy conservation techniques.

This two-volume book presents the outcomes of the 8th International Conference on Soft Computing for Problem Solving, SocProS 2018. This conference was a joint technical collaboration between the Soft Computing Research Society, Liverpool Hope University (UK), and Vellore Institute of Technology (India), and brought together researchers, engineers and practitioners to discuss thought-provoking developments and challenges in order to select potential future directions. The book highlights the latest advances and innovations in the interdisciplinary areas of

soft computing, including original research papers on algorithms (artificial immune systems, artificial neural networks, genetic algorithms, genetic programming, and particle swarm optimization) and applications (control systems, data mining and clustering, finance, weather forecasting, game theory, business and forecasting applications). It offers a valuable resource for both young and experienced researchers dealing with complex and intricate real-world problems that are difficult to solve using traditional methods.

Cyber Defence in the Age of AI, Smart Societies and Augmented Humanity
Computational Collective Intelligence
E-Mobility
Micro-Electronics and Telecommunication Engineering
Smart Innovations in Communication and Computational Sciences
Improving the Trustworthiness and Dependability of Automotive IT Applications
Make the Right Decisions
Emerging Technologies in Data Mining and Information Security

The book provides insights into

International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS 2017) held at North West Group of Institutions, Punjab, India. It presents new advances and research results in the fields of computer and communication written by leading researchers, engineers and scientists in the domain of interest from around the world. The book includes research work in all the areas of smart innovation, systems and technologies, embedded knowledge and intelligence, innovation and sustainability, advance computing, networking and informatics. It also focuses on the knowledge-transfer methodologies and innovation strategies employed to make this happen effectively. The

combination of intelligent systems tools and a broad range of applications introduce a need for a synergy of disciplines from science and technology. Sample areas include, but are not limited to smart hardware, software design, smart computing technologies, intelligent communications and networking, web and informatics and computational sciences.

This book presents the proceedings of the 5th Edition of the Brazilian Technology Symposium (BTSym). This event brings together researchers, students and professionals from the industrial and academic sectors, seeking to create and/or strengthen links between issues of joint interest, thus promoting technology and innovation at nationwide level. The

BTSym facilitates the smart integration of traditional and renewable power generation systems, distributed generation, energy storage, transmission, distribution and demand management. The areas of knowledge covered by the event are Smart Designs, Sustainability, Inclusion, Future Technologies, IoT, Architecture and Urbanism, Computer Science, Information Science, Industrial Design, Aerospace Engineering, Agricultural Engineering, Biomedical Engineering, Civil Engineering, Control and Automation Engineering, Production Engineering, Electrical Engineering, Mechanical Engineering, Naval and Oceanic Engineering, Nuclear Engineering,

Chemical Engineering, Probability and Statistics.