

## Accident Identification Using Gsm

*This book constitutes selected papers of the Second International Conference on Advanced Communication Systems and Information Security, ACOSIS 2019, held in Marrakesh, Morocco, in November 2019. The 10 full papers and 10 short papers were thoroughly reviewed and selected from 94 submissions. The papers are organized according to the following topical sections: wireless communications and services; vehicular communications; channel coding; construction of error correcting codes; intrusion detection techniques; wireless and mobile network security; applied cryptography.*

***Towards Smart World: Homes to Cities Using Internet of Things** provides an overview of basic concepts from the rising of machines and communication to IoT for making cities smart, real-time applications domains, related technologies, and their possible solutions for handling relevant challenges. This book highlights the utilization of IoT for making cities smart and its underlying technologies in real-time application areas such as emergency departments, intelligent traffic systems, indoor and outdoor securities, automotive industries, environmental monitoring, business entrepreneurship, facial recognition, and motion-based object detection. Features The book covers the challenging issues related to sensors, detection, and tracking of moving objects, and solutions to handle relevant challenges. It contains the most recent research analysis in the domain of communications, signal processing, and computing sciences for facilitating smart homes, buildings, environmental conditions, and cities. It presents the readers with practical approaches and future direction for using IoT in smart cities and discusses how it deals with human dynamics, the ecosystem, and social objects and their relation. It describes the latest technological advances in IoT and visual surveillance with their implementations. This book is an ideal resource for IT professionals, researchers, undergraduate or postgraduate students, practitioners, and technology developers who are interested in gaining deeper knowledge and implementing IoT for smart cities, real-time applications areas, and technologies, and a possible set of solutions to handle relevant challenges. Dr. Lavanya Sharma is an Assistant Professor in the Amity Institute of Information Technology at Amity University UP, Noida, India. She has been a recipient of several prestigious awards during her academic career. She is an active nationally recognized researcher who has published numerous papers in her field.*

*This book constitutes the refereed proceedings of the 12th International Conference on Ad Hoc Networks, ADHOCNETS 2020, held in Paris in November 2020. The conference was held virtually due to COVID-19 pandemic. The 19 full papers were selected from 36 submissions covers a variety of network paradigms including mobile ad hoc networks (MANETs), wireless sensor networks (WSNs), vehicular ad hoc networks (VANETs), airborne networks, underwater networks, underground networks, personal area networks, and home networks. It promises a wide range of applications in civilian, commercial, and military areas.*

*This book presents high-quality research papers that demonstrate how emerging technologies in the field of intelligent systems can be used to effectively meet global needs. The respective papers highlight a wealth of innovations and experimental results, while also addressing proven IT governance, standards and practices, and new designs and tools that facilitate rapid information flows to the user. The book is divided into five major sections, namely: “Advances in High Performance Computing”, “Advances in Machine and Deep Learning”, “Advances in Networking and Communication”, “Advances in Circuits and Systems in Computing” and “Advances in Control and Soft Computing”.*

*Deep Learning Techniques for Biomedical and Health Informatics*

*RFID Based Vehicle Accident Detection and Messaging System Using GSM and GPS Modem*

*Proceedings of IEMIS 2020, Volume 3*

*Recent Trends in Communication and Electronics*

*Homes to Cities Using Internet of Things*

*Modelling, Simulation and Intelligent Computing*

*Smart Computing*

*This book presents new communication and networking technologies, an area that has gained significant research attention from both academia and industry in recent years. It also discusses the development of more intelligent and efficient communication technologies, which are an essential part of current day-to-day life, and reports on recent innovations in technologies, architectures, and standards relating to these technologies. The book includes research that spans a wide range of communication and networking technologies, including wireless sensor networks, big data, Internet of Things, optical and telecommunication networks, artificial intelligence, cryptography, next-generation networks, cloud computing, and natural language processing. Moreover, it focuses on novel solutions in the context of communication and networking challenges, such as optimization algorithms, network interoperability, scalable network clustering, multicasting and fault-tolerant techniques, network authentication mechanisms, and predictive analytics.*

*This book's objective is to explore the concepts and applications related to Internet of Things with the vision to identify and address existing challenges. Additionally, the book provides future research directions in this domain, and explores the different applications of IoT and its associated technologies. Studies investigate applications for crowd sensing and sourcing, as well as smart applications to healthcare solutions, agriculture and intelligent disaster management. This book will appeal to students, practitioners, industry professionals and researchers working in the field of IoT and its integration with other technologies to develop comprehensive solutions to real-life problems*

*Making use of digital technology for social care is a major responsibility of the computing domain. Social care services require attention for ease in social systems, e-farming, and automation, etc. Thus, the book focuses on suggesting software solutions for supporting social issues, such as health care, learning about and monitoring for disabilities, and providing technical solutions for better living. Technology is enabling people to have access to advances so that they can have better health. To undergo the digital transformation, the current processes need to be completely re-engineered to make use of technologies like the Internet of Things (IoT), big data analytics, artificial intelligence, and others. Furthermore, it is also important to consider digital initiatives in tandem with their cloud strategy instead of treating them in isolation. At present, the world is going through another, possibly even stronger revolution: the use of recent computing models to perform complex cognitive tasks to solve social problems in ways that were previously either highly complicated or extremely resource intensive. This book not only focuses the computing technologies, basic theories, challenges, and implementation but also covers case studies. It focuses on core theories, architectures, and technologies necessary to develop and understand the computing models and their applications. The book also has a high potential to be used as a recommended textbook for research scholars and post-graduate programs. The book deals with a problem-solving approach using recent tools and technology for problems in health care, social care, etc. Interdisciplinary studies are emerging as both necessary and practical in universities. This book helps to improve computational thinking to "understand and change the world". It will be a link between computing and a variety of other fields. Case studies on social aspects of modern societies and smart cities add to the contents of the book to enhance book adoption potential. This book will be useful to undergraduates, postgraduates, researchers, and industry professionals. Every chapter covers one possible solution in detail, along with results.*

*This book features research papers presented at the International Conference on Emerging Technologies in Data Mining and Information Security (IEMIS 2020) held at the University of Engineering & Management, Kolkata, India, during July 2020. The book is organized in three volumes and includes high-quality research work by academicians and industrial experts in the field of computing and communication, including full-length papers, research-in-progress papers, and case studies related to all the areas of data mining, machine learning, Internet of things (IoT), and information security.*

*ICCNCT 2019*

*ERCICA 2015, Volume 2*

*Emerging Tools and Technologies for First Responders*

*Hosted by CSI Vishakapatnam Chapter*

*Proceedings of ICTSCI 2021*

*Inventive Systems and Control*

*Exploring Critical Approaches of Evolutionary Computation*

**Abstract:** Security in travel is primary concern for everyone. This project presents an automotive localization system using GPS and GSM-SMS services. When the vehicle is involved in an accident immediately an SMS will send to predefined numbers with GPS location by using vibration sensor. A switch is provided because if the person presses the switch it indicates the person is in a safe condition. RFID is used to know the information about the vehicle; information is nothing but the vehicle number and location by using GPS. This system also can be interfaced with vehicle airbag system. This detection and messaging system is composed of a GPS receiver, microcontroller and a GSM modem. GPS receiver gets the location information from satellites in the form of latitude and longitude. The project is built around the LPC2148 microcontroller from Atmel. This microcontroller provides all the functionality of the SMS alert system. It also takes care of filtering of the signals at the inputs. The uniqueness of this project is, not only alerting the neighbors by its siren, but also it sends a caution SMS to two mobile numbers.

Autonomous and Connected Heavy Vehicle Technology presents the fundamentals, definitions, technologies, standards and future developments of autonomous and connected heavy vehicles. This book provides insights into various issues pertaining to heavy vehicle technology and helps users develop solutions towards autonomous, connected, cognitive solutions through the convergence of Big Data, IoT, cloud computing and cognition analysis. Various physical, cyber-physical and computational key points related to connected vehicles are covered, along with concepts such as edge computing, dynamic resource optimization, engineering process, methodology and future directions. The book also contains a wide range of case studies that help to identify research problems and an analysis of the issues and synthesis solutions. This essential resource for graduate-level students from different engineering disciplines such as automotive and mechanical engineering, computer science, data science and business analytics combines both basic concepts and advanced level content from technical experts. Covers state-of-the-art developments and research in vehicle sensor technology, vehicle communication technology, convergence with emerging technologies, and vehicle software and hardware integration Addresses challenges such as optimization, real-time control systems for distance and steering mechanism, and cognitive and predictive analysis Provides complete product development, commercial deployment, technological and performing costs and scaling needs

This book presents best selected research papers presented at the International Conference on Computer Networks, Big Data and IoT (ICCB I 2020), organized by Vaigai College Engineering, Madurai, Tamil Nadu, India, during 15–16 December 2020. The book covers original papers on computer networks, network protocols and wireless networks, data communication technologies and network security. The book is a valuable resource and reference for researchers, instructors, students, scientists, engineers, managers and industry practitioners in those important areas.

This book presents articles from the International Conference on Modelling, Simulation and Intelligent Computing (MoSiCom 2020), held at Birla Institute of Technology and Science Pilani, Dubai Campus, Dubai, UAE, in January 2020. Modelling and simulation are becoming increasingly important in a wide variety of fields, from Signal, Image and Speech Processing, and Microelectronic Devices and Circuits to Intelligent Techniques, Control and Energy Systems, and Power Electronics. Further, Intelligent Computational techniques are gaining significance in interdisciplinary engineering applications, such as Robotics and Automation, Healthcare Technologies, IoT and its Applications. Featuring the latest advances in the field of engineering applications, this book serves as a definitive reference resource for researchers, professors and practitioners interested in exploring advanced techniques in the field of modelling, simulation and computing.

**Optical and Wireless Technologies**

**Paving Path Towards Society 5.0**

**Second International Conference on Sustainable Technologies for Computational Intelligence**

**Proceedings of International Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications**

**Proceedings of ICISC 2021**

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

**Concepts and Applications**

*This book presents cutting-edge work on the most challenging research issues concerning intelligent transportation systems (ITS), introducing selected, highly relevant advanced research on scheduling and real-time communication for vehicular networks, as well as fault tolerance, test beds and simulations for ITS. The authors define new architectures that support cooperative sensing in ITS and offer guidance for the development of a reference end-to-end implementation. The presented results allow advanced traffic and travel management strategies to be formulated on the basis of reliable and real-time input data. The effectiveness of these new strategies, together with the proposed systems, is assessed in field trials and via simulations. The chapters in this book detail new research findings, algorithms, protocols, and the development of an implementation platform for ITS that merges and integrates heterogeneous data sources into a common system. In addition, they provide a set of advanced tools for the control, monitoring, simulation, and prediction of traffic that result in safer, more sustainable, and less congested roads. Work undertaken within the framework of the FP7 project ICSI (Intelligent Cooperative Sensing for Improved traffic efficiency) is also included in the research activities addressed.*

*This volume includes 74 papers presented at ICTIS 2017: Second International Conference on Information and Communication Technology for Intelligent Systems. The conference was held on 25th and 26th March 2017, in Ahmedabad, India and organized jointly by the Associated Chambers of Commerce and Industry of India (ASSOCHAM) Gujarat Chapter, the G R Foundation, the Association of Computer Machinery, Ahmedabad Chapter and supported by the Computer Society of India Division IV – Communication and Division V – Education and Research. The papers featured mainly focus on information and communications technology (ICT) for computation, algorithms and data analytics. The fundamentals of various data analytics and algorithms discussed are useful to researchers in the field.*

*During emergency situations, society relies upon the efficient response time and effective services of emergency facilities that include fire departments, law enforcement, search and rescue, and emergency medical services (EMS). As such, it is imperative that emergency crews are outfitted with technologies that can cut response time and can also predict where such events may occur and prevent them from happening. The safety of first responders is also of paramount concern. New tools can be implemented to map areas of vulnerability for emergency responders, and new strategies can be devised in their training to ensure that they are conditioned to respond efficiently to an emergency and also conscious of best safety protocols. Improving the Safety and Efficiency of Emergency Services: Emerging Tools and Technologies for First Responders addresses the latest tools that can support first responders in their ultimate goal: delivering their patients to safety. It also explores how new techniques and devices can support first responders in their work by addressing their safety, alerting them to accidents in real time, connecting them with medical experts to improve the chances of survival of critical patients, predicting criminal and terrorist activity, locating missing persons, and allocating resources. Highlighting a range of topics such as crisis management, medical/fire emergency warning systems, and predictive policing technologies, this publication is an ideal reference source for law enforcement, emergency professionals, medical professionals, EMTs, fire departments, government officials, policymakers, IT consultants, technology developers, academicians, researchers, and students.*

*This book covers recent trends in the field of devices, wireless communication and networking. It gathers selected papers presented at the International Conference on Communication, Devices and Networking (ICCDN 2019), which was organized by the Department of Electronics and Communication Engineering, Sikkim Manipal Institute of Technology, Sikkim, India, on 9–10 December 2019. Gathering cutting-edge research papers prepared by researchers, engineers and industry professionals, it will help young and experienced scientists and developers alike to explore new perspectives, and offer them inspirations on how to address real-world problems in the areas of electronics, communication, devices and networking.*

*17th International Conference, CISIM 2018, Olomouc, Czech Republic, September 27-29, 2018, Proceedings*

*Transactions on Computational Science XXXV*

*Smart Trends in Computing and Communications*

*Smart Intelligent Computing and Communication Technology*

*Selected Articles from ICISN 2021, Vietnam*

*Intelligent Systems and Networks*

*The Rise of Fog Computing in the Digital Era*

This proceedings volume covers the proceedings of ERCICA 2015. ERCICA provides an interdisciplinary forum for researchers, professional engineers and scientists, educators, and technologists to discuss, debate and promote research and technology in the upcoming areas of Computing, Information, Communication and their Applications. The contents of this book cover emerging research areas in fields of Computing, Information, Communication and Applications. This will prove useful to both researchers and practicing engineers.

Deep Learning Techniques for Biomedical and Health Informatics provides readers with the state-of-the-art in deep learning-based methods for biomedical and health informatics. The book covers not only the best-performing methods, it also presents implementation methods. The book includes all the prerequisite methodologies in each chapter so that new researchers and practitioners will find it very useful. Chapters go from basic methodology to advanced methods, including detailed descriptions of proposed approaches and comprehensive critical discussions on experimental results and how they are applied to Biomedical Engineering, Electronic Health Records, and medical image processing. Examines a wide range of Deep Learning applications for Biomedical Engineering and Health Informatics, including Deep Learning for drug discovery, clinical decision support systems, disease diagnosis, prediction and monitoring Discusses Deep Learning applied to Electronic Health Records (EHR), including health data structures and management, deep patient similarity learning, natural language processing, and how to improve clinical decision-making Provides detailed coverage of Deep Learning for medical image processing, including optimizing medical big data, brain image analysis, brain tumor segmentation in MRI imaging, and the future of biomedical image analysis

The LNCS journal Transactions on Computational Science reflects recent developments in the field of Computational Science, conceiving the field not as a mere ancillary science but rather as an innovative approach supporting many other scientific disciplines. The journal focuses on original high-quality research in the realm of computational science in parallel and distributed environments, encompassing the facilitating theoretical foundations and the applications of large-scale computations and massive data processing. It addresses researchers and practitioners in areas ranging from aerospace to biochemistry, from electronics to geosciences, from mathematics to software architecture, presenting verifiable computational methods, findings, and solutions, and enabling industrial users to apply techniques of leading-edge, large-scale, high performance computational methods. This, the 35th issue of the Transactions on Computational Science, focusses on signal processing and security in distributed systems. The topics covered include classification of visual attention levels using microscacades; analysis of textual content using Eyegaze; automatic car-accident detection and passenger counting; face recognition; secure data fusion in IoT; business compliance using goal models; and microfluidic executions.

This book gathers selected research papers presented at the International Conference on Recent Trends in Machine Learning, IOT, Smart Cities & Applications (ICMISC 2020), held on 29–30 March 2020 at CMR Institute of Technology, Hyderabad, Telangana, India. Discussing current trends in machine learning, Internet of things, and smart cities applications, with a focus on multi-disciplinary research in the area of artificial intelligence and cyber-physical systems, this book is a valuable resource for scientists, research scholars and PG students wanting formulate their research ideas and find the future directions in these areas. Further, it serves as a reference work anyone wishing to understand the latest technologies used by practicing engineers around the globe.

Special Issue on Signal Processing and Security in Distributed Systems  
Improving the Safety and Efficiency of Emergency Services: Emerging Tools and Technologies for First Responders  
Internet of Things, Smart Spaces, and Next Generation Networks and Systems  
Information and Communication Technology for Intelligent Systems (ICTIS 2017) - Volume 1  
Emerging Research in Computing, Information, Communication and Applications  
Computer Networks, Big Data and IoT  
Cognitive Informatics and Soft Computing

This book captures the principles of safety evaluation as practiced in the regulated light-water reactor nuclear industry, as established and stabilized over the last 30 years. It is expected to serve both the current industry and those planning for the future. The work's coverage of the subject matter is the broadest to date, including not only the common topics of modeling and simulation, but also methods supporting the basis for the underlying assumptions, the extension to radiological safety, what to expect in a licensing review, historical perspectives and the implication for new designs. This text is an essential resource for practitioners and students, on the current best-practices in nuclear power plant safety and their basis. Contributors of this work are subject matter experts in their specialties, much of which was nurtured and inspired by Prof. Larry Hochreiter, a prominent nuclear safety pioneer. Related Link(s)

This book presents Proceedings of the International Conference on Intelligent Systems and Networks (ICISN 2021), held at Hanoi in Vietnam. It includes peer-reviewed high-quality articles on intelligent system and networks. It brings together professionals and researchers in the area and presents a platform for exchange of ideas and to foster future collaboration. The topics covered in this book include--foundations of computer science; computational intelligence language and speech processing; software engineering software development methods; wireless communications signal processing for communications; electronics track IoT and sensor systems embedded systems; etc.

This book constitutes the joint refereed proceedings of the 19th International Conference on Next Generation Teletraffic and Wired/Wireless Advanced Networks and Systems, NEW2AN 2019, and the 12th Conference on Internet of Things and Smart Spaces, ruSMART 2019. The 66 revised full papers presented were carefully reviewed and selected from 192 submissions. The papers of NEW2AN address various aspects of next-generation data networks, with special attention to advanced wireless networking and applications. In particular, they deal with novel and innovative approaches to performance and efficiency analysis of 5G and beyond systems, employed game-theoretical formulations, advanced queuing theory, and stochastic geometry, while also covering the Internet of Things, cyber security, optics, signal processing, as well as business aspects. ruSMART 2019, provides a Forum for academic and industrial researchers to discuss new ideas and trends in the emerging areas. The 12th conference on the Internet of Things and Smart Spaces, ruSMART 2019, provides a forum for academic and industrial researchers to discuss new ideas and trends in the emerging areas.

This book presents emerging concepts in data mining, big data analysis, communication, and networking technologies, and discusses the state-of-the-art in data engineering practices to tackle massive data distributions in smart networked environments. It also provides insights into potential data distribution challenges in ubiquitous data-driven networks, highlighting research on the theoretical and systematic framework for analyzing, testing and designing intelligent data analysis models for evolving communication frameworks. Further, the book showcases the latest developments in wireless sensor networks, cloud computing, mobile network, autonomous systems, cryptography, automation, and other communication and networking technologies. In addition, it addresses data security, privacy and trust, wireless networks, data classification, data prediction, performance analysis, data validation and verification models, machine learning, sentiment analysis, and various data analysis techniques.

Proceeding of CISC 2020

Advanced Communication Systems and Information Security

Intelligent Transportation Systems

Emerging Technologies in Data Mining and Information Security

Second International Conference, ACOSIS 2019, Marrakesh, Morocco, November 20–22, 2019, Revised Selected Papers

Proceedings of ICCDN 2019

Second International Conference on Computer Networks and Communication Technologies

*This book is a collection of selected papers presented at the First Congress on Intelligent Systems (CIS 2020), held in New Delhi, India during September 5 - 6, 2020. It includes novel and innovative work from experts, practitioners, scientists and decision-makers from academia and industry. It covers topics such as Internet of Things, information security, embedded systems, real-time systems, cloud computing, big data analysis, quantum computing, automation systems, bio-inspired intelligence, cognitive systems, cyber physical systems, data analytics, data/web mining, data science, intelligence for security, intelligent decision making systems, intelligent information processing, intelligent transportation, artificial intelligence for machine vision, imaging sensors technology, image segmentation, convolutional neural network, image/video classification, soft computing for machine vision, pattern recognition, human computer interaction, robotic devices and systems, autonomous vehicles, intelligent control systems, human motor control, game playing, evolutionary algorithms, swarm optimization, neural network, deep learning, supervised learning, unsupervised learning, fuzzy logic, rough sets, computational optimization, and neuro fuzzy systems.*

*Recent developments in the fields of intelligent computing and communication have paved the way for the handling of current and upcoming problems and brought about significant technological advancements. This book presents the proceedings of IConIC 2021, the 4th International Conference on Intelligent Computing, held on 26 and 27 March 2021 in Chennai, India. The principle objective of the annual IConIC conference is to provide an international scientific forum where participants can exchange innovative ideas in relevant fields and interact in depth through discussion with their peer group. The theme of the 2021 conference and this book is 'Smart Intelligent Computing and Communication Technology', and the 109 papers included here focus on the technological innovations and trendsetting initiatives in medicine, industry, education and security that are improving and optimizing business and technical processes and enabling inclusive growth. The papers are grouped under 2 headings: Evolution of Computing Intelligence; and Computing and Communication, and cover a broad range of intelligent-computing research and applications. The book provides an overview of the cutting-edge developments and emerging areas of study in the technological fields of intelligent computing, and will be of interest to researchers and practitioners from both academia and industry.*

*This book comprises select proceedings of the 4th International Conference on Optical and Wireless Technologies (OWT 2020). The contents of this volume focus on research carried out in the areas of Optical Communication, Optoelectronics, Optics, Wireless Communication, Wireless Networks, Sensors, Mobile Communications and Antenna and Wave Propagation. The volume also explores the combined use of various optical and wireless technologies in next generation applications, and their latest developments in applications like photonics, high speed communication systems and networks, visible light communication, nanophotonics, wireless and MIMO systems. This book will serve as a useful reference to scientists, academicians, engineers and policy-makers interested in the field of optical and wireless technologies.*

*This volume contains 88 papers presented at CSI 2013: 48th Annual Convention of Computer Society of India with the theme "ICT and Critical Infrastructure". The convention was held during 13th -15th December 2013 at Hotel Novotel Varun Beach, Visakhapatnam and hosted by Computer Society of India, Vishakhapatnam Chapter in association with Vishakhapatnam Steel Plant, the flagship company of RINL, India. This volume contains papers mainly focused on Computational Intelligence and its applications, Mobile Communications and social Networking, Grid Computing, Cloud Computing, Virtual and Scalable Applications, Project Management and Quality Systems and Emerging Technologies in hardware and Software.*

*ECIAIR 2019 European Conference on the Impact of Artificial Intelligence and Robotics*

*Design-basis Accident Analysis Methods For Light-water Nuclear Power Plants*

*Innovative Data Communication Technologies and Application*

*Towards Smart World*

*Autonomous and Connected Heavy Vehicle Technology*

*GPS & GSM Based Automated Accident Detection System*

*ICMISC 2020*

This book gathers high-quality papers presented at the Second International Conference on Sustainable Technologies for Computational Intelligence (ICTSCI 2021) held at Graphic Era University, Dehradun, India, during May 22–23, 2021. It covers emerging topics in computational intelligence and effective strategies for its implementation in engineering applications.

This book presents best selected research papers presented at the 3rd International Conference on Cognitive Informatics and Soft Computing (CISC 2020), held at Balasore College of Engineering & Technology, Balasore, Odisha, India, from 12 to 13 December 2020. It highlights, in particular, innovative research in the fields of cognitive informatics, cognitive computing, computational intelligence, advanced computing, and hybrid intelligent models and applications. New algorithms and methods in a variety of fields are presented, together with solution-based approaches. The topics addressed include various theoretical aspects and applications of computer science, artificial intelligence, cybernetics, automation control theory, and software engineering.

This book presents selected papers from the 5th International Conference on Inventive Systems and Control (ICISC 2021), held on 7–8 January 2021 at JCT College of Engineering and Technology, Coimbatore, India. The book includes an analysis of the class of intelligent systems and control techniques that utilises various artificial intelligence technologies, where there are no mathematical models and systems available to make them remain controlled. Inspired by various existing intelligent techniques, the primary goal is to present the emerging innovative models to tackle the challenges faced by the existing computing and communication technologies. The proceedings of ICISC 2021 aim at presenting the state-of-the-art research developments, trends, and solutions for the challenges faced by the intelligent systems and control community with the real-world applications. The included research articles feature the novel and unpublished research works on intelligent system representation and control.

Modern optimization approaches have attracted an increasing number of scientists, decision makers, and researchers. As new issues in this field emerge, different optimization methodologies must be developed and implemented. Exploring Critical Approaches of Evolutionary Computation is a vital scholarly publication that explores the latest developments, methods, approaches, and applications of evolutionary models in a variety of fields. It also emphasizes evolutionary models of computation such as genetic algorithms, evolutionary strategies, classifier systems, evolutionary programming, genetic programming, and related fields such as swarm intelligence and other evolutionary computation techniques. Highlighting a range of pertinent topics such as neural networks, data mining, and data analytics, this book is designed for IT developers, IT theorists, computer engineers, researchers, practitioners, and upper-level students seeking current research on enhanced information exchange methods and practical aspects of computational systems.

Computer Information Systems and Industrial Management

Proceedings of CIS 2020, Volume 1

ICT and Critical Infrastructure: Proceedings of the 48th Annual Convention of Computer Society of India- Vol I

Ad Hoc Networks

ICIDCA 2019

19th International Conference, NEW2AN 2019, and 12th Conference, ruSMART 2019, St. Petersburg, Russia, August 26–28, 2019, Proceedings

Proceedings of OWT 2020

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.

With the immense growth of information, the prevalence of ubiquitously connected smart devices is rapidly increasing. Providing platforms that support computation, storage, and networking services between end devices is an essential aspect of an expanding digital society. The Rise of Fog Computing in the Digital Era provides innovative insights into the present generation of computing devices, as well as new approaches to computational platforms through fog computing. The content within this publication presents concepts and theories on data analytics, management systems, networking architectures, and many more. It is a vital reference source for IT professionals, computer programmers, software developers, computer engineers, researchers, and upper-level students seeking topics centered on the challenges and benefits of fog computing in mobile environments.

This book constitutes the proceedings of the 17th International Conference on Computer Information Systems and Industrial Management Applications, CISIM 2018, held in Olomouc, Czech Republic, in September 2018. The 42 full papers presented together with 4 keynotes were carefully reviewed and selected from 69 submissions. The main topics covered by the chapters in this book are biometrics, security systems, multimedia, classification and clustering, and 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; and various aspects of computer security.

The field of SMART technologies is an interdependent discipline. It involves the latest burning issues ranging from machine learning, cloud computing, optimisations, modelling techniques, Internet of Things, data analytics, and Smart Grids among others, that are all new fields. It is an applied and multi-disciplinary subject with a focus on Specific, Measurable, Achievable, Realistic & Timely system operations combined with Machine intelligence & Real-Time computing. It is not possible for any one person to comprehensively cover all aspects relevant to SMART Computing in a limited-extent work. Therefore, these conference proceedings address various issues through the deliberations by distinguished Professors and researchers. The SMARTCOM 2020 proceedings contain tracks dedicated to different areas of smart technologies such as Smart System and Future Internet, Machine Intelligence and Data Science, Real-Time and VLSI Systems, Communication and Automation Systems. The proceedings can be used as an advanced reference for research and for courses in smart technologies taught at graduate level.

Computing Technologies and Applications

Advances in Communication, Devices and Networking

Accident Detection and Reporting System Using GPS, GPRS and GSM Technology

Emerging Trends in Computing and Expert Technology

Proceedings of MoSICom 2020

Internet of Things (IoT)

12th EAI International Conference, ADHOCNETS 2020, Paris, France, November 17, 2020, Proceedings