

Smart Surveillance Monitoring System Using Raspberry Pi

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Computer Vision - Pancham Shukla 2023-02-20

This book focuses on the latest developments in the fields of visual AI, image processing and computer vision. It shows research in basic techniques like image pre-processing, feature extraction, and enhancement, along with applications in biometrics, healthcare, neuroscience and forensics. The book highlights algorithms, processes, novel architectures and results underlying machine intelligence with detailed execution flow of models.

Social Networking and Computational Intelligence - Rajesh Kumar Shukla 2020-03-21

This book presents a selection of revised and extended versions of the best papers from the First International Conference on Social Networking and Computational Intelligence (SCI-2018), held in Bhopal, India, from October 5 to 6, 2018. It discusses recent advances in scientific developments and applications in these areas.

Green Internet of Things for Smart Cities - Surjeet Dalal 2021-06-28

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.

Internet of Things, for Things, and by Things - Abhik Chaudhuri 2018-08-28

This book explains IoT technology, its potential applications, the security and privacy aspects, the key necessities like governance, risk management, regulatory compliance needs, the philosophical aspects of this technology that are necessary to support an ethical, safe and secure digitally enhanced environment in which people can live smarter. It describes the inherent technology of IoT, the architectural components and the philosophy behind this emerging technology. Then it shows the various potential applications of the Internet of Things that can bring benefits to the human society. Finally, it discusses various necessities to provide a secured and trustworthy IoT service.

Intelligent Embedded Systems - Daniel Thalmann 2018-02-16

This book is a collection of papers from international experts presented at the International Conference on NextGen Electronic Technologies (ICNETS2). ICNETS2 encompassed six symposia covering all aspects of electronics and communications engineering, including relevant nano/micro materials and devices. Highlighting recent research in intelligent embedded systems, the book is a valuable resource for professionals and students working in the core areas of electronics and their applications, especially in signal processing, embedded systems, and networking. The contents of this volume will be of interest to researchers and professionals alike.

Open-Source Electronics Platforms - Trung Dung Ngo 2019-05-20

Open-source electronics are becoming very popular, and are integrated with our daily educational and developmental activities.

At present, the use open-source electronics for teaching science, technology, engineering, and mathematics (STEM) has become a global trend. Off-the-shelf embedded electronics such as Arduino- and Raspberry-compatible modules have been widely used for various applications, from do-it-yourself (DIY) to industrial projects. In addition to the growth of open-source software platforms, open-source electronics play an important role in narrowing the gap between prototyping and product development. Indeed, the technological and social impacts of open-source electronics in teaching, research, and innovation have been widely recognized.

Handbook of Research on the Internet of Things

Applications in Robotics and Automation - Singh, Rajesh 2019-09-13

With near-universal internet access and ever-advancing electronic devices, the ability to facilitate interactions between various hardware and software provides endless possibilities. Though internet of things (IoT) technology is becoming more popular among individual users and companies, more potential applications of this technology are being sought every day. There is a need for studies and reviews that discuss the methodologies, concepts, and possible problems of a technology that requires little or no human interaction between systems. The Handbook of Research on the Internet of Things Applications in Robotics and Automation is a pivotal reference source on the methods and uses of advancing IoT technology. While highlighting topics including traffic information systems, home security, and automatic parking, this book is ideally designed for network analysts, telecommunication system designers, engineers, academicians, technology specialists, practitioners, researchers, students, and software developers seeking current research on the trends and functions of this life-changing technology.

Research Anthology on Usage and Development of Open Source Software - Management Association, Information

Resources 2021-06-25

The quick growth of computer technology and development of software caused it to be in a constant state of change and advancement. This advancement in software development meant that there would be many types of software developed in order to excel in usability and efficiency. Among these different types of software was open source software, one that grants permission for users to use, study, change, and distribute it freely. Due to its availability, open source software has quickly become a valuable asset to the world of computer technology and across various disciplines including education, business, and library science. The Research Anthology on Usage and Development of Open Source Software presents comprehensive research on the design and development of open source software as well as the ways in which it is used. The text discusses in depth the way in which this computer software has been made into a collaborative effort for the advancement of software technology. Discussing topics such as ISO standards, big data, fault prediction, open collaboration, and software development, this anthology is essential for computer engineers, software developers, IT specialists and consultants, instructors, librarians, managers, executives, professionals, academicians, researchers, and students.

Innovative Data Communication Technologies and Application - Jennifer S. Raj 2020-01-30

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.

ICT Systems and Sustainability - Milan Tuba 2020-02-28

This book proposes new technologies and discusses future solutions for ICT design infrastructures, as reflected in high-quality papers presented at the 4th International Conference on ICT for Sustainable Development (ICT4SD 2019), held in Goa, India, on 5-6 July 2019. The conference provided a valuable forum for cutting-edge research discussions among pioneering researchers, scientists, industrial engineers, and students from all around the world. Bringing together experts from different countries, the book explores a range of central issues from an international perspective.

IoT based Projects - Singh Dr. Rajesh 2020-02-13

Create your own IoT projects Key Featuresa- Comprehensive coverage of various aspects of IoT conceptsa- Covers various Arduino boards and shieldsa- Simple language, crystal clear approach and straight forward comprehensible presentationa- Adopting user-friendly style for the explanation of circuits and examples a- Includes basics of Raspberry Pi and related projectsDescriptionThe book has been written in such a way that the concepts are explained in detail. It is entirely based on the practical experience of the authors while undergoing projects with students and industries, giving adequate emphasis on circuits and code examples. To make the topics more comprehensive, circuit diagrams, photographs and code samples are furnished extensively throughout the book. The book is conceptualized and written in such a way that the beginner readers will find it very easy to understand and implement the circuits and programs. The objective of this book is to discuss the various projects based on the Internet of Things (IoT).What will you learna- Internet of Things, IoT-Based Smart Camera, IoT-Based Dust Sampler a- Learn to create ESP8266-Based Wireless Web Server and Air Pollution Meter Using Raspberry Pi, Smart Garage Door, Baggage Tracker, Smart Trash Collector, Car parking system, Home Automationa- Windows 10 on Raspberry and know to create Wireless Video Surveillance Robot Using Raspberry Pi Who this book is forStudents pursuing BE/BSc/ME/MSc/BTech/MTech in Computer Science, Electronics, Electrical.Table of Contents1. ESP8266-Based Wireless Web Server2. Air Pollution Meter Using Raspberry Pi3. Smart Garage Door4. Baggage Tracker5. Smart Trash Collector6. Car parking system7. Home Automation8. Environmental Parameter Monitoring9. Intelligent System for the Blind10. Sign to Speech Using the IoTs11. Windows 10 on Raspberry12. Wireless Video Surveillance Robot Using Raspberry Pi 13. IoT-Based Smart Camera14. IoT-Based Dust Sampler and Air Quality Monitoring SystemAbout the AuthorDr. Rajesh Singh is currently associated with Lovely Professional University as a professor with more than sixteen years of experience in academics. He has been awarded as the gold medalist in M.Tech from RGPV, Bhopal (MP), India, and honours in his B.E. from Dr. B.R. Ambedkar University, Agra (UP), India. Dr. Anita Gehlot is currently associated with Lovely Professional University, Punjab, as an associate professor with more than twelve years of experience in academics. Her area of expertise includes embedded systems, wireless sensor networks and the Internet of Things. She has organized and conducted several workshops, summer internships, and expert lectures for students as well as faculty. Dr. Lovi Raj Gupta is the Executive Dean, Faculty of Technology & Sciences, Lovely Professional University. He is a leading light in the field of technical and higher education in the country. His research-focused approach and an insightful, innovative intervention of technology in education have won him much accolades and laurels. Ms. Navjot Rathour is associated with Lovely Professional University as an assistant professor with more than eight years of experience in academics.

She is pursuing her PhD Electronics and communication engineering from Lovely Professional University. She has one patent to her account. She has published seven research papers in refereed journals and conference. Mahendra Swain is a PhD Scholar at Lovely Professional University, Jalandhar, Punjab. He has completed his B.Tech in ECE from Centurion University of Technology and Management, Bhubaneswar. He has completed his M.Tech from Lovely professional University.

Data Science and Security - Samiksha Shukla 2021-08-26

This book presents the best-selected papers presented at the International Conference on Data Science, Computation and Security (IDSCS-2021), organized by the Department of Data Science, CHRIST (Deemed to be University), Pune Lavasa Campus, India, during April 16-17, 2021. The proceeding is targeting the current research works in the areas of data science, data security, data analytics, artificial intelligence, machine learning, computer vision, algorithms design, computer networking, data mining, big data, text mining, knowledge representation, soft computing, and cloud computing.

Proceedings of Mechanical Engineering Research Day 2019

- Mohd Fadzli Bin Abdollah 2019-08-05

This e-book is a compilation of papers presented at the 6th Mechanical Engineering Research Day (MERD'19) - Kampus Teknologi UTeM, Melaka, Malaysia on 31 July 2019.

SMART Technologies for Natural Resource Conservation and Sustainable Development - Nilanjan Sengupta 2016-12-05

The book is a conference proceeding on adoption and application of sustainable, Manageable, Appropriate, Rational and Transferable (SMART) Technologies in all sectors of development. **Intelligent Computing** - Kohei Arai 2019-07-08

This book presents the proceedings of the Computing Conference 2019, providing a comprehensive collection of chapters focusing on core areas of computing and their real-world applications. Computing is an extremely broad discipline, encompassing a range of specialized fields, each focusing on particular areas of technology and types of application, and the conference offered pioneering researchers, scientists, industrial engineers, and students from around the globe a platform to share new ideas and development experiences. Providing state-of-the-art intelligent methods and techniques for solving real- world problems, the book inspires further research and technological advances in this important area.

IoT based Projects - Dr. Rajesh Singh 2020-02-13

Create your own IoT projects DESCRIPTION The book has been written in such a way that the concepts are explained in detail. It is entirely based on the practical experience of the authors while undergoing projects with students and industries, giving adequate emphasis on circuits and code examples. To make the topics more comprehensive, circuit diagrams, photographs and code samples are furnished extensively throughout the book. The book is conceptualized and written in such a way that the beginner readers will find it very easy to understand and implement the circuits and programs. The objective of this book is to discuss the various projects based on the Internet of Things (IoT). KEY FEATURES Comprehensive coverage of various aspects of IoT concepts Covers various Arduino boards and shields Simple language, crystal clear approach and straight forward comprehensible presentation Adopting user-friendly style for the explanation of circuits and examples Includes basics of Raspberry Pi and related projects WHAT WILL YOU LEARN Internet of Things, IoT-Based Smart Camera, IoT-Based Dust Sampler Learn to create ESP8266-Based Wireless Web Server and Air Pollution Meter Using Raspberry Pi, Smart Garage Door, Baggage Tracker, Smart Trash Collector, Car parking system, Home Automation Windows 10 on Raspberry and know to create Wireless Video Surveillance Robot Using Raspberry Pi WHO THIS BOOK IS FOR Students pursuing BE/BSc/ME/MSc/BTech/MTech in Computer Science, Electronics, Electrical. TABLE OF CONTENTS 1. ESP8266-Based Wireless Web Server 2. Air Pollution Meter Using Raspberry Pi 3. Smart Garage Door 4. Baggage Tracker 5. Smart Trash Collector 6. Car parking system 7. Home Automation 8. Environmental Parameter Monitoring 9. Intelligent System for the Blind 10. Sign to Speech Using the IoTs 11. Windows 10 on Raspberry 12. Wireless Video Surveillance Robot Using Raspberry Pi 13. IoT-Based Smart Camera 14. IoT-Based Dust Sampler and

Air Quality Monitoring System

Trends in Wireless Communication and Information Security - Mithun Chakraborty 2021-04-22

This book presents best selected papers presented at the International Conference on Emerging Wireless Communication Technologies and Information Security (EWCIS 2020), held from 8th & 9th October 2020 at Amity University Jharkhand, Ranchi, India. The book includes papers in the research area of wireless communications and intelligent systems, signal and image processing in engineering applications, data communication and information security, IoT and cloud computing. The contribution ranges from scientists, engineers and technologists from academia as well as from industry.

2021 8th International Conference on Smart Computing and Communications (ICSCC) - IEEE Staff 2021-07

The conference will bring together experts from the Smart computing and Communication systems community to discuss the timely issue of smart computing and low energy system design. This will provide a forum for sharing insights, experiences and interaction on various aspects of evolving technologies and patterns related to Computer Science, Information Technology, Electronics, and associated Energy Systems. The conference provides a platform for not only to the researchers from Asia but also from other continents across the globe, making this conference more international and attractive for participants.

Industrial Internet of Things - Sudan Jha 2022-02-22

Industrial Internet of Things: Technologies, Design, and Applications addresses the complete functional framework workflow in IoT technology. It explores basic and high-level concepts, thus serving as a manual for those in the industry while also helping beginners. The book incorporates the working methodology of Industrial IoT works, is based on the latest technologies, and will cover the major challenges, issues, and advances while exploring data-based intelligent and automated systems and their implications to the real world. The book discusses data acquisition, security, learning, intelligent data analysis, and case studies related to Industrial IoT-based applications.

Vehicular Ad Hoc Networks - Muhammad Arif 2022-07-07

With the evolution of technology and sudden growth in the number of smart vehicles, traditional Vehicular Ad hoc NETWORKS (VANETs) face several technical challenges in deployment and management due to less flexibility, scalability, poor connectivity, and inadequate intelligence. VANETs have raised increasing attention from both academic research and industrial aspects resulting from their important role in driving assistant system. Vehicular Ad Hoc Networks focuses on recent advanced technologies and applications that address network protocol design, low latency networking, context-aware interaction, energy efficiency, resource management, security, human-robot interaction, assistive technology and robots, application development, and integration of multiple systems that support Vehicular Networks and smart interactions. Simulation is a key tool for the design and evaluation of Intelligent Transport Systems (ITS) that take advantage of communication-capable vehicles in order to provide valuable safety, traffic management, and infotainment services. It is widely recognized that simulation results are only significant when realistic models are considered within the simulation tool chain. However, quite often research works on the subject are based on simplistic models unable to capture the unique characteristics of vehicular communication networks. The support that different simulation tools offer for such models is discussed, as well as the steps that must be undertaken to fine-tune the model parameters in order to gather realistic results. Moreover, the book provides handy hints and references to help determine the most appropriate tools and models. This book will promote best simulation practices in order to obtain accurate results.

Frontier Computing - Jason C. Hung 2019-05-18

This book presents the proceedings of the 6th International Conference on Frontier Computing, held in Kuala Lumpur, Malaysia on July 3-6, 2018, and provides comprehensive coverage of the latest advances and trends in information technology, science and engineering. It addresses a number of broad themes, including communication networks, business intelligence and knowledge

management, web intelligence, and related fields that inspire the development of information technology. The contributions cover a wide range of topics: database and data mining, networking and communications, web and internet of things, embedded systems, soft computing, social network analysis, security and privacy, optical communication, and ubiquitous/pervasive computing. Many of the papers outline promising future research directions. The book is a valuable resource for students, researchers and professionals, and also offers a useful reference guide for newcomers to the field.

Intelligent Computing & Optimization - Pandian Vasant 2022-10-20

This book of Springer Nature is another proof of Springer's outstanding and greatness on the lively interface of Smart Computational Optimization, Green ICT, Smart Intelligence and Machine Learning! It is a Master Piece of what our community of academics and experts can provide when an Interconnected Approach of Joint, Mutual and Meta Learning is supported by Modern Operational Research and Experience of the World-Leader Springer Nature! The 5th edition of International Conference on Intelligent Computing and Optimization took place at October 27-28, 2022, via Zoom. Objective was to celebrate "Creativity with Compassion and Wisdom" with researchers, scholars, experts and investigators in Intelligent Computing and Optimization across the planet, to share knowledge, experience, innovation—a marvelous opportunity for discourse and mutuality by novel research, invention and creativity. This proceedings book of ICO'2022 is published by Springer Nature—Quality Label of wonderful.

AI and IoT-Based Intelligent Automation in Robotics - Ashutosh Kumar Dubey 2021-03-24

The 24 chapters in this book provides a deep overview of robotics and the application of AI and IoT in robotics. It contains the exploration of AI and IoT based intelligent automation in robotics. The various algorithms and frameworks for robotics based on AI and IoT are presented, analyzed, and discussed. This book also provides insights on application of robotics in education, healthcare, defense and many other fields which utilize IoT and AI. It also introduces the idea of smart cities using robotics.

Universal Access in Human-Computer Interaction. Virtual, Augmented, and Intelligent Environments - Margherita Antona 2018-07-09

This two-volume set LNCS 10907 and 10908 constitutes the refereed proceedings of the 12th International Conference on Universal Access in Human-Computer Interaction, UAHCI 2018, held as part of HCI International 2018 in Las Vegas, NV, USA, in July 2018. The total of 1170 papers and 195 posters included in the 30 HCII 2018 proceedings volumes was carefully reviewed and selected from 4373 submissions. The 48 papers presented in this volume were organized in topical sections named: virtual and augmented reality for universal access; intelligent assistive environments; and access to the web, social media, education, culture and social innovation.

Sharing My Knowledge -

My Sharing Knowledge - 2018-10-09

Smart Devices, Applications, and Protocols for the IoT - Rodrigues, Joel J. P. C. 2019-03-29

Advances in computing, communications, and control have bridged the physical components of reality and cyberspace leading to the smart internet of things (IoT). The notion of IoT has extraordinary significance for the future of several industrial domains. Hence, it is expected that the complexity in the design of IoT applications will continue to increase due to the integration of several cyber components with physical and industrial systems. As a result, several smart protocols and algorithms are needed to communicate and exchange data between IoT devices. Smart Devices, Applications, and Protocols for the IoT is a collection of innovative research that explores new methods and techniques for achieving reliable and efficient communication in recent applications including machine learning, network optimization, adaptive methods, and smart algorithms and protocols. While highlighting topics including artificial intelligence, sensor networks, and mobile network architectures, this book is ideally designed for IT specialists and consultants, software engineers,

technology developers, academicians, researchers, and students seeking current research on up-to-date technologies in smart communications, protocols, and algorithms in IoT.

Immersive Technology in Smart Cities - Sagaya Aurelia 2021-07-07

This book presents recent trends and enhancements in the convergence of immersive technology and smart cities. The authors discuss various domains such as medical education, construction, brain interface, interactive storytelling, edification, and journalism in relation to combining smart cities, IoT and immersive technologies. The book sets up a medium to promulgate insights and in depth understanding among experts in immersive technologies, IoT, HCI and associated establishments. The book also includes case studies, survey, models, algorithms, frameworks and implementations in storytelling, smart museum, medical education, journalism and more. Various practitioners, academicians and researchers in the domain contribute to the book.

Predictive Intelligence Using Big Data and the Internet of Things - Gupta, P.K. 2018-12-28

With the recent growth of big data and the internet of things (IoT), individuals can now upload, retrieve, store, and collect massive amounts of information to help drive decisions and optimize processes. Due to this, a new age of predictive computing is taking place, and data can now be harnessed to predict unknown occurrences or probabilities based on data collected in real time. Predictive Intelligence Using Big Data and the Internet of Things highlights state-of-the-art research on predictive intelligence using big data, the IoT, and related areas to ensure quality assurance and compatible IoT systems. Featuring coverage on predictive application scenarios to discuss these breakthroughs in real-world settings and various methods, frameworks, algorithms, and security concerns for predictive intelligence, this book is ideally designed for academicians, researchers, advanced-level students, and technology developers.

Security with Intelligent Computing and Big-Data Services 2019 - Lakhmi C. Jain 2020-04-27

This book aims to attract researchers and practitioners who are working in Information Technology and Computer Science. This edited book is about basics and high level concepts regarding Blockchain Technology and Application, Multimedia Security, Information Processing, Security of Network, Cloud and IoT, Cryptography and Cryptosystem, Learning and Intelligent Computing, Information Hiding. It is becoming increasingly important to develop adaptive, intelligent computing-centric, energy-aware, secure and privacy-aware mechanisms in high performance computing and IoT applications. The book serves as a useful guide for industry persons and also helps beginners to learn things from basic to advance in the area of better computing paradigm. Our aim is intended to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results in security related areas. We believe that this volume not only presents novel and interesting ideas but also will stimulate interesting discussions from the participants and inspire new ideas.

Data Analytics and Management - Ashish Khanna 2021-01-04

This book includes original unpublished contributions presented at the International Conference on Data Analytics and Management (ICDAM 2020), held at Jan Wyzykowski University, Poland, during June 2020. The book covers the topics in data analytics, data management, big data, computational intelligence, and communication networks. The book presents innovative work by leading academics, researchers, and experts from industry which is useful for young researchers and students.

Internet of Things - Fausto Pedro García Márquez 2021-08-18

The Internet of Things (IoT) is a closed-loop system in which a set of sensors is connected to servers via a network. The data from sensors are stored in a database and then analysed by IoT analytics. The results are usually employed by either humans, machines, or software to make decisions about the operation of the system. This book provides an interface between the main disciplines of engineering/technology and the organizational, administrative, and planning capabilities of managing the IoT.

Role of Higher Education Institutions in Achieving Sustainable Development Goals - Sri Sairam College of Engineering 2022-08-01

Contains papers related to Role of Higher Education Institutions in Achieving Sustainable Development Goals

Recent Trends in Communication and Electronics - Sanjay Sharma 2021-06-30

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.

Proceedings of the 3rd International Conference on Intelligent and Interactive Computing 2021 - Sarni Suhaila Rahim 2021-09-01

The 3rd International Conference on Intelligent and Interactive Computing 2021 (IIC 2021) was held virtually at Universiti Teknikal Malaysia Melaka (UTeM), Melaka, Malaysia, on 9 September 2021. The event was jointly organized by the Department of Interactive Media and Department of Intelligent Computing and Analytics, Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka (UTeM), with the theme 'Empowering the World with Intelligent and Immersive Computing towards Smart Solutions'. This open access e-proceedings contains a compilation of 38 selected papers from the IIC 2021. The technical committees received a great response for submissions from various area including computational intelligence, data analytics, robotics and automation, multimedia and immersive technologies, education 4.0 and others. We hope that this proceeding will serve as a valuable reference for researchers. The event has achieved its aim which is to gather academic scholars and industry practitioners to share valuable knowledge and expertise in related disciplines. Moreover, it is hoped that this conference has opened up opportunities to explore recent advancements and challenges on selected research discipline. As the editors-in-chief, we are grateful and would like to convey our sincerest gratitude to the fellow review members for their effort in reviewing the submitted papers for this proceeding. We are thankful to all the authors for revising their papers according to the proceeding requirements. Also, we would like to express our thoughtful appreciation to the organizer of the IIC 2021.

Raspberry Pi: Home Monitoring and Control - 2016

Help your home keep up with you-and stay connected to what's going on when you're away-with a custom home monitoring system built with a Raspberry Pi. With some inexpensive hardware and simple web services, you can monitor your house remotely via photo or video surveillance, detect motion, turn lights on and off, and send messages to your phone when different alarms are triggered. This DIY electronics project provides simple directions for getting your home monitoring system up and running. Author David Ross helps you select a power supply, camera, motion detector, enclosure, and other components and accessories, and make your system "smart" by connecting to web services frameworks such as Weaved and WebIOPi. Then he helps you program the logic to make your Pi camera take pictures and stream video, connect to home peripherals, and mount your alarm system. With this training, and a little elbow grease, you can create a fully autonomous system that helps you and your family feel more secure at home and away. Note: These instructions work with Raspberry Pi B, Raspberry Pi B+, and Raspberry Pi 2 models.

Harnessing the Internet of Everything (IoE) for Accelerated Innovation Opportunities - Cardoso, Pedro J.S. 2019-02-15

As innovators continue to explore and create new developments within the fields of artificial intelligence and computer science, subfields such as machine learning and the internet of things (IoT) have emerged. Now, the internet of everything (IoE), foreseen as a cohesive and intelligent connection of people, processes, data, and things, is theorized to make internet connections more valuable by converting information into wise actions that create unprecedented capabilities, richer experiences, and economic opportunities to all players in the market. *Harnessing the Internet of Everything (IoE) for Accelerated Innovation Opportunities* discusses the theoretical, design, evaluation, implementation, and use of innovative technologies within the fields of IoE, machine learning, and IoT. Featuring research on topics such as low-power electronics, mobile technology, and artificial intelligence, this book is ideally designed for computer engineers, software developers, investigators, advanced-level students, professors, and professionals seeking coverage on the various contemporary theories, technologies, and tools in IoE engineering.

Internet of Things for Indoor Air Quality Monitoring - Jagriti Saini 2021-09-05

This book provides a synthesis for using IoT for indoor air quality assessment. It will help upcoming researchers to understand the gaps in the literature while identifying the new challenges and opportunities to develop healthy living spaces. On the other hand,

this book provides insights about integrating IoT with artificial intelligence to design smart buildings with enhanced air quality. Consequently, this book aims to present future scope for carrying out potential research activities in this domain. Over the past few years, the Internet of Things (IoT) is proven as the most revolutionizing invention in the field of engineering and design. This technology has wide scope in automation and real-time monitoring. Indoor air quality assessment is one of the most important applications of IoT which helps in the development of smart and healthy living spaces. Numerous methods have been developed for air quality assessment to ensure enhanced public health and well-being. The combination of sensors, microcontrollers, and communication technologies can be used to handle the massive amount of field data to access the condition of building air quality.

International Conference on Innovative Computing and Communications - Deepak Gupta 2022-11-07

This book includes high-quality research papers presented at the Fifth International Conference on Innovative Computing and Communication (ICICC 2022), which is held at the Shaheed Sukhdev College of Business Studies, University of Delhi, Delhi, India, on February 19–20, 2022. Introducing the innovative works of scientists, professors, research scholars, students and industrial experts in the field of computing and communication, the book promotes the transformation of fundamental research into institutional and industrialized research and the conversion of applied exploration into real-time applications.