

Ambient Weather Ws 1001 Wifi Observer Solar Powered

The book is a collection of high-quality peer-reviewed research papers presented at International Conference on Information System Design and Intelligent Applications (IN 2017) held at Duy Tan University, Da Nang, Vietnam during 15-17 June 2017. The book covers a wide range of topics of computer science and information technology discipline ranging from image processing, database application, data mining, grid and cloud computing, bioinformatics and many others. The various intelligent tools like swarm intelligence, artificial intelligence, evolutionary algorithms, bio-inspired algorithms have been well applied in different domains for solving various challenging problems.

Due to the complexity, and heterogeneity of the smart grid and the high volume of information to be processed, artificial intelligence techniques and computational intelligence appear to be some of the enabling technologies for its future development and success. The theme of the book is "Making pathway for the grid of future" with the emphasis on trends in Smart Grid, renewable interconnection issues, planning-operation-control and reliability of grid, real-time monitoring and protection, market, distributed generation and power distribution issues, power electronics applications, computer-IT and signal processing applications, power apparatus, power engineering education and industry-institute collaboration. The primary objective of the book is to review the current state of the art of the most relevant artificial intelligence techniques applied to the different issues that arise in the smart grid development.

Create your own Arduino-based designs, gain in-depth knowledge of the architecture of Arduino, and learn the user-friendly Arduino language all in the context of practical projects that you can build yourself at home. Get hands-on experience using a variety of project recipes for everything from home automation to test equipment. Arduino has taken off as an incredibly popular building block among ubicomp (ubiquitous computing) enthusiasts, researchers, hobbyists, and DIY home automation developers. Authors Jonathan Oxer and Hugh Blenkinsop provide detailed instructions for building a wide range of both practical and fun Arduino-related projects, covering areas such as hobbies, automotive, communications, home automation, and instrumentation. Take Arduino beyond "blink" to a wide variety of projects from simple to challenging Hands-on recipes for everything from home automation to interfacing with your car engine management system Explanations of techniques and references to handy resources for ubiquitous computing projects Supplementary material includes schematic reference, introductions to a range of electronic engineering principles and hints & tips. These combine with the projects themselves to make Practical Arduino: C Projects for Open Source Hardware an invaluable reference for Arduino users of all levels. You'll learn a wide variety of techniques that can be applied to your own projects.

This book presents high-quality papers from the Fourth International Conference on Microelectronics, Computing & Communication Systems (MCCS 2019). It discusses the technological trends and advances in MEMS and nanoelectronics, wireless communication, optical communication, instrumentation, signal processing, image processing, bioengineering, green energy, hybrid vehicles, environmental science, weather forecasting, cloud computing, renewable energy, RFID, CMOS sensors, actuators, transducers, telemetry systems, embedded systems and sensor network applications. It includes papers based on original theoretical, practical and experimental simulations, development, applications, measurements and tests. The applications and solutions discussed here provide excellent reference material for

product development.

Computing, Communication and Signal Processing

Proceedings of IEM Graph 2018

Cool Projects for Open Source Hardware

Proceedings of International Conference on Artificial Intelligence, Smart Grid and Smart Applications

Misfits, Criminals, and Scammers in the Internet Age

Advanced Signal Processing and Digital Noise Reduction

ICT Systems and Sustainability

This two-volume set LNAI 10934 and LNAI 10935 constitutes the refereed proceedings of the 14th International Conference on Machine Learning and Data Mining in Pattern Recognition, MLDM 2018, held in New York, NY, USA in July 2018. The 92 regular papers presented in this two-volume set were carefully reviewed and selected from 298 submissions. The topics range from theoretical topics for classification, clustering, association rule and pattern mining to specific data mining methods for the different multi-media data types such as image mining, text mining, video mining, and Web mining. Presents an introduction to the open-source electronics prototyping platform.

**** Accessible to both lay readers and decision-makers * These stories are as exciting, if even more exciting, than even the most fast-paced movie adventure. Hackers strike quickly and with disastrous results. The story and post-mortems are fascinating * Homes are becoming increasingly wired and, thanks to Wi-Fi, unwired. What are the associated risks of fast Internet? * Technology is everywhere. People who subvert and damage technology will soon be enemy #1. * The author is an internationally recognized authority on computer security This carefully edited volume aims at providing readers with the most recent progress on intelligent autonomous systems, with its particular emphasis on intelligent autonomous ground, aerial and underwater vehicles as well as service robots for home and healthcare under the context of the aforementioned convergence. "Frontiers of Intelligent Autonomous Systems" includes thoroughly revised and extended papers selected from the 12th International Conference on Intelligent Autonomous Systems (IAS-12), held in Jeju, Korea, June 26-29, 2012. The editors chose 35 papers out of the 202 papers presented at IAS-12 which are organized into three chapters: Chapter 1 is dedicated to autonomous navigation and mobile manipulation, Chapter 2 to unmanned aerial and underwater vehicles and Chapter 3 to service robots for home and healthcare. To help the readers to easily access this volume, each chapter starts with a chapter summary introduced by one of the editors: Chapter 1 by Sukhan Lee, Chapter 2 by Kwang***

**Joon Yoon and Chapter 3 by Jangmyung Lee.
Concepts, Methodologies, Tools, and Applications
ICMISC 2020**

Black Hat

14th International Conference, MLDM 2018, New York, NY, USA, July 15-19, 2018, Proceedings, Part II

**Proceedings of the Fourth International Conference on
Microelectronics, Computing and Communication Systems
High Voltage and Electrical Insulation Engineering**

Provides the reader with a comprehensive overview of stream data processing, including famous prototype implementations like the Nile system and the TinyOS operating system. It covers the state-of-the-art in data stream mining approaches using clustering, predictive learning and tensor analysis techniques, and more.

Although the number of commercial Java games is still small compared to those written in C or C++, the market is expanding rapidly. Recent updates to Java make it faster and easier to create powerful gaming applications-particularly Java 3D-is fueling an explosive growth in Java games. Java games like Puzzle Pirates, Chrome, Star Wars Galaxies, Runescape, Alien Flux, Kingdom of Wars, Law and Order II, Roboforge, Tom Clancy's Politika, and scores of others have earned awards and become bestsellers. Java developers new to graphics and game programming, as well as game developers new to Java 3D, will find Killer Game Programming in Java invaluable. This new book is a practical introduction to the latest Java graphics and game programming technologies and techniques. It is the first book to thoroughly cover Java's 3D capabilities for all types of graphics and game development projects. Killer Game Programming in Java is a comprehensive guide to everything you need to know to program cool, testosterone-drenched Java games. It will give you reusable techniques to create everything from fast, full-screen action games to multiplayer 3D games. In addition to the most thorough coverage of Java 3D available, Killer Game Programming in Java also clearly details the older, better-known 2D APIs, 3D sprites, animated 3D sprites, first-person shooter programming, sound, fractals, and networked games. Killer Game Programming in Java is a must-have for anyone who wants to create adrenaline-fueled games in Java.

This three volume book contains the Proceedings of 5th International Conference on Advanced Computing, Networking and Informatics (ICACNI 2017). The book focuses on the recent advancement of the broad areas of advanced computing, networking and informatics. It also includes novel approaches devised by researchers from across the globe. This book brings together academic scientists, professors, research scholars and students to share and disseminate information on knowledge and scientific research works related to computing, networking, and informatics to discuss the practical challenges encountered and the solutions adopted. The book also promotes translation of basic research into applied investigation and convert applied investigation into practice.

Technological advances have created a need for the merger and rethinking of past testing approaches for wireless equipment. This first-of-its-kind resource offers professionals an in-depth overview of cutting-edge RF (radio frequency) and SOC (system on a chip) product testing for wireless communications.

Wireless Network Design
Principles and Paradigms
Body Sensor Networks

Post Pandemic Era

WHO Guidelines for Indoor Air Quality

Selected Pollutants

Processing Techniques in Sensor Networks

This book proposes new technologies and discusses future solutions for ICT design infrastructures, as reflected in high-quality papers presented at the 5th International Conference on ICT for Sustainable Development (ICT4SD 2020), held in Goa, India, on 23-24 July 2020. 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.

This book surveys state-of-the-art optimization modeling for design, analysis, and management of wireless networks, such as cellular and wireless local area networks (LANs), and the services they deliver. The past two decades have seen a tremendous growth in the deployment and use of wireless networks. The current-generation wireless systems can provide mobile users with high-speed data services at rates substantially higher than those of the previous generation. As a result, the demand for mobile information services with high reliability, fast response times, and ubiquitous connectivity continues to increase rapidly. The optimization of system performance has become critically important both in terms of practical utility and commercial viability, and presents a rich area for research. In the editors' previous work on traditional wired networks, we have observed that designing low cost, survivable telecommunication networks involves extremely complicated processes. Commercial products available to help with this task typically have been based on simulation and/or proprietary heuristics. As demonstrated in this book, however, mathematical programming deserves a prominent place in the designer's toolkit. Convenient modeling languages and powerful optimization solvers have greatly facilitated the implementation of mathematical programming theory into the practice of commercial network design. These points are equally relevant and applicable in today's world of wireless network technology and design. But there are new issues as well: many wireless network design decisions, such as routing and facility/element location, must be dealt with in innovative ways that are unique and distinct from wired (fiber optic)

networks. The book specifically treats the recent research and the use of modeling languages and network optimization techniques that are playing particularly important and distinctive roles in the wireless domain.

This handbook introduces the basic principles and fundamentals of cyber security towards establishing an understanding of how to protect computers from hackers and adversaries. The highly informative subject matter of this handbook, includes various concepts, models, and terminologies along with examples and illustrations to demonstrate substantial technical details of the field. It motivates the readers to exercise better protection and defense mechanisms to deal with attackers and mitigate the situation. This handbook also outlines some of the exciting areas of future research where the existing approaches can be implemented. Exponential increase in the use of computers as a means of storing and retrieving security-intensive information, requires placement of adequate security measures to safeguard the entire computing and communication scenario. With the advent of Internet and its underlying technologies, information security aspects are becoming a prime concern towards protecting the networks and the cyber ecosystem from variety of threats, which is illustrated in this handbook. This handbook primarily targets professionals in security, privacy and trust to use and improve the reliability of businesses in a distributed manner, as well as computer scientists and software developers, who are seeking to carry out research and develop software in information and cyber security. Researchers and advanced-level students in computer science will also benefit from this reference.

In this DIY guide, you will learn how to use Arduino - the open-source hardware board for makers, hobbyists, and inventors. You will learn how to develop your own projects, create prototypes, and produce professional-quality embedded systems. A simple step-by-step demonstration system accompanies you from vision to reality - and just like riding a bike, you'll get better at it, the more you do it. Featuring a wealth of detailed diagrams and more than 50 fully functional examples, this book will help you get the most out of this versatile tool and bring your electronic inventions to life.

Foundations of Augmented Cognition

Learning from Data Streams

Frontiers of Intelligent Autonomous Systems

***Optimization Models and Solution Procedures
5th International Conference, MobiCase 2013, Paris, France,
November 7-8, 2013, Revised Selected Papers
Machine Learning and Data Mining in Pattern Recognition
Android Hacker's Handbook***

All coastal areas are facing a growing range of stresses and shocks, the scale of which poses threats to the resilience of both human and environmental coastal systems. Resilient agencies are seeking better ways of managing the causes and consequences of the environmental change process in coastal zones. This volume discusses the basic principles underpinning a more integrated approach to coastal management and highlights the obstacles that may be met in practice in both developed and developing countries. Successful strategies will have to encompass all the elements of management, from planning and design through financing and implementation, as highlighted in this book.

This book highlights cutting-edge research on various aspects of human-computer interaction (HCI). It includes selected research papers presented at the Third International Conference on Computing, Communication and Signal Processing (ICCCSP 2018), organized by Dr. Babasaheb Ambedkar Technological University in Lonere-Raigad, India on January 26-27, 2018. It covers pioneering topics in the field of computer, electrical, and electronics engineering, e.g. signal and image processing, RF and microwave engineering, and emerging technologies such as IoT, cloud computing, HCI, and green computing. As such, the book offers a valuable guide for all scientists, engineers and research students in various areas of engineering and technology.

This text provides a concise, yet comprehensive overview of telemedicine in the ICU. The first part of the book reviews common issues faced by practitioners and hospital administrators implementing and managing tele-ICU programs, including the merits of different staffing models, the challenges of building homegrown programs versus contracting for services, and the impact of state laws and payer policies on reimbursement for tele-ICU services. The second part of the book presents the current state of evidence for and against ICU telemedicine, based on clinical trials, before-and-after implementation studies, and observational data. The third part dives deeper into specific use cases for telemedicine in the ICU, including telestroke, pediatric and cardiac intensive care, and early treatment of declining patients with sepsis. Written by experts in the field, *Telemedicine in the ICU* is a practical guide for intensive care physicians and hospital administrators that provides all the information necessary in building and maintaining a successful tele-ICU program.

This book contains accepted papers presented at CISIS 2020 held in the beautiful and historic city of Burgos (Spain), in September 2020. The aim of the CISIS 2020 conference is to provide a meeting opportunity for academic and industry-related researchers belonging to the vast communities of computational intelligence, information security, and data mining. The need for intelligent, flexible behaviour by large, complex systems, especially in mission-critical domains, is intended to be the catalyst and the aggregation stimulus for the event. After a thorough peer-review process, the CISIS 2020 International Program Committee selected 43 papers which are published in these conference proceedings at an acceptance rate of 28%. Due to the COVID-19 outbreak, the CISIS 2020 edition was hybrid, combining on-site and on-line participation. In this relevant edition, a special emphasis was put on the organization of five special sessions related to relevant topics: Fake News Detection and Prevention, Mathematical Methods and Models in Cybersecurity

Measurements for a Dynamic Cyber-Risk Assessment, Cybersecurity in a Hybrid Quantum World, Anomaly/Intrusion Detection, and From the least to the least: cryptographic and analytics solutions to fulfil least minimum privilege and endorse least minimum effort in information systems. The selection of papers was extremely rigorous in order to maintain high quality of the conference and we would like to thank the members of the Program Committees for their hard work in the reviewing process. This is a crucial process to the creation of a high standard conference, and the CISIS conference would not exist without their help.

Proceedings of Fourth International Conference INDIA 2017

New Developments in Psychoinformatics

Project Management

Recent Findings in Intelligent Computing Techniques

13th International Conference on Computational Intelligence in Security for Information Systems (CISIS 2020)

Proceedings of ICCASP 2018

Electronic Business: Concepts, Methodologies, Tools, and Applications

This book presents WHO guidelines for the protection of public health from risks due to a number of chemicals commonly present in indoor air. The substances considered in this review, i.e. benzene, carbon monoxide, formaldehyde, naphthalene, nitrogen dioxide, polycyclic aromatic hydrocarbons (especially benzo[a]pyrene), radon, trichloroethylene and tetrachloroethylene, have indoor sources, are known in respect of their hazardousness to health and are often found indoors in concentrations of health concern. The guidelines are targeted at public health professionals involved in preventing health risks of environmental exposures, as well as specialists and authorities involved in the design and use of buildings, indoor materials and products. They provide a scientific basis for legally enforceable standards.

UPGRADE YOUR SMALL TALK GUIDED BY WORLD-LEADING WEATHER EXPERTS! From Foggy and Freezing to Scorching and Stormy, join the ultimate weather adventure through the great British seasons and uncover the extraordinary in every single day*. Are YOU the ultimate weather watcher? Do you know your drizzle from your mizzle? Ever wondered what rainbows are really made of? And could you pinpoint where lightning has struck twice? Pore over beautiful cloudscapes, learn the secrets of sunsets, discover freak weather and fogbows, and why forecasting was so important in British history, from D-Day to the Great Fire of London. Perfect for rainy days in or cloudspotting on the go, the Met Office share the best of almost 170 years of forecasting for the first time in this beautifully illustrated book. Packed with mythbusting, top trivia, stunning visuals and archive gems, shooting the breeze has never been so interesting!
*Even when it is tipping it down.

This book presents select proceedings of the International Conference on Futuristic Communication and Network Technologies (CFCNT 2020) conducted at Vellore Institute of Technology, Chennai. It covers various domains in communication engineering and networking technologies. This volume comprises

of recent research in areas like optical communication, optical networks, optics and optical computing, emerging trends in photonics, MEMS and sensors, active and passive RF components and devices, antenna systems and applications, RF devices and antennas for microwave emerging technologies, wireless communication for future networks, signal and image processing, machine learning/AI for networks, internet of intelligent things, network security and blockchain technologies. This book will be useful for researchers, professionals, and engineers working in the core areas of electronics and communication. The last decade has witnessed a rapid surge of interest in new sensing and monitoring devices for wellbeing and healthcare. One key development in this area is wireless, wearable and implantable in vivo monitoring and intervention. A myriad of platforms are now available from both academic institutions and commercial organisations. They permit the management of patients with both acute and chronic symptoms, including diabetes, cardiovascular diseases, treatment of epilepsy and other debilitating neurological disorders. Despite extensive developments in sensing technologies, there are significant research issues related to system integration, sensor miniaturisation, low-power sensor interface, wireless telemetry and signal processing. In the 2nd edition of this popular and authoritative reference on Body Sensor Networks (BSN), major topics related to the latest technological developments and potential clinical applications are discussed, with contents covering. Biosensor Design, Interfacing and Nanotechnology Wireless Communication and Network Topologies Communication Protocols and Standards Energy Harvesting and Power Delivery Ultra-low Power Bio-inspired Processing Multi-sensor Fusion and Context Aware Sensing Autonomic Sensing Wearable, Ingestible Sensor Integration and Exemplar Applications System Integration and Wireless Sensor Microsystems The book also provides a comprehensive review of the current wireless sensor development platforms and a step-by-step guide to developing your own BSN applications through the use of the BSN development kit.

Killer Game Programming in Java

Over 365 Hidden Wonders from the World ' s Greatest Forecasters

Very British Weather

Select Proceedings of VICFCNT 2020

Production Testing of RF and System-on-a-chip Devices for Wireless Communications

Information Systems Design and Intelligent Applications

17th International Conference, MobiWIS 2021, Virtual Event, August 23-25, 2021, Proceedings

The practical e-guide that gives you the skills to succeed as a project manager. Discover how to improve your project management skills by defining a project brief, identifying stakeholders, and building a strong team. You'll also learn useful tips for initiating projects, setting deadlines, and managing your budgets. Essential Managers gives you a practical "how-to" approach with step-by-step instructions, tips, checklists, and "ask yourself" features showing you how to focus your energy, manage change, and make an impact. DK's Essential Managers series contains

the knowledge you need to be a more effective manager and hone your management style. Whether you're new to project management or simply looking to sharpen your existing skills, this is the e-guide for you.

Very British WeatherOver 365 Hidden Wonders from the World's Greatest ForecastersRandom House

The Internet of Things (IoT) and related technologies have the promise of realizing pervasive and smart applications which, in turn, have the potential of improving the quality of life of people living in a connected world. According to the IoT vision, all things can cooperate amongst themselves and be managed from anywhere via the Internet, allowing tight integration between the physical and cyber worlds and thus improving efficiency, promoting usability, and opening up new application opportunities. Nowadays, IoT technologies have successfully been exploited in several domains, providing both social and economic benefits. The realization of the full potential of the next generation of the Internet of Things still needs further research efforts concerning, for instance, the identification of new architectures, methodologies, and infrastructures dealing with distributed and decentralized IoT systems; the integration of IoT with cognitive and social capabilities; the enhancement of the sensing-analysis-control cycle; the integration of consciousness and awareness in IoT environments; and the design of new algorithms and techniques for managing IoT big data. This Special Issue is devoted to advancements in technologies, methodologies, and applications for IoT, together with emerging standards and research topics which would lead to realization of the future Internet of Things.

The first comprehensive guide to discovering and preventing attacks on the Android OS As the Android operating system continues to increase its share of the smartphone market, smartphone hacking remains a growing threat. Written by experts who rank among the world's foremost Android security researchers, this book presents vulnerability discovery, analysis, and exploitation tools for the good guys. Following a detailed explanation of how the Android OS works and its overall security architecture, the authors examine how vulnerabilities can be discovered and exploits developed for various system components, preparing you to defend against them. If you are a mobile device administrator, security researcher, Android app developer, or consultant responsible for evaluating Android security, you will find this guide is essential to your toolbox. A crack team of leading Android security researchers explain Android security risks, security design and architecture, rooting, fuzz testing, and vulnerability analysis Covers Android application building blocks and security as well as debugging and auditing Android apps Prepares mobile device administrators, security researchers, Android app developers, and security consultants to defend Android systems against attack Android Hacker's Handbook is the first comprehensive resource for IT professionals charged with smartphone security.

*The Royal Meteorological Society Weather Watcher's Three-Year Log Book
9th International Conference, AC 2015, Held as Part of HCI International 2015, Los Angeles, CA, USA, August 2-7, 2015, Proceedings*

Green Technological Innovation for Sustainable Smart Societies

Proceedings of the 5th ICACNI 2017. Volume 1

Java Gaming & Graphics Programming

Mobile Web and Intelligent Information Systems

Futuristic Communication and Network Technologies

This book constitutes the refereed proceedings of the 17th International Conference on Mobile Web and Intelligent Information Systems, MobiWIS 2021, held as a virtual event, in August 2021. The 15 full papers presented in this book were carefully reviewed and selected from 40 submissions. The papers of MobiWIS 2021 deal focus on topics such as security and privacy; web and mobile applications; networking and communication; intelligent information systems;

and IoT and ubiquitous computing.

Enhances libraries worldwide through top research compilations from over 250 international authors in the field of e-business.

The Weather Watcher's 3-Year Log Book offers the opportunity to record your own daily observations – in as much or as little detail as you wish. You can calculate weekly and monthly averages and then compare changing weather patterns over the three-year period. Is spring really coming earlier each year? Is this year hotter than last? What was the coldest day in your year? This illustrated record book is packed with facts, figures and information, including how to identify different cloud types, plus explanations on how clouds are formed along with other weather phenomena.

The book covers cutting-edge and advanced research in modelling and graphics. Gathering high-quality papers presented at the First International Conference on Emerging Technology in Modelling and Graphics, held from 6 to 8 September 2018 in Kolkata, India, it addresses topics including: image processing and analysis, image segmentation, digital geometry for computer imaging, image and security, biometrics, video processing, medical imaging, and virtual and augmented reality.

Getting Started with Arduino

AISGSC 2019

Handbook of Wireless Sensor Networks: Issues and Challenges in Current Scenario's Perspectives on Integrated Coastal Zone Management

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

Designing Embedded Systems with Arduino

Forest Pathology and Plant Health

This book constitutes the thoroughly refereed post-conference proceedings of the 5th International Conference on Mobile Computing, Applications, and Services (MobiCASE 2013) held in Paris, France, in November 2013. The 13 full, 5 short and 9 poster papers were carefully reviewed and selected from 64 submissions, and are presented together with 3 papers from the Workshop on Near Field Communication for Mobile Applications (NFS). The conference papers are covering mobile applications development, mobile social networking, novel user experience and interfaces, mobile services and platforms such as Android, iOS, BlackBerry OS, Windows phone, Bada, mobile software engineering and mobile Web, mobile payments and M2M infrastructure, mobile services such as novel hardware add-ons, energy aware services or tools, NFC-based services, authentication services.

This book constitutes the proceedings of the 9th International Conference on the Foundations of Augmented Cognition, AC 2015, held as part of the 17th International Conference on Human-Computer Interaction, HCII 2015, which took place in Los Angeles, CA, USA, in August 2015. HCII

2015 received a total of 4843 submissions, of which 1462 papers and 246 posters were accepted for publication after a careful reviewing process. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers thoroughly cover the entire field of Human-Computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The 78 papers presented in the AC 2015 proceedings address the following major topics: cognitive performance and work load, BCI and operational neuroscience, cognition, perception and emotion measurement, adaptive and tutoring training, applications of augmented cognition.

This book discusses the innovative and efficient technological solutions for sustainable smart societies in terms of alteration in industrial pollution levels, the effect of reduced carbon emissions, green power management, ecology, and biodiversity, the impact of minimal noise levels and air quality influences on human health. The book is focused on the smart society development using innovative low-cost advanced technology in different areas where the growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy, and resource efficiency and prevention of the loss of biodiversity and ecosystem services. The book also covers the paradigm shift in the sustainable development for the green environment in the post-pandemic era. It emphasizes and facilitates a greater understanding of existing available research i.e., theoretical, methodological, well-established and validated empirical work, associated with the environmental and climate change aspects.

This book is a printed edition of the Special Issue "Forest Pathology and Plant Health" that was published in *Forests Emerging Technology in Modelling and Graphics Digital Phenotyping and Mobile Sensing* MCCS 2019

Smart Monitoring and Control in the Future Internet of Things

Telemedicine in the ICU

Proceedings of ICT4SD 2020, Volume 1

Handbook of Computer Networks and Cyber Security

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.

This book offers a snapshot of cutting-edge applications of mobile sensing for digital phenotyping in the field of Psychoinformatics. The respective chapters, written by authoritative researchers, cover various aspects related to the use of these technologies in health, education, and cognitive science research. They share insights both into established applications of mobile sensing (such as predicting personality or mental and behavioral health on the basis of smartphone usage patterns) and emerging trends. Machine learning and deep learning approaches are discussed, and important considerations regarding privacy risks and ethical issues are assessed. In addition to essential background information on various technologies and theoretical methods, the book also presents relevant case studies and good scientific practices, thus addressing researchers and professionals alike. To cite Thomas R. Insel, who wrote the foreword to this book: "Patients will only use digital phenotyping if it solves a problem, perhaps a digital smoke alarm that can prevent a crisis. Providers will only use digital phenotyping if it fits seamlessly into their crowded workflow. If we can earn public trust, there is every reason to be excited about this new field. Suddenly, studying human behavior at scale, over months and years, is feasible."

High Voltage and Electrical Insulation Engineering A comprehensive graduate-level textbook on high voltage insulation engineering, updated to reflect emerging trends and techniques in the field High Voltage and Electrical Insulation Engineering presents systematic coverage of the behavior of dielectric materials. This classic textbook opens with clear explanations of fundamental terminology, electric-field classification, and field estimation techniques. Subsequent chapters describe the field dependent performance of gaseous, vacuum, liquid, and solid dielectrics under different classified field conditions, and illustrate the monitoring of electrical insulation conditions by both single and continuous online methods. Throughout the text, numerous tables, figures, diagrams, and images are provided to strengthen understanding of all material. Fully revised to incorporate the most current technological application techniques, the second edition offers an entirely new section on condition monitoring of electrical insulation. Updated chapters discuss recent developments in gas-filled power apparatus, present-day trends in the use replacement of liquid insulating materials, the latest applications of new solid dielectrics in high voltage engineering, vacuum technology and liquid insulating materials, and more. This edition features a brand-new case study exploring the estimation of clearance requirements for 25 kV electric traction. Readers will also find the new edition: Provides new coverage of advances in the field, such as the application of polymer insulators and the use of SF₆ gas and its mixtures in gas-insulated systems/substations (GIS) Uses a novel approach that explores the field dependent behavior of dielectrics Explains the "weakly nonuniform field," a unique concept introduced both conceptually and analytically in Germany A separate chapter provides the new approach to the mechanism of lightning phenomenon, which also includes the phenomenon of "Ball Lightning" The dielectric properties of vacuum and the development in the

application of vacuum technology in power circuit breakers is covered in an exclusive chapter In-depth coverage of the performance of the sulphur-hexafluoride gas and its mixtures applicable to the design of Gas Insulated Systems including dry power transformers High Voltage and Electrical Insulation Engineering, Second Edition, remains the perfect textbook for graduate students, teachers, academic researchers, and utility and power industry engineers and scientists involved in the field.

This book explores various challenging problems and applications areas of wireless sensor networks (WSNs), and identifies the current issues and future research challenges. Discussing the latest developments and advances, it covers all aspects of in WSNs, from architecture to protocols design, and from algorithm development to synchronization issues. As such the book is an essential reference resource for undergraduate and postgraduate students as well as scholars and academics working in the field.

Mobile Computing, Applications, and Services

Practical Arduino

A Fundamental Technology for Makers