This book presents selected articles from India Smart Grid Week (ISGW 2018), held on March 5 to 9, 2018, at the Manekshaw Centre, New Delhi, India. It was the fourth conference and exhibition on smart grids and smart cities organized by the India Smart Grid Forum (ISGF), a Government of India public–private partnership, tasked with accelerating smart grid deployment across the country. Providing current-scenario-based updates on the Indian power sector, the book also highlights various disruptive technologies.

This book describes systematically telemetry theory and methods for aircraft in flight test. Test targets of telemetry in flight test include airplanes, helicopters, unmanned aerial vehicles, aerostatics, carrier-based aircraft, airborne equipment (systems), weapon systems, (powered) aircraft scale models, aircraft external stores (e.g., nacelle, auxiliary tanks), and ejection seats and so on. The book collects the author's telemetry research work and presents methods that have been verified in real-world tests. The book has eight chapters: the first three discuss the theoretical basis of telemetry, while the other five focus on the methods used in flight tests. Unlike other professional textbooks, this book describes the practical telemetry theory and combines theory and engineering practice to offer a comprehensive and systematic overview of telemetry in flight test for readers.

Learn how automotive Ethernet is revolutionizing in-car networking from the experts at the core of its development. Providing an in-depth account of automotive Ethernet, from its background and development, to its future prospects, this book is ideal for industry professionals and academics alike.

For the second time the European Telemetry and Test Conference – etc2016 took place from 10 – 12 May 2016 in Nuremberg (Germany), in collaboration with the SENSOR+TEST 2016. Worldwide, there is no comparable platform to SENSOR+TEST / etc that offers such an intensive innovation dialog between suppliers of sensors, measuring and testing technology and users from all major industries. This cooperation provides in addition etc2016 exhibitors the opportunity to meet international customers from industry, science and research – from automotive industries, machinery constructions, electrical and energy industry, and of course aviation and space. The etc2016 spotlights the most recent innovations in methods, systems, and instrumentation from industry, researchers and laboratories all around the world. The European Telemetry and Test Conference offers original technical papers and innovation ideas in Test, Telemetry, Telecontrol, Instrumentation and Recording technologies for industrial, automotive, scientific, aerospace, space, naval and military applications.

This volume constitutes the refereed proceedings of the 3rd International Conference on Advanced Communication and Networking, ACN 2011, held in Brno, Czech Republik, in June 2011. The 57 revised full papers presented in this volume were carefully reviewed and selected from numerous submissions. The papers focus on the various aspects of progress in Advanced Communication and Networking with computational sciences, mathematics and information technology and address all current issues of communication basic and infrastructure, networks basic and management, multimedia application, image, video, signal and information processing.

The resilience of computing systems includes their dependability as well as their fault tolerance and security. It defines the ability of a...
computing system to perform properly in the presence of various kinds of disturbances and to recover from any service degradation. These properties are immensely important in a world where many aspects of our daily life depend on the correct, reliable and secure operation of often large-scale distributed computing systems. Wolter and her co-editors grouped the 20 chapters from leading researchers into seven parts: an introduction and motivating examples, modeling techniques, model-driven prediction, measurement and metrics, testing techniques, case studies, and conclusions. The core is formed by 12 technical papers, which are framed by motivating real-world examples and case studies, thus illustrating the necessity and the application of the presented methods. While the technical chapters are independent of each other and can be read in any order, the reader will benefit more from the case studies if he or she reads them together with the related techniques. The papers combine topics like modeling, benchmarking, testing, performance evaluation, and dependability, and aim at academic and industrial researchers in these areas as well as graduate students and lecturers in related fields. In this volume, they will find a comprehensive overview of the state of the art in a field of continuously growing practical importance.

This book constitutes the proceedings of the 6th International ICST Conference, TridentCom 2010, held in Berlin, Germany, in May 2010. Out of more than 100 submitted contributions the Program Committee finally selected 15 full papers, 26 practices papers, and 22 posters. They focus on topics as Internet testbeds, future Internet research, wireless sensors, media and mobility, and monitoring in large scale testbeds.

This dissertation proposes and investigates an isochronous wireless network for industrial control applications with guaranteed latencies and jitter. Based on a requirements analysis of real industrial applications and the characterisation of the wireless channel, the solution approach is developed. It consists of a TDMA-based medium access control, a dynamic resource allocation and the provision of a global time base for the wired and the wireless network. Due to the global time base, the solution approach allows a seamless and synchronous integration into existing wired Real-time Ethernet systems.

This CIGRE green book begins by addressing the specification and provision of communication services in the context of operational applications for electrical power utilities, before subsequently providing guidelines on the deployment or transformation of networks to deliver these specific communication services. Lastly, it demonstrates how these networks and their services can be monitored, operated, and maintained to ensure that the requisite high level of service quality is consistently achieved.

Industrial electronics systems govern so many different functions that vary in complexity—from the operation of relatively simple applications, such as electric motors, to that of more complicated machines and systems, including robots and entire fabrication processes. The Industrial Electronics Handbook, Second Edition combines traditional and new

This book constitutes the refereed proceedings of the Third International Conference on Information Computing and Applications, ICICA 2012, held in Chengde, China, in September 2012. The 100 revised full papers were carefully reviewed and selected from 1089 submissions. The papers are organized in topical sections on internet computing and applications, multimedia networking and computing, intelligent computing and applications, computational statistics and applications, cloud and evolutionary computing, computer engineering and applications, knowledge management and applications, communication technology and applications.
A common sense of time among the elements of a distributed measurement and control system allows the use of new techniques in solving problems with complex synchronization requirements or arising from the interaction of many sensors and actuators. Such a common sense of time may be accomplished using the standard IEEE 1588-2002 to synchronize real-time clocks integral to each component of the system. IEEE 1588, expands the performance capabilities of Ethernet networks so that they become relevant for measurement and control; this monograph embodies the first unified treatment of the associated technology, standards and applications. Readers will gain understanding of the technological context of IEEE 1588 and its role in a variety of application settings. To engineers this monograph provides detailed discussion of the complex features of the standard. Together with the essential material on best practice and implementation issues, these provide invaluable assistance in the design of new applications.

This book brings together papers from the 2018 International Conference on Communications, Signal Processing, and Systems, which was held in Dalian, China on July 14–16, 2018. Presenting the latest developments and discussing the interactions and links between these multidisciplinary fields, the book spans topics ranging from communications, signal processing and systems. It is aimed at undergraduate and graduate electrical engineering, computer science and mathematics students, researchers and engineers from academia and industry as well as government employees.

This book presents a comprehensive overview of the state of the art in Networked Music Performance (NMP) and a historical survey of computer music networking. It introduces current technical trends in NMP and technical issues yet to be addressed. It also lists wireless communication protocols and compares these to the requirements of NMP. Practical use cases and advancements are also discussed.

This timely new book is a cutting edge resource for engineers involved in the electric utility industry. This one-of-a-kind resource explores the planning, design, and deployment of communications networks, including fiber, microwave, RF, and Ethernet in electric utility spaces as related to Smart Grid. Readers are presented with an introduction to power utility communications, providing a thorough overview of data transmission media, electrical grid, and power grid modernization. Communication fundamentals and fiber-optic radio system design are also covered. Network performance and reliability considerations are discussed including channel protection, system latency, and cyber and grid security. Clear examples and calculations are presented to demonstrate reliability and availability measures for fiber-optic systems.

This IBM® Redbooks® publication describes the features and functions the latest member of the IBM Z® platform, the IBM z15TM Model T02 (machine type 8562). It includes information about the IBM z15 processor design, I/O innovations, security features, and supported operating systems. The z15 is a state-of-the-art data and transaction system that delivers advanced capabilities, which are vital to any digital transformation. The z15 is designed for enhanced modularity, which is in an industry standard footprint. This system excels at the following tasks: Making use of multicloud integration services Securing data with pervasive encryption Accelerating digital transformation with agile service delivery Transforming a transactional platform into a data
powerhouse Getting more out of the platform with IT Operational Analytics Accelerating digital transformation with agile service delivery Revolutionizing business processes Blending open source and Z technologies This book explains how this system uses new innovations and traditional Z strengths to satisfy growing demand for cloud, analytics, and open source technologies. With the z15 as the base, applications can run in a trusted, reliable, and secure environment that improves operations and lessens business risk.

This IBM® Redbooks® publication is an IBM and Cisco collaboration that articulates how IBM and Cisco can bring the benefits of their respective companies to the modern data center. It documents the architectures, solutions, and benefits that can be achieved by implementing a data center based on IBM server, storage, and integrated systems, with the broader Cisco network. We describe how to design a state-of-the-art data center and networking infrastructure combining Cisco and IBM solutions. The objective is to provide a reference guide for customers looking to build an infrastructure that is optimized for virtualization, is highly available, is interoperable, and is efficient in terms of power and space consumption. It will explain the technologies used to build the infrastructure, provide use cases, and give guidance on deployments.

Show Networks and Control Systems, the industry standard since 1994, is both a learning guide for beginners and a reference for experienced technicians. With its unique combined focus on computers, networks, and control systems, the book covers the art and practice of using these tools for live shows such as concerts, theatre productions, theme park attractions, themed-retail installations, cruise ship shows, museum exhibits, interactive media projects, and traditional performing arts. The book offers an in-depth examination of the technology used behind the scenes in lighting, lasers, audio, video, stage machinery, animatronics, special effects, and pyrotechnics and show control, the technique used to interconnect and synchronize two or more show systems. In this extensively revised and updated second edition (after three editions with the previous title, Control Systems for Live Entertainment), Huntington draws on more than three decades of experience in the field and classroom to clearly explain what goes on behind the scenes and inside the machines that bring bold performances to life in real-world settings.

Learn the risks associated with Network Time Protocol (NTP) security and how to minimize those risks while deploying and managing the protocol. You will be able to reduce the disruption of communication between servers on the network and the risk that the entire network will be taken offline. NTP Security: A Quick-Start Guide provides an understanding of how NTP is critical to modern networks and how it can be exploited. You will understand how an attacker can wreak havoc on an insecure network and guidance is provided to help you manage your system and make it more secure. What You Will Learn: Understand the vulnerabilities, flaws, and risks associated with the Network Time protocol (NTP) Analyze NTP traffic and configure NTP on servers and workstations in the network in a more secure manner Use practical solutions to secure NTP and build a robust infrastructure, such as bringing more capability inside the network and creating a smaller attack surface Determine the alternatives to NTP, including how to synchronize network clocks in other ways Who This Book Is For: System administrators, network engineers, and security analysts
This practical handbook and reference provides a complete understanding of the telecommunications field supported by descriptions and case examples throughout Taking a practical approach, The Telecommunications Handbook examines the principles and details of all of the major and modern telecommunications systems currently available to industry and to end-users. It gives essential information about usage, architectures, functioning, planning, construction, measurements and optimisation. The structure of the book is modular, giving both overall descriptions of the architectures and functionality of typical use cases, as well as deeper and practical guidelines for telecom professionals. The focus of the book is on current and future networks, and the most up-to-date functionalities of each network are described in sufficient detail for deployment purposes. The contents include an introduction to each technology, its evolution path, feasibility and utilization, solution and network architecture, and technical functioning of the systems (signalling, coding, different modes for channel delivery and security of core and radio system). The planning of the core and radio networks (system-specific field test measurement guidelines, hands-on network planning advices and suggestions for the parameter adjustments) and future systems are also described. Each chapter covers aspects individually for easy reference, including approaches such as: functional blocks, protocol layers, hardware and software, planning, optimization, use cases, challenges, solutions to potential problems Provides very practical detail on the planning and operation of networks to enable readers to apply the content in real-world deployments Bridges the gap between the communications in the academic context and the practical knowledge and skills needed to work in the telecommunications industry Section divisions include: General theory; Fixed telecommunications; Mobile communications; Space communications; Other and special communications; and Planning and management of telecommunication networks Covers new commercial and enhanced systems deployed, such as IPv6 based networks, LTE-Advanced and GALILEO An essential reference for Technical personnel at telecom operators; equipment and terminal manufacturers; Engineers working for network operators.

This proceedings consists of selected papers presented at the International Conference on Computer Science and Technology (CST2016), which was successfully held in Shenzhen, China during January 8–10, 2016. CST2016 covered a wide range of fundamental studies, technical innovations and industrial applications in 7 areas, namely Computer Systems, Computer Network, Security, Databases and Information Systems, Artificial Intelligence and Multimedia, Theory and Software Engineering and Computer Applications. CST 2016 aims to provide a forum for researchers, engineers, and students in the area of computer science and technology. It features unique mixed various topics in computer science and technology including big data, system architecture, hardware and applications. CST 2016 attracted more than 300 submissions. Among them, only 142 papers were accepted in to the conference after a stringent peer review process.


This book constitutes the refereed proceedings of the 8th International Conference on Information and Communications Security, ICICS 2006, held in Raleigh, NC, USA in December 2006. The 22 revised full papers and 17 revised short papers presented were carefully reviewed and selected from 119 submissions. The papers are organized in topical sections on security protocols, applied cryptography, access control and systems security, privacy and malicious code, network security, systems security, cryptanalysis, applied cryptography and
Discover how the Internet of Things will change the information and communication technology industry in the next decade. The Intelligent Internet of Things explores a unique type of Internet of Things (IoT) architecture, for example, the Web of Things (WoT) with its open character that breaks the barriers among various IoT vertical applications. The authors—noted experts on the topic—examine and compare key technologies from physical to platform level, especially the Narrow Band Internet of Things (NB-IoT) technology. They discuss applications with different data transmission requirements that are typical to IoT. The text also describes the requirements of WoT applications on 5G and includes detailed information on WoT technologies. The Intelligent Internet of Things examines three typical WoT applications: the monitoring application of south-to-north water diversion projects; smart driving applications; and network optimization applications. In addition, the text explores testing and authentication of IoT key technologies, with the required equipment, platform, and outdoor environment development. This important book: Provides information on what IoT/WoT is, when to use it, how to provide IoT services with certain technologies, and more Discusses restful architecture, main protocols (ZigBee, 6lowpan, CoAP, HTML5) Explores key technologies on different layers (sensing, gathering, application) Examines how IoT will change the information and communication technology industry Written for professionals working in IoT development, management and big data analytics, Intelligent Internet of Things offers an overview of IoT architecture, key technology, current applications and future development of the technology. This comprehensive new resource presents applications of MEF’s (Metro Ethernet Forum) Carrier Ethernet architecture and provides insight into building end-to-end systems with third network services like MPLS-TP, VPLS, and PBT. This book includes new use cases and explores the new MEF/CEN specifications, services, and applications. While providing a look into lifecycle service orchestration (LSO), virtualization, and cloud series, this book highlights the pros and cons of these technologies for service providers and enterprise network owners. Pseudowires architectures, control planes, multisegment architecture, and multisegment pseudowire setup mechanisms are explained. Ethernet protection is explored, including Automatic Protection Switching (APS) entities, linear protection, ring protection, and link aggregations. This book covers Carrier Ethernet Traffic Management, Carrier Ethernet Operation Administration Management and Performance (OAMP), Circuit Emulation Services (CES), and Carrier Ethernet Local Management Interface (E-LIM). Full chapters on Provider Bridges (PB), Provider Backbone Bridges (PBB), Provider Backbone Transport (PBT), and information modeling are also included in this invaluable resource.
synchronize clocks over ethernet, with an accuracy in the range of nano seconds. To achieve this high accuracy it is necessary to implement parts of the protocol in hardware and keep the rest in software. The hardware for this solution is implemented on a network interface card. The main component of this network interface card is an FPGA. The FPGA consists of the usual network interface card hardware, like the MAC, and additional IEEE 1588 hardware. One component of this IEEE 1588 hardware is the timestamper. The task of the timestamper is to detect PTP packets and create timestamps when one is detected. The goal of this thesis is to design a new timestamper with reduced chip area and an increased clock rate, so it can be used in GBit Ethernet. The old timestamper was based on hard-wired logic and because of that it was tedious to make enhancements to it. Furthermore the old timestamper could only be used in 10/100 Mbit Ethernet. This thesis is based on the hypothesis that, if the new design is based on a memory based microprogram architecture, it is possible to reduce the chip area and increase the clock rate to GBit Ethernet levels.

Carefully coordinated, reliable, and accurate time synchronization is vital to a wide spectrum of fields—from air and ground traffic control, to buying and selling goods and services, to TV network programming. Ill-gotten time could even lead to the unimaginable and cause DNS caches to expire, leaving the entire Internet to implode on the root servers. Written by the original developer of the Network Time Protocol (NTP), Computer Network Time Synchronization: The Network Time Protocol on Earth and in Space, Second Edition addresses the technological infrastructure of time dissemination, distribution, and synchronization—specifically the architecture, protocols, and algorithms of the NTP. This system has been active in one form or another for almost three decades on the Internet and numerous private networks on the nether side of firewalls. Just about everything today that can be connected to a network wire has support for NTP. This book: Describes the principal components of an NTP client and how it works with redundant servers and diverse network paths Provides an in-depth description of cryptographic and other critical algorithms Presents an overview of the engineering principles guiding network configuration Evaluating historic events that have taken place since computer network timekeeping started almost three decades ago, the author details a number of systems and drivers for current radio, satellites, and telephone modem dissemination and explains how we reckon the time, according to the stars and atoms. The original 16 chapters of the first edition have been rewritten, updated, and enhanced with new material. Four new chapters cover new algorithms and previously uncovered concepts, including timekeeping in space missions. Praise for the first edition: "... For those that need an exhaustive tome on all of the minutiae related to NTP and synchronization, this is the source. ... definitive ... this book should be considered the last word on the topic." —Ben Rothke on Slashdot.org "... the bible of the subject... contains enough information to take you just as far as you want to go....Dr. Mills is the original developer of NTP." —Books On-Line

This book addresses the multiple technical aspects of the distribution of synchronization in new generation telecommunication networks, focusing in particular on synchronous Ethernet and IEEE1588 technologies. Many packet network engineers struggle with understanding the challenges that precise synchronization distribution can impose on networks. The usual “why”, “when” and particularly “how” can cause problems for many engineers. In parallel to this, some other markets have identical synchronization requirements, but with their own design requirements, generating further questions. This book attempts to respond to the different questions by providing background technical information. Invaluable information on state-of-the-art packet network synchronization and timing architectures is provided, as well as an unbiased view on the synchronization technologies that have been internationally standardized over recent years, with the aim of providing the average reader (who is not skilled in the art) with a better understanding of this topic. The book focuses specifically on synchronous Ethernet and IEEE 1588 PTP-based technologies, both key developments in the world of synchronization over the last 10 years. The authors address
the needs of engineers and technical managers who are struggling with the subject of synchronization and provide an engineering reference for those that need to consider synchronization in NGN. The market applications that are driving the development of packet network synchronization and timing architectures are also discussed. This book provides a wide audience with everything they need to know when researching, implementing, buying and deploying packet synchronization architectures in telecommunication networks. Contents 1. Network Evolutions, Applications and Their Synchronization Requirements. 2. Synchronization Technologies. 3. Synchronization Network Architectures in Packet Networks. 4. Synchronization Design and Deployments. 5. Management and Monitoring of Synchronization Networks. 6. Security Aspects Impacting Synchronization. 7. Test and Measurement Aspects of Packet Synchronization Networks. Appendix 1. Standards in Telecom Packet Networks Using Synchronous Ethernet and/or IEEE 1588. Appendix 2. Jitter Estimation by Statistical Study (JESS) Metric Definition. About the Authors Jean-Loup Ferrant worked for Alcatel and Alcatel-Lucent until he retired in 2009, then he continued being Rapporteur of ITU-TSG15Q13 sponsored by Calnex Solutions. Mike Gilson is a Technical Specialist for BT on timing and synchronization based at Adastral Park, Martlesham Heath, UK. Here presents BT on several standards bodies. Sébastien Jobert is an R&D expert on synchronization, QoSand performance of telecom networks at France TélécomOrange Labs, Lannion, France. Michael Mayer is an active contributor to ITU-T standards and a consultant in timing and synchronization. Laurent Montini is a Technical Leader, based in France, and working in the Corporate Consulting Team within the Research and Advanced Development organization at Cisco. Michel Ouellette is V.P. of Engineering at Iometrix in San Francisco, California, USA, specializing in conformance testing of packet network technologies such as Carrier Ethernet 2.0, MPLS, IEEE1588, SyncE. Silvana Rodrigues is Director of System Engineering at IDT in Ottawa, Canada. She represents IDT on several synchronization standards committees. Stefano Ruffini is the synchronization expert representing Ericsson on various standardization bodies. He works in Pisa, Italy in the Research & Innovation Team within the IP & Broadband Development Unit at Ericsson.

Abstract: A common profile for the use of Precision Time Protocol (PTP) of IEEE Std 1588-2008 in power system protection, control, automation, and data communication applications utilizing an Ethernet communications architecture is specified. Keywords: grandmaster clock, IEEE 1588, power substation, precise time synchronization, Precision Time Protocol (PTP), sample synchronization, slave-only clock, synchrophasors, transparent clock.

The Industrial Electronics Handbook, Second Edition, Industrial Communications Systems combines traditional and newer, more specialized knowledge that helps industrial electronics engineers develop practical solutions for the design and implementation of high-power applications. Embracing the broad technological scope of the field, this collection explores fundamental areas, including analog and digital circuits, electronics, electromagnetic machines, signal processing, and industrial control and communications systems. It also facilitates the use of intelligent systems—such as neural networks, fuzzy systems, and evolutionary methods—in terms of a hierarchical structure that makes factory control and supervision more efficient by addressing the needs of all production components. Enhancing its value, this fully updated collection presents research and global trends as published in the IEEE Transactions on Industrial Electronics Journal, one of the largest and most respected publications in the field. Modern communication systems in factories use many different—and increasingly sophisticated—systems to send and receive information. Industrial Communication Systems spans the full gamut of concepts that engineers require to maintain a well-designed, reliable communications system that can ensure successful operation of any production process. Delving into the subject, this volume covers: Technical principles Application-specific areas Technologies Internet programming Outlook, including
trends and expected challenges Other volumes in the set: Fundamentals of Industrial Electronics Power Electronics and Motor Drives Control and Mechatronics Intelligent Systems
This IBM® Redbooks® publication describes the features and functions the latest member of the IBM Z® platform, the IBM z15TM (machine type 8561). It includes information about the IBM z15 processor design, I/O innovations, security features, and supported operating systems. The z15 is a state-of-the-art data and transaction system that delivers advanced capabilities, which are vital to any digital transformation. The z15 is designed for enhanced modularity, which is in an industry standard footprint. This system excels at the following tasks: Making use of multicloud integration services Securing data with pervasive encryption Accelerating digital transformation with agile service delivery Transforming a transactional platform into a data powerhouse Getting more out of the platform with IT Operational Analytics Accelerating digital transformation with agile service delivery Revolutionizing business processes Blending open source and Z technologies This book explains how this system uses new innovations and traditional Z strengths to satisfy growing demand for cloud, analytics, and open source technologies. With the z15 as the base, applications can run in a trusted, reliable, and secure environment that improves operations and lessens business risk.
This book covers diverse aspects of advanced computer and communication engineering, focusing specifically on industrial and manufacturing theory and applications of electronics, communications, computing and information technology. Experts in research, industry, and academia present the latest developments in technology, describe applications involving cutting-edge communication and computer systems, and explore likely future trends. In addition, a wealth of new algorithms that assist in solving computer and communication engineering problems are presented. The book is based on presentations given at ICCOCE 2015, the 2nd International Conference on Communication and Computer Engineering. It will appeal to a wide range of professionals in the field, including telecommunication engineers, computer engineers and scientists, researchers, academics and students.
Energy efficiency and low-carbon technologies are key contributors to curtailting the emission of greenhouse gases that continue to cause global warming. The efforts to reduce greenhouse gas emissions also strongly affect electrical power systems. Renewable sources, storage systems, and flexible loads provide new system controls, but power system operators and utilities have to deal with their fluctuating nature, limited storage capabilities, and typically higher infrastructure complexity with a growing number of heterogeneous components. In addition to the technological change of new components, the liberalization of energy markets and new regulatory rules bring contextual change that necessitates the restructuring of the design and operation of future energy systems. Sophisticated component design methods, intelligent information and communication architectures, automation and control concepts, new and advanced markets, as well as proper standards are necessary in order to manage the higher complexity of such intelligent power systems that form smart grids. Due to the considerably higher complexity of such cyber-physical energy systems, constituting the power system, automation, protection, information and communication technology (ICT), and system services, it is expected that the design and validation of smart-grid configurations will play a major role in future technology and system developments. However, an integrated approach for the design and evaluation of smart-grid configurations incorporating these diverse constituent parts remains evasive. The currently available validation approaches focus mainly on component-oriented methods. In order to guarantee a sustainable, affordable, and secure supply of electricity through the transition to a future smart grid with considerably higher complexity and innovation, new design, validation, and testing methods appropriate for cyber-physical systems are required. Therefore, this book summarizes recent research results and developments related to the design and validation of smart grid...
This edited volume focuses on the intersection of time and globalization, as manifested across a variety of economic, political, cultural, and environmental contexts. Since David Harvey’s influential characterization of globalization as “time-space compression”, ample research has looked at the spatial aspect of the phenomenon, yet few have focused on globalization’s temporal aspects. Meanwhile, other publications have analysed problems of speed, acceleration, and the commodification of time, but while it often serves as the implicit or explicit backdrop for these studies of time, globalization is not investigated as a problem or a question in its own right. In response, this volume develops these conversations to consider how time shapes globalization, and how globalization affects our experience of time. The interplay between varying aspects of the human experiences of time and globalization requires the type of interdisciplinary approach that this volume takes. The contributors advance an understanding of global time(s) as an arena of contestation, with social, political, ecological, and cultural implications for human and other lives. In considering the diverse valences of time and globalization, they illuminate problems as well as possibilities. Topics covered include emerging infectious diseases, temporal sovereignty, worker exploitation and resistance, chronobiology, energy politics, activism and hope, and literary and cinematic representations of counter-temporalities, offering a rich and varied account of global times. This volume will be of great interest to students and researchers from a range of disciplines, including anthropology, cultural studies, globalization, international relations, literary studies, political science, social theory, and sociology.