Review Of Fault Location Methods For Distribution Power System

This book compiles the best selected research papers presented during the 2nd International Conference on Intelligent Computing Techniques for Smart Energy Systems (ICTSES 2021), held at Manipal University, Jaipur, Rajasthan, India. It presents the diligent work of the research community where intelligent computing techniques are applied in allied fields of engineering ranging from engineering materials to electrical engineering to electronics and communication engineering- to computer-related fields. The theoretical research concepts are supported with extensive reviews highlighting the trends in the possible and real-life applications of computational intelligence. The high-quality content with broad range of the topics is thoroughly peer-reviewed and published on suitable recommendations.

This book reports on various techniques for fault location on cross bonded cables, identifies the best method and describes the construction of a full fault locator system. The developed system is able of pinpointing the fault location on long cross-bonded cable systems and will be installed in Danish substations for monitoring the coming cable-based transmission grid. The work was conducted as part of a collaborative project between the department of energy technology at Aalborg University and the Danish transmission system operator for electricity and natural gas, Energinet.dk.

Artificial intelligence (AI) can successfully help in solving real-world problems in power transmission and distribution systems because AI-based schemes are fast, adaptive, and robust and are applicable without any knowledge of the system parameters. This book considers the application of AI methods for the protection of different types and topologies of transmission and distribution lines. It explains the latest pattern-recognition-based methods as applicable to detection, classification, and location of a fault in the transmission and distribution lines, and to manage smart power systems including all the pertinent aspects. FEATURES Provides essential insight on uses of different AI techniques for pattern recognition, classification, prediction, and estimation, exclusive to power system protection issues Presents an introduction to enhanced electricity system analysis using decision-making tools Covers AI applications in different protective relaying functions Discusses issues and challenges in the protection of transmission and distribution systems Includes a dedicated chapter on case studies and applications This book is aimed at graduate students, researchers, and professionals in electrical power system protection, stability, and smart grids.

The current power system should be renovated to fulfill social and industrial requests and economic advances. Hence, providing economic, green, and sustainable energy are key goals of advanced societies. In order to meet these goals, recent features of smart grid technologies need to have the potential to improve reliability, ?exibility, ef?ciency, and resiliency. This book aims to address the mentioned challenges by introducing advanced approaches, business models, and novel techniques for the management and control of future smart grids.

Architectures, Protocols and Performance
Application to EMC and Power Systems
Power System Fault Diagnosis
Case Study: Olympic Games
Science and Technologies for Smart Cities
7th EAI International Conference, GreeNets 2020, Harbin, China, June 27-28, 2020, Proceedings
Fault Location on Transmission and Distribution Lines

This book proposes new control and protection schemes to improve the overall stability and security of future wide-area power systems. It focuses on the high penetration levels of renewable energy sources and distributed generation, particularly with the trend towards smart grids. The control methods discussed can improve the overall stability in normal and abnormal operation conditions, while the protection methods presented can be used to ensure the secure operation of systems under most severe contingencies. Presenting stability, security, and protection methods for power systems in one concise volume, this book takes the reader on a journey from concepts and fundamentals to the latest and future trends in each topic covered, making it an informative and intriguing read for researchers, graduate students, and practitioners alike.

Supervision, condition-monitoring, fault detection, fault diagnosis and fault management play an increasing role for technical processes and vehicles in order to improve reliability, availability, maintenance and lifetime. For safety-related processes fault-tolerant systems with redundancy are required in order to reach comprehensive system integrity. This book is a sequel of the book "Fault-Diagnosis Systems" published in 2006, where the basic methods were described. After a short introduction into fault-detection and fault-diagnosis methods the book shows how these methods can be applied for a selection of 20 real technical components and processes as examples, such as: Electrical drives (DC, AC) Electrical actuators Fluidic actuators (hydraulic, pneumatic) Centrifugal and reciprocating pumps Pipelines (leak detection) Industrial robots Machine tools (main and feed drive, drilling, milling, grinding) Heat exchangers Also realized fault-tolerant systems for electrical drives, actuators and sensors are presented. The book describes

why and how the various signal-model-based and process-model-based methods were applied and which experimental results could be achieved. In several cases a combination of different methods was most successful. The book is dedicated to graduate students of electrical, mechanical, chemical engineering and computer science and for engineers.

This book constitutes the refereed proceedings of the 7th Annual SmartCity360° Summit which was organized in November 2021 in Porto, Portugal. Due to COVID-19 pandemic the conference was held virtually. The volume combines selected papers of 6 conferences, namely EdgeIoT 2021 — International Conference on Intelligent Edge Processing in the IoT Era; IC4S 2021 — International Conference on Cognitive Computing and Cyber Physical Systems; SmartGov 2021 — International Conference on Smart Governance for Sustainable Smart Cities; SmartGift 2021 — International Conference on Smart Grid and Innovative Frontiers in Telecommunications; e PFSM 2021 — International Conference on Privacy and Forensics in Smart Mobility. The 45 full papers were carefully selected from 109 submissions. The papers are organized in four thematic sections on Smart Grid and Innovative Frontiers in Telecommunications; Smart Governance for Sustainable Smart Cities; Privacy and Forensics in Smart Mobility; and Sensor Systems and Software.

This book includes selected papers from the fourth International Conference on Smart Vehicular Technology, Transportation, Communication and Applications (VTCA 2021), held in Chengdu City, Sichuan Province, China, during May 22-24, 2021. The conference is technically co-sponsored by Southwest Jiaotong University, Shandong University of Science and Technology, Fujian University of Technology, and Minjiang University. The book includes research works from engineers, researchers, and practitioners interested in the advances and applications in the field of vehicle technology and communication. The book covers four tracks, namely (1) vehicular networking security, (2) vehicular electronics, (3) intelligent transportation systems, and (4) smart vehicular communication networks and telematics.

Information Security Practice and Experience
Multilevel Converters: Analysis, Modulation, Topologies, and Applications
Soft Computing Systems
Advances in Swarm Intelligence
Proceedings of ICTSES 2018
Proceedings of the 16th International Conference on Remote Engineering and Virtual Instrumentation
Proceedings of ICISC 2021

Fault Location on Power Lines enables readers to pinpoint the location of a fault on power lines following a disturbance. The nine chapters are organised according to the design of different locators. The authors do not simply refer the reader to manufacturers' documentation, but instead have compiled detailed information to allow for in-depth comparison. Fault Location on Power Lines describes basic algorithms used in fault locators, focusing on fault location on overhead transmission lines, but also covering fault location in distribution networks. An application of artificial intelligence in this field is also presented, to help the reader to understand all aspects of fault location on overhead lines, including both the design and application standpoints. Professional engineers, researchers, and postgraduate and undergraduate students will find Fault Location on Power Lines a valuable resource, which enables them to reproduce complete algorithms of digital fault locators in their basic forms.

Optical networks have moved from laboratory settings and theoretical research to real-world deployment and service-oriented explorations. New technologies such as Ethernet PON, traffic grooming, regional and metropolitan network architectures and optical packet switching are being explored, and the landscape is continuously and rapidly evolving. Some of the important issues involving these new technologies involve the architectural, protocol, and performance related issues. This book addresses many of these issues and presents a birds eye view of some of the more promising technologies. Researchers and those pursuing advanced degrees in this field will be able to see where progress is being made and new technologies are emerging. Emerging Optical Network Technologies: Architectures, Protocols and Performance provides state-of-the-art material written by the most prominent professionals in their respective areas.

Underground Cable Fault Location is a unique and invaluable reference source. A thoroughly practical book, based on the author's wide experience and many years of practice, it covers every aspect of this complex subject and features the most up-to-date techniques and equipment. After an initial introduction to the basic principles of cable fault location, the book discusses their application to a wide range of cable networks and situations. Telecommunications systems, heating, lighting and optical fibre cables are just some of the specialized areas covered, along with high and low voltage cable networks. A proper methodology for locating faults is defined, from initial diagnosis and pre-location right through to pin-pointing and confirmation. The general skills of route tracing and cable identification are discussed in some detail, as is the important issue of safety. Designed for ease of use, the book is ideal for both an in-depth study of the subject and for quick reference. Written in a lively and accessible style, this book will become an essential companion for every engineer involved in cable fault location.

Describes a methodology of fault location in dynamic systems. A variety of techniques is presented, in both the time and frequency domains. Reference is made to the pattern recognition methods based on probabilistic theory.

Reliability, Survivability and Quality of Large Scale Telecommunication Systems
Fault Detection, Protection and Location on Transmission Line. A Review
Green Energy and Networking
Advanced Technologies, Systems, and Applications III
Fault Location on Power Networks
From High Power DC Transmission to DC Microgrids

Model-Based Fault Diagnosis Techniques

This book provides readers with up-to-date coverage of fault location algorithms in transmission and distribution networks. The algorithms will help readers track down the exact lo
in the shortest possible time. Furthermore, voltage and current waveforms recorded by digital relays, digital fault recorders, and other intelligent electronic devices contain a wealth
Knowledge gained from analysing the fault data can help system operators understand what happened, why it happened and how it can be prevented from happening again. The boo
readers convert such raw data into useful information and improve power system performance and reliability.

Modeling, Operation, and Analysis of DC Grids presents a unified vision of direct current grids with their core analysis techniques, uniting power electronics, power systems, and mul
applications. Part one presents high power applications such as HVDC transmission for wind energy, faults and protections in HVDC lines, stability analysis and inertia emulation. The
addresses current applications in low voltage such as microgrids, power trains and aircraft applications. All chapters are self-contained with numerical and experimental analysis. Pro
coherent presentation of DC grid analysis based on modern research in power systems, power electronics, microgrids and MT-HVDC transmission Covers multiple scales of applicatio
location, addressing DC grids in electric vehicles, microgrids, DC distribution, multi-terminal HVDC transmission and supergrids Supported by a unified set of MATLAB and Simulink tes
designed for application scenarios

This book (CCIS 837) constitutes the refereed proceedings of the Second International Conference on Soft Computing Systems, ICSCS 2018, held in Sasthamcotta, India, in April 201
papers were carefully reviewed and selected from 439 submissions. The papers are organized in topical sections on soft computing, evolutionary algorithms, image processing, deep
intelligence, big data analytics, data minimg, machine learning, VLSI, cloud computing, network communication, power electronics, green energy.

This book presents research papers from diverse areas on novel Intelligent Systems and Interactive Systems and Applications. It gathers selected research papers presented at the 2
Conference on Intelligent and Interactive Systems and Applications (IISA2017), which was held on June 17–18, 2017 in Beijing, China. Interactive Intelligent Systems (IIS) are systems
with human beings, media or virtual agents in intelligent computing environments. The emergence of Big Data and the Internet of Things have now opened new opportunities in both
industrial research for the successful design and development of intelligent interactive systems. This book explores how novel interactive systems can be used to overcome various
limitations previously encountered by human beings by combining machine learning algorithms and the analysis of recent trends. The book presents 125 contributions, which have be
into seven sections, namely: i) Autonomous Systems; ii) Pattern Recognition and Vision Systems; iii) E-Enabled Systems; iv) Mobile Computing and Intelligent Networking; v) Internet a
Computing; vi) Intelligent Systems, and vii) Various Applications. It not only offers readers extensive theoretical information on Intelligent and Interactive Systems, but also introduce
various applications in different domains.

AC Impedance Measurements Used to Locate Faults in Mining Power Cables

Cyber-physical Systems and Digital Twins

Mining Research Review

Transfer Function Techniques and Fault Location

Advances in Smart Vehicular Technology, Transportation, Communication and Applications

Coupled gasdynamics and kinetics during condensation by a rarefaction wave

12th International Conference, ISPEC 2016, Zhangjiajie, China, November 16-18, 2016, Proceedings

Research Paper (postgraduate) from the year 2020 in the subject Electrotechnology, grade: 1, Addis Ababa University (Addis Ababa Science and Technology University Addis Ababa, Ethiopia + Istanb
University Istanbul, Turkey), language: English, abstract: Electrical power transmission systems suffer from unexpected failures due to various random causes. Un-predicted faults that occur in pow
prevent from propagation to other area in the protective system. The functions of the protective systems are to detect, then classify and finally determine the location of the faulty. This paper pr
find, determine and diagnosing faults in transmission line. Artificial neural networks, impedance measurement based methods, fuzzy expert method, wavelet transform and so on have been used to
classification.This paper will review the type of fault that possibly occurs in an electric power system, the type of fault detection and location technique that are available together ther with the prote
the power system to protect the equipment from electric fault.

The aim of this book is to familiarize the reader with the concept of electromagnetic time reversal, and introduce up-to-date applications of the concept found in the areas of electromagnetic com
original in its approach to describing propagation and transient issues in power networks and power line communication, and is the result of the three main editors' pioneering research in the area
This book contains selected proceedings of EPREC-2021 with a focus on power systems. The book includes original research and case studies that present recent developments in power systems,
conversion systems, distributed generations, microgrids, smart grid, HVDC & FACTS, power quality, power system protection, etc. The book will be a valuable reference guide for beginners, research
interested in advancements in power systems.

The proceedings brings together a selection of papers from the 7th International Workshop of Advanced Manufacturing and Automation (IWAMA 2017), held in Changshu Institute of Technology, C
11–12, 2017. Most of the topics are focusing on novel techniques for manufacturing and automation in Industry 4.0. These contributions are vital for maintaining and improving economic developm
proceeding will assist academic researchers and industrial engineers to implement the concepts and theories of Industry 4.0 in industrial practice, in order to effectively respond to the challenges
revolution and smart factories.

Recent Advances in Power Systems

Proceedings of VTCA 2021

Electrical and Control Engineering & Materials Science and Manufacturing

Underground Cable Fault Location

Proceedings of the International Symposium on Innovative and Interdisciplinary Applications of Advanced Technologies (IAT), Volume 1
Development of a New Sensor for Combustion-generated Submicrometer Particulates
Principles of Ionization Smoke Detection
Basic goal of power system is to continuously provide electrical energy to the users. Like with any other system, failures in power system can occur. In those situation
remedial actions are applied as soon as possible after the accurate fault condition and location are detected. This thesis has been focusing on automated fault location
fault location algorithms, classified according to the spatial placement of physical measurements on single ended, multiple ended and sparse system-wide, are investigat
review, methods are listed as function of different parameters that influence their accuracy. This comparison is than used for generating procedure for optimal fault loc
selection. According to available data, and position of the fault with respect to the data, proposed procedure decides between different algorithms and selects an optim
is developed by utilizing different data structures such as binary tree and serialization in order to efficiently implement algorithm decision engine. After accuracy of algo
influenced by available input data, different data sources are recommended in proposed architecture such as the digital fault recorders, circuit breaker monitoring, SCAD
model and etc. Algorithm for determining faulted section is proposed based on the data from circuit breaker monitoring devices. This algorithm works in real time by re
sequence of events newly obtained recording belongs. Software prototype of the proposed automated fault location analysis is developed using Java programming langu
analysis is automatically triggered by appearance of new event files in a specific folder. The tests were carried out using the real life transmission system as an exampl
This proceedings brings together eighty seven selected articles presented at the joint conferences of the 6th International Conference on Electrical and Control Engine
and the 4th International conference on Materials Science and Manufacturing (ICMSM2015), which was held in Shanghai, China, during August 14–15 2015. ICECE2015
provide an excellent international platform for researchers to share the state-of-art research results and fork collaborations amongst themselves from different part o
proceedings collected the latest research results and applications funded by Chinese government agencies in Electrical Engineering, Control Engineering, Wireless Comm
Computer Networks, Computer Science, Materials Engineering and other related topics. It is a kaleidoscope reflecting the Chinese research and development efforts in t
submitted papers were subjected to strict peer-reviewing by 2–4 expert referees. The papers have been selected for this volume because of quality and the relevance t
Contents:Control EngineeringElectronics EngineeringWireless Communication and Computing NetworksComputer Science and ApplicationMaterials Science and Engineerin
Materials and Civil Engineering Readership: Researchers and professionals in electrical and electronics engineering, material engineering and computer networks.
Competition within the telecommunications companies is growing fiercer by the day. Therefore, it is vital to ensure a high level of quality and reliability within all telecor
in order to guard against faults and the failure of components and network services. Within large scale systems such quality and reliability problems are ever higher. Th
and Reliability have to date only been available in journals and technical reports of companies which have designed or produced major parts of systems used in large ap
provides a self-contained treatment enabling the reader to be able to produce, define and utilise the metrics of Quality and Reliability required for the design and implem
application such as a world class event as the Olympic Games. An additional outcome is that this book can be used as a guide for producing an ISO standard for large s
the Olympic Games. * Provides presentations of techniques used for solving quality and reliability problems in telecommunications networks replete with illustrations of
real-world services and world class events * Individual chapters written by respective international experts within their fields This will prove highly informative for Pract
researchers and telecommunications professionals, academics and graduate students in telecommunications, standards bodies and organisations such as ISO.
The two-volume set of LNCS 10941 and 10942 constitutes the proceedings of the 9th International Conference on Advances in Swarm Intelligence, ICSI 2018, held in S
June 2018. The total of 113 papers presented in these volumes was carefully reviewed and selected from 197 submissions. The papers were organized in topical section
systems; swarm robotics; fuzzy logic approaches; planning and routing problems; recommendation in social media; predication; classification; finding patterns; image enha
learning; theories and models of swarm intelligence; ant colony optimization; particle swarm optimization; artificial bee colony algorithms; genetic algorithms; differential
fireworks algorithm; bacterial foraging optimization; artificial immune system; hydrologic cycle optimization; other swarm-based optimization algorithms; hybrid optimizat
multi-objective optimization; large-scale global optimization.
Principles and Applications
Electromagnetic Time Reversal
Advances in Intelligent Systems and Interactive Applications
Artificial Intelligence Applications in Electrical Transmission and Distribution Systems Protection
Diagnosis and Fault-Tolerant Control
Intelligent Computing Techniques for Smart Energy Systems
Inventive Systems and Control
Fault Diagnosis and Prognosis Techniques for Complex Engineering Systems gives a systematic description of the many facets of envisaging, designing, implementing, and

experimentally exploring emerging trends in fault diagnosis and failure prognosis in mechanical, electrical, hydraulic and biomedical systems. The book is devoted to the development of mathematical methodologies for fault diagnosis and isolation, fault tolerant control, and failure prognosis problems of engineering systems. Sections present new techniques in reliability modeling, reliability analysis, reliability design, fault and failure detection, signal processing, and fault tolerant control of engineering systems. Sections focus on the development of mathematical methodologies for diagnosis and prognosis of faults or failures, providing a unified platform for understanding and applicability of advanced diagnosis and prognosis methodologies for improving reliability purposes in both theory and practice, such as vehicles, manufacturing systems, circuits, flights, biomedical systems. This book will be a valuable resource for different groups of readers - mechanical engineers working on vehicle systems, electrical engineers working on rotary machinery systems, control engineers working on fault detection systems, mathematicians and physician working on complex dynamics, and many more. Presents recent advances of theory, technological aspects, and applications of advanced diagnosis and prognosis methodologies in engineering applications Provides a series of the latest results, including fault detection, isolation, fault tolerant control, failure prognosis of components, and more Gives numerical and simulation results in each chapter to reflect engineering practices

Guaranteeing a high system performance over a wide operating range is an important issue surrounding the design of automatic control systems with successively increasing complexity. As a key technology in the search for a solution, advanced fault detection and identification (FDI) is receiving considerable attention. This book introduces basic model-based FDI schemes, advanced analysis and design algorithms, and mathematical and control-theoretic tools. This second edition of Model-Based Fault Diagnosis Techniques contains: • new material on fault isolation and identification and alarm management; • extended and revised treatment of systematic threshold determination for systems with both deterministic unknown inputs and stochastic noises; • addition of the continuously-stirred tank heater as a representative process-industrial benchmark; and • enhanced discussion of residual evaluation which now deals with stochastic processes. Model-based Fault Diagnosis Techniques will interest academic researchers working in fault identification and diagnosis and as a text it is suitable for graduate students in a formal university-based course or as a self-study aid for practising engineers working with automatic control or mechatronic systems from backgrounds as diverse as chemical process and power engineering.

This book is a collection of scientific papers concerning multilevel inverters examined from different points of view. Many applications are considered, such as renewable energy interface, power conditioning systems, electric drives, and chargers for electric vehicles. Different topologies have been examined in both new configurations and well-established structures, introducing novel and particular modulation strategies, and examining the effect of modulation techniques on voltage and current harmonics and the total harmonic distortion.

This book constitutes the refereed post-conference proceedings of the 7th International Conference on Green Energy and Networking, GreeNets 2020, held in Harbin, China, in June 2020. Due to VOVID-19 pandemic the conference was held virtually. The 35 full papers were selected form 87 submissions and are grouped in tracks on Green Communication; Green Energy; and Green Networking.

7th EAI International Conference, SmartCity360°, Virtual Event, December 2-4, 2021, Proceedings

Optimal Fault Location

Proceedings of ICTSES 2021

Design Schemes, Algorithms and Tools

Online Location of Faults on AC Cables in Underground Transmission Systems

Proceedings of the 2nd International Conference on Intelligent and Interactive Systems and Applications (IISA2017)

9th International Conference, ICSI 2018, Shanghai, China, June 17-22, 2018, Proceedings, Part II

This book constitutes the proceedings of the 16th International Conference on Remote Engineering and Virtual Instrumentation (REV), held at the BMS College of Engineering, Bangalore, India on 3–6 February 2019. Today, online technologies are at the core of most fields of engineering, as well as of society as a whole, and are inseparably connected with Internet of Things, cyber-physical systems, collaborative networks and grids, cyber cloud technologies, service architectures, to name but a few. Since it was first held in, 2004, the REV conference has focused on the increasing use of the Internet for engineering tasks and the problems surrounding it. The 2019 conference demonstrated and discussed the fundamentals, applications and experiences in the field of online engineering and virtual instrumentation. It also presented guidelines for university-level courses on these topics, in view of the increasing globalization of education and the demand for teleworking, remote services and collaborative working environments.

This book presents model-based analysis and design methods for fault diagnosis and fault-tolerant control. Architectural and structural models are used to analyse the propagation of the fault through the process, test fault detectability and reveal redundancies that can be used to ensure fault tolerance. Case studies demonstrate the methods presented. The second edition includes new material on reconfigurable control, diagnosis of nonlinear systems, and remote diagnosis, plus new examples and updated bibliography.

This book introduces innovative and interdisciplinary applications of advanced technologies. Featuring the papers from the 10th DAYS OF BHAAAS (Bosnian-Herzegovinian American Academy of Arts and Sciences) held in Jahorina, Bosnia and Herzegovina on June 21–24, 2018, it discusses a wide variety of engineering and scientific applications of the different techniques. Researchers from academic and industry present their work and ideas, techniques and applications in the field of power systems, mechanical engineering, computer modelling and simulations, civil engineering, robotics and biomedical engineering, information and communication technologies, computer science and applied mathematics.

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

Modeling, Operation, and Analysis of DC Grids

Wide Area Power Systems Stability, Protection, and Security

Emerging Optical Network Technologies

A Wide Area Measurement Based Intelligent Approach

The Proceedings of Joint Conferences of the 6th (ICECE2015) and the 4th (ICMSM2015)

Advanced Manufacturing and Automation VII

Fault Diagnosis and Prognosis Techniques for Complex Engineering Systems

This book constitutes the proceedings of the 12th International Conference on Information Security and Practice and Experience, ISPEC 2016, held in Zhangjiajie, China, in November 2016. The 25 papers presented in this volume were carefully reviewed and selected from 75 submissions. They cover multiple topics in information security, from technologies to systems and applications.

Power System Fault Diagnosis: A Wide Area Measurement Based Intelligent Approach is a comprehensive overview of the growing interests in efficient diagnosis of power system faults to reduce outage duration and revenue losses by expediting the restoration process. This book illustrates intelligent fault diagnosis schemes for power system networks, at both transmission and distribution levels, using data acquired from phasor measurement units. It presents the power grid modeling, fault modeling, feature extraction processes, and various fault diagnosis techniques, including artificial intelligence techniques, in steps. The book also incorporates uncertainty associated with line parameters, fault information (resistance and inception angle), load demand, renewable energy generation, and measurement noises. Provides step-by-step modeling of power system networks (distribution and transmission) and faults in MATLAB/SIMULINK and real-time digital simulator (RTDS) platforms Presents feature extraction processes using advanced signal processing techniques (discrete wavelet and Stockwell transforms) and an easy-to-understand optimal feature selection method Illustrates comprehensive results in the graphical and tabular formats that can be easily reproduced by beginners Highlights various utility practices for fault location in transmission networks, distribution systems, and underground cables.

The book compiles the research works related to smart solutions concept in context to smart energy systems, maintaining electrical grid discipline and resiliency, computational collective intelligence consisted of interaction between smart devices, smart environments and smart interactions, as well as information technology support for such areas. It includes high-quality papers presented in the International Conference on Intelligent Computing Techniques for Smart Energy Systems organized by Manipal University Jaipur. This book will motivate scholars to work in these areas. The book also prophesies their approach to be used for the business and the humanitarian technology development as research proposal to various government organizations for funding approval.

Select Proceedings of EPREC-2021

Model-Based Condition Monitoring: Actuators, Drives, Machinery, Plants, Sensors, and Fault-tolerant Systems

Second International Conference, ICSCS 2018, Kollam, India, April 19–20, 2018, Revised Selected Papers

Report of Investigations

Advanced Approaches, Business Models, and Novel Techniques for Management and Control of Smart Grids

Fault-Diagnosis Applications