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KEY=PARTIAL - BRYANT CURTIS

PARTIAL DISCHARGE DETECTION IN HIGH-VOLTAGE EQUIPMENT

Butterworth-Heinemann A review of current knowledge of electrical discharges that do not completely bridge the electrodes. Discharge detection, since 1945 and the use of new high voltage dielectrics, has grown into an indispensable tool for the evaluation of modern insulation. Topics covered include the behavior, detection and measurement of discharges, the choice of detection method and procedure, the location of discharges, and discharge detection in practice. Acidic paper. Annotation copyrighted by Book News, Inc., Portland, OR

FRONTIER COMPUTING

THEORY, TECHNOLOGIES AND APPLICATIONS (FC 2019)

Springer Nature This book gathers the proceedings of the 9th International Conference on Frontier Computing, held in Kyushu, Japan on July 9-12, 2019, and provides comprehensive coverage of the latest advances and trends in information technology, science and engineering. It addresses a number of broad themes, including communication networks, business intelligence and knowledge management, web intelligence, and related fields that inspire the development of information technology. The respective contributions cover a wide range of topics: database and data mining, networking and communications, web and internet of things, embedded systems, soft computing, social network analysis, security and privacy, optical communication, and ubiquitous/pervasive computing. Many of the papers outline promising future research directions, and the book will benefit students, researchers and professionals alike. Further, it offers a useful reference guide for newcomers to the field.

PROCEEDINGS OF THE 21ST INTERNATIONAL SYMPOSIUM ON HIGH VOLTAGE ENGINEERING

VOLUME 1

Springer Nature High voltage engineering is extremely important for the reliable design, safe manufacture and operation of electric devices, equipment and electric power systems. The 21st International Symposium on High Voltage Engineering, organized by the 90 years old Budapest School of High Voltage Engineering, provides an excellent forum to present results, advances and discussions among engineers, researchers and scientists, and share ideas, knowledge and expertise on high voltage engineering. The proceedings of the conference presents the state of the art technology of the field. The content is simultaneously aiming to help practicing engineers to be able to implement based on the papers and researchers to link and further develop ideas.

ADVANCES IN HIGH VOLTAGE ENGINEERING

IET This book addresses the very latest research and development issues in high voltage technology and is intended as a reference source for researchers and students in the field, specifically covering developments throughout the past decade. This unique blend of expert authors and comprehensive subject coverage means that this book is ideally suited as a reference source for engineers and academics in the field for years to come.

HIGH VOLTAGE ENGINEERING AND TESTING

IET High voltage, Electrical engineering, Electronic engineering, Electrical testing, Building and Construction

THE PROCEEDINGS OF THE 16TH ANNUAL CONFERENCE OF CHINA ELECTROTECHNICAL SOCIETY

VOLUME III

Springer Nature

2020 ASIA PACIFIC CONFERENCE ON IMAGE PROCESSING, ELECTRONICS AND COMPUTERS (IPEC)

2020 Asia Pacific Conference on Image Processing, Electronics and Computers (IPEC 2020) will take place in Dalian, China, on April 14-16, 2020. IPEC 2020 seeks to provide a high level forum for experts, researchers, professionals, innovators and practitioners in the field of image processing, electronics and computers from industry and academia to

present and discuss the wide spectrum of original and novel researches and contributions together IPEC 2020 will serve as a catalyst for explorations and discussion on new concepts and novel achievements of image processing, electronics and computers from theoretical research and practical applications at the same time

POWER AND ENERGY

PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON POWER AND ENERGY (CPE 2014), SHANGHAI, CHINA, 29-30 NOVEMBER 2014

CRC Press Power and Energy contains 86 selected papers from the International Conference on Power and Energy (CPE 2014, Shanghai, China, 29-30 November 2014), and presents a wide range of topics:- Energy management, planning and policy-making- Energy technologies and environment- Energy prospects- Conventional and renewable power generation- Power system man

HIGH-VOLTAGE TEST AND MEASURING TECHNIQUES

Springer The new edition of this book incorporates the recent remarkable changes in electric power generation, transmission and distribution. The consequences of the latest development to High Voltage (HV) test and measuring techniques result in new chapters on Partial Discharge measurements, Measurements of Dielectric Properties, and some new thoughts on the Shannon Theorem and Impuls current measurements. This standard reference of the international high-voltage community combines high voltage engineering with HV testing techniques and HV measuring methods. Based on long-term experience gained by the authors the book reflects the state of the art as well as the future trends in testing and diagnostics of HV equipment. It ensures a reliable generation, transmission and distribution of electrical energy. The book is intended not only for experts but also for students in electrical engineering and high-voltage engineering.

HIGH VOLTAGE ENGINEERING

FUNDAMENTALS

Elsevier Provides a comprehensive treatment of high voltage engineering fundamentals at the introductory and intermediate levels. It covers: techniques used for generation and measurement of high direct, alternating and surge voltages for general application in industrial testing and selected special examples found in basic research; analytical and numerical calculation of electrostatic fields in simple practical insulation system; basic ionisation and decay processes in gases and breakdown mechanisms of gaseous, liquid and solid dielectrics; partial discharges and modern discharge detectors; and overvoltages and insulation coordination.

CONDITION ASSESSMENT OF HIGH VOLTAGE INSULATION IN POWER SYSTEM EQUIPMENT

IET This book introduces the reader to the major components of a high voltage system and the different insulating materials applied in particular equipments. During a review of these materials, measurable properties suitable for condition assessment are identified. Analyses are included of some of the insulation fault scenarios that may occur in power equipment. The basic facilities for carrying out tests on the internal and external insulation structures at high and low voltages are described. Tests and measurements according to specifications, on-site requirements and research investigations are considered. Advances in the application of digital techniques for detection and analyses of partial discharges are discussed and methods in use, or under development, for service condition monitoring are described. These include the utilisation of new sensors, the solution of online problems associated with noise rejection and the adaptation of artificial intelligence techniques for incipient fault diagnosis.

STRUCTURAL HEALTH MONITORING AND INTEGRITY MANAGEMENT

PROCEEDINGS OF THE 2ND INTERNATIONAL CONFERENCE OF STRUCTURAL HEALTH MONITORING AND INTEGRITY MANAGEMENT (ICSHMIM 2014), NANJING, CHINA, 24-26 SEPTEMBER 2014

CRC Press Structural Health Monitoring and Integrity Management is a collection of the papers presented at the 2nd International Conference of Structural Health Monitoring and Integrity Management (ICSHMIM2014, Nanjing, China, 24-26 September 2014), and addresses the most recent developments in the field of Structural Health Monitoring (SHM) and integrity ma

TRANSFORMER AGEING

MONITORING AND ESTIMATION TECHNIQUES

John Wiley & Sons A one-stop guide to transformer ageing, presenting industrially relevant state-of-the-art diagnostic techniques backed by extensive research data Offers a comprehensive coverage of transformer ageing topics including insulation materials, condition monitoring and diagnostic techniques Features chapters on smart transformer monitoring frameworks, transformer life estimation and biodegradable oil Highlights industrially relevant techniques adopted in electricity utilities, backed by extensive research

GAS INSULATED SUBSTATIONS

John Wiley & Sons Comprehensive reference covering all aspects of gas insulated substations including basic principles, technology, use & application, design, specification, testing and ownership issues This book provides an overview on the particular development steps of gas insulated high-voltage switchgear, and is based on the information given with the editor's tutorial. The theory is kept low only as much as it is needed to understand gas insulated technology, with the main focus of the book being on delivering practical application knowledge. It discusses some introductory and advanced aspects in the meaning of applications. The start of the book presents the theory of Gas Insulated Technology, and outlines reliability, design, safety, grounding and bonding, and factors for choosing GIS. The third chapter presents the technology, covering the following in detail: manufacturing, specification, instrument transformers, Gas Insulated Bus, and the assembly process. Next, the book goes into control and monitoring, which covers local control cabinet, bay controller, control schemes, and digital communication. Testing is explained in the middle of the book before installation and energization. Importantly, operation and maintenance is discussed. This chapter includes information on repair, extensions, retrofit or upgrade, and overloading. Finally applications are covered along with concepts of layout, typical layouts, mixed technology substations, and then other topics such as life cycle assessment, environmental impact, and project management. A one-stop, complete reference text on gas insulated substations (GIS), large-capacity and long-distance electricity transmission, which are of increasing importance in the power industry today Details advanced and basic material, accessible for both existing GIS users and those planning to adopt the technology Discusses both the practical and theoretical aspects of GIS Written by acknowledged GIS experts who have been involved in the development of the technology from the start

DISTRIBUTION SWITCHGEAR

IET Switchgear is required to isolate faulty equipment, divide large networks into sections for repair purposes and reconfigure networks in order to restore power supplies and control other equipment. This book covers general principles and topics such as interruption techniques, fault level calculations, switching transients and electrical insulation. Solutions to practical problems associated with distribution switchgear are also included, making it an essential text for power engineering students and practising engineers.

GLIMPSES OF INDIAN TECHNOLOGY

Publications Division Ministry of Information & Broadcasting This book is an abridged version of the volume entitled 'Glimpses of Indian Technology—A survey of four decades', brought out on the occasion of India's 40th Anniversary of Independence. The book gives in a nutshell, Technological advances made by India during the Pre-Independence and Post-Independence era.

EMERGING DEVELOPMENTS IN THE POWER AND ENERGY INDUSTRY

PROCEEDINGS OF THE 11TH ASIA-PACIFIC POWER AND ENERGY ENGINEERING CONFERENCE (APPEEC 2019), APRIL 19-21, 2019, XIAMEN, CHINA

CRC Press Power and Energy Engineering are important and pressing topics globally, covering issues such as shifting paradigms of energy generation and consumption, intelligent grids, green energy and environmental protection. The 11th Asia-Pacific Power and Energy Engineering Conference (APPEEC 2019) was held in Xiamen, China from April 19 to 21, 2019. APPEEC has been an annual conference since 2009 and has been successfully held in Wuhan (2009 & 2011), Chengdu (2010 & 2017), Shanghai (2012 & 2014), Beijing (2013 & 2015), Suzhou (2016) and Guilin (2018), China. The objective of APPEEC 2019 was to provide scientific and professional interactions for the advancement of the fields of power and energy engineering. APPEEC 2019 facilitated the exchange of insights and innovations between industry and academia. A group of excellent speakers have delivered keynote speeches on emerging technologies in the field of power and energy engineering. Attendees were given the opportunity to give oral and poster presentations and to interface with invited experts.

2020 13TH INTERNATIONAL CONFERENCE ON INTELLIGENT COMPUTATION TECHNOLOGY AND AUTOMATION (ICICTA)

The topics of the 13th International Conference on Intelligent Computation Technology and Automation(ICICTA2020) which are CPS s field of interest Hardware B 1 Control structure and Microprogramming B 8 Integrated circuits Computer system organization C 2 Commulication networking and information technology C 4 Performance of system Computing Methodologies I 2 Artificial intelligence I 3 Computer graphics I 6 Simulation modeling and visualization Computer Application J 6 Computer aideded engineering J 7 Computers in other system Information Technology and System H 1 Model and principles H 4 Information technology and system applications About 96 of all accepted papers will be included in above topics

MACHINE LEARNING FOR ENERGY SYSTEMS

MDPI This volume deals with recent advances in and applications of computational intelligence and advanced machine learning methods in power systems, heating and cooling systems, and gas transportation systems. The optimal coordinated dispatch of the multi-energy microgrids with renewable generation and storage control using advanced numerical methods is discussed. Forecasting models are designed for electrical insulator faults, the health of the

battery, electrical insulator faults, wind speed and power, PV output power and transformer oil test parameters. The loads balance algorithm for an offshore wind farm is proposed. The information security problems in the energy internet are analyzed and attacked using information transmission contemporary models, based on blockchain technology. This book will be of interest, not only to electrical engineers, but also to applied mathematicians who are looking for novel challenging problems to focus on.

GAS INSULATED SUBSTATIONS

GIS

I. K. International Pvt Ltd The increase in demand for electricity and the growing energy density in metropolitan cities have made it necessary to extend the existing high voltage network right up to the consumer. Stepping down the voltage from transmission to the distribution level at the substations located near the actual consumers not only yields economic advantages, but also ensures reliable power supply. Such substations are required to meet a number of severe requirements, including small installation size, effective protection against atmospheric pollution and moisture, noiseless operation, nonexplosive and flame resistant, reduced maintenance, minimal radio interference while providing excellent electric characteristics. Conventional substations using atmospheric air as the main dielectric cannot satisfy these requirements, but totally enclosed substations using sulphur hexafluoride (SF6) gas insulation that are also known as Gas Insulated Substations (GIS). GIS is now in widespread use in the electrical power industry, especially in metropolitan areas. This book will serve as a valuable reference for the novice as well as the expert who needs a wider and detailed scope of coverage within the area of GIS. Gas Insulated Substations provides a comprehensive coverage of a wide range of topics which include: " Introduction to GIS & Properties of SF6 " Layout, Design, Construction, Testing & Maintenance of GIS " Special Problems and Diagnostic Techniques " VFTO Phenomena and its Effects in GIS " Service Experience " Standards Specifications " Future Trends " Extensive References Gas Insulated Substations (GIS) is the first single source for authoritative information on the state of the art in GIS.

GAS INSULATED TRANSMISSION LINES (GIL)

John Wiley & Sons Gas-insulated transmission lines (GIL) is an established high voltage technology used when environmental or structural considerations restrict the use of overhead transmission lines. With an overview on the technical, economical and environmental impact and power system implications of GIL, this guide provides a complete understanding of its physical design, features and advantages. The author illustrates how to evaluate when GIL would be the best solution during the planning sequence and how to apply GIL in the electricity power network. Other key features include: operation and maintenance requirements with information on repair processes, duration, and different monitoring systems enabling the achievement of reliable and safe operation; a wide variety of realized applications from across the world over the past 35 years, illustrating typical fields of application through descriptions of real projects that the author has worked on; and future application possibilities in a smart transmission network, used for solving power transmission problems. This is an essential reference for engineers involved in planning and executing bulk power transmission projects overground, in tunnels or buried. It offers a concise summary of all areas of the subject and is the perfect aid for utility power engineers, consulting engineers and manufacturers worldwide.

TRANSFORMER CONDITION CONTROL

ADVANCED AND TRADITIONAL TECHNOLOGIES

Springer Nature This book is devoted to one of the main problems of modern electrical power engineering—power transformer diagnostics. The first three chapters discuss the fundamentals: The first chapter presents the physical reasons for power transformers' failures and the technical and economic consequences of disruption of the normal operation. The second chapter reviews the standard technologies for monitoring the state of the high-voltage transformers. The third chapter tells about monitoring the condition of transformer windings based on the pulse method. The fourth chapter presents the technologies for transformer windings condition controlled by means of nanosecond pulses. The stages of improving the pulsed method based on a short probing pulse of the nanosecond range, the results of experiments on identifying the radial and axial displacements of the winding, studies of the effect of the duration and shape of the probing pulse on the sensitivity of the diagnostic procedure, and the stages of developing a mathematical as well as physical model of a power transformer are consistently presented.

THE PROCEEDINGS OF THE 9TH FRONTIER ACADEMIC FORUM OF ELECTRICAL ENGINEERING

VOLUME II

Springer Nature This book includes the original, peer-reviewed research papers from the 9th Frontier Academic Forum of Electrical Engineering (FAFEE 2020), held in Xi'an, China, in August 2020. It gathers the latest research, innovations, and applications in the fields of Electrical Engineering. The topics it covers including electrical materials and equipment, electrical energy storage and device, power electronics and drives, new energy electric power system equipment, IntelliSense and intelligent equipment, biological electromagnetism and its applications, and insulation and discharge computation for power equipment. Given its scope, the book benefits all researchers, engineers, and graduate students who want to learn about cutting-edge advances in Electrical Engineering.

ADVANCES IN ENERGY SCIENCE AND EQUIPMENT ENGINEERING

PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ENERGY EQUIPMENT SCIENCE AND ENGINEERING, (ICEESE 2015), MAY 30-31, 2015, GUANGZHOU, CHINA

CRC Press Advances in Energy Equipment Science and Engineering contains selected papers from the 2015 International Conference on Energy Equipment Science and Engineering (ICEESE 2015, Guangzhou, China, 30-31 May 2015). The topics covered include:- Advanced design technology- Energy and chemical engineering- Energy and environmental engineering- Energy scien

POWER TRANSFORMER DIAGNOSTICS, MONITORING AND DESIGN FEATURES

MDPI This book is a printed edition of the Special Issue "Power Transformer Diagnostics, Monitoring and Design Features" that was published in Energies

IEEE/PES TRANSMISSION AND DISTRIBUTION CONFERENCE AND EXPOSITION

DL; DL/T; DLT - PRODUCT CATALOG. TRANSLATED ENGLISH OF CHINESE STANDARD. (DL; DL/T; DLT)

PRODUCT CATALOG - CHINA INDUSTRY STANDARD - ELECTRICITY & POWER: DL; DL/T; DLT

<https://www.chinesestandard.net> This document provides the comprehensive list of Chinese Industry Standards - Category: DL; DL/T; DLT.

ELECTRICAL ENGINEER'S REFERENCE BOOK

Elsevier A long established reference book: radical revision for the fifteenth edition includes complete rearrangement to take in chapters on new topics and regroup the subjects covered for easy access to information. The Electrical Engineer's Reference Book, first published in 1945, maintains its original aims: to reflect the state of the art in electrical science and technology and cater for the needs of practising engineers. Most chapters have been revised and many augmented so as to deal properly with both fundamental developments and new technology and applications that have come to the fore since the fourteenth edition was published (1985). Topics covered by new chapters or radically updated sections include: * digital and programmable electronic systems * reliability analysis * EMC * power electronics * fundamental properties of materials * optical fibres * maintenance in power systems * electroheat and welding * agriculture and horticulture * aeronautic transportation * health and safety * procurement and purchasing * engineering economics

IEEE TRANSMISSION AND DISTRIBUTION CONFERENCE AND EXPOSITION

HIGH VOLTAGE ENGINEERING

FUNDAMENTALS - TECHNOLOGY - APPLICATIONS

Springer This book is based on the leading German reference book on high voltage engineering. It includes innovative insulation concepts, new physical knowledge and new insulating materials, emerging techniques for testing, measuring and diagnosis, as well as new fields of application, such as high voltage direct current (HVDC) transmission. It provides an excellent access to high voltage engineering - for engineers, experts and scientists, as well as for students. High voltage engineering is not only a key technology for a safe, economic and sustainable electricity supply, which has become one of the most important challenges for modern society. Furthermore, a broad spectrum of industrial applications of high voltage technologies is used in most of the innovative fields of engineering and science. The book comprehensively covers the contents ranging from electrical field stresses and dielectric strengths through dielectrics, materials and technologies to typical insulation systems for AC, DC and impulse stresses. Thereby, the book provides a unique and successful combination of scientific foundations, modern technologies and practical applications, and it is clearly illustrated by many figures, examples and exercises. Therefore, it is an essential tool both for teaching at universities and for the users of high voltage technologies.

CHINESE STANDARD. GB; GB/T; GBT; JB; JB/T; YY; HJ; NB; HG; QC; SL; SN; SH; JJF; JJG; CJ; TB; YD; YS; NY; FZ; JG; QB; SJ; SY; DL; AQ; CB; GY; JC; JR; JT

PRODUCT CATALOG - CHINA NATIONAL STANDARDS & INDUSTRY STANDARDS

<https://www.chinesestandard.net> This document provides the comprehensive list of Chinese National Standards and Industry Standards (Total 17,000 standards).

ELECTROMAGNETIC TIME REVERSAL

APPLICATION TO EMC AND POWER SYSTEMS

John Wiley & Sons 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 compatibility and power systems. It is 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.

ELECTRICAL POWER TRANSMISSION AND DISTRIBUTION

AGING AND LIFE EXTENSION TECHNIQUES

CRC Press Electrical distribution and transmission systems are complex combinations of various conductive and insulating materials. When exposed to atmospheric corrosive gases, contaminants, extreme temperatures, vibrations, and other internal and external impacts, these systems deteriorate, and sooner or later their ability to function properly is destroyed. *Electrical Power Transmission and Distribution: Aging and Life Extension Techniques* offers practical guidance on ways to slow down the aging of these electrical systems, improve their performance, and extend their life. Recognize the Signs of Aging in Equipment—and Learn How to Slow It A reference manual for engineering, maintenance, and training personnel, this book analyzes the factors that cause materials to deteriorate and explains what you can do to reduce the impact of these factors. In one volume, it brings together extensive information previously scattered among manufacturers' documentation, journal papers, conference proceedings, and general books on plating, lubrication, insulation, and other areas. Shows you how to identify the signs of equipment aging Helps you understand the causes of equipment deterioration Suggests practical techniques for protecting electrical apparatus from deterioration and damage Supplies information that can be used to develop manuals on proper maintenance procedures and choice of materials Provides numerous examples from industry This book combines research and engineering material with maintenance recommendations given in layperson's terms, making it useful for readers from a range of backgrounds. In particular, it is a valuable resource for personnel responsible for the utilization, operation, and maintenance of electrical transmission and distribution equipment at power plants and industrial facilities.

SWITCHGEAR MANUAL

PRODUCT LIFECYCLE MANAGEMENT FOR DIGITAL TRANSFORMATION OF INDUSTRIES

13TH IFIP WG 5.1 INTERNATIONAL CONFERENCE, PLM 2016, COLUMBIA, SC, USA, JULY 11-13, 2016, REVISED SELECTED PAPERS

Springer This book constitutes the refereed proceedings of the 13th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2016, held in Columbia, SC, USA, in July 2016. The 57 revised full papers presented were carefully reviewed and selected from 77 submissions. The papers are organized in the following topical sections: knowledge sharing, re-use and preservation; collaborative development architectures; interoperability and systems integration; lean product development and the role of PLM; PLM and innovation; PLM tools; cloud computing and PLM tools; traceability and performance; building information modeling; big data analytics and business intelligence; information lifecycle management; industry 4.0; metrics, standards and regulation; and product, service and systems.

SIMULATION AND MODELLING OF ELECTRICAL INSULATION WEAKNESSES IN ELECTRICAL EQUIPMENT

BoD - Books on Demand Around 80% of electrical consumption in an industrialised society is used by machinery and electrical drives. Therefore, it is key to have reliable grids that feed these electrical assets. Consequently, it is necessary to carry out pre-commissioning tests of their insulation systems and, in some cases, to implement an online condition monitoring and trending analysis of key variables, such as partial discharges and temperature, among others. Because the tests carried out for analysing the dielectric behaviour of insulation systems are commonly standardised, it is of interest to have tools that simulate the real behaviour of those and their weaknesses to prevent electrical breakdowns. The aim of this book is to provide the reader with models for electrical insulation systems diagnosis.

RECENT TRENDS IN THE CONDITION MONITORING OF TRANSFORMERS

THEORY, IMPLEMENTATION AND ANALYSIS

Springer Science & Business Media Recent Trends in the Condition Monitoring of Transformers reflects the current interest in replacing traditional techniques used in power transformer condition monitoring with non-invasive measures such as polarization/depolarization current measurement, recovery voltage measurement, frequency domain spectroscopy and frequency response analysis. The book stresses the importance of scrutinizing the condition of transformer insulation which may fail under present day conditions of intensive use with the resulting degradation of dielectric properties causing functional failure of the transformer. The text shows the reader how to overcome the key challenges facing today's maintenance policies, namely: The selection of appropriate techniques for dealing with each type of failure process accounting for the needs of plant owners, plant users and wider society; and Cost-efficiency and durability of effect. Many of the failure-management methods presented rely on the fact that most failures give warning when they are imminent. These potential failures give rise to identifiable physical conditions and the novel approaches described detect them so that action can be taken to avoid degeneration into full-blown functional failure. This "on-condition" maintenance means that equipment can be left in service as long as a specified set of performance standards continue to be met, avoiding the costly downtime imposed by routine and perhaps unnecessary maintenance but without risking equally expensive failure. *Recent Trends in the Condition Monitoring of Transformers* will be of considerable interest to both academic researchers in power systems and to engineers working in the power

generation and distribution industry showing how new and more efficient methods of fault diagnosis and condition management can increase transformer efficiency and cut costs.

HIGH VOLTAGE ENGINEERING AND APPLICATIONS

MDPI This book is a collection of recent publications from researchers all over the globe in the broad area of high-voltage engineering. The presented research papers cover both experimental and simulation studies, with a focus on topics related to insulation monitoring using state-of-the-art sensors and advanced machine learning algorithms. Special attention was given in the Special Issue to partial discharge monitoring as one of the most important techniques in insulation condition assessment. Moreover, this Special Issue contains several articles which focus on different modeling techniques that help researchers to better evaluate the condition of insulation systems. Different power system assets are addressed in this book, including transformers, outdoor insulators, underground cables, and gas-insulated substations.

PROCEEDINGS OF THE 4TH INTERNATIONAL CONFERENCE ON ELECTRICAL AND INFORMATION TECHNOLOGIES FOR RAIL TRANSPORTATION (EITRT) 2019

RAIL TRANSPORTATION SYSTEM SAFETY AND MAINTENANCE TECHNOLOGIES

Springer Nature This book reflects the latest research trends, methods and experimental results in the field of electrical and information technologies for rail transportation, which covers abundant state-of-the-art research theories and ideas. As a vital field of research that is highly relevant to current developments in a number of technological domains, the subjects it covered include intelligent computing, information processing, Communication Technology, Automatic Control, etc. The objective of the proceedings is to provide a major interdisciplinary forum for researchers, engineers, academicians as well as industrial professionals to present the most innovative research and development in the field of rail transportation electrical and information technologies. Engineers and researchers in academia, industry, and the government will also explore an insight view of the solutions that combine ideas from multiple disciplines in this field. The volumes serve as an excellent reference work for researchers and graduate students working on rail transportation, electrical and information technologies.

EXPERIMENTS IN HIGH VOLTAGE ENGINEERING

KSUP