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KEY=BUSBAR - HARLEY MARIANA

ELECTRICAL INSTALLATION GUIDE

ACCORDING TO IEC INTERNATIONAL STANDARDS

Schneider Electric

PLANNING GUIDE FOR POWER DISTRIBUTION PLANTS

DESIGN, IMPLEMENTATION AND OPERATION OF INDUSTRIAL NETWORKS

John Wiley & Sons *When planning an industrial power supply plant, the specific requirements of the individual production process are decisive for the design and mode of operation of the network and for the selection and design and ratings of the operational equipment. Since the actual technical risks are often hidden in the profound and complex planning task, planning decisions should be taken after responsible and careful consideration because of their deep effects on supply quality and energy efficiency. This book is intended for engineers and technicians of the energy industry, industrial companies and planning departments. It provides basic technical network and plant knowledge on planning, installation and operation of reliable and economic industrial networks. In addition, it facilitates training for students and graduates in this field. In an easy and comprehensible way, this book informs about solution competency gained in many years of experience. Moreover, it also offers planning recommendations and knowledge on standards and specifications, the use of which ensures that technical risks are avoided and that production and industrial processes can be carried out efficiently, reliably and with the highest quality.*

LIGHT METALS 2017

Springer *The Light Metals symposia at the TMS Annual Meeting & Exhibition present the most recent developments, discoveries, and practices in primary aluminum science and technology. The annual Light Metals volume has become the definitive reference in the field of aluminum production and related light metal technologies. The 2017 collection includes papers from the following symposia:Alumina and BauxiteAluminum Alloys, Processing, and CharacterizationAluminum Reduction TechnologyCast Shop TechnologyCast Shop Technology: Recycling and Sustainability Joint SessionElectrode TechnologyThe Science of Melt Refining: An LMD Symposium in Honor of Christian Simensen and Thorvald Abel Engh*

ELECTRICAL POWER ENGINEERING

ELECTRICAL NOTES

ELECTRICAL ARTICLES & NOTES

Jignesh.Parmar =3 No's of Volume,Total 725 Pages (more than 138 Topics) in PDF format with watermark on each Page. =soft copy in PDF will be delivered. Part-1 :Electrical Quick Data Reference: Part-2 :Electrical Calculation Part-3 :Electrical Notes: Part-1 :Electrical Quick Data Reference: 1 Measuring Units 7 2 Electrical Equation 8 3 Electrical Thumb Rules 10 4 Electrical Cable & Overhead Line Bare Conductor Current Rating 12 Electrical Quick Reference 5 Electrical Quick Reference for Electrical Costing per square Meter 21 6 Electrical Quick Reference for MCB / RCCB 25 7 Electrical Quick Reference for Electrical System 31 8 Electrical Quick Reference for D.G set 40 9 Electrical Quick Reference for HVAC 46 10 Electrical Quick Reference for Ventilation / Ceiling Fan 51 11 Electrical Quick Reference for Earthing Conductor / Wire / Strip 58 12 Electrical Quick Reference for Transformer 67 13 Electrical Quick Reference for Current Transformer 73 14 Electrical Quick Reference for Capacitor 75 15 Electrical Quick Reference for Cable Gland 78 16 Electrical Quick Reference for Demand Factor-Diversity Factor 80 17 Electrical Quick Reference 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Revolution of Electrical Relay 656 Electrical Questions & Answers 39 Electrical Questions & Answers 674 Power Distributions & Transmissions 40 Type of Electrical Power Distribution System 697 41 Impact of Floating Neutral in Power Distribution 703 42 Total Losses in Power Distribution & Transmission

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SWITCHGEAR MANUAL

LIGHTNING PROTECTION GUIDE

RESEARCH AND DEVELOPMENT IN EXPERT SYSTEMS VII

PROCEEDINGS OF THE 10TH ANNUAL TECHNICAL CONFERENCE OF THE BCS SPECIALIST GROUP, SEPTEMBER 1990

[Cambridge University Press](#) This volume contains the refereed and invited papers presented at Expert Systems 90, the tenth annual conference of the British Computer Society's Specialist Group on Expert Systems, held in London in September 1990. The theme of the conference, "Business Benefits of Expert Systems," is particularly pertinent, as expert systems mature and begin to be applied in a much wider range of settings. This year three issues in particular were examined: cybernetics, databases, and programming languages. They reflect the ubiquity of expert systems and show how these methods are helping to expand other areas of technology. This is the seventh volume in the conference series, "Research and Development in Expert Systems," and is essential reading for those working in expert systems and artificial intelligence who wish to keep up to date with developments and opportunities in these important fields.

POWER SYSTEM ENGINEERING

PLANNING, DESIGN, AND OPERATION OF POWER SYSTEMS AND EQUIPMENT

[John Wiley & Sons](#) Describing in detail how electrical power systems are planned and designed, this monograph illustrates the required structures of systems, substations and equipment using international standards and latest computer methods. The book discusses the advantages and disadvantages of the different arrangements within switchyards and of the topologies of the power systems, describing methods to determine the main design parameters of cables, overhead lines, and transformers needed to realize the supply task, as well as the influence of environmental conditions on the design and the permissible loading of the equipment. Additionally, general requirements for protection schemes and the main schemes related to the various protection tasks are given. With its focus on the requirements and procedures of tendering and project contracting, this book enables the reader to adapt the basics of power systems and equipment design to special tasks and engineering projects.

NETWORK PROTECTION & AUTOMATION GUIDE

HANDBOOK OF SWITCHGEARS

[McGraw-Hill Professional Pub](#) Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. Designing, Operating, and Protecting Switchgears for Electrical Distribution Systems Switchgears are the switching devices that form the backbone of modern electrical distribution systems. The Handbook of Switchgears offers electrical power engineers and technicians a one-stop guide to the basic design, operation, and protection of switchgears, including circuit breakers, transformers, relays, switches, and fuses. Containing contributions by 22 experts from Bharat Heavy Electricals Limited, the Handbook of Switchgears guides readers through switchgears for electrical power grids and industrial facilities, as well as for residential and commercial buildings. Readers will find up-to-the-minute information on circuit breaker technologies...GIS...current and voltage transformers... protective relays...energy metering...generator protection...EHV transmission system control and protection...and much more. Filled with over 100 helpful illustrations, this comprehensive resource features: Complete details on low and medium voltage switchgears State-of-the-art guidance on high voltage circuit breakers New developments in surge protection technology Proven guidelines for doing effective switchgear site work Inside This Vital EE Reference • Circuit Breaker Technologies • Low Voltage Switchgears _ Medium Voltage Switchgears • High Voltage Circuit Breakers • GIS • Auto-Reclosers & Sectionalizers • Current Transformers and Voltage Transformers • Surge Protection • Protective Relays • Application of Medium Voltage Switchgears • Energy Metering • Control Schemes • Protection Schemes • Generator Protection • EHV Transmission System Control and Protection • and Much More

METAL FOAMS: A DESIGN GUIDE

[Elsevier](#) Metal foams are at the forefront of technological development for the automotive, aerospace, and other weight-dependent industries. They are formed by various methods, but the key facet of their manufacture is the inclusion of air or other gaseous pockets in the metal structure. The fact that gas pockets are present in their structure provides an obvious weight advantage over traditionally cast or machined solid metal components. The unique structure of metal foams also opens up more opportunities to improve on more complex methods of producing parts with space inclusions such as sand-casting. This guide provides information on the advantages metal foams possess, and the applications for which they may prove suitable. Offers a concise description of metal foams, their manufacture, and their advantages in industry Provides engineers with answers to pertinent questions surrounding metal foams Satisfies a major need in the market for information on the properties, performance, and applications of these materials

HANDBOOK TO IEEE STANDARD 45

A GUIDE TO ELECTRICAL INSTALLATIONS ON SHIPBOARD

[Standards Information Network](#) IEEE 45-2002 is an excellent standard, which is widely used for selecting shipboard electrical and electronic system equipment and its installation. The standard is a living document often interpreted differently by different users. Handbook to IEEE Standard 45: A Guide to Electrical Installations on Shipboard provides a detailed background of the changes in IEEE Std 45-2002 and the reasoning behind the changes as well as explanation and adoption of other national and international standards. It contains the complete text of IEEE 45-2002 relevant clauses, along with explanatory commentary consisting of: - Recommendation intent and interpretation - Historical perspective - Application - Supporting illustrations, drawings and tables This Handbook provides necessary technical details in a simplified form to enhance understanding of the requirements for technical and non-technical people in the maritime industry.

DESIGN OF ELECTRICAL SERVICES FOR BUILDINGS

[Routledge](#) Electrical services are a vital component in any building, so it is necessary for construction professionals to understand the basic principle of services design. Design of Electrical Services for Buildings provides a basic grounding for students and graduates in the field. It covers methods of wiring, schemes of distribution and protection for lighting and power installations. Systems such as alarms and standby supplies are also covered. Each method is described in detail and examples of calculations are given. For this fourth edition, the coverage of wiring and electrical regulations have been brought fully up to date, and the practical information has been revised.

PRACTICAL POWER DISTRIBUTION FOR INDUSTRY

[Elsevier](#) The book provides technical know-how not covered by most universities and colleges in a subject that is central to the roles of many electrical engineers in industry, focusing on switchgear, power cables, power factor correction, and network studies. * Learn how to install and maintain electrical power equipment in industrial settings * Select and specify the right power system at the right price * Provides the practical essentials for reliable operation of industrial electrical networks - covering switchgear, cabling and power correction factors

KEEPING ELECTRICAL SWITCHGEAR SAFE

This book is aimed primarily at owners and operators of electrical switchgear in industrial or commercial organisations, as distinct from electricity distribution companies or equipment suppliers, although the latter may find the advice useful. It is intended to assist managers, engineers and other relevant personnel to understand their responsibilities and duties in the operation, care and maintenance of high-voltage and low-voltage switchgear, with a view to keeping it safe. There is guidance on the selection, use, care and maintenance of three-phase electrical switchgear with voltage ratings from 400V alternating current (ac) up to and including 33 kV ac. It deals with circuit-breakers, switches, switch fuses, isolators and HV contactors. Contents: Introduction; Equipment and its locations; Potential problems with switchgear; Management of switchgear; Records; Operational issues; Care and maintenance of oil switchgear; Care and maintenance of non-oil switchgear; Care and maintenance of ancillary equipment; Testing; Assessment of aged switchgear; Condition monitoring; Protection; Batteries and chargers; Selection of new, replacement or refurbished switchgear; Measures to limit fires; Training; Disposal issues; Appendices. (HSE website)

HANDBOOK OF ELECTRICAL ENGINEERING

FOR PRACTITIONERS IN THE OIL, GAS AND PETROCHEMICAL INDUSTRY

John Wiley & Sons A practical treatment of power system design within the oil, gas, petrochemical and offshore industries. These have significantly different characteristics to large-scale power generation and long distance public utility industries. Developed from a series of lectures on electrical power systems given to oil company staff and university students, Shelrake's work provides a careful balance between sufficient mathematical theory and comprehensive practical application knowledge. Features of the text include: Comprehensive handbook detailing the application of electrical engineering to the oil, gas and petrochemical industries Practical guidance to the electrical systems equipment used on off-shore production platforms, drilling rigs, pipelines, refineries and chemical plants Summaries of the necessary theories behind the design together with practical guidance on selecting the correct electrical equipment and systems required Presents numerous 'rule of thumb' examples enabling quick and accurate estimates to be made Provides worked examples to demonstrate the topic with practical parameters and data Each chapter contains initial revision and reference sections prior to concentrating on the practical aspects of power engineering including the use of computer modelling Offers numerous references to other texts, published papers and international standards for guidance and as sources of further reading material Presents over 35 years of experience in one self-contained reference Comprehensive appendices include lists of abbreviations in common use, relevant international standards and conversion factors for units of measure An essential reference for electrical engineering designers, operations and maintenance engineers and technicians.

PROTECTION OF ELECTRICITY DISTRIBUTION NETWORKS, 2ND EDITION

IET Written by two practicing electrical engineers, this second edition of the bestselling Protection of Electricity Distribution Networks offers both practical and theoretical coverage of the technologies, from the classical electromechanical relays to the new numerical types, which protect equipment on networks and in electrical plants. A properly coordinated protection system is vital to ensure that an electricity distribution network can operate within preset requirements for safety for individual items of equipment, staff and public, and the network overall. Suitable and reliable equipment should be installed on all circuits and electrical equipment and to do this, protective relays are used to initiate the isolation of faulted sections of a network in order to maintain supplies elsewhere on the system. This then leads to an improved electricity service with better continuity and quality of supply.

HANDBOOK OF ELECTRICAL INSTALLATION PRACTICE

John Wiley & Sons Handbook of Electrical Installation Practice covers all key aspects of industrial, commercial and domestic installations and draws on the expertise of a wide range of industrial experts. Chapters are devoted to topics such as wiring cables, mains and submains cables and distribution in buildings, as well as power supplies, transformers, switchgear, and electricity on construction sites. Standards and codes of practice, as well as safety, are also included. Since the Third Edition was published, there have been many developments in technology and standards. The revolution in electronic microtechnology has made it possible to introduce more complex technologies in protective equipment and control systems, and these have been addressed in the new edition. Developments in lighting design continue, and extra-low voltage luminaires for display and feature illumination are now dealt with, as is the important subject of security lighting. All chapters have been amended to take account of revisions to British and other standards, following the trend to harmonised European and international standards, and they also take account of the latest edition of the Wiring Regulations. This new edition will provide an invaluable reference for consulting engineers, electrical contractors and factory plant engineers.

NATIONAL ELECTRICAL CODE

2008

NationalFireProtectionAssoc Presents the latest electrical regulation code that is applicable for electrical wiring and equipment installation for all buildings, covering emergency situations, owner liability, and procedures for ensuring public and workplace safety.

CIRED

14TH INTERNATIONAL CONFERENCE AND EXHIBITION ON ELECTRICITY DISTRIBUTION

ELECTRICAL POWER EQUIPMENT MAINTENANCE AND TESTING

CRC Press The second edition of a bestseller, this definitive text covers all aspects of testing and maintenance of the equipment found in electrical power systems serving industrial, commercial, utility substations, and generating plants. It addresses practical aspects of routing testing and maintenance and presents both the methodologies and engineering basics needed to carry out these tasks. It is an essential reference for engineers and technicians responsible for the operation, maintenance, and testing of power system equipment. Comprehensive coverage includes dielectric theory, dissolved gas analysis, cable fault locating, ground resistance measurements, and power factor, dissipation factor, DC, breaker, and relay testing methods.

CIRED, 14TH INTERNATIONAL CONFERENCE AND EXHIBITION ON ELECTRICITY DISTRIBUTION

PROTECTIVE RELAYING

THEORY AND APPLICATIONS

CRC Press Targeting the latest microprocessor technologies for more sophisticated applications in the field of power system short circuit detection, this revised and updated source imparts fundamental concepts and breakthrough science for the isolation of faulty equipment and minimization of damage in power system apparatus. The Second Edition clearly describes key procedures, devices, and elements crucial to the protection and control of power system function and stability. It includes chapters and expertise from the most knowledgeable experts in the field of protective relaying, and describes microprocessor techniques and troubleshooting strategies in clear and straightforward language.

ELECTRICITY DISTRIBUTION NETWORK DESIGN

IET When the original edition was published in 1989, it was the first book for decades to be devoted to planning and design of distribution systems. It has now been fully revised, particularly in the light of market conditions exerting stronger pressure on the design engineer, the changing structure of utilities and the increasing penetration of computer-based planning and reliability. The book sets out good distribution practice and includes theoretical and practical aspects relevant to design. There is a paperback edition to satisfy demand from graduate students and engineers in training.

HIGH VOLTAGE ENGINEERING FUNDAMENTALS

Elsevier Power transfer for large systems depends on high system voltages. The basics of high voltage laboratory techniques and phenomena, together with the principles governing the design of high voltage insulation, are covered in this book for students, utility engineers, designers and operators of high voltage equipment. In this new edition the text has been entirely revised to reflect current practice. Major changes include coverage of the latest instrumentation, the use of electronegative gases such as sulfur hexafluoride, modern diagnostic techniques, and high voltage testing procedures with statistical approaches. A classic text on high voltage engineering Entirely revised to bring you up-to-date with current practice Benefit from expanded sections on testing and diagnostic techniques

THE ELECTRICAL REVIEW

ELECTRIC CABLES HANDBOOK

Wiley-Blackwell Electric Cables Handbook provides a comprehensive and substantial coverage of all types of energy cables--from wiring and flexible cables for general use, to distribution, transmission and submarine cables. It includes information on materials, design principles, installation, operating experience and standards, and several appendices contain extensive data tables on commonly used cable types and their properties. Electric Cables Handbook is an extensive source of up-to-date and essential information for electrical engineers, contractors, supply authorities and cable manufacturers.

ENGINEERING

AC CIRCUITS AND POWER SYSTEMS IN PRACTICE

John Wiley & Sons The essential guide that combines power system fundamentals with the practical aspects of equipment design and operation in modern power systems Written by an experienced power engineer, AC Circuits and Power Systems in Practice offers a comprehensive guide that reviews power system fundamentals and network theorems while exploring the practical aspects of equipment design and application. The author covers a wide-range of topics including basic circuit theorems, phasor diagrams, per-unit quantities and symmetrical component theory, as well as active and reactive power and their effects on network stability, voltage support and voltage collapse. Magnetic circuits, reactor and transformer design are analyzed, as is the operation of step voltage regulators. In addition, detailed introductions are provided to earthing systems in LV and MV networks, the adverse effects of harmonics on power equipment and power system protection. Finally, European and American engineering standards are presented where appropriate throughout the text, to familiarize the reader with their use and application. This book is written as a practical power engineering text for engineering students and recent graduates. It contains more than 400 illustrations and is designed to provide the reader with a broad introduction to the subject and to facilitate further study. Many of the examples included come from industry and are not normally covered in undergraduate syllabi. They are provided to assist in bridging the gap between tertiary study and industrial practice, and to assist the professional development of recent graduates. The material presented is easy to follow and includes both mathematical and visual representations using phasor diagrams. Problems included at the end of most chapters are designed to walk the reader through practical applications of the associated theory.

ELECTRICAL INSTALLATIONS HANDBOOK

POWER SUPPLY AND DISTRIBUTION, PROTECTIVE MEASURES, ELECTROMAGNETIC COMPATIBILITY, ELECTRICAL INSTALLATION EQUIPMENT AND SYSTEMS, APPLICATION EXAMPLES FOR ELECTRICAL INSTALLATION SYSTEMS, BUILDING MANAGEMENT

Wiley The Third Edition of this classic reference is designed to provide authoritative guidance for engineers and technicians who have responsibility for planning, designing, building and operating electrical installation systems. The extensively revised scope includes a comprehensive overview of conventional and state-of-the-art installation equipment and its current usage. Special emphasis is placed on equipment with communication capability and the way in which this equipment is networked to the instabus EIB? bus system for a wide range of applications in residential and commercial buildings. The construction, dimensioning and protection of electrical distribution systems are treated taking into account the latest developments in systems engineering. In view of the electricity market deregulation and globalization and the associated standardization initiatives that are underway, reference has been made, where appropriate, to international, European and German norms, regulations and standards. This single volume edition is extensively illustrated throughout and includes a broad range of example applications of electrical installation systems.

ELECTRICAL CONSTRUCTION AND MAINTENANCE

NATIONAL ELECTRICAL CODE 2011

Delmar Pub Presents the latest electrical regulation code that is applicable for electrical wiring and equipment installation for all buildings, covering emergency situations, owner liability, and procedures for ensuring public and workplace safety.

ELECTRIC POWER DISTRIBUTION EQUIPMENT AND SYSTEMS

CRC Press Power distribution and quality remain the key challenges facing the electric utilities industry. Choosing the right equipment and architecture for a given application means the difference between success and failure. Comprising chapters carefully selected from the best-selling Electric Power Distribution Handbook, Electric Power Distribution Equipment and Systems provides an economical, sharply focused reference on the technologies and infrastructures that enable reliable, efficient distribution of power, from traversing vast distances to local power delivery. The book works inward from broad coverage of overall power systems all the way down to specific equipment application. It begins by laying a foundation in the fundamentals of distribution systems, explaining configurations, substations, loads, and differences between European and US systems. It also includes a look at the development of the field as well as future problems and challenges to overcome. Building on this groundwork, the author elaborates on both overhead and underground distribution networks, including the underlying concepts and practical issues associated with each. Probing deeper into the system, individual chapters explore transformers, voltage regulation, and capacitor application in detail, from basic principles to operational considerations. With clear explanations and detailed information, Electric Power Distribution Equipment and Systems gathers critical concepts, technologies, and applications into a single source that is ideally suited for immediate implementation.

ELECTRICITY DISTRIBUTION NETWORK DESIGN

IET As well as dealing with the planning and design of modern distribution systems, as opposed to more general aspects of transmission and generation, this second edition of Electricity Distribution Network Design (1989) updates its treatment of computer-based planning and reliability. It also covers the implications of international standards, network information systems and distribution automation.

ELECTRIC POWER SUBSTATIONS ENGINEERING

CRC Press Combining select chapters from Grigsby's standard-setting The Electric Power Engineering Handbook with several chapters not found in the original work, Electric Power Substations Engineering became widely popular for its comprehensive, tutorial-style treatment of the theory, design, analysis, operation, and protection of power substations. For its

J & P TRANSFORMER BOOK

Elsevier Maintaining appropriate power systems and equipment expertise is necessary for a utility to support the reliability, availability, and quality of service goals demanded by energy consumers now and into the future. However, transformer talent is at a premium today, and all aspects of the power industry are suffering a diminishing of the supply of knowledgeable and experienced engineers. Now in print for over 80 years since initial publication in 1925 by Johnson & Phillips Ltd, the J & P Transformer Book continues to withstand the test of time as a key body of reference material for students, teachers, and all whose careers are involved in the engineering processes associated with power delivery, and particularly with transformer design, manufacture, testing, procurement, application, operation, maintenance, condition assessment and life extension. Current experience and knowledge have been brought into this thirteenth edition with discussions on moisture equilibrium in the insulation system, vegetable based natural ester insulating fluids, industry concerns with corrosive sulphur in oil, geomagnetic induced current (GIC) impacts, transportation issues, new emphasis on measurement of load related noise, and enhanced treatment of dielectric testing (including Frequency Response Analysis), Dissolved Gas analysis (DGA) techniques and tools, vacuum LTCs, shunt and series reactors, and HVDC converter transformers. These changes in the thirteenth edition together with updates of IEC

reference Standards documentation and inclusion for the first time of IEEE reference Standards, provide recognition that the transformer industry and market is truly global in scale. -- From the foreword by Donald J. Fallon Martin Heathcote is a consultant specializing in power transformers, primarily working for utilities. In this context he has established working relationships with transformer manufacturers on several continents. His background with Ferranti and the UK's Central Electricity Generating Board (CEGB) included transformer design and the management and maintenance of transformer-based systems. * The definitive reference for all involved in designing, installing, monitoring and maintaining high-voltage systems using power transformers (electricity generation and distribution sector; large-scale industrial applications) * The classic reference work on power transformers and their applications: first published in 1925, now brought fully up to date in this thirteenth edition * A truly practical engineering approach to design, monitoring and maintenance of power transformers - in electricity generation, substations, and industrial applications.

SCIENCE ABSTRACTS

ELECTRICAL & ELECTRONICS ABSTRACTS. SERIES B

POWER SYSTEM ENGINEERING

PLANNING, DESIGN, AND OPERATION OF POWER SYSTEMS AND EQUIPMENT

John Wiley & Sons This edition provides a systematic presentation of the main concepts referring to the electrical systems planning and operation, with the particularly interesting inclusion of many practical data, frequent reference to the IEC standards, and a detached view on the main approaches used in practice. The selection of the material makes it possible for the operator to retrieve in the book both concepts and indications on the applications, without needing to take a look at many manufacturer's data or huge handbooks. Describing in detail how electrical power systems are planned and designed, this book illustrates the required structures of systems, substations and equipment using international standards and latest computer methods. This book discusses both the advantages and disadvantages of the different arrangements within switchyards and of the topologies of the power systems, describing methods to determine the main design parameters of cables, overhead lines, and transformers needed to realize the supply task, as well as the influence of environmental conditions on the design and the permissible loading of the equipment. Additionally, general requirements for protection schemes and the main schemes related to the various protection tasks are given.

SUBSTATIONS

Springer This handbook offers the whole knowledge of high voltage substations from their design and construction to the maintenance and the ongoing management, the entire asset life-cycle. The content of the book covers a range of substation topologies: Air-Insulated, Gas-Insulated and Mixed Technology Switchgear Substations together with the essential secondary systems. Additionally specialized substations such as ultra high voltage (UHV), offshore substations for wind power plants and the use of gas insulated lines are included. The book includes topics, providing information for increased reliability and availability, asset management, environmental management aspects, and the adoption of appropriate technological advances in equipment and systems in substations. The book was written by more than 30 experts from around the world and assembled through the Cigré study committee on Substations. This guarantees that the book contains information that is based on the global exchange and dissemination of unbiased information for technical and non-technical audiences. Although there are other works containing references to Substations, this book is designed to provide a complete overview of the topic in one book, providing a valuable reference for anyone interested in the topic.