400v Dc Power Solutions From Emerson Network Power

Power Electronics for Renewable Energy Systems, Transportation and Industrial Applications
Proceedings of the Scientific-Practical Conference "Research and Development - 2016"
Electronic Design
Mechatronics for Production and Logistics
Power Quality in Power Systems and Electrical Machines
Switching Power Converters
September 18 - 22, 2005 in Berlin ; Www.intelec2005.de
Electronic Engineering
AEI
Special Topics in Renewable Energy Systems
Design of an Integrated High-voltage Low-power Isolated DC/DC Converter for Automotive Applications
Development of Transport by Telematics
Machine Design
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5G-PINE 2021, AI-BIO 2021, DAAI 2021, DARE 2021, EEAI 2021, and MHDW 2021, Hersonissos, Crete, Greece, June 25–27, 2021, Proceedings
Advancements in Real-Time Simulation of Power and Energy Systems
High Efficiency Power Supply Using New SiC Devices
I-Bytes Technology Industry
Electronic and Electrical Engineering, Solutions Manual(S/M) second edition.
Artificial Intelligence Applications and Innovations. AIAI 2021 IFIP WG 12.5 International Workshops
19th International Conference on Transport System Telematics, TST 2019, Jaworze, Poland, February 27 – March 2, 2019, Selected Papers
Leistungselektronische Schaltungen
Electrical Power System Essentials
Impact on Smart Grid and e-Mobility Markets

EDN, Electrical Design News
Devices, Circuits and Applications
A New Vision of the Earth from the Abyss
Funktion, Auslegung und Anwendung
Drive Solutions
Modeling, Design, and Control
Thomas Register of American Manufacturers and Thomas Register Catalog File
Intelec '97 - 19th International Telecommunications Energy Conference
Zukunft durch Informationstechnik
Smart Charging Solutions for Hybrid and Electric Vehicles
Supercomputing
Practical Guide to International Standardization for Electrical Engineers
EDN
Transactions of the Materials Research Society of Japan
schnell - mobil - intelligent ; Informationstechnik für Menschen - 50 Jahre ITG ; Vorträge der Jubiläumsfachtagung am 26. und 27. April 2004 in der Johann-Wolfgang-Goethe-Universität in Frankfurt am Main ; mit CD-ROM

BENTLEY CHRISTINE

Power Electronics for Renewable Energy Systems, Transportation and Industrial Applications John Wiley & Sons
Intelec is an international forum for the exchange of information on energy and power for communications systems. The conference provides an opportunity for designers, manufacturers, distributors and users to discuss a wide variety of power systems and components, and energy topics.
Proceedings of the Scientific-Practical Conference "Research and Development - 2016" Springer-Verlag
In the current context of energy and ecological transitions, a multiplication of high-voltage DC buses is observed in several applications, such as Electric Vehicles (EV) and photovoltaic. In parallel, there exist systems that require to be powered directly from the main supply source, like a Pyroswitch for immediate security in the automotive context. It is an actuator whose role is to physically disconnect the high-voltage battery of an EV in case of a crash and that must be powered directly from the high-voltage battery (of which voltage is close to 400V or even 800V nowadays) for the sake of reliability. In this perspective an isolated DC/DC converter with a high-input voltage capability and

a low-power, low-voltage output is required. Strong constraints appear on the specifications of this converter, due to the automotive context, in particular regarding its size, cost and efficiency. The approaches used today to design such a converter yield a low diversity in the proposed solutions. Most of them are based on a similar power stage architecture, that can be interesting in a low-cost perspective, but that shows some limitations in terms of performances (low maximum input voltage, low efficiency). Therefore, the design of an 800V-to-12V converter with an output power rating close to 1W cannot rely on a classical approach. The approach that is proposed in this work may be based on: an on-chip integration of an increased number of components of the DC/DC converter; and/or “power modules” created when assembling several discrete components. The thesis aims at using the benefits from both approaches to create the targeted converter. In particular, the integration of the active components allows to reassess the architecture of the power stage and to increase the frequency at which it may operate, enabling a size reduction in the passive components of the converter. The manuscript first presents an exploration of topologies of the power stage for the considered isolated DC/DC converter. The most interesting solutions are compared based on a few qualitative criteria and an architecture whose trade-off between size and performances seems the most suitable is identified: the multi-level flying-capacitor. The design of an integrated circuit (IC) is then described. A solution is considered to overcome the limitations of the selected integration technology (high-voltage bulk Silicon) with respect to device-to-device isolation. Then, the design methodology of a custom planar transformer suitable for high-voltage, low-power applications is introduced and several transformer designs are proposed and tested inside the complete converter. Finally, the converter is built using the various bricks created previously and the efficiency of the power stage is measured. The results of the best transformer designs are in-line with the specifications and offer a clear improvement with respect to state-of-the-art solutions, especially for the efficiency.

Electronic Design CRC Press

Vols. for 1970-71 includes manufacturers' catalogs.

Mechatronics for Production and Logistics EGBG Services LLC

Highly automated production and logistics facilities require mechatronic drive solutions. This book describes in which way the industrial production and logistics work and shows the structure of the drive solutions required for this purpose. The functionality of the mechanical and electronic elements of a drive system is described, and their basic dimensioning principles are explained. The authors also outline the engineering, reliability, and important aspects of the life cycle.

Power Quality in Power Systems and Electrical Machines Academic Press

Compiles current research into the analysis and design ofpower electronic converters for industrial applications andrenewable energy systems, presenting modern and future applicationsof power electronics systems in the field of electricalvehicles With emphasis on the importance and long-term viability of PowerElectronics for Renewable Energy this book brings together thestate of the art knowledge and cutting-edge techniques in variousstages of research. The topics included are not

currentlyavailable for practicing professionals and aim to enable the readerto directly apply the knowledge gained to their designs. The bookaddresses the practical issues of current and future electric andplug-in hybrid electric vehicles (PHEVs), and focuses primarily onpower electronics and motor drives based solutions for electricvehicle (EV) technologies. Propulsion system requirements and motorsizing for EVs is discussed, along with practical system sizingexamples. Key EV battery technologies are explained as well ascorresponding battery management issues. PHEV power systemarchitectures and advanced power electronics intensive charginginfrastructures for EVs and PHEVs are detailed. EV/PHEV interfacewith renewable energy is described, with practical examples. Thisbook explores new topics for further research needed world-wide,and defines existing challenges, concerns, and selected problemsthat comply with international trends, standards, and programs forelectric power conversion, distribution, and sustainable energydevelopment. It will lead to the advancement of the currentstate-of-the art applications of power electronics for renewableenergy, transportation, and industrial applications and will helpadd experience in the various industries and academia about theenergy conversion technology and distributed energysources. Combines state of the art global expertise to present thelatest research on power electronics and its application intransportation, renewable energy and different industrialapplications Offers an overview of existing technology and future trends,with discussion and analysis of different types of converters andcontrol techniques (power converters, high performance powerdevices, power system, high performance control system and novelapplications) Systematic explanation to provide researchers with enoughbackground and understanding to go deeper in the topics covered inthe book

Switching Power Converters Institute of Electrical & Electronics Engineers(IEEE)

This basic source for identification of U.S. manufacturers is arranged by product in a large multi-volume set. Includes: Products & services, Company profiles and Catalog file.

September 18 - 22, 2005 in Berlin ; Www.intelec2005.de

MDPI

An examination of all of the multidisciplinary aspects of medium- and high-power converter systems, including basic power electronics, digital control and hardware, sensors, analog preprocessing of signals, protection devices and fault management, and pulse-width-modulation (PWM) algorithms, Switching Power Converters: Medium and High Power, Second Edition discusses the actual use of industrial technology and its related subassemblies and components, covering facets of implementation otherwise overlooked by theoretical textbooks. The updated Second Edition contains many new figures, as well as new and/or improved chapters on: Thermal management and reliability Intelligent power modules AC/DC and DC/AC current source converters Multilevel converters Use of IPM within a "network of switches" concept Power semiconductors Matrix converters Practical aspects in building power converters Providing the latest research and development information, along with numerous examples of successful home appliance, aviation, naval, automotive electronics, industrial motor drive, and grid interface for renewable energy products, this edition highlights advancements in packaging technologies, tackles the advent of

hybrid circuits able to incorporate control and power stages within the same package, and examines design for reliability from the system level perspective.

Electronic Engineering ProceedingsSeptember 18 - 22, 2005 in Berlin ; Www.intelec2005.de

Modern power and energy systems are characterized by the wide integration of distributed generation, storage and electric vehicles, adoption of ICT solutions, and interconnection of different energy carriers and consumer engagement, posing new challenges and creating new opportunities. Advanced testing and validation methods are needed to efficiently validate power equipment and controls in the contemporary complex environment and support the transition to a cleaner and sustainable energy system. Real-time hardware-in-the-loop (HIL) simulation has proven to be an effective method for validating and de-risking power system equipment in highly realistic, flexible, and repeatable conditions. Controller hardware-in-the-loop (CHIL) and power hardware-in-the-loop (PHIL) are the two main HIL simulation methods used in industry and academia that contribute to system-level testing enhancement by exploiting the flexibility of digital simulations in testing actual controllers and power equipment. This book addresses recent advances in real-time HIL simulation in several domains (also in new and promising areas), including technique improvements to promote its wider use. It is composed of 14 papers dealing with advances in HIL testing of power electronic converters, power system protection, modeling for real-time digital simulation, co-simulation, geographically distributed HIL, and multiphysics HIL, among other topics.

AEI Butterworth-Heinemann

Power electronics, which is a rapidly growing area in terms of research and applications, uses modern electronics technology to convert electric power from one form to another, such as ac-dc, dc-dc, dc-ac, and ac-ac with a variable output magnitude and frequency. Power electronics has many applications in our every day life such as air-conditioners, electric cars, sub-way trains, motor drives, renewable energy sources and power supplies for computers. This book covers all aspects of switching devices, converter circuit topologies, control techniques, analytical methods and some examples of their applications. * 25% new content * Reorganized and revised into 8 sections comprising 43 chapters * Coverage of numerous applications, including uninterruptable power supplies and automotive electrical systems * New content in power generation and distribution, including solar power, fuel cells, wind turbines, and flexible transmission

Special Topics in Renewable Energy Systems John Wiley & Sons

Renewable energy is the answer for future energy demand. Renewable energy is the energy that occurs in a natural manner and utilizes unlimited resources. It is the solution for reducing the dependence on fossil fuels and diminishing greenhouse gas emission. It is the key for cleaner, greener, and sustainable energy. In today's world, increased energy needs and environmental and health concerns associated with traditional energy systems have made way for rapid progress in producing energy from renewable resources. However, large-scale integration of current technologies and newer approaches are still required for more efficient and cost-effective systems. This small

book is a collection of single research chapters dealing with biofuel generation and some recent methods for grid integration and storage problems. The editors would like to record their sincere thanks to the authors for their contributions.

Design of an Integrated High-voltage Low-power Isolated DC/DC Converter for Automotive Applications CRC Press

Issues for 1994-1995 included papers from the IUMRS-ICAM; issues for 1999-2002 include papers for all the symposia sponsored by the MRSJ.

Development of Transport by Telematics BoD – Books on Demand

Having trouble keeping up with the latest standards for external power supplies such as the California Energy Commission's (CEC) requirements for efficiency and no-load power consumption; or the implications of the 3rd Edition 60601 on Medical Safety? Ever wondered why seemingly similar power supplies have significantly different performance and reliability characteristics?The answers to these and many more questions can be found in this Essential Guide to Power Supplies.Whether you're new to designing-in a power supply or DC-DC converter or an 'old hand', this book offers an invaluable resource and all the information you'll need in one easy reference guide.

Machine Design Springer

This book covers advancements of power electronic converters and their control techniques for grid integration of large-scale renewable energy sources and electrical vehicles. Major emphasis are on transformer-less direct grid integration, bidirectional power transfer, compensation of grid power quality issues, DC system protection and grounding, interaction in mixed AC/DC system, AC and DC system stability, magnetic design for high-frequency high power density systems with advanced soft magnetic materials, modelling and simulation of mixed AC/DC system, switching strategies for enhanced efficiency, and protection and reliability for sustainable grid integration. This book is an invaluable resource for professionals active in the field of renewable energy and power conversion.

INTELEC Margret Schneider

This document brings together a set of latest data points and publicly available information relevant for Technology Industry. We are very excited to share this content and believe that readers will benefit from this periodic publication immensely.

5G-PINE 2021, AI-BIO 2021, DAAI 2021, DARE 2021, EEAI 2021, and MHDW 2021, Hersonissos, Crete, Greece, June 25–27, 2021, Proceedings Springer Nature

Power Quality in Power Systems and Electrical Machines, Second Edition helps readers understand the causes and effects of power quality problems and provides techniques to mitigate these problems. Power quality is a measure of deviations in supply systems and their components, and affects all connected electrical and electronic equipment, including computers, TV monitors, and lighting. In this book analytical and measuring techniques are applied to power quality problems as they occur in central power stations and distributed generation such as alternative power systems. Provides theoretical and practical insight into power quality problems; most books available are either geared to theory or practice only Problems and solutions at the end of each chapter dealing with practical applications Includes application examples implemented in SPICE,

Mathematica, and MATLAB

Advancements in Real-Time Simulation of Power and Energy Systems Springer Science & Business Media

The oceans cover 70% of the terrestrial surface, and exert a pervasive influence on the Earth's environment but their nature is poorly recognized. Knowing the ocean's role deeply and understanding the complex, physical, biological, chemical and geological systems operating within it represent a major challenge to scientists today. Seafloor observatories offer scientists new opportunites to study multiple, interrelated natural phenomena over time scales ranging from seconds to decades, from episodic to global and long-term processes. Seafloor Observatories poses the important and apparently simple question, "How can continuous and reliable monitoring at the seafloor by means of Seafloor Observatories extend exploration and improve knowledge of our planet?" The book leads the reader through: the present scientific challenges to be addressed with seafloor observatories the technical solutions for their architecture an excursus on worldwide ongoing projects and programmes some relevant scientific multidisciplinary results and a presentation of new and interesting long-term perspectives for the coming years. Current results will yield significant improvements and exert a strong impact not only on our present knowledge of our planet but also on human evolution.

High Efficiency Power Supply Using New SiC Devices John Wiley & Sons

The electrical power supply is about to change; future generation will increasingly take place in and near local neighborhoods with diminishing reliance on distant power plants. The existing grid is not adapted for this purpose as it is largely a remnant from the 20th century. Can the grid be transformed into an intelligent and flexible grid that is future proof? This revised edition of Electrical Power System Essentials contains not only an accessible, broad and up-to-date overview of alternating current (AC) power systems, but also end-of-chapter exercises in every chapter, aiding readers in their understanding of the material introduced. With an original approach the book covers the generation of electric energy from thermal power plants as from renewable energy sources and treats the incorporation of power electronic devices and FACTS. Throughout there are examples and case studies that back up the theory or techniques presented. The authors set out information on mathematical modelling and equations in appendices rather than integrated in the main text. This unique approach distinguishes it from other text books on Electrical Power Systems and makes the resource highly accessible for undergraduate students and readers without a technical background directly related to power engineering. After laying out the basics for a steady-state analysis of the three-phase power system, the book examines: generation, transmission, distribution, and utilization of electric energy wind energy, solar energy and hydro power power system protection and circuit breakers power system control and operation the organization of electricity markets and the changes currently taking place system blackouts future developments in power systems, HVDC connections and smart grids The book is supplemented by a companion website from which teaching materials can be downloaded.

I-Bytes Technology Industry Macmillan International Higher

Education
This book is open access under a CC BY 4.0 license. It relates to the III Annual Conference hosted by The Ministry of Education and Science of the Russian Federation in December 2016. This event has summarized, analyzed and discussed the interim results, academic outputs and scientific achievements of the Russian Federal Targeted Programme “Research and Development in Priority Areas of Development of the Russian Scientific and Technological Complex for 2014–2020.” It contains 75 selected papers from 6 areas considered priority by the Federal Targeted Programme: computer science, ecology & environment sciences; energy and energy efficiency; lifesciences; nanoscience & nanotechnology and transport & communications. The chapters report the results of the 3-years research projects supported by the Programme and finalized in 2016.
Electronic and Electrical Engineering, Solutions Manual(S/M) second edition. Institute of Electrical & Electronics Engineers(IEEE)
SMART CHARGING SOLUTIONS The most comprehensive and up-to-date study of smart charging solutions for hybrid and electric vehicles for engineers, scientists, students, and other professionals. As our dependence on fossil fuels continues to wane all over the world, demand for dependable and economically feasible energy sources continues to grow. As environmental regulations become more stringent, energy production is relying more and more heavily on locally available renewable resources. Furthermore, fuel consumption and emissions are facilitating the transition to sustainable transportation. The market for electric vehicles (EVs) has been increasing steadily over the past few years throughout the world. With the increasing popularity of EVs, a competitive market between charging stations (CSS) to attract more EVs is expected. This outstanding new volume is a resource for engineers, researchers, and practitioners interested in getting acquainted with smart charging for electric vehicles technologies. It includes many chapters dealing with the state-of-the-art studies on EV smart charging along with charging infrastructure. Whether for the veteran engineer or student, this is a must-have volume for any library. Smart Charging Solutions for Hybrid and Electric Vehicles: Presents the state of the art of smart charging for hybrid and electric vehicles, from a technological point of view Focuses on optimization and prospective solutions for practical problems Covers the most important recent developmental technologies related to renewable energy, to keep the engineer up to date and well informed Includes economic considerations, such as business models and price structures Covers standards and regulatory frameworks for smart charging solutions
Artificial Intelligence Applications and Innovations. AIAI 2021 IFIP WG 12.5 International Workshops Springer
Practical Guide to International Standardization for Electrical Engineering provides a comprehensive guide to the purpose of standards organizations, their relationship to product development and how to use the standardization process for cost-effective new product launch. It covers major standardization organizations in the field of Electrical Engineering offering a general overview of the varying structures of national standardization organizations, their goals and targets. Key questions for standardization are answered giving the reader

guidance on how to use national and international standards in the electrical business. When shall the company start to enter standardization? How to evaluate the standardization in relationship to the market success? What are the interactions of innovations and market access? What is the cost of standardization? What are the gains for our experts in standardization? Key features: Provides guidance on how to use national and international standards in the electrical business. Global active standardization bodies featured include IEEE, IEC and CIGRE as well as regional organizations like CENELEC for Europe, SAC for China, DKE for Germany, and ANSI for USA. Case studies demonstrate how standardization affects the business and how it may block or open markets. Explains the multiple connections and influences between the different standardization organizations on international, regional or national levels and regulatory impact to the standardization processes. Two detailed focused case studies, one on Smart Grid and one on Electro-Mobility, show the influence and the work of international standardization. The case studies explain how innovative technical developments are promoted by standards and what are the roles of standardization organizations are. A valuable reference for electrical engineers, designers, developers, test engineers, sales engineers, marketing engineers and users of electrical equipment as well as authorities and business planners to use and work with standards.