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Integral Methods in Science and Engineering Theoretical and Practical Aspects Springer Science & Business Media The quantitative and qualitative study of the physical world makes use of many mathematical models governed by a great diversity of ordinary, partial differential, integral, and integro-differential equations. An essential step in such investigations is the solution of these types of equations, which sometimes can be performed analytically, while at other times only numerically. This edited, self-contained volume presents a series of state-of-the-art analytic and numerical methods of solution constructed for important problems arising in science and engineering, all based on the powerful operation of (exact or approximate) integration. The volume may be used as a reference guide and a practical resource. It is suitable for researchers and practitioners in applied mathematics, physics, and mechanical and electrical engineering, as well as graduate students in these disciplines.

Integral Methods in Science and Engineering Computational and Analytic Aspects Birkhäuser An enormous array of problems encountered by scientists and engineers are based on the design of mathematical models using many different types of ordinary differential, partial differential, integral, and integro-differential equations. Accordingly, the solutions of these equations are of great interest to practitioners and to science in general. Presenting a wealth of cutting-edge research by a diverse group of experts in the field, *Integral Methods in Science and Engineering: Computational and Analytic Aspects* gives a vivid picture of both the development of theoretical integral techniques and their use in specific science and engineering problems. This book will be valuable for researchers in applied mathematics, physics, and mechanical and electrical engineering. It will likewise be a useful study guide for graduate students in these disciplines, and for various other professionals who use integration as an essential technique in their work. **Integral Methods in Science and Engineering, Volume 2 Computational Methods** Birkhäuser The two volumes contain 65 chapters, which are based on talks presented by reputable researchers in the field at the Tenth International Conference on Integral Methods in Science and Engineering. The chapters address a wide variety of methodologies, from the construction of boundary integral methods to the application of integration-based analytic and computational techniques in almost all aspects of today's technological world. Both volumes are useful references for a broad audience of professionals, including pure and applied mathematicians, physicists, biologists, and mechanical, civil, and electrical engineers, as well as graduate students, who use integration as a fundamental technique in their research. **Integral Methods in Science and Engineering, Volume 1 Analytic Methods** Birkhäuser The two volumes contain 65 chapters, which are based on talks presented by reputable researchers in the field at the Tenth International Conference on Integral Methods in Science and Engineering. The chapters address a wide variety of methodologies, from the construction of boundary integral methods to the application of integration-based analytic and computational techniques in almost all aspects of today's technological world. Both volumes are useful references for a broad audience of professionals, including pure and applied mathematicians, physicists, biologists, and mechanical, civil, and electrical engineers, as well as graduate students, who use integration as a fundamental technique in their research.

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Integral Methods in Science and Engineering Progress in Numerical and Analytic Techniques Springer Science & Business Media Advances in science and technology are driven by the development of rigorous mathematical foundations for the study of both theoretical and experimental models. With certain methodological variations, this type of study always comes down to the application of analytic or computational integration procedures, making such tools indispensable. With a wealth of cutting-edge research in the field, *Integral Methods in Science and Engineering: Progress in Numerical and Analytic Techniques* provides a detailed portrait of both the construction of theoretical integral techniques and their application to specific problems in science and engineering. The chapters in this volume are based on talks given by well-known researchers at the Twelfth International Conference on Integral Methods in Science and Engineering, July 23-27, 2012, in Porto Alegre, Brazil. They address a broad range of topics, from problems of existence and uniqueness for singular integral equations on domain boundaries to numerical integration via finite and boundary elements, conservation laws, hybrid methods, and other quadrature-related approaches. The contributing authors bring their expertise to bear on a number of topical problems that have to date resisted solution, thereby offering help and guidance to fellow professionals worldwide. *Integral Methods in Science and Engineering: Progress in Numerical and Analytic Techniques* will be a valuable resource for researchers in applied mathematics, physics, and mechanical and electrical engineering, for graduate students in these disciplines, and for various other professionals who use integration as an essential tool in their work. **Mathematics for Electrical Engineering and Computing** Elsevier Mathematics for Electrical Engineering and Computing embraces many applications of modern mathematics, such as Boolean Algebra and Sets and Functions, and also teaches both discrete and continuous systems - particularly vital for Digital Signal Processing (DSP). In addition, as most modern engineers are required to study software, material suitable for Software Engineering - set theory, predicate and prepositional calculus, language and graph theory - is fully integrated into the book. Excessive technical detail and language are avoided, recognising that the real requirement for practising engineers is the need to understand the applications of mathematics in everyday engineering contexts. Emphasis is given to an appreciation of the fundamental concepts behind the mathematics, for problem solving and undertaking critical analysis of results, whether using a calculator or a computer. The text is backed up by numerous exercises and worked examples throughout, firmly rooted in engineering practice, ensuring that all mathematical theory introduced is directly relevant to real-world engineering. The book includes introductions to advanced topics such as Fourier analysis, vector calculus and random processes, also making this a suitable introductory text for second year undergraduates of electrical, electronic and computer engineering, undertaking engineering mathematics courses. Dr Attenborough is a former Senior Lecturer in the School of Electrical, Electronic and Information Engineering at South Bank University. She is currently Technical Director of The Webbery - Internet development company, Co. Donegal, Ireland. Fundamental principles of mathematics introduced and applied in engineering practice, reinforced through over 300 examples directly relevant to real-world engineering **Integration of Software Specification Techniques for Applications in Engineering Priority Program SoftSpez of the German Research Foundation (DFG) Final Report** Springer This book constitutes the documentation of the scientific outcome of the priority program Integration of Software Specification Techniques for Applications in Engineering sponsored by the German Research Foundation (DFG). It includes main contributions of the projects of the priority program and of additional international experts in the field. Some of the papers included were presented at the related Third International Workshop on the topic, INT 2004, held in Barcelona, Spain in March 2004. The 25 revised full papers presented together with 6 section introductions by the volume editors were carefully reviewed and selected for inclusion in the book. The papers are organized in topical sections on reference case study production automation, reference case study traffic control systems, petri nets and related approaches in engineering, charts, verification, and integration modeling. **Integration of Nature and Technology for Smart Cities** Springer This book is a resumption of the work "Integrated M/E Design: Building Systems Engineering" published by Anil Ahuja in 1997. Together with an international group of authors from the engineering, urban planning, and architecture fields, Mr. Ahuja discussed new trends and paradigms in the smart buildings and smart city sectors and extended the topic of the previous publication from the building to the entire city. A smart, sustainable building is not just about the building itself. There are things happening in the inside of the building and on the outside. A smart building connects the inside with the outside, provides efficiencies on both sides, synchronizes the outside infrastructure with its inside systems, and integrates nature and its occupants in its design. A smart building doesn't just provide technology solutions. It is about constant exchange between the inside and the outside of the building, the contribution of the building to the quality of the entire neighborhood and the rest of the city, how the smart building can connect people in a sharing community, and how technology can be the key to make it happen. **Integrated M/E Design Building Systems Engineering** Springer Science & Business Media Taking a multidisciplinary approach, this long-needed, single-source reference, provides a wealth of knowledge, ranging from the basics of building systems to explanations of why systems need to be integrated, and how integration provides a basis for increased reliability and economic growth. The book delves further, exploring environmentally responsible design through the integration of natural site resources with building systems and the impact of modern technology on buildings. *Integrated M/E Design* examines a wide range of issues at the core of the electronically operated, economically constrained, politically controlled, and environmentally responsible, contemporary business environment. **Integral Methods in Science and Engineering Progress in Numerical and Analytic Techniques** Birkhäuser Advances in science and technology are driven by the development of rigorous mathematical foundations for the study of both theoretical and experimental models. With certain methodological variations, this type of study always comes down to the application of analytic or computational integration procedures, making such tools indispensable. With a wealth of cutting-edge research in the field, *Integral Methods in Science and Engineering: Progress in Numerical and Analytic Techniques* provides a detailed portrait of both the construction of theoretical integral techniques and their application to specific problems in science and engineering. The chapters in this volume are based on talks given by well-known researchers at the Twelfth International Conference on Integral Methods in Science and Engineering, July 23-27, 2012, in Porto Alegre, Brazil. They address a broad range of topics, from problems of existence and uniqueness for singular integral equations on domain boundaries to numerical integration via finite and boundary elements, conservation laws, hybrid methods, and other quadrature-related approaches. The contributing authors bring their expertise to bear on a number of topical problems that have to date resisted solution, thereby offering help and guidance to fellow professionals worldwide. *Integral Methods in Science and Engineering: Progress in Numerical and Analytic Techniques* will be a valuable resource for researchers in applied mathematics, physics, and mechanical and electrical engineering, for graduate students in these disciplines, and for various other professionals who use integration as an essential tool in their work. **Electrical Engineering Integration Technologies for Industrial Automated Systems** CRC Press If there exists a single term that summarizes the key to success in modern industrial automation, the obvious choice would be integration. Integration is critical to aligning all levels of an industrial enterprise and to optimizing each stratum in the hierarchy. While many books focus on the technological components of enterprise information systems, *Integration Technologies for Industrial Automated Systems* is the first book to present a comprehensive picture of the technologies, methodologies, and knowledge used to integrate seamlessly the various technologies underlying modern industrial automation and information systems. In chapters drawn from two of Zurawski's popular works, *The Industrial Communication Technology Handbook* and *The Industrial Information Technology Handbook*, this practical guide offers tutorials, surveys, and technology overviews contributed by experts from leading industrial and research institutions from around the world. The book is organized into sections for cohesive and comprehensive treatment. It examines e-technologies, software and IT technologies, communication network-based technologies, agent-based technologies, and security in detail as well as their role in the integration of industrial automated systems. For each of these areas, the contributors discuss emerging trends, novel solutions, and relevant standards. Charting the course toward more responsive and agile enterprise, *Integration Technologies for Industrial Automated Systems* gives you the tools to make better decisions and develop more integrated systems. **Integral Methods in Science and Engineering Applications in Theoretical and Practical**

Research Birkhäuser This contributed volume contains a collection of articles on state-of-the-art developments on the construction of theoretical integral techniques and their application to specific problems in science and engineering. Chapters in this book are based on talks given at the Symposium on the Theory and Applications of Integral Methods in Science and Engineering, held virtually in July 2021, and are written by internationally recognized researchers. This collection will be of interest to researchers in applied mathematics, physics, and mechanical and electrical engineering, as well as graduate students in these disciplines and other professionals for whom integration is an essential tool. **Handbook for Electrical Engineers A Reference Book for Practicing Engineers and Students of Engineering Proceedings of the American Institute of Electrical Engineers Integration of Green and Renewable Energy in Electric Power Systems** John Wiley & Sons A practical, application-oriented text that presents analytical results for the better modeling and control of power converters in the integration of green energy in electric power systems. The combined technology of power semiconductor switching devices, pulse width modulation algorithms, and control theories are being further developed along with the performance improvement of power semiconductors and microprocessors so that more efficient, reliable, and cheaper electric energy conversion can be achieved within the next decade. *Integration of Green and Renewable Energy in Electric Power Systems* covers the principles, analysis, and synthesis of closed loop control of pulse width modulated converters in power electronics systems, with special application emphasis on distributed generation systems and uninterruptible power supplies. The authors present two versions of a documented simulation test bed for homework problems and projects based on Matlab/Simulink, designed to help readers understand the content through simulations. The first consists of a number of problems and projects for classroom teaching convenience and learning. The second is based on the most recent work in control of power converters for the research of practicing engineers and industry researchers. Addresses a combination of the latest developments in control technology of pulse width modulation algorithms and digital control methods. Problems and projects have detailed mathematical modeling, control design, solution steps, and results. Uses a significant number of tables, circuit and block diagrams, and waveform plots with well-designed, class-tested problems/solutions and projects designed for the best teaching-learning interaction. Provides computer simulation programs as examples for ease of understanding and platforms for the projects. Covering major power-conversion applications that help professionals from a variety of industries, *Integration of Green and Renewable Energy in Electric Power Systems* provides practical, application-oriented system analysis and synthesis that is instructional and inspiring for practicing electrical engineers and researchers as well as undergraduate and graduate students. **Integral Methods in Science and Engineering** Springer **Integral Methods in Science and Engineering Theoretical and Practical Aspects** Birkhäuser The quantitative and qualitative study of the physical world makes use of many mathematical models governed by a great diversity of ordinary, partial differential, integral, and integro-differential equations. An essential step in such investigations is the solution of these types of equations, which sometimes can be performed analytically, while at other times only numerically. This edited, self-contained volume presents a series of state-of-the-art analytic and numerical methods of solution constructed for important problems arising in science and engineering, all based on the powerful operation of (exact or approximate) integration. The volume may be used as a reference guide and a practical resource. It is suitable for researchers and practitioners in applied mathematics, physics, and mechanical and electrical engineering, as well as graduate students in these disciplines. **An Integrated Course in Electrical Engineering Transactions of the American Institute of Electrical Engineers System Integration From Transistor Design to Large Scale Integrated Circuits** John Wiley & Sons Drawing on his vast experience in both academia and industry, author Kurt Hoffmann sets out to address a wide range of issues relating to the design and integration of integrated circuit components and provides readers with the methodology by which simple equations for the estimation of transistor geometries and circuit behaviors can be deduced. **Applying Integration Techniques and Methods in Distributed Systems and Technologies** IGI Global Distributed systems intertwine with our everyday lives. The benefits and current shortcomings of the underpinning technologies are experienced by a wide range of people and their smart devices. With the rise of large-scale IoT and similar distributed systems, cloud bursting technologies, and partial outsourcing solutions, private entities are encouraged to increase their efficiency and offer unparalleled availability and reliability to their users. *Applying Integration Techniques and Methods in Distributed Systems* is a critical scholarly publication that defines the current state of distributed systems, determines further goals, and presents architectures and service frameworks to achieve highly integrated distributed systems and presents solutions to integration and efficient management challenges faced by current and future distributed systems. Highlighting topics such as multimedia, programming languages, and smart environments, this book is ideal for system administrators, integrators, designers, developers, researchers, and academicians. **Foundations and Frontiers in Computer, Communication and Electrical Engineering Proceedings of the 3rd International Conference C2E2, Mankundu, West Bengal, India, 15th-16th January, 2016.** CRC Press The 3rd International Conference on Foundations and Frontiers in Computer, Communication and Electrical Engineering is a notable event which brings together academia, researchers, engineers and students in the fields of Electronics and Communication, Computer and Electrical Engineering making the conference a perfect platform to share experience. **The Proceedings of the 9th Frontier Academic Forum of Electrical Engineering Volume I** 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. **Integrated Electrical and Electronic Engineering for Mechanical Engineers** McGraw-Hill Book Company Limited Basic electrical technology. Analogue electronics. Electrical actuators. **Control of Power Inverters in Renewable Energy and Smart Grid Integration** John Wiley & Sons Integrating renewable energy and other distributed energysources into smart grids, often via power inverters, is arguably the largest "new frontier" for smart grid advancements. Inverters should be controlled properly so that their integration does not jeopardize the stability and performance of power systems and a solid technical backbone is formed to facilitate other functions and services of smart grids. This unique reference offers systematic treatment of important control problems in power inverters, and different general converter theories. Starting at a basic level, it presents conventional power conversion methodologies and then 'non-conventional' methods, with a highly accessible summary of the latest developments in power inverters as well as insight into the grid connection of renewable power. Consisting of four parts - Power Quality Control, Neutral Line Provision, Power Flow Control, and Synchronisation - this book fully demonstrates the integration of control and power electronics. Key features include: the fundamentals of power processing and hardware design innovative control strategies to systematically treat the control of power inverters extensive experimental results for most of the control strategies presented the pioneering work on "synchronverters" which has gained IET Highly Commended Innovation Award Engineers working on inverter design and those at power system utilities can learn how advanced control strategies could improve system performance and work in practice. The book is a useful reference for researchers who are interested in the area of control engineering, power electronics, renewable energy and distributed generation, smart grids, flexible AC transmission systems, and power systems for more-electric aircraft and all-electric ships. This is also a handy text for graduate students and university professors in the areas of electrical power engineering, advanced control engineering, power electronics, renewable energy and smart grid integration. **Integral Methods in Science and Engineering Theoretical and Computational Advances** Birkhäuser This contributed volume contains a collection of articles on state-of-the-art developments on the construction of theoretical integral techniques and their application to specific problems in science and engineering. Written by internationally recognized researchers, the chapters in this book are based on talks given at the Thirteenth International Conference on Integral Methods in Science and Engineering, held July 21-25, 2014, in Karlsruhe, Germany. A broad range of topics is addressed, from problems of existence and uniqueness for singular integral equations on domain boundaries to numerical integration via finite and boundary elements, conservation laws, hybrid methods, and other quadrature-related approaches. This collection will be of interest to researchers in applied mathematics, physics, and mechanical and electrical engineering, as well as graduate students in these disciplines and other professionals for whom integration is an essential tool. **The Electrical Review Issues in Electronics Research and Application: 2012 Edition** ScholarlyEditions *Issues in Electronics Research and Application: 2012 Edition* is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Electronics Research. The editors have built *Issues in Electronics Research and Application: 2012 Edition* on the vast information databases of ScholarlyNews™. You can expect the information about Electronics Research in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of *Issues in Electronics Research and Application: 2012 Edition* has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at <http://www.ScholarlyEditions.com/>. **Electric, Electronic and Control Engineering Proceedings of the 2015 International Conference on Electric, Electronic and Control Engineering (ICEECE 2015), Phuket Island, Thailand, 5-6 March 2015** CRC Press *Electric, Electronic and Control Engineering* (ICEECE 2015, Phuket Island, Thailand, 5-6 March 2015). The book is divided into four main topics: - Electric and Electronic Engineering - Mechanic and Control Engineering - Information **Electrical Modeling and Design for 3D System Integration 3D Integrated Circuits and Packaging, Signal Integrity, Power Integrity and EMC** John Wiley & Sons New advanced modeling methods for simulating the electromagnetic properties of complex three-dimensional electronic systems. Based on the author's extensive research, this book sets forth tested and proven electromagnetic modeling and simulation methods for analyzing signal and power integrity as well as electromagnetic interference in large complex electronic interconnects, multilayered package structures, integrated circuits, and printed circuit boards. Readers will discover the state of the technology in electronic package integration and printed circuit board simulation and modeling. In addition to popular full-wave electromagnetic computational methods, the book presents new, more sophisticated modeling methods, offering readers the most advanced tools for analyzing and designing large complex electronic structures. *Electrical Modeling and Design for 3D System Integration* begins with a comprehensive review of current modeling and simulation methods for signal integrity, power integrity, and electromagnetic compatibility. Next, the book guides readers through: The macromodeling technique used in the electrical and electromagnetic modeling and simulation of complex interconnects in three-dimensional integrated systems The semi-analytical scattering matrix method based on the N-body scattering theory for modeling of three-dimensional electronic package and multilayered printed circuit boards with multiple vias Two- and three-dimensional integral equation methods for the analysis of power distribution networks in three-dimensional package integrations The physics-based algorithm for extracting the equivalent circuit of a complex power distribution network in three-dimensional integrated systems and printed circuit boards An equivalent circuit model of through-silicon vias Metal-oxide-semiconductor capacitance effects of through-silicon vias Engineers, researchers, and students can turn to this book for the latest techniques and methods for the electrical modeling and design of electronic packaging, three-dimensional electronic integration, integrated circuits, and printed circuit boards. **Pedagogical Applications and Social Effects of Mobile Technology Integration** IGI Global With the rapid development of emerging technology tools, the digital nature of learning environments continues to change traditional forms of education. Therefore, knowledge of these changes for incorporation into classroom instruction is necessary. *Pedagogical Applications and Social Effects of Mobile Technology Integration* analyzes possible solutions over the concerns and issues surrounding mobile technology integration into the classroom. This book is an essential resource for professionals, researchers, and technology leaders interested in providing a direction for the future of classroom technology. **Electric Vehicle Integration in a Smart Microgrid Environment** CRC Press *Electric Vehicle Integration in a Smart Microgrid Environment* The growing demand for energy in today's world, especially in the Middle East and Southeast Asia, has been met with massive exploitation of fossil fuels, resulting in an increase in environmental pollutants. In order to mitigate the issues arising from conventional internal combustion engine-powered vehicles, there has been a considerable acceleration in the adoption of electric vehicles (EVs). Research has shown that the impact of fossil fuel use in transportation and surging demand in power owing to the growing EV charging infrastructure can potentially be minimized by smart microgrids. As EVs find wider acceptance with major advancements in high efficiency drivetrain and vehicle design, it has become clear that there is a need for a system-level understanding of energy storage and management in a microgrid environment. Practical issues, such as fleet management, coordinated operation, repurposing of batteries, and environmental impact of recycling and disposal, need to be carefully studied in the context of an ageing grid infrastructure. This book explores such a perspective with contributions from leading experts on planning, analysis, optimization, and management of electrified transportation and the transportation infrastructure. The primary purpose of this book is to capture state-of-the-art development in smart microgrid management with EV integration and their applications. It also aims to identify potential research directions and technologies that will facilitate insight generation in various domains, from smart homes to smart cities, and within industry, business, and consumer applications. We expect the book to serve as a reference for a larger audience, including power system architects, practitioners, developers, new researchers, and graduate-level students, especially for emerging clean energy and transportation electrification sectors in the Middle East and Southeast Asia. **Integration of Electric Vehicles and Battery Storage Systems** MDPI Achieving the goal of green and environmentally friendly energy systems is not possible without the concept of energy storage. Such storage should charge when renewable generation, e.g., photovoltaics and wind farms, is abundant and discharge during periods of its scarcity. Although pumped hydropower plants have been widely used as extremely large capacity energy storage, the recent technological developments in lithium-based batteries have made them economically feasible. The major advantages of batteries over a conventional energy storage system, i.e., hydropower, include its modularity and ease of integration with the transport system. This Special Issue is thus focused on both stationary batteries and mobile

batteries in electric vehicles. Both should be used to provide flexibility and balancing services to power systems. While stationary batteries are focused solely on the power system, the batteries within electric vehicles need to primarily fulfill the task of providing energy for transportation. This is why their use in power systems is secondary. However, due to generally long parking periods, they can become a detrimental asset in terms of balancing the power system. **Silicon Analog Components Device Design, Process Integration, Characterization, and Reliability** Springer This book covers modern analog components, their characteristics, and interactions with process parameters. It serves as a comprehensive guide, addressing both the theoretical and practical aspects of modern silicon devices and the relationship between their electrical properties and processing conditions. Based on the authors' extensive experience in the development of analog devices, this book is intended for engineers and scientists in semiconductor research, development and manufacturing. The problems at the end of each chapter and the numerous charts, figures and tables also make it appropriate for use as a text in graduate and advanced undergraduate courses in electrical engineering and materials science. Enables engineers to understand analog device physics, and discusses important relations between process integration, device design, component characteristics, and reliability; Describes in step-by-step fashion the components that are used in analog designs, the particular characteristics of analog components, while comparing them to digital applications; Explains the second-order effects in analog devices, and trade-offs between these effects when designing components and developing an integrated process for their manufacturing. **Integral Methods in Science and Engineering, Volume 2 Computational Methods** Springer Science & Business Media The two volumes contain 65 chapters, which are based on talks presented by reputable researchers in the field at the Tenth International Conference on Integral Methods in Science and Engineering. The chapters address a wide variety of methodologies, from the construction of boundary integral methods to the application of integration-based analytic and computational techniques in almost all aspects of today's technological world. Both volumes are useful references for a broad audience of professionals, including pure and applied mathematicians, physicists, biologists, and mechanical, civil, and electrical engineers, as well as graduate students, who use integration as a fundamental technique in their research. **Electric Vehicle Integration via Smart Charging Technology, Standards, Implementation, and Applications** Springer Nature This book brings together important new contributions covering electric vehicle smart charging (EVSC) from a multidisciplinary group of global experts, providing a comprehensive look at EVSC and its role in meeting long-term goals for decarbonization of electricity generation and transportation. This multidisciplinary reference presents practical aspects and approaches to the technology, along with evidence from its applications to real-world energy systems. Electric Vehicle Integration via Smart Charging is suitable for practitioners and industry stakeholders working on EVSC, as well as researchers and developers from different branches of engineering, energy, transportation, economic, and operation research fields.