

Gm Wireless Charging Compatible Devices Cadillac

Popular Science gives our readers the information and tools to improve their technology and their world. The core belief that Popular Science and our readers share: The future is going to be better, and science and technology are the driving forces that will help make it better.

Lithium-Ion Batteries Hazard and Use Assessment examines the usage of lithium-ion batteries and cells within consumer, industrial and transportation products, and analyzes the potential hazards associated with their prolonged use. This book also surveys the applicable codes and standards for lithium-ion technology. Lithium-Ion Batteries Hazard and Use Assessment is designed for practitioners as a reference guide for lithium-ion batteries and cells. Researchers working in a related field will also find the book valuable.

First Published in 2001. Routledge is an imprint of Taylor & Francis, an informa company.

A Novel

Web Radio

Lithium-Ion Batteries Hazard and Use Assessment

IBM ZPDT Guide and Reference

Deep Brain Stimulation Think Tank: Updates in Neurotechnology and Neuromodulation, Volume II

Overcoming Barriers to Deployment of Plug-in Electric Vehicles

Earth Day celebrates our beautiful planet and calls us to act on its behalf. Some people spend the day planting flowers or trees. Others organize neighborhood clean-ups, go on nature walks, or make recycled crafts. Readers will discover how a shared holiday can have multiple traditions and be celebrated in all sorts of ways.

A masterful follow-up to the New York Times bestseller All the Missing Girls—the gripping story of a journalist who sets out to find her missing friend, a woman who may never have existed at all. “Think: Luckiest Girl Alive, The Girl on the Train, Gone Girl” (TheSkimm). When Leah Stevens’ career implodes, a chance meeting with her old friend Emmy Grey offers her the perfect opportunity to start over. Emmy, just out of a bad relationship, convinces Leah to come live with her in rural Pennsylvania, where there are teaching positions available and no one knows Leah’s past. Or Emmy’s. Then there’s a wave of vicious crimes in the community and Emmy Grey disappears, and Leah realizes how very little she knows about her friend and roommate. Unable to find friends, family, a paper trail or a digital footprint, the police question whether Emmy Grey existed at all. And mark Leah as a prime suspect. Fighting the doubts of the police and her own sanity, Leah must uncover the truth about Emmy Grey—and along the way, confront her old demons, find out who she can really trust, and clear her own name. Deep, dark, and irresistibly twisty, “Megan Miranda’s eerie suspense thriller...smartly examines the slippery theme of personal identity” (The New York Times Book Review).

Industrial revolutions have impacted both, manufacturing and service. From the steam engine to digital automated production, the industrial revolutions have conducted significant changes in operations and supply chain management (SCM) processes. Swift changes in manufacturing and service systems have led to phenomenal improvements in productivity. The fast-paced environment brings new challenges and opportunities for the companies that are associated with the adaptation to the new concepts such as Internet of Things (IoT) and Cyber Physical Systems, artificial intelligence (AI), robotics, cyber security, data analytics, block chain and cloud technology. These emerging technologies facilitated and expedited the birth of Logistics 4.0. Industrial Revolution 4.0 initiatives in SCM has attracted stakeholders’ attentions due to it is ability to empower using a set of technologies together that helps to execute more efficient production and distribution systems. This initiative has been called Logistics 4.0 of the fourth Industrial Revolution in SCM due to its high potential. Connecting entities, machines, physical items and enterprise resources to each other by using sensors, devices and the internet along the supply chains are the main attributes of Logistics 4.0. IoT enables customers to make more suitable and valuable decisions due to the data-driven structure of the Industry 4.0 paradigm. Besides that, the system’s ability of gathering and analyzing information about the environment at any given time and adapting itself to the rapid changes add significant value to the SCM processes. In this peer-reviewed book, experts from all over the world, in the field present a conceptual framework for Logistics 4.0 and provide examples for usage of Industry 4.0 tools in SCM. This book is a work that will be beneficial for both practitioners and students and academicians, as it covers the theoretical framework, on the one hand, and includes examples of practice and real world.

Voice & Data

Popular Science

Radio Production for Internet Streaming

Twenty Lectures on Algorithmic Game Theory

The Next Big Thing

The Thinking Man’s Guide to Pleasuring a Woman

This is a print on demand edition of a hard to find publication. Explores whether sufficient data exists to examine the temporal and spatial relationships that existed in terrorist group planning, and if so, could patterns of preparatory conduct be identified?

About one-half of the terrorists resided, planned, and prepared for terrorism relatively close to their eventual target. The terrorist groups existed for 1,205 days from the first planning meeting to the date of the actual/planned terrorist incident. The planning process for specific acts began 2-3 months prior to the terrorist incident. This study examined selected terrorist groups/incidents in the U.S. from 1980-2002. It provides for the potential to identify patterns of conduct that might lead to intervention prior to the commission of the actual terrorist incidents. Illustrations.

Enables engineers and researchers to understand the fundamentals and applications of device-to-device communications and its optimization in wireless networking.

This IBM® Redbooks® publication provides both introductory information and technical details about the IBM System z® Personal Development Tool (IBM zPDT®), which produces a small System z environment suitable for application development. zPDT is a PC Linux application. When zPDT is installed (on Linux), normal System z operating systems (such as IBM z/OS®) can be run on it. zPDT provides the basic System z architecture and emulated IBM 3390 disk drives, 3270 interfaces, OSA interfaces, and so on. The systems that are discussed in this document are complex. They have elements of Linux (for the underlying PC machine), IBM z/Architecture® (for the core zPDT elements), System z I/O functions (for emulated I/O devices), z/OS (the most common System z operating system), and various applications and subsystems under z/OS. The reader is assumed to be familiar with general concepts and terminology of System z hardware and software elements, and with basic PC Linux characteristics. This book provides the primary documentation for zPDT.

Op Amps for Everyone

Electromechanically Active Polymers

Your Life, Liberty, and Happiness After the Digital Explosion

The Perfect Stranger

Wireless Power Transfer

Mobile Phone Programming

GaN Power Devices and Applications

GaN is considered the most promising material candidate in next-generation power device applications, owing to its unique material properties, for example, bandgap, high breakdown field, and high electron mobility.

Therefore, GaN power device technologies are listed as the top priority to be developed in many countries, including the United States, the European Union, Japan, and China. This book presents a comprehensive overview of

GaN power device technologies, for example, material growth, property analysis, device structure design, fabrication process, reliability, failure analysis, and packaging. It provides useful information to both students and researchers in academic and related industries working on GaN power devices. GaN wafer growth technology is from Enkris Semiconductor, currently one of the leading players in commercial GaN wafers. Chapters 3 and 7, on the GaN transistor fabrication process and GaN vertical power devices, are edited by Dr. Zhihong Liu, who has been working on GaN devices for more than ten years. Chapters 2 and 5, on the characteristics of polarization effects and the original demonstration of AlGaN/GaN heterojunction field-effect transistors, are written by researchers from Southwest Jiaotong University. Chapters 6, 8, and 9, on surface passivation, reliability, and package technologies, are edited by a group of researchers from the Southern University of Science and Technology of China.

'Blown to Bits' is about how the digital explosion is changing everything. The text explains the technology, why it creates so many surprises and why things often don't work the way we expect them to. It is also about things the information explosion is destroying: old assumptions about who is really in control of our lives.

Logistics 4.0

and its Application to Wireless Networking

Wireless Device-to-Device Communications and Networks

Lithium-Ion Batteries: Basics and Applications

Emergency Medical Services

Inductance Calculations

In the past few years, interest in plug-in electric vehicles (PEVs) has grown. Advances in battery and other technologies, new federal standards for carbon-dioxide emissions and fuel economy, state zero-emission-vehicle requirements, and the current administration's goal of putting millions of alternative-fuel vehicles on the road have all highlighted PEVs as a transportation alternative. Consumers are also beginning to recognize the advantages of PEVs over conventional vehicles, such as lower operating costs, smoother operation, and better acceleration; the ability to fuel up at home; and zero tailpipe emissions when the vehicle operates solely on its battery. There are, however, barriers to PEV deployment, including the vehicle cost, the short all-electric driving range, the long battery charging time, uncertainties about battery life, the few choices of vehicle models, and the need for a charging infrastructure to support PEVs. What should industry do to improve the performance of PEVs and make them more attractive to consumers? At the request of Congress, Overcoming Barriers to Deployment of Plug-in Electric Vehicles identifies barriers to the introduction of electric vehicles and recommends ways to mitigate these barriers. This report examines the characteristics and capabilities of electric vehicle technologies, such as cost, performance, range, safety, and durability, and assesses how these factors might create barriers to widespread deployment. Overcoming Barriers to Deployment of Plug-in Electric Vehicles provides an overview of the current status of PEVs and makes recommendations to spur the industry and increase the attractiveness of this promising technology for consumers. Through consideration of consumer behaviors, tax incentives, business models, incentive programs, and infrastructure needs, this book studies the state of the industry and makes recommendations to further its development and acceptance.

GaN Power Devices and Applications, provides an update on gallium nitride (GaN) technology and applications by leading experts. It includes detailed descriptions of the latest examples of GaN's usage in power supplies, lidar systems, motor drives, and space applications.

The handbook focuses on a complete outline of lithium-ion batteries. Just before starting with an exposition of the fundamentals of this system, the book gives a short explanation of the newest cell generation. The most important elements are described as negative / positive electrode materials, electrolytes, seals and separators. The battery disconnect unit and the battery management system are important parts of modern lithium-ion batteries. An economical, faultless and efficient battery production is a must today and is represented with one chapter in the handbook. Cross-cutting issues like electrical, chemical, functional safety are further topics. Last but not least standards and transportation themes are the final chapters of the handbook. The different topics of the handbook provide a good knowledge base not only for those working daily on electrochemical energy storage, but also to scientists, engineers and students concerned in modern battery systems.

Conference Proceedings

She Comes First

Billboard

The Communications Magazine

Pre-Incident Indicators of Terrorist Incidents

Rethinking Transportation 2020-2030

In its 114th year, Billboard remains the world's premier weekly music publication and a diverse digital, events, brand, content and data licensing platform. Billboard publishes the most trusted charts and offers unrivaled reporting about the latest music, video, gaming, media, digital issues and trends.

The method of CVD (chemical vapor deposition) is a versatile technique to fabricate high-quality thin films and structured surfaces in the nanometer regime from the vapor phase. Already widely used for the deposition of inorganic materials in the semiconductor industry, CVD has many applications to process polymers as well. This highly scalable technique allows for synthesizing high-purity, defect-free films and for systematically tuning their chemical, mechanical and physical properties. In addition, vapor phase processing is critical for the deposition of fluoropolymers, electrically conductive polymers, and highly crosslinked organic networks. Furthermore, CVD enables the coating of substrates which would otherwise dissolve or swell upon exposure to solvents. The scope of the book encompasses CVD polymerization processes, chemical mechanisms of traditional polymer synthesis and organic synthesis in homogeneous liquids into heterogeneous processes for the modification of solid surfaces. The book is structured into four parts, complemented by an introductory overview of the diverse process steps and materials. The first part on the fundamentals of CVD polymers is followed by a detailed coverage of the materials chemistry of CVD polymers, including the main synthesis mechanisms and the resultant classes of materials. The third part focuses on the applications of these materials to device modification and device fabrication. The final part discusses the potential for scale-up and commercialization of CVD polymers.

The Wireless Identification and Sensing Platform (WISP) is the first of a new class of RF-powered sensing and computing systems. Rather than being powered by batteries, these sensor systems are powered by radio waves that are either deliberately broadcast or ambient. Enabled by improvements in the energy efficiency of microelectronics, RF-powered sensing and computing is rapidly moving along a trajectory from impossible (in the recent past), to feasible (today), toward practical and commonplace (in the near future). This book is a collection of key papers on computing systems including the WISP. Several of the papers grew out of the WISP Challenge, a program in which Intel Corporation donated WISPs to academic applicants who proposed compelling WISP-based projects. The book also includes papers presented at the first WISP Summit in Berkeley, CA in association with the ACM Sensys conference, as well as other relevant papers. The book provides a window into the fascinating new world of wirelessly powered sensing and computing.

Theory, Technology, and Applications

Popular Photography

Automotive Ethernet

Index to IEEE Publications

Microwave Journal

CVD Polymers

Issues for 1973- cover the entire IEEE technical literature.

This book provides a solid overview of mobile phone programming for readers in both academia and industry. Coverage includes all commercial realizations of the Symbian, Windows Mobile and Linux platforms. The text introduces each programming language and provides a set of development environments "step by step," to help familiarize developers with limitations, pitfalls, and challenges.

Emergency Medical Services (EMS) is a critical component of our nation's emergency and trauma care system, providing response and medical transport to millions of sick and injured Americans each year. At its best, EMS is a crucial link to survival in the chaotic, complex problems facing the emergency care system have emerged. Press coverage has highlighted instances of slow EMS response times, ambulance diversions, trauma center closures, and ground and air medical crashes. This heightened public awareness has building over time has underscored the need for a review of the U.S. emergency care system. Emergency Medical Services provides the first comprehensive study on this topic. This new book examines the operational structure of EMS by presenting an in-depth analysis of the delivery, and financing of these types of services and systems. By addressing its strengths, limitations, and future challenges this book draws upon a range of concerns:
• The evolving role of EMS as an integral component of the overall health care system.
• The role of EMS and coordination at the federal, state, and local levels.
• EMS funding and infrastructure investments.
• EMS workforce trends and professional education.
• EMS research priorities and funding.
Emergency Medical Services is one of three books in the Future of Emergency Care series. This book will be of particular interest to emergency care providers, professional organizations, and policy makers looking to address the deficiencies in emergency care systems.

Wirelessly Powered Sensor Networks and Computational RFID

Design Reference

Electrical & Electronics Abstracts

Mobile Networks and Cloud Computing Convergence for Progressive Services and Applications

Blown to Bits

The magazine that helps career moms balance their personal and professional lives.

This authoritative reference enables the design of virtually every type of inductor. It features a single simple formula for each type of inductor, together with tables containing essential numerical factors. 1946 edition.

This book covers the very latest in theory and technology for Wireless Power Transfer (WPT), for both coupling as well as radiative WPT. It describes the theory as well as the technology and applications.

Working Mother

At the Crossroads

GaN Power Devices and Applications

The Identification of Behavioral, Geographic and Temporal Patterns of Preparatory Conduct

Fabrication of Organic Surfaces and Devices

Gallium Nitride Power Devices

Did you know that the clitoris has 8000 nerve endings, twice as many as the penis? Here is everything you've wondered about the female orgasm and how to make it happen. A witty, well-researched and revealing guide to giving your loved one an orgasm every time. More than just foreplay, Ian Kerner argues that oral sex is the key to a great sex life for both partners. Short sections cover philosophy, technique, step-by-step instructions and detailed anatomical information, essential to both beginners and experienced lovers.It's time to close the sex gap and create a level playing field in the exchange of pleasure, and cunnilingus is far more than just a means for achieving this noble end: it's the cornerstone of a new sexual paradigm, one that exuberantly extols a shared experience of pleasure, intimacy, respect and contentment. It's also one of the greatest gifts of love a man can bestow upon a woman.' Ian Kerner

Recent technology trends involving the combination of mobile networks and cloud computing have offered new chances for mobile network providers to use specific carrier-cloud services. These advancements will enhance the utilization of the mobile cloud in industry and corporate settings. Mobile Networks and Cloud Computing Convergence for Progressive Services and Applications is a fundamental source for the advancement of knowledge, application, and practice in the interdisciplinary areas of mobile network and cloud computing. By addressing innovative concepts and critical issues, this book is essential for researchers, practitioners, and students interested in the emerging field of vehicular wireless networks.

Featuring a foreword by Bob Metcalfe, inventor of Ethernet! Ethernet, the most widely-used local area networking technology in the world, is moving from the server rooms of automobile manufacturers to their vehicles. As the quantity and variety of electronic devices in cars continues to grow, Ethernet promises to improve performance and enable increasingly powerful and useful applications in vehicles. Now, from Intrepid Control Systems (www.intrepidcs.com) - a leader in the world of automotive networking and diagnostic tools - comes the first book to describe the technology behind the biggest revolution in automotive networking since the 1980s: Automotive Ethernet - The Definitive Guide describes the fundamentals of networking, data link and physical layers of industry-standard Ethernet variants, as well as the new (one twisted pair 100Base Ethernet) 1TPCE or BroadR-Reach technology developed by Broadcom specifically for

vehicle use. Topics covered include: in-vehicle networking requirements, comparing Ethernet to CAN and other existing networks (such as LIN, MOST, and FlexRay), TCP/UDP, IPv4/IPv6 and Diagnostics over IP (DoIP). Also covered are the Audio Video Bridging standards used to transport media over Ethernet: Stream Reservation Protocol or SRP (802.1Qat), Forward-Queueing and Time-Sensitive Streams or FQTS (802.1Qav), Timing and Synchronization for Time-Sensitive Applications or gPTP (802.1as), and Transport Protocol for Time-Sensitive Applications or AVTP (IEEE 1722), and more. Automotive Ethernet: The Definitive Guide will also be available as an ebook for your Kindle!

Emerging Capabilities and Applications of Wireless Power Transfer

Earth Day

Digital Transformation of Supply Chain Management

Technologies that enable powering a device without the need for being connected with a cable to the grid are gaining attention in recent years due to the advantages that they provide. They are a commodity to users and provide additional functionalities that promote autonomy among the devices. Emerging Capabilities and Applications of Wireless Power Transfer is an essential reference source that analyzes the different applications of wireless power transfer technologies and how the technologies are adapted to fulfill the electrical, magnetic, and design-based requirements of different applications. Featuring research on topics such as transfer technologies, circuit analysis, and inductive power transfer, this book is a vital resource for academicians, electrical engineers, scientists, researchers, and industry professionals seeking coverage on device power and creating autonomy through alternative power options for devices.

Computer science and economics have engaged in a lively interaction over the past fifteen years, resulting in the new field of algorithmic game theory. Many problems that are central to modern computer science, ranging from resource allocation in large networks to online advertising, involve interactions between multiple self-interested parties. Economics and game theory offer a host of useful models and definitions to reason about such problems. The flow of ideas also travels in the other direction, and concepts from computer science are increasingly important in economics. This book grew out of the author's Stanford University course on algorithmic game theory, and aims to give students and other newcomers a quick and accessible introduction to many of the most important concepts in the field. The book also includes case studies on online advertising, wireless spectrum auctions, kidney exchange, and network management.

*The operational amplifier ("op amp") is the most versatile and widely used type of analog IC, used in audio and voltage amplifiers, signal conditioners, signal converters, oscillators, and analog computing systems. Almost every electronic device uses at least one op amp. This book is Texas Instruments' complete professional-level tutorial and reference to operational amplifier theory and applications. Among the topics covered are basic op amp physics (including reviews of current and voltage division, Thevenin's theorem, and transistor models), idealized op amp operation and configuration, feedback theory and methods, single and dual supply operation, understanding op amp parameters, minimizing noise in op amp circuits, and practical applications such as instrumentation amplifiers, signal conditioning, oscillators, active filters, load and level conversions, and analog computing. There is also extensive coverage of circuit construction techniques, including circuit board design, grounding, input and output isolation, using decoupling capacitors, and frequency characteristics of passive components. The material in this book is applicable to all op amp ICs from all manufacturers, not just TI. Unlike textbook treatments of op amp theory that tend to focus on idealized op amp models and configuration, this title uses idealized models only when necessary to explain op amp theory. The bulk of this book is on real-world op amps and their applications; considerations such as thermal effects, circuit noise, circuit buffering, selection of appropriate op amps for a given application, and unexpected effects in passive components are all discussed in detail. *Published in conjunction with Texas Instruments *A single volume, professional-level guide to op amp theory and applications *Covers circuit board layout techniques for manufacturing op amp circuits.*