

Algorithm Soc Design For Automotive Vision Systems For Smart Safe Driving System

Initially, the only electric loads encountered in an automobile were for lighting and the starter motor. Today, demands on performance, safety, emissions, comfort, convenience, entertainment, and communications have seen the working-in of seemingly innumerable advanced electronic devices. Consequently, vehicle electric systems require larger capacities and more complex configurations to deal with these demands. Covering applications in conventional, hybrid-electric, and electric vehicles, the Handbook of Automotive Power Electronics and Motor Drives provides a comprehensive reference for automotive electrical systems. This authoritative handbook features contributions from an outstanding international panel of experts from industry and academia, highlighting existing and emerging technologies. Divided into five parts, the Handbook of Automotive Power Electronics and Motor Drives offers an overview of automotive power systems, discusses semiconductor devices, sensors, and other components, explains different power electronic converters, examines electric machines and associated drives, and details various advanced electrical loads as well as battery technology for automobile applications. As we seek to answer the call for safer, more efficient, and lower-emission vehicles from regulators and consumer insistence on better performance, comfort, and entertainment, the technologies outlined in this book are vital for engineering advanced vehicles that will satisfy these criteria.

Addresses the methodology and theoretical foundation of battery manufacturing, service and management systems (BM2S2), and discusses the issues and challenges in these areas This book brings together experts in the field to highlight the cutting edge research advances in BM2S2 and to promote an innovative integrated research framework responding to the challenges. There are three major parts included in this book: manufacturing, service, and management. The first part focuses on battery manufacturing systems, including modeling, analysis, design and control, as well as economic and risk analyses. The second part focuses on information technology's impact on service systems, such as data-driven reliability modeling, failure prognosis, and service decision making methodologies for battery services. The third part addresses battery management systems (BMS) for control and optimization of battery cells, operations, and hybrid storage systems to ensure overall performance and safety, as well as EV management. The contributors consist of experts from universities, industry research centers, and government agency. In addition, this book: Provides comprehensive overviews of lithium-ion battery and battery electrical vehicle manufacturing, as well as economic returns and government support Introduces integrated models for quality propagation and productivity improvement, as well as indicators for bottleneck identification and mitigation in battery manufacturing Covers models and diagnosis algorithms for battery SOC and SOH estimation, data-driven prognosis algorithms for predicting the remaining useful life (RUL) of battery SOC and SOH Presents mathematical models and novel structure of battery equalizers in battery management systems (BMS) Reviews the state of the art of battery, supercapacitor, and battery-supercapacitor hybrid energy storage systems (HESSs) for advanced electric vehicle applications Advances in Battery Manufacturing, Services, and Management Systems is written for researchers and engineers working on battery manufacturing, service, operations, logistics, and management. It can also serve as a reference for senior undergraduate and graduate students interested in BM2S2.

This book focuses on the design, informatics, and energy sustainability of automated and electric vehicles. Both principles and engineering practice have been addressed, from design perspectives toward informatics enabled transport service operation including automated valet parking and charging use cases. This is achieved by providing an in-depth study on a number of major topics such as battery management, eco-driving system, telecommunications, transport and charging services, cyber-security, etc. The book benefits researchers, engineers, and graduate students in the fields of the intelligent transport system, telecommunication, cyber-security, and smart grids.

This book constitutes the refereed proceedings of the Third International Conference on HCI in Mobility, Transport, and Automotive Systems, MobiTAS 2021, held as part of the 23rd International Conference, HCI International 2021, held as a virtual event, in July 2021. The total of 1276 papers and 241 posters included in the 39 HCII 2021 proceedings volumes was carefully reviewed and selected from 5222 submissions. MobiTAS 2021 includes a total of 39 papers which focus on topics related to urban mobility, cooperative and automated mobility, UX in intelligent transportation systems, and mobility for diverse target user groups.

Engineering the Complex SOC

Proceedings of the 7th International Workshop Soft Computing Applications (SOFA 2016) , Volume 1

For Smart Safe Driving System

System-on-a-chip

Design, Verification, and Debug

HCI in Mobility, Transport, and Automotive Systems

This book is about security in embedded systems and it provides an authoritative reference to all aspects of security in system-on-chip (SoC) designs. The authors discuss issues ranging from security requirements in SoC designs, definition of architectures and design choices to enforce and validate security policies, and trade-offs and conflicts involving security, functionality, and debug requirements. Coverage also includes case studies from the “trenches” of current industrial practice in design, implementation, and validation of security-critical embedded systems. Provides an authoritative reference and summary of the current state-of-the-art in security for embedded systems, hardware IPs and SoC designs; Takes a "cross-cutting" view of security that interacts with different design and validation components such as architecture, implementation, verification, and debug, each enforcing unique trade-offs; Includes high-level overview, detailed analysis on implementation, and relevant case studies on design/verification/debug issues related to IP/SoC security.

These two volumes constitute the Proceedings of the 7th International Workshop on Soft Computing Applications (SOFA 2016), held on 24–26 August 2016 in Arad, Romania. This edition was organized by Aurel Vlaicu University of Arad, Romania, University of Belgrade, Serbia, in conjunction with the Institute of Computer Science, Iasi Branch of the Romanian Academy, IEEE Romanian Section, Romanian Society of Control Engineering and Technical Informatics (SRAIT) - Arad Section, General Association of Engineers in Romania - Arad Section, and BTM Resources Arad. The soft computing concept was introduced by Lotfi Zadeh in 1991 and serves to highlight the emergence of computing methodologies in which the accent is on exploiting the tolerance for imprecision and uncertainty to achieve tractability, robustness and lower costs. Soft computing facilitates the combined use of fuzzy logic, neurocomputing, evolutionary computing and probabilistic computing, leading to the concept of hybrid intelligent systems. The rapid emergence of new tools and applications calls for a synergy of scientific and technological disciplines in order to reveal the great potential of soft computing in all domains. The conference papers included in these proceedings, published post-conference, were grouped into the following areas of research: • Methods and Applications in Electrical Engineering • Knowledge-Based Technologies for Web Applications, Cloud Computing, Security Algorithms and Computer Networks • Biomedical Applications • Image, Text and Signal Processing • Machine Learning and Applications • &nb sp; Business Process Management • Fuzzy Applications, Theory and Fuzzy Control • Computational Intelligence in Education • Soft Computing & Fuzzy Logic in Biometrics (SCFLB) • Soft Computing Algorithms Applied in Economy, Industry and Communication Technology • Modelling and Applications in Textiles The book helps to disseminate advances in selected active research directions in the field of soft computing, along with current issues and applications of related topics. As such, it provides valuable information for professors, researchers and graduate students in the area of soft computing techniques and applications.

This book constitutes the refereed proceedings of the 12th Latin American Robotics Symposium and Third Brazilian Symposium on Robotics, LARS 2015 / SBR 2015, held in Uberlândia, Brazil, in October/November 2015. The 17 revised full papers presented were carefully reviewed and selected from 80 submissions. The selected papers present a complete and solid reference of the state-of-the-art of intelligent robotics and automation research, covering the following areas: autonomous mobile robots, tele-operated and telepresence robots, human-robot interaction, trajectory control for mobile robots, autonomous vehicles, service-oriented robotic systems, semantic mapping, environment mapping, visual odometry, applications of RGB-D sensors, humanoid and biped robots, Robocup soccer robots, robot control, path planning, multiple vehicles and teams of robots. /div

SoC Physical Design is a comprehensive practical guide for VLSI designers that thoroughly examines and explains the practical physical design flow of system on chip (SoC). The book covers the rationale behind making design decisions on power, performance, and area (PPA) goals for SoC and explains the required design environment algorithms, design flows, constraints, handoff procedures, and design infrastructure requirements in achieving them. The book reveals challenges likely to be faced at each design process and ways to address them in practical design environments. Advanced topics on 3D ICs, EDA trends, and SOC trends are discussed in later chapters. Coverage also includes advanced physical design techniques followed for deep submicron SOC designs. The book provides aspiring VLSI designers, practicing design engineers, and electrical engineering students with a solid background on the complex physical design requirements of SoCs which are required to contribute effectively in design roles.

Electric Vehicle Integration in a Smart Microgrid Environment

Proceedings of China SAE Congress 2021: Selected Papers

Preprints of the Annual Automotive Technology Development Contractors' Coordination Meeting

Robotics

Design and Control of Automotive Propulsion Systems

10th International Joint Conference, IC3K 2018, Seville, Spain, September 18-20, 2018, Revised Selected Papers

These proceedings gather outstanding papers presented at the China SAE Congress 2021, held on Oct. 19-21, Shanghai, China. Featuring contributions mainly from China, the biggest carmaker as well as most dynamic car market in the world, the book covers a wide range of automotive-related topics and the latest technical advances in the industry. Many of the approaches in the book will help technicians to solve practical problems that affect their daily work. In addition, the book offers valuable technical support to engineers, researchers and postgraduate students in the field of automotive engineering.

In the research area of computer science, practitioners are constantly searching for faster platforms with pertinent results. With analytics that span environmental development to computer hardware emulation, problem-solving algorithms are in high demand. Field-Programmable Gate Array (FPGA) is a promising computing platform that can be significantly faster for some applications and can be applied to a variety of fields. FPGA Algorithms and Applications for the Internet of Things provides emerging research exploring the theoretical and practical aspects of computable algorithms and applications within robotics and electronics development. Featuring coverage on a broad range of topics such as neuroscience, bioinformatics, and artificial intelligence, this book is ideally designed for computer science specialists, researchers, professors, and students seeking current research on cognitive analytics and advanced computing.

Annotation Papers from a September 2001 symposium report on recent advances in areas of integrated circuits and systems design, including embedded systems, rapid prototyping, formal methods, codesign, CAD and test, analog, digital, and physical design, and low power and low voltage. Specific topics include communication architectures for system-on-chip, using the CAN protocol and reconfigurable computing technology for Web-based smart house automation, and optimizing BDD-based verification analyzing variable dependencies. Other subjects include interconnection length estimation at logic level, an environment to aid the synthesis of three-phase analogue waveform using AHDL, and extending sequencing graphs for reconfigurable applications modeling. This work lacks a subject index. c. Book News Inc.

This book constitutes the thoroughly refereed proceedings of the 10th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management, IC3K 2018, held in Seville, Spain, in September 2018. The 12 full papers presented were carefully reviewed and selected from 167 submissions. The papers are organized in topical sections on knowledge discovery and information retrieval; knowledge engineering and ontology development; and knowledge management and information sharing.

Computer Vision and Imaging in Intelligent Transportation Systems

Electronic Circuit Design

Advances in Battery Manufacturing, Service, and Management Systems

Embedded Software for SoC

Fast, Flexible Design with Configurable Processors

Proceedings : 10-15 September, 2001, Pirenópolis, Brazil

A Choice Outstanding Academic Title The Encyclopedia of Automotive Engineering provides for the first time a large, unified knowledge base laying the foundation for advanced study and in-depth research. Through extensive cross-referencing and search functionality it provides a gateway to detailed but scattered information on best industry practice, engendering a better understanding of interrelated concepts and techniques that cut across specialized areas of engineering. Beyond traditional automotive subjects the Encyclopedia addresses green technologies, the shift from mechanics to electronics, and the means to produce safer, more efficient vehicles within varying economic restraints worldwide. The work comprises nine main parts: (1) Engines: Fundamentals (2) Engines: Design (3) Hybrid and Electric Powertrains (4) Transmission and Driveline (5) Chassis Systems (6) Electrical and Electronic Systems (7) Body Design (8) Materials and Manufacturing (9) Telematics. Offers authoritative coverage of the wide-ranging specialist topics encompassed by automotive engineering An accessible point of reference for entry level engineers and students who require an understanding of the fundamentals of technologies outside of their own expertise or training Provides invaluable guidance to more detailed texts and research findings in the technical literature Developed in conjunction with FISITA, the umbrella organisation for the national automotive societies in 37 countries around the world and representing more than 185,000 automotive engineers 6 Volumes www.automotive-reference.com An essential resource for libraries and information centres in industry, research and training organizations, professional societies, government departments, and all relevant engineering departments in the academic sector.

With growing consumer demand for portability and miniaturization in electronics, design engineers must concentrate on many additional aspects in their core design. The plethora of components that must be considered requires that engineers have a concise understanding of each aspect of the design process in order to prevent bug-laden prototypes. Electronic Circuit Design allows engineers to understand the total design process and develop prototypes which require little to no debugging before release. It provides step-by-step instruction featuring modern components, such as analog and mixed signal blocks, in each chapter. The book details every aspect of the design process from conceptualization and specification to final implementation and release. The text also demonstrates how to utilize device data sheet information and associated application notes to design an electronic system. The hybrid nature of electronic system design poses a great challenge to engineers. This book equips electronics designers with the practical knowledge and tools needed to develop problem free prototypes that are ready for release.

Elektrofahrzeuge sind für Entwickler der Fahrzeugakustik ebenso eine Herausforderung wie eine höhere NVH-Performance durch Leichtbaustrukturen und kleinere Motoren mit Turbolader. Die Automobilforschung muss das Akustikmanagement im Fahrzeug neu denken. Die internationale Automotive Acoustics Conference bietet dazu als Fachtagung das notwendige Expertenwissen, um die künftigen Anforderungen an Antriebsstrang, Antriebssysteme und Fahrzeugarchitekturen zu erfüllen. Simulationsprozesse und Verfahren der Multiphysik sind dabei essenziell, um Ruhe in die Passagierkabine zu bringen. Die Konferenz zur car acoustics bietet dazu neustes Expertenwissen.

Climate change, urban air quality, and dependency on crude oil are important societal challenges. In the transportation sector especially, clean and energy efficient technologies must be developed. Electric vehicles (EVs) and plug-in hybrid electric vehicles (PHEVs) have gained a growing interest in the vehicle industry. Nowadays, the commercialization of EVs and PHEVs has been possible in different applications (i.e., light duty, medium duty, and heavy duty vehicles) thanks to the advances in energy storage systems, power electronics converters (including DC/DC converters, DC/AC inverters, and battery charging systems), electric machines, and energy efficient power flow control strategies. This book is based on the Special Issue of the journal Applied Sciences on “ Plug-In Hybrid Electric Vehicles (PHEVs) ”. This collection of research articles includes topics such as novel propulsion systems, emerging power electronics and their control algorithms, emerging electric machines and control techniques, energy storage systems, including BMS, and efficient energy management strategies for hybrid propulsion, vehicle-to-grid (V2G), vehicle-to-home (V2H), grid-to-vehicle (G2V) technologies, and wireless power transfer (WPT) systems.

Proceedings of the 2nd VAE2018, Miskolc, Hungary

New Trends and Developments in Automotive System Engineering

CAD for Control Systems

Automated and Electric Vehicle: Design, Informatics and Sustainability

Computational Intelligence in Automotive Applications

Information Science and Applications (ICISA) 2016

This textbook introduces advanced control systems for vehicles, including advanced automotive concepts and the next generation of vehicles for ITS.

An emerging trend in the automobile industry is its convergence with information technology (IT). Indeed, it has been estimated that almost 90% of new automobile technologies involve IT in some form. Smart driving technologies that improve safety as well as green fuel technologies are quite representative of the convergence between IT and automobiles. The smart driving technologies include three key elements: sensing of driving environments, detection of objects and potential hazards and the generation of driving control signals including warning signals. Although radar-based systems are primarily used for sensing the driving environments, the camera has gained importance in advanced driver assistance systems (ADAS). This book covers system-on-a-chip (SoC) designs—including both algorithms and hardware—related with image sensing and object detection by using the camera for smart driving systems. It introduces a variety of algorithms such as lens correction, super resolution, image enhancement and object detections from the images captured by low-cost vehicle camera. This is followed by implementation issues such as SoC architecture, hardware accelerator, software development environment and reliability techniques for automobile vision systems. This book is aimed for the new and practicing engineers in automotive and chip-design industries to provide some overall guidelines for the development of automotive vision systems. It will also help graduate students understand and get started for the research work in this field.

This book discusses key aspects of MEMS technology areas, organized in twenty-seven chapters that present the latest research developments in micro electronic and mechanical systems. The book addresses a wide range of fundamental and practical issues related to MEMS, advanced metal-oxide-semiconductor (MOS) and complementary MOS (CMOS) devices, SoC technology, integrated circuit testing and verification, and other important topics in the field. Several chapters cover state-of-the-art microfabrication techniques and materials as enabling technologies for the microsystems. Reliability issues concerning both electronic and mechanical aspects of these devices and systems are also addressed in various chapters.

Better Understand the Relationship between Powertrain System Design and Its Control Integration While powertrain system design and its control integration are traditionally divided into two different functional groups, a growing trend introduces the integration of more electronics (sensors, actuators, and controls) into the powertrain system.

Third International Conference, MobiTAS 2021, Held as Part of the 23rd HCI International Conference, HCII 2021, Virtual Event, July 24 – 29, 2021, Proceedings

Algorithm & SoC Design for Automotive Vision Systems

12th Latin American Robotics Symposium and Third Brazilian Symposium on Robotics, LARS 2015/SBR 2015, Uberlândia, Brazil, October 28 - November 1, 2015, Revised Selected Papers

3. Internationale ATZ-Fachtagung

A Comprehensive Guide

Algorithms—Advances in Research and Application: 2012 Edition

This book presents the proceedings of the second Vehicle Engineering and Vehicle Industry conference, reflecting the outcomes of theoretical and practical studies and outlining future development trends in a broad field of automotive research. The conference’s main themes included design, manufacturing, economic and educational topics. For all architects, hardware engineers, software designers, and SOC program managers involved with complex SOC design; and for all managers investing in SOC designs, platforms, processors, or expertise.

Vehicle dynamics and road dynamics are usually considered to be two largely independent subjects. In vehicle dynamics, road surface roughness is generally regarded as random excitation of the vehicle, while in road dynamics, the vehicle is generally regarded as a moving load acting on the pavement. This book suggests a new research concept to integrate the vehicle and the road system with the help of a tire model, and establishes a cross-subject research framework dubbed vehicle-pavement coupled system dynamics. In this context, the dynamics of the vehicle, road and the vehicle-road coupled system are investigated by means of theoretical analysis, numerical simulations and field tests. This book will be a valuable resource for university professors, graduate students and engineers majoring in automotive design, mechanical engineering, highway engineering and other related areas. Shaopu Yang is a professor and deputy president of Shijiazhuang Tiedao University, China; Liqun Chen is a professor at Shanghai University, Shanghai, China; Shaohua Li is a professor at Shijiazhuang Tiedao University, China.

This book is a printed edition of the Special Issue "Advances in Vibroacoustics and Aeroacoustics of Aerospace and Automotive Systems" that was published in Applied Sciences

Encyclopedia of Automotive Engineering

Digital Logic Design Using Verilog

Automotive Acoustics Conference 2015

Advances in Automotive Control 2004 (2-volume Set)

Automotive Control Systems

Architecting Dependable Systems IV

In the last few years the automobile design process is required to become more responsible and responsibly related to environmental needs. Basing the automotive design not only on the appearance, the visual appearance of the vehicle needs to be thought together and deeply integrated with the power developed by the engine. The purpose of this book is to try to present the new technologies development scenario, and not to give any indication about the direction that should be given to the research in this complex and multi-disciplinary challenging field.

This book is a printed edition of the Special Issue "Imaging: Sensors and Technologies" that was published in Sensors

This book contains selected papers from the 7th International Conference on Information Science and Applications (ICISA 2016) and provides a snapshot of the latest issues encountered in technical convergence and convergences of security technology. It explores how information science is core to most current research, industrial and commercial activities and consists of contributions covering topics including Ubiquitous Computing, Networks and Information Systems, Multimedia and Visualization, Middleware and Operating Systems, Security and Privacy, Data Mining and Artificial Intelligence, Software Engineering, and Web Technology. The contributions describe the most recent developments in information technology and ideas, applications and problems related to technology convergence, illustrated through case studies, and reviews converging existing security techniques. Through this volume, readers will gain an understanding of the current state-of-the-art information strategies and technologies of convergence security. The intended readers are researchers in academia, industry and other research institutes focusing on information science and technology.

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.

Fundamentals of IP and SoC Security

From Concept to Implementation

Imaging: Sensors and Technologies

Knowledge Discovery, Knowledge Engineering and Knowledge Management

Coding and RTL Synthesis

Vehicle and Automotive Engineering 2

Intelligent Control of Connected Plug-in Hybrid Electric Vehicles presents the development of real-time intelligent control systems for plug-in hybrid electric vehicles, which involves control-oriented modelling, controller design, and performance evaluation. The controllers outlined in the book take advantage of advances in vehicle communications technologies, such as global positioning systems, intelligent transportation systems, geographic information systems, and other on-board sensors, in order to provide look-ahead trip data. The book contains simple and efficient models and fast optimization algorithms for the devised controllers to address the challenge of real-time implementation in the design of complex control systems. Using the look-ahead trip information, the authors of the book propose intelligent optimal model-based control systems to minimize the total energy cost, for both grid-derived electricity and fuel. The multilayer intelligent control system proposed consists of trip planning, an ecological cruise controller, and a route-based energy management system. An algorithm that is designed to take advantage of previewed trip information to optimize battery depletion profiles is presented in the book. Different control strategies are compared and ways in which connecting vehicles via vehicle-to-vehicle communication can improve system performance are detailed. Intelligent Control of Connected Plug-in Hybrid Electric Vehicles is a useful source of information for postgraduate students and researchers in academic institutions participating in automotive research activities. Engineers and designers working in research and development for automotive companies will also find this book of interest. Advances in Industrial Control reports and encourages the transfer of technology in control engineering. The rapid development of control technology has an impact on all areas of the control discipline. The series offers an opportunity for researchers to present an extended exposition of new work in all aspects of industrial control.

This second edition focuses on the thought process of digital design and implementation in the context of VLSI and system design. It covers the Verilog 2001 and Verilog 2005 RTL design styles, constructs and the optimization at the RTL and synthesis level. The book also covers the logic synthesis, low power, multiple clock domain design concepts and design performance improvement techniques. The book includes 250 design examples/illustrations and 100 exercise questions. This volume can be used as a core or supplementary text in undergraduate courses on logic design and as a text for professional and vocational coursework. In addition, it will be a hands-on professional reference and a self-study aid for hobbyists.

Acts as single source reference providing readers with an overview of how computer vision can contribute to the different applications in the field of road transportation This book presents a survey of computer vision techniques related to three key broad problems in the roadway transportation domain: safety, efficiency, and law enforcement. The individual chapters present significant applications within those problem domains, each presented in a tutorial manner, describing the motivation for and benefits of the application, and a description of the state of the art. Key features: Surveys the applications of computer vision techniques to road transportation system for the purposes of improving safety and efficiency and to assist law enforcement. Offers a timely discussion as computer vision is reaching a point of being useful in the field of transportation systems. Available as an enhanced eBook with video demonstrations to further explain the concepts discussed in the book, as well as links to publically available software and data sets for testing and algorithm development. The book will benefit the many researchers, engineers and practitioners of computer vision, digital imaging, automotive and civil engineering working in intelligent transportation systems. Given the breadth of topics covered, the text will present the reader with new and yet unconceived possibilities for application within their communities.

Starting with a basic overview of system-on-a-chip (SoC), including definitions of related terms, this new book helps you understand SoC design challenges, and the latest design and test methodologies. You see how ASIC technology evolved to an embedded cores-based concept that includes pre-designed, reusable Intellectual Property (IP) cores that act as microprocessors, data storage devices, DSP, bus control, and interfaces -- all "stitched" together by a User's Defined Logic (UDL).

Plug-in Hybrid Electric Vehicle (PHEV)

Intelligent Control of Connected Plug-in Hybrid Electric Vehicles

14th Symposium on Integrated Circuits and Systems Design

SoC Physical Design

Design and Test

FPGA Algorithms and Applications for the Internet of Things

As software systems become ubiquitous, the issues of dependability become more and more crucial. This state-of-the-art survey contains 18 expanded and peer-reviewed papers based on the carefully selected contributions to the Workshop on Architecting Dependable Systems (WADS 2006) organized at the 2006

International Conference on Dependable Systems and Networks (DSN 2006), held in Philadelphia, PA, USA, in June 2006.

This edited volume is the first of its kind and provides a representative sample of contemporary computational intelligence (CI) activities in the area of automotive technology. All chapters contain overviews of the state-of-the-art.

This comprehensive collection brings together current information on CAD for control systems including present and future trends in computer-aided design exploring the areas of modeling, simulation, simulation languages, environments, and design techniques. Presenting a systems approach to control d

Algorithms—Advances in Research and Application: 2012 Edition is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Algorithms. The editors have built Algorithms—Advances in Research and Application: 2012 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Algorithms 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 Algorithms—Advances in 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/>.

Aeroacoustic and Vibroacoustic Advancement in Aerospace and Automotive Systems

Handbook of Automotive Power Electronics and Motor Drives

Soft Computing Applications

Dynamics of Vehicle-Road Coupled System

Micro Electronic and Mechanical Systems

This title covers all software-related aspects of SoC design, from embedded and application-domain specific operating systems to system architecture for future SoC. It will give embedded software designers invaluable insights into the constraints imposed by the use of embedded software in an SoC context.