

High Performance Responsive Design Building Faster Sites Across Devices 1st Edition By Barker Tom 2014 Paperback

Innovative Developments in Virtual and Physical Prototyping presents essential research in the area of Virtual and Rapid Prototyping. The volume contains reviewed papers presented at the 5th International Conference on Advanced Research in Virtual and Rapid Prototyping, hosted by the Centre for Rapid and Sustainable Product Development of the Polytechnic Institute of Leiria, Portugal, from September 28 to October 1, 2011. A wide range of topics is covered, such as CAD and 3D Data Acquisition Technologies, Additive and Nano Manufacturing Technologies, Rapid Tooling & Manufacturing, Biomanufacturing, Materials for Advanced Manufacturing Processes, Virtual Environments and Simulation, Applications of Virtual and Physical Prototyping Technologies. Innovative Developments in Virtual and Physical Prototyping is intended for engineers, designers and manufacturers who are active in the areas of mechanical, industrial and biomedical engineering.

Py2neo is a simple and pragmatic Python library that provides access to the popular graph database Neo4j via its RESTful web service interface. This brings with it a heavily refactored core, a cleaner API, better performance, and some new idioms. You will begin with licensing and installing Neo4j, learning the fundamentals of Cypher as a graph query language, and exploring Cypher optimizations. You will discover how to integrate with various Python frameworks such as Flask and its extensions: Py2neo, Neomodel, and Django. Finally, the deployment aspects of your Python-based Neo4j applications in a production environment is also covered. By sequentially working through the steps in each chapter, you will quickly learn and master the various implementation details and integrations of Python and Neo4j, helping you to develop your use cases more quickly.

Today's design professionals are faced with challenges on all fronts. They need not only to keep in step with rapid technological changes and the current revolution in design and construction processes, but to lead the industry. This means actively seeking to innovate through design research, raising the bar in building performance and adopting advanced technologies in their practice. In a constant drive to improve design processes and services, how is it possible to implement innovations? And, moreover, to assimilate them in such a way that design, methods and technologies remain fully integrated? Focusing on innovations in architecture, this book covers new materials and design methods, advances in computational design practices, innovations in building technologies and construction techniques, and the integration of research with design. Moreover, it discusses strategies for integrating innovation into design practices, risks and economic impacts.

Through numerous case studies, it illustrates how innovations have been implemented on actual architectural projects, and how design and technical innovations are used to improve building performance, as well as design practices in cutting-edge architectural and engineering firms. Projects of all scales and building types are discussed in the book, ranging from small-scale installations, academic and commercial buildings to large-scale mixed-use, healthcare, civic, academic, scientific research and sports facilities. Work from design firms around the globe and of various scales is discussed in the book, including for example Asymptote Architecture, cepezed, CO Architects, Consarc Architects, FAAB Architektura, Gerber Architekten, HOK, IDOM-ACXT, MAD Architects, Morphosis Architects, SDA | Synthesis Design + Architecture, Studiotrope, Perkins+Will, Richter Dahl Rocha & Associés, Snøhetta, Rob Ley Studio, Trahan Architects, UNStudio and Zaha Hadid Architects, among many others.

The Second Edition of Sustainable Residential Interiors addresses cutting edge processes, strategies, and principles as well as details for in-depth product vetting criteria. Award-winning, leading interior designer Annette Stelmack shares her expertise from the perspective of LEED Building Design & Construction projects, healthy interiors, and chemical sensitivities, addressing principles, strategies, and solutions for design practitioners. A comprehensive update of the current state of the sustainable interior design industry is provided, including present and upcoming industry transformations, thought-leading principles, strategies and practices for project implementation, and fine points and resources for in-depth product vetting to support high-performing, healthy interiors. Sustainable Residential Interiors takes readers through an integrated design process, demonstrating relevant principles and practices that apply to essentially any interiors project toward creating an environment that is healthy, high-performing, functional, sustainable, and beautiful. In doing so, it: Promotes critical thinking about health and environmental issues in the building industry Features checklists and current resources, providing a "hands on" practical approach Addresses in-depth, applicable third party certifications and details on relevant building rating systems Provides in-depth strategies and criteria for fixed interior finishes, fixtures, equipment and furnishings Demonstrates successful, relevant, diverse and inspiring case studies Delivers comprehensive tools and resources for researching and vetting products' composition and chemical make-up. Evaluates all aspects of a building's interior to identify and implement methods that: save energy and water; reduce Co2 emissions and waste; improve indoor air quality free of toxins; and are responsive to environmental impacts Encourages forward-thinking by featuring inspirational statements from mentors, peers, and industry leaders Urges interior designers to commit to designing safe, healthy environments that are integral to a professional code of ethics, which ensure the delivery of positive outcomes for the client and any building's future occupants

The design and construction of buildings is a lengthy and expensive process, and those who commission buildings are continually looking for ways to improve the efficiency of the process. In this book, the second in the Building in Value series, a broad range of topics related to the processes of design and construction are explored by an international group of experts. The overall aim of the book is to look at ways that clients can improve the value for money outcomes of their decisions to construct buildings. The book is aimed at students studying in many areas related to the construction industry including architecture, construction management, civil engineering and quantity surveying, and should also be of interest to many in the industry including project managers, property developers, building contractors and cost engineers. What really makes a high-performance, energy-efficient building? "Sustainable design is about developing buildings and urban spaces that are tuned to their context. . . . Any building that carries claims to be recognized as 'great architecture' should also qualify as a high-performance building." -From High-Performance Building How do we judge the success of a sustainable building? We shouldn't just reward good intentions based on the building design, argues Vidar Lerum in High- Performance Building; we must look at the evidence of the actual performance of architectural objects "as built." High-Performance Building gives architects a practical guide to excellent, sustainable design, showing how to analyze and evaluate the buildings "as built." Taking a hands-on view of sustainability, the author provides designers with specific benchmarks for high performance and energy efficiency. Utilizing the latest methods for analysis of climate responsive design, he asks: * Where does a building that claims to be "green" or "sustainable" check in on a scale relative to benchmark buildings of the same type? * How does the building contribute to a sustainable development in its demand for energy and natural materials? * Does the building provide a high level of thermal comfort to its users? To illustrate, Lerum takes the reader on an on-site tour of seven buildings around the world that exemplify these standards. Ranging from the west coast of Greenland to the Sonoran Desert, the buildings are examined as physical, built objects. For additional perspectives, the author interviews the architects and speaks with engineers, owners, and users. At the sites, something unexpected often shows up. The author's work reveals unknown or hidden features, characteristics, or details. By understanding what works and what does not in notable buildings around the world, High-Performance Building enables architects to discover the challenges and opportunities in their own designs, whether simple residences or large commercial structures.

The Routledge Companion for Architecture Design and Practice provides an overview of established and emerging trends in architecture practice. Contributions of the latest research from international experts examine external forces applied to the practice and discipline of architecture. Each chapter contains up-to-date and relevant information about select aspects of architecture, and the changes this information

will have on the future of the profession. The Companion contains thirty-five chapters, divided into seven parts: Theoretical Stances, Technology, Sustainability, Behaviorism, Urbanism, Professional Practice and Society. Topics include: Evidence-Based Design, Performativity, Designing for Net Zero Energy, The Substance of Light in Design, Social Equity and Ethics for Sustainable Architecture, Universal Design, Design Psychology, Architecture, Branding and the Politics of Identity, The Role of BIM in Green Architecture, Public Health and the Design Process, Affordable Housing, Disaster Preparation and Mitigation, Diversity and many more. Each chapter follows the running theme of examining external forces applied to the practice and discipline of architecture in order to uncover the evolving theoretical tenets of what constitutes today's architectural profession, and the tools that will be required of the future architect. This book considers architecture's interdisciplinary nature, and addresses its current and evolving perspectives related to social, economic, environmental, technological, and globalization trends. These challenges are central to the future direction of architecture and as such this Companion will serve as an invaluable reference for undergraduate and postgraduate students, existing practitioners and future architects.

Architecture 2030; BUG; Biophilic Design; BIPV; Circular Economy; LEED; Passive Design; Solar Chimney; Systems Thinking; WELL; Xeriscaping. What does it all mean? The complex and evolving language used in the sustainable design community can be very challenging, particularly to those new to environmentally friendly and resource-efficient design strategies that are needed today. Definitions of over two hundred terms with further sources. Clearly cross-referenced with Sustainaspeak, Theoryspeak, and Archispeak terms. Illustrated throughout with sustainable award-winning buildings by e.g. Behnisch, Brooks + Scarpa, EHDD, KieranTimberlake, Lake|Flato, Leddy Mahtum Stacy, SmithGroup, Perkins+Will, ZGF, VMDO, and McDonough + Partners. Sustainaspeak: A Guide to Sustainable Design Terms provides a current guide to the sustainable design strategies, terms, and practices needed for the next generation of designers, architects, students, and community leaders to design a carbon-neutral world for future generations.

Synergistic Design of Sustainable Built Environments introduces and illustrates a novel systems approach that fosters both design excellence and a leap toward a more biocentric (ecologically sustainable) design paradigm. The book provides a deeper understanding of the theories and principles of biocentric design and offers detailed descriptions of the synergistic design process of integrating theories and principles into practice. It also presents extensive thermal and visual built environment design strategies, along with qualitative and quantitative information that designers can use to generate feasible solutions in response to varying climate and occupant comfort. Features: Examines the principles and practices of the synergistic design (a fusion of anthropocentric and biocentric) of sustainable built environments and how they relate to practical applications. Presents climatic data and its analysis along with sun-path diagrams for numerous cities to aid in the design of sustainable built environments in multiple regional contexts. Includes numerous case studies of sustainable built environments in varying climatic zones. Explains how renewable energy (solar, wind, biomass, geothermal, hydro, fuel cells) can be successfully integrated in the built environment. This forward-thinking and highly illustrated book will be an invaluable reference to all those concerned with sustainable built environments and related architectural issues.

High Performance Buildings: A Guide for Owners and Managers, is a template - a blueprint for action for those making decisions about how to improve the energy efficiency and performance of new or existing buildings. It is designed to have broad appeal, both for the seasoned veteran facility or energy manager and for the new manager alike, but can also be utilized as a practical desk reference by professionals such as architects, engineers, and construction managers. The full spectrum of topics relevant to achieving optimum building performance is addressed, including analysis of overall building energy use and performance, building commissioning, applicable codes, standards and rating systems, building envelope, onsite power generating options, optimizing performance of building mechanical and electrical equipment, and importance of effective building operation and maintenance practices. Fundamental principles are discussed and illustrated with case studies.

This authoritative new resource provides a comprehensive review of the current approaches to the design and construction of sustainable buildings. This hand-on guide features global case studies with practical examples of both successful and unsuccessful designs. The whole system approach to integrated design is clearly presented. This book includes insight into designing for the future, including design quality and future proofing, intelligent buildings, and whole life value. Nature inspired sustainable designs that can be mimicked in the construction industry are presented. Technical challenges such as energy efficiency, design, and computer modeling are explored along with various construction phase opportunities.

Gathering his most compelling essays and addresses from the last fifty years in one accessible volume, this book looks at the pioneering ideas that underpin Sim Van der Ryn's ecological design philosophy. It offers a unique decade-by-decade retrospective of the key issues in environmental design, beginning with the most recent years and looking back to the 1960s. With an introductory chapter and further recommended reading for each decade, this book is key reading for any architect or designer practising today, and students will find a wealth of knowledge with which to support their studies. The author's beautiful illustrations, painted in a corresponding timescale to the chapters, offer further insight into the way he understands the challenges of humanity's stewardship of our planet.

Both professionals and students are increasingly committed to achieving high-performance metrics in the design, construction and operation of residential buildings. This book responds to this demand by offering a comprehensive guide which features: architectural innovations in building skin technologies which make lighter more transparent buildings high performing energy-free architectural design principles and advances in building-integrated photovoltaics essential engineering principles, controls and approaches to simulation for achieving net zero the advantages of integrated design in residential construction and the challenges and opportunities it engenders detailed case studies of innovative homes which have incorporated low-energy design solutions, new materials, alternative building assemblies, digital fabrication, integrated engineering systems and operational controls. Divided into four parts, the book discusses the requisite AEC (Architecture, Engineering and Construction) knowledge needed when building a high-performance home. It also communicates this information across four case studies, which provide the reader with a thorough overview of all aspects to be considered in the design and construction of sustainable homes. With contributions from experts in the field, the book provides a well-rounded and multi-faceted approach. This book is essential reading for students and professionals in design, architecture, engineering (civil, mechanical and electrical), construction and energy management.

Yes, you can use responsive web design to create high performance, compelling websites. With this practical book, author Tom Barker demonstrates that responsive design is not just a frontend-only approach, but also a philosophy for taking advantage of the entire web stack. Responsive design patterns and anti-patterns, derived from heavily used real-world sites, are guiding principles throughout the book. Ideal for frontend-focused web developers, this book shows you how to incorporate responsiveness and performance into your project plan, use Node.js for device-specific functionality on the backend, and write automated tests for a continuous integration environment. You'll explore many useful tools and responsive frameworks, and gain useful insights from

Barker's own experience with responsive design along the way. Get a primer on web performance concepts, web runtime performance, and performance tracking tools Write functionality with Node.js that serves up a device-specific experience to the client Explore client-side solutions, such as lazy loading entire sections of a page—including images, styling, and content Validate service level agreements (SLAs) by writing automated tests with PhantomJS Examine several responsive frameworks, including the author's server-side framework, Ripple

This far-reaching and authoritative two-volume set examines a range of potential solutions for low-energy building design, considering different strategies (energy conservation and renewable energy) and technologies (relating to the building envelope, ventilation, heat delivery, heat production, heat storage, electricity and control). Energy and life-cycle impacts are considered as crucial factors, including passive and active solar use, daylighting and high efficiency conventional heat production. Each volume assesses the potential of these options in a variety of contexts, covering different housing types (apartment, row and detached) in cold, temperate and mild climates. The impressive list of expert authors from 14 countries includes a mix of internationally respected academics and practitioners, working together within the framework of a five-year International Energy Agency (IEA) research project. Volume 1 presents strategies and solutions, offering the reader a solid basis for developing concepts, considering environmental and economic concerns for housing projects in a variety of contexts. Volume 2 offers a detailed analysis of exemplary buildings in different European countries and examines the various technologies employed to achieve their remarkable performance. Aided by clear, full colour illustrations, it offers invaluable insights into the application of these technologies.

High-Performance Building John Wiley & Sons

In the past two decades economic bubbles inflated and architectural spending around the globe reached fever pitch. In both well-established centers of capital accumulation and far-flung locales, audacious building projects sprang up, while the skyscraper, heretofore more commonly associated with American capitalism, seemed as if it might pack up and relocate to Dubai and Shanghai. Of course, much has changed in the past couple of years. In formerly free-spending Dubai, the tallest building in the world is now named after the president of Abu Dhabi after he stepped in with last-minute debt financing. In cities across the United States, housing prices have nose-dived and cleared lots sit ready for commercial redevelopment that likely won't take place for another decade. Similar stories are not hard to find in many other nations. Architecture firms that swelled in flush days are jettisoning employees at a startling rate. In the context of economic instability (and its attendant social and political consequences), this edited volume brings together scholars, critics, and architects to discuss the present state of uncertainty in the practice and discipline of architecture. The chapters are organized into three main areas of inquiry: economics, practice, and technology. Within this larger framework, authors explore issues of security, ecological design, disaster architecture, the future of architectural practice, and the ethical obligations of the social practice of design. In doing so, it argues that this period has actually afforded architecture a valuable moment of self-reflection, where alternative directions for both the theory and practice of architecture might be explored rather than continuing with an approach which was so nurtured by capitalist prosperity and affluence.

The refurbishment of existing buildings is a crucial yet often neglected subject within sustainable architecture; attention is usually focused on new buildings. Many old buildings waste large amounts of energy and provide poor internal conditions for occupants through poor lighting, poor ventilation, solar penetration and glare, and poor control of heating and cooling. Demolition is an option but the refurbishment alternative is increasingly seen as more sustainable in terms of architectural value, materials use, neighbourhood disruption and waste disposal. In addition, the potential impact of low energy refurbishment is much greater than that for new build since there are many more buildings already in existence than will be built in the next 10 - 20 years, the period over which many CO2 emission targets apply. The Handbook of Sustainable Refurbishment: Non-Domestic Buildings offers architects, engineers and a wide range of building professionals practical advice, illustrated by real examples. It moves from principles of sustainable refurbishment to specific design and engineering guidance for a variety of circumstances. It emphasises the need for an integrated approach by showing how refurbishment measures interact with one another and with the occupants, and how performance is ultimately influenced by this interaction.

Visually enriched with over 250 photographs and drawings, Bioclimatic Double-Skin Façades is an essential reference guide for understanding the types and functions of double-skin façades. Author Mary Ben Bonham examines the history and continuing potential of double-skin architecture, informing on the variety of approaches possible and advising a rigorous integrated design process leading to application. Featuring a wide selection of architectural examples, the book will be of interest to professionals and students within the fields of architecture, engineering, and construction. Characterized by a buffer-like air space between two glazed building skins, double-skin windows and façades aim to improve building comfort and energy performance. Double skins introduce complexity and initial costs, yet significant buildings in locations around the globe continue to select this approach. In addition to exploring motivations, benefits, and cautions for designing with double skins, the book provides a primer on fundamental façade design concepts and strategies for control of thermal, luminous, and acoustic environments. Chapters also address alternative types of high-performance façades and implications for each phase of façade design and construction. Bioclimatic Double-Skin Façades promotes bioclimatic design that is inspired by nature, measured in performance, and uniquely adapted to climate and place. In-depth case studies illustrate how double-skin façades have been adapted to a range of climates and cultural settings: Marseille Library and Grenoble Courthouse in France, Cambridge Public Library in Massachusetts, Manitoba Hydro Place in Canada, and the Pearl River Tower in China.

Develop three engaging ArcGIS applications to address your real-world mapping scenarios About This Book Design, build and run ArcGIS applications using ArcObjects SDK Extend ArcGIS objects and use add -ins to deploy applications on top of ArcGIS An example-centric practical guide to help you understand mapping scenarios with ArcGIS Who This Book Is For If you are an application developer and wish to enhance your skills for the GIS domain with ArcGIS, then this book is for you. Previous experience with ArcGIS is not required. What You Will Learn Use essential ArcGIS code to query geodatabases Communicate with ArcGIS maps, with the help of critical designing and optimisation tips Highlight and interact with objects on your map Query ArcGIS geodatabases with related data to display your information on ArcGIS Edit your underlying geodatabase Explore strategies for the adaptation of various types of spatial analysis techniques into the GIS framework Analyze tools for Geographical Information Systems and remote sensing Experience ArcGIS's advanced tools for manipulation of shapefiles and geodatabases In Detail ArcGIS is a geographic information system (GIS) for working with maps and geographic information. It is considered the turnkey solution to creating and sharing interactive maps. ArcGIS is designed to work the way you work. With nothing to install and set up, ArcGIS helps you make your work productive from day one. The book covers the design and development of three ArcGIS applications to guide the readers in crafting their own GIS solution as per their requirements. The book begins by giving you a refresher on the concepts of ArcGIS. Without wasting any time, you'll begin with developing your first ArcGIS application. You will be developing a cell tower analysis tool. Following this, you will be guided through mapping signal strength and real - time manoeuvring in your GIS system. You will then move on to the second application of the book: a restaurant mapping system. The application will allow tourists to browse restaurants on a map, according to their preferences. Next, you will learn how to work with reviews and ratings and also cover some of the advanced searching options offered by ArcGIS. You will then make use of advanced ArcObjects to develop your third application: an excavation planning manager. The book will conclude by teaching you how work out excavation cost calculations and also saving and

retrieving your excavation designs. Style and approach The book offers an enhanced way of learning ArcGIS, through the design and development of three applications throughout its length. In addition to this the book also covers features that you can add to your application as you develop each one covered in the book.

For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

Take a deep dive into web development using the Go programming language to build web apps and RESTful services to create reliable and efficient software. Web Development with Go provides Go language fundamentals and then moves on to advanced web development concepts and successful deployment of Go web apps to the cloud. Web Development with Go will teach you how to develop scalable real-world web apps, RESTful services, and backend systems with Go. The book starts off by covering Go programming language fundamentals as a prerequisite for web development. After a thorough understanding of the basics, the book delves into web development using the built-in package, net/http. With each chapter you'll be introduced to new concepts for gradually building a real-world web system. The book further shows you how to integrate Go with other technologies. For example, it provides an overview of using MongoDB as a means of persistent storage, and provides an end-to-end REST API sample as well. The book then moves on to demonstrate how to deploy web apps to the cloud using the Google Cloud platform. Web Development with Go provides: Fundamentals for building real-world web apps in Go Thorough coverage of prerequisites and practical code examples Demo web apps for attaining a deeper understanding of web development A reference REST API app which can be used to build scalable real-world backend services in Go A thorough demonstration of deploying web apps to the Cloud using the Google Cloud platform Go is a high-performance language while providing greater level of developer productivity, therefore Web Development with Go equips you with the necessary skills and knowledge required for effectively building robust and efficient web apps by leveraging the features of Go.

Explains how to use Java's portable platforms to program and use threads effectively and efficiently while avoiding common mistakes Evidence has accumulated that shows that the quality of indoor environments can affect the health and productivity of adults and children. One consequence is that a movement has emerged to promote the design of schools that have fewer adverse environmental effects. To examine the potential of such design for improving education, several private organizations asked the NRC to review and assess the health and productivity benefits of green schools. This report provides an analysis of the complexity of making such a determination; and an assessment of the potential human health and performance benefits of improvements in the building envelope, indoor air quality, lighting, and acoustical quality. The report also presents an assessment of the overall building condition and student achievement, and offers an analysis of and recommendations for planning and maintaining green schools including research considerations.

The design, construction, operation, and retrofit of buildings is evolving in response to ever-increasing knowledge about the impact of indoor environments on people and the impact of buildings on the environment. Research has shown that the quality of indoor environments can affect the health, safety, and productivity of the people who occupy them. Buildings are also resource intensive, accounting for 40 percent of primary energy use in the United States, 12 percent of water consumption, and 60 percent of all non-industrial waste. The processes for producing electricity at power plants and delivering it for use in buildings account for 40 percent of U.S. greenhouse gas emissions. The U.S. federal government manages approximately 429,000 buildings of many types with a total square footage of 3.34 billion worldwide, of which about 80 percent is owned space. More than 30 individual departments and agencies are responsible for managing these buildings. The characteristics of each agency's portfolio of facilities are determined by its mission and its programs. In 2010, GSA's Office of Federal High-Performance Green Buildings asked the National Academies to appoint an ad hoc committee of experts to conduct a public workshop and prepare a report that identified strategies and approaches for achieving a range of objectives associated with high-performance green federal buildings. Achieving High-Performance Federal Facilities identifies examples of important initiatives taking place and available resources. The report explores how these examples could be used to help make sustainability the preferred choice at all levels of decision making. Achieving High-Performance Federal Facilities can serve as a valuable guide federal agencies with differing missions, types of facilities, and operating procedures.

This book incorporates UK and international case studies and essays to identify the overlaps in the interests of energy and building conservation. The relevance and adjustments of qualitative and quantitative frames of reference are introduced, alongside the various expertise of the contributors: architects, designers, conservation consultants and academics. The second part of the book showcases sustainable domestic and non-domestic heritage projects, translating the preceding research into information that practitioners can use in their everyday work. The book will appeal to architecture students, newly qualified professionals and conservation architects and will enhance readers' ambitions, so that they feel equipped and inspired to work with old buildings sensitively, creatively and sustainably.

The essential guide to environmental control systems in building design For over 25 years Heating, Cooling, Lighting: Sustainable Design Strategies Towards Net Zero Architecture has provided architects and design professionals the knowledge and tools required to design a sustainable built environment at the schematic design stage. This Fifth Edition offers cutting-edge research in the field of sustainable architecture and design and has been completely restructured based on net zero design strategies. Reflecting the latest developments in codes, standards, and rating systems for energy efficiency, Heating, Cooling, Lighting: Sustainable Design Strategies Towards Net Zero Architecture includes three new chapters: Retrofits: Best practices for efficient energy optimization in existing buildings Integrated Design: Strategies for synergizing passive and active design Design Tools: How to utilize the best tools to benchmark a building's sustainability and net zero potential Heating, Cooling, Lighting: Sustainable Design Strategies Towards Net Zero Architecture is a go-to resource for practicing professionals and students in the fields of environmental systems technology or design, environmental design systems, construction technology, and sustainability technology.

Get the comprehensive guide to the sustainable design of schools. The elementary and secondary school buildings and campuses built today are the schools of the future. Sustainable School Architecture is a guide to the planning, architecture, and design of schools that are healthy, stimulating, and will conserve energy and resources. Written with the needs of architects, construction professionals, educators, and school administration in mind, the book provides a road map for sustainable planning, design, construction, and operations. By its very nature, a school is often the centerpiece of its community and, therefore, well positioned to take the lead in influencing environmental awareness. Building on this point, Sustainable School Architecture shows how eco-friendly practices for school construction can create an environment that young students will emulate and carry into the world. Written by experts on sustainable school design, this book: Focuses on the links between best sustainable practices and the specific needs of educational institutions. Has nineteen international case studies of the best contemporary sustainable schools located in urban, suburban, and rural communities in temperate, tropical, and extreme climate zones. Contains valuable information on the California Collaborative for High Performance Schools (CHPS) and the Leadership in Energy and Environmental Design (LEED®) rating system. Serves as a resource for incremental modernization and operation strategies as well as comprehensive transformation. Offers tips on running an integrated, community-based design process with support information on the materials and systems of the sustainable school. Includes contributions by experts on approaches to the sites, systems, maintenance, and operation of sustainable schools. With a practical overview of how sustainability can be achieved in new and existing schools, and how to maintain this momentum in the years ahead, this important book provides architects with detailed guidance for designing healthier learning

environments to help usher in a more promising future.

The Insider's Guide to Writing OpenSocial Applications for MySpace—and Beyond! When you write OpenSocial applications for MySpace, you can reach millions of users overnight. Building OpenSocial Apps shows you how, one step at a time. Whether you're building casual widgets or feature-rich, professional applications, this book will teach you everything you need to know. The authors are the leading experts on OpenSocial and MySpace and have personally helped construct the MySpace platform and OpenSocial standards. In this indispensable book, they walk you through the entire process of building apps, from signing up through building complex apps that can scale to thousands of users and interoperate on more than fifty social networks, such as Hi5, Orkut, and LinkedIn. They demonstrate today's best practices for building OpenSocial applications and present dozens of tips for leveraging both MySpace and OpenSocial to their fullest. Coverage includes Installing and working with the MySpace Developer Platform Retrieving, parsing, and displaying user data, friend lists, and photos Sending App invitations and notifications Building mashups that communicate with third-party web services Marketing your App and building your user base Designing for performance, scalability, and fault tolerance Securing MySpace and OpenSocial apps, and protecting users' privacy Building apps that display ads and accept micropayments A companion web site (opensocialtictactoe.googlecode.com) includes an extensive library of downloadable source code and other support materials.

Provides a definitive guide to terminology, techniques, and system information for individuals working in both Macintosh and Windows environments, explaining how to translate materials effectively from the one platform to the other. Original. (All Users)

As more factors, perspectives, and metrics are incorporated into the planning and building process, the roles of engineers and designers are increasingly being fused together. Sustainable Infrastructure explores this trend with in-depth look at sustainable engineering practices in an urban design as it involves watershed master-planning, green building, optimizing water reuse, reclaiming urban spaces, green streets initiatives, and sustainable master-planning. This complete guide provides guidance on the role creative thinking and collaborative team-building play in meeting solutions needed to affect a sustainable transformation of the built environment.

"An essential reference for everybody concerned with the calculation of costs of mechanical and electrical works." – Cost Engineer Market conditions remain unfavourable and construction output and orders obtained by contractors continue to decline. The costs of some items have increased, but profits and overheads have fallen and are expected to fall further in the coming year. But price changes have varied across the industry. Spon's Mechanical and Electrical Services Price Book 2010 continues to be the most comprehensive and best annual services engineering price book currently available, providing detailed pricing information across the full range of mechanical and electrical services, together with higher level costs for a diverse range of systems and different building applications. This year's book provides an overhaul of the unit rates and composite rates. It contains a new section on the Façade System in engineering features which explains the relationship between the building envelope and the provision of cooling And the new series of topical features continues, focusing on subjects which affect M&E costs within buildings; and design schematics are provided for several M&E services. All the standard features you have come to expect from Spon's M & E are also included, considered essential for today's services cost professional: Detailed materials prices, labour constants, labour costs and measured work prices for mechanical and electrical works, from above ground drainage to automatic transfer switches, and circuit breakers to sprinkler systems. An extensive Approximate Estimating section for quick, rule-of-thumb pricing of mechanical or electrical installations, together with elemental services costs for different types and standard of buildings. Full details of wage rates, daywork and cost indices on a national and Central London basis. An overhauled index and guidance notes. Updated, free of charge, every four months – see enclosed card to register. Updates are available online at www.pricebooks.co.uk Buyers of this 2010 edition can make a free internet download of Spon's Mechanical & Electrical Services price data data, which will run to the end of 2010 and: produce estimate and tender documents generate priced or unpriced schedules adjust rates and data and enter rogue items export schedules into Excel carry out an index search This year, for the first time, the download includes a versatile and powerful ebook.

Ultra-Fast ASP.NET presents a practical approach to building fast and scalable web sites using ASP.NET and SQL Server. In addition to a wealth of tips, tricks and secrets, you'll find advice and code examples for all tiers of your application, including the client, caching, IIS 7, ASP.NET, threads, session state, SQL Server, Analysis Services, infrastructure and operations. By applying the ultra-fast approach to your projects, you'll squeeze every last ounce of performance out of your code and infrastructure—giving your site unrivaled speed. The approach is mostly prescriptive; rather than drowning you in options, the book presents and explains specific high-impact recommendations and demonstrates them with detailed examples. Using this knowledge, you will soon be building high-performance web sites that scale easily as your site grows.

This book is a collection of articles that have been published in the Special Issue "Responsive Architecture" of the MDPI journal Buildings. The eleven articles within cover various areas of sensitive architecture, including the design of packaging structures reacting to supporting components; structural efficiency of bent columns in indigenous houses; roof forms responsive to buildings depending on their resiliently transformed steel shell parts; creative design of building free shapes covered with transformed shells; artistic structural concepts of the architect and civil engineer; digitally designed airport terminal using wind analysis; rationalized shaping of sensitive curvilinear steel construction; interactive stories of responsive architecture; transformed shell roof constructions as the main determinant in the creative shaping of buildings without shapes that are sensitive to man-made and natural environments; thermally sensitive performances of a special shielding envelope on balconies; quantification of generality and adaptability of building layout using the SAGA method; and influence of initial conditions on the simulation of the transient temperature field inside a wall.

Annotation Responsive web design's dirty secret today is how bloated everyone's implementations are. Many developers are loading sites full of the styles, images, and JavaScript for all of their break points - and designers are starting to complain about responsive web design's performance implications. This book will help you build a site that reaches top performance on all platforms.

Nowadays there is an ever growing awareness regarding inevitable importance of sustainable development and its sub topics such as environment protection, ecology, resource saving, energy efficiency, etc. Due to massive and rapid development in recent years, this topic is getting more crucial in developing countries for instance Iran. It is getting more obvious that most of the development activities in absence of precise analysis of current conditions, as well as consequences of such activities, will lead to devastation of natural resources. The resources that is essential for further development of the country. Therefore, It is necessary to deal with sustainable development and environmental issues from the broader perspective, where includes items underlying immediate causes of environmental impact and at the same time tries to improve them. Sustainability or sustainable development is an umbrella covering many issues and

aspects, among them energy, which is the key item, because energy consumption of buildings could have an impact on environment more than other aspects. Considering the huge portion of energy consumption in construction industry and housing sector, paying special attention to improvements in this sector is essential. Following this goal, the aim of this publication is to highlight procedures and practices which promote sustainable construction that is about creating a better quality of building and more healthy places to live in. Procedure of sustainable design includes various approaches and methods to develop energy efficient and environmentally sensitive buildings. Such approaches and methods demonstrate how to design, develop and construct all buildings in general and residential buildings in particular. Among various approaches towards sustainability, "Passive solar strategies" are well-known thanks to their cost efficiency and context friendliness of its principals and measures. The approach of passive design (architectural) strategies could be considered as the most applicable approach for resource saving and sustainability, thinking about special situation of Iran in particular and the Mena region in general. Such an approach requires paying special attention to climate, social characteristics of current or prospective inhabitants, topographical-physical characteristics as well as architectural characteristics of the understudied area. The relationships and interactions among society, building and its architecture and climate is "Site-specific" and dynamic. Therefore, they should be studied and properly analyzed throughout a specific project process for each certain place. The most expecting outcomes are precise definitions of passive design strategies, generally for buildings in MENA Region and especially for Iran. This publication is prepared in the young cities project framework, as the reasonable outcome of the developed pilot projects. The book starts with introducing the target group, related definitions and a brief overview on a conventional approach and its impact on environment. This chapter ends up with a brief review on benefits of applying sustainable guidelines. As the next step, after analyzing the climate and its relationship with thermal comfort and building, the main principals of passive solar design are introduced. The selected principles are: orientation, day-lighting, shading, thermal mass, insulation and ventilation. After a brief introduction of the principals, each one is explained in detail through its general principles and design strategies. Sustainable construction is examined based on its main pillars: construction systems, building elements, ecological building materials, and applicable measures for building physic. Construction systems are sorted out in six main groups as: block work- brick infill, block work- lightweight block infill, conventional panels, light weight steel frame, tunnel form structural system and precast modular. All selected systems are introduced based on following factors: brief description of the building concept, factory production, insulation, wastage, finishes, labor, installation, transport- lifting, services, hydronic cooling/ heating and safety. Then main building elements are examined. Here the elements are limited to: foundations, walls, floors, roofs, doors and windows. After a short description, different types of each element are introduced. Ecological building materials are investigated in chapter four. To find a base to compare, several common criteria are selected such as: embodied energy, pollution and waste, local production, reusability and recyclability, durability and interdependency. Applicable measures for building physic are examined in chapter five. The selected main measures are as follows: insulation, glazing, thermal mass, day-lighting, shading, ventilation and air-tightness. After describing the general principles of each measure, several recommendations in frame of design considerations are provided. Die enorme Bedeutung nachhaltiger Projekte wie Umweltschutz, Ökologie, sparsamer Umgang mit Rohstoffen, Energieeffizienz usw. dringt immer stärker in unser Bewusstsein. Aufgrund der massiven und rasanten Entwicklung in den Schwellenländern, z. B. Iran, gewinnen Umweltschutz und Nachhaltigkeit immer mehr an Relevanz. Ein einseitiges Wirtschaftswachstum, ohne Berücksichtigung ökologischer und klimatischer Bedingungen, verursacht die Zerstörung der Umwelt und Rohstoffe, Ressourcen, die für die weitere Entwicklung der Länder unverzichtbar sind. Es ist unumgänglich, sich umfassend mit nachhaltiger Entwicklung und ökologischen Aspekten auseinanderzusetzen, die unmittelbaren Auswirkungen auf die Umwelt zu erfassen und gleichzeitig Möglichkeiten einer Optimierung aufzuzeigen. Nachhaltigkeit und Umweltschutz erfassen eine Vielzahl von Themen und Aspekten, u. a. den Energieverbrauch; ein wesentlicher Faktor, da der Energieverbrauch in Gebäuden den größten Einfluss auf die Umweltbilanz hat. In Anbetracht des enormen Energieverbrauchs in Bauwirtschaft und Wohnungsbau ist es unerlässlich, gerade in diesem Bereich eine Optimierung in der weiteren Entwicklung zu verfolgen. Diesem Ziel folgend, werden in dieser Publikation Verfahren und Methoden, für nachhaltige Bauweisen, unter Berücksichtigung einer besseren Bauqualität und gesundheitlicher Aspekte, erläutert. Die Maßnahmen nachhaltigen Designs beinhalten verschiedene Ansätze und Methoden, energieeffiziente und umweltfreundliche Gebäude zu entwickeln. Sie zeigen Entwurf, Konstruktion und bauliche Ausführung von Gebäuden im Allgemeinen und Wohngebäuden im speziellen. Neben den verschiedenen Ansätzen sind die „passive solar strategies“ die wohl namhaftesten Methoden, da diese sehr rentabel und daher für Bauherren attraktiv sind. Angesichts der speziellen Situation im Iran im Besonderen und der MENA-Region im Allgemeinen, könnten die passiven Design- (Architektur-) Strategien als eine der am besten anzuwendenden Methoden für Rohstoffeffizienz und Nachhaltigkeit betrachtet werden. Dies setzt eine besondere Berücksichtigung des dortigen Klimas, der sozialen Charakteristiken derzeitiger oder zukünftiger Einwohner als auch der topographisch-physischen und architektonischen Charakteristiken der betroffenen Region voraus. Beeinflussung und Beziehungen zwischen Gesellschaft, Gebäuden, Architektur und Klima sind „lokal spezifisch“ und dynamisch. Deshalb sollten diese Faktoren für jeden Standort neu geprüft und analysiert werden. Die Resultate dieser Analysen, allgemein für Gebäude in der MENA-Region und im Besonderen im Iran, zeigen deutlich die Überlegenheit von passiven Designstrategien. Diese Publikation ist das Resultat der entwickelten Pilotprojekte im Rahmen des Young Cities-Projektes. Sie beginnt mit der Vorstellung der Zielgruppe, relevanten Definitionen und einem kurzem Überblick des konventionellen Ansatzes und dessen Einfluss auf die Umwelt. Das Kapitel endet mit einem kurzen Rückblick über den Nutzen nachhaltiger Bauweise. Nach Analyse des Klimas und seine Beziehung zu thermischem Komfort und Gebäuden werden die wichtigsten Prinzipien passiver Solarenergie vorgestellt: Orientierung, Tageslicht, Schatten, thermale Masse, Isolierung und Ventilierung; ihre Grundlagen und

Designstrategien detailliert erläutert. Nachhaltige Konstruktion und deren Hauptpfeiler, Bausysteme, Bauelemente, ökologische Bauelemente und anwendbare Maßnahmen für die Bauphysik, werden anschließend beleuchtet. Dabei wurden die Konstruktionssysteme in sechs Hauptgruppen gegliedert: Ziegeleinfüllung, leichtgewichtige Ziegeleinfüllung, klassische Füllwände, leichtgewichtige Stahlrahmen, tunnelförmige Struktursysteme und vorgefertigte Modelle. Anhand folgender Faktoren werden diese eingehend dargestellt: Baukonzepts, Fabrikproduktion, Isolierung, Abnutzung, Verarbeitung, Arbeitsaufwand, Installierung, Transport-Beförderung, Services, hydronische Kühlung/Heizung und Sicherheit. Die Hauptbauelemente wie Unterbau, Wände, Boden, Dächer, Türen und Fenster werden beschrieben und verschiedene Baureihen dieser vorgestellt. Das vierte Kapitel befasst sich mit ökologischen Baumaterialien. Um hierbei eine vergleichbare Basis zu finden, wurden gemeinsame Kriterien ausgewählt: graue Energie, Verschmutzung und Abfall, lokale Produktion, Wiederverwendung und Recycling, Nachhaltigkeit und Interdependenzen. Im fünften Kapitel werden anwendbare Maßnahmen für die Bauphysik, wie Isolierung, Lasur, Wärmemasse, Tageslicht, Schatten, Ventilation und Luftdichte, untersucht, deren Grundlagen beschrieben und Empfehlungen bezüglich der Gestaltung präsentiert

Lists addresses and telephone and fax numbers for federal agencies, Congress, and nongovernmental organizations in Washington, D.C.

[Copyright: ffc522448d098af8ed849b03b1526823](#)