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Sustainability, Eco-efficiency, and Conservation in Transportation Infrastructure Asset

Management - Massimo Losa 2014-04-28

Worldwide there is a growing interest in efficient planning and the design, construction and maintenance of transportation facilities and infrastructure assets. The 3rd International Conference on Transportation Infrastructure ICTI 2014 (Pisa, April 22-25, 2014) contains contributions on sustainable development and

preservation of transportation infrastructure assets, with a focus on eco-efficient and cost-effective measures. Sustainability, Eco-efficiency and Conservation in Transportation

Infrastructure Asset Management includes a selection of peer reviewed papers on a wide variety of topics: • Advanced modeling tools (LCA, LCC, BCA, performance prediction, design tools and systems) • Data management (monitoring and evaluation) • Emerging

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technologies and equipments • Innovative strategies and practices • Environmental sustainability issues • Eco-friendly design and materials • Re-use or recycling of resources • Pavements, tracks, and structures • Case studies Sustainability, Eco-efficiency and Conservation in Transportation Infrastructure Asset Management will be particularly of interest to academics, researchers, and practitioners involved in sustainable development and maintenance of transportation infrastructure assets.

Energy Geotechnics - Alessio Ferrari 2018-08-23
This book collects selected full papers presented at the International Symposium on Energy Geotechnics 2018 (SEG-2018), held on 25th - 28th September 2018, at the Swiss Federal Institute of Technology in Lausanne (EPFL). It covers a wide range of topics in energy geotechnics, including energy geostructures, energy geostorage, thermo-hydro-chemo-mechanical behaviour of geomaterials,

unconventional resources, hydraulic stimulation, induced seismicity, CO2 geological storage, and nuclear waste disposal as well as topics such as tower and offshore foundations. The book is intended for postgraduate students, researchers and practitioners working on geomechanics and geotechnical engineering for energy-related applications.

ACI 347R-14, Guide to Formwork for Concrete - ACI Committee 347--Formwork for Concrete 2014

Brittle Matrix Composites 9 - A M Brandt 2009-11-30

The subjects of the symposia are on composite materials with matrices behaving as brittle in normal or special conditions. Brittle matrix composites are applied in various domains (civil engineering, mechanical equipment and machinery, vehicles, etc.) and in the last decades their importance is increasing together with their variety. Papers include: aggregate-binder

composites (concretes, fibre concretes, rocks); sintered materials (ceramics); high strength composites with brittle matrices. In principle, the general problems of structures made of composite materials are not included in the papers. Various approaches to the material engineering problems are presented in the papers.

Waste Materials in Advanced Sustainable Concrete - Md Rezaur Rahman 2022

This book presents solutions for optimizing sustainable concrete fabrication techniques. It shows how to reinforce sustainable concrete by various waste materials such as glass waste, uncrushed cockle shell, plastic waste and ceramic tiles. It also reports on properties enhancement of high-strength concrete materials. The book presents an analysis of the environmental impact of waste materials use.

Concrete International - 2008

Proceedings of the 5th International Conference

on Water Resources (ICWR) – Volume 1 - Sobri Harun 2022-10-12

This book comprises selected proceedings of the 5th International Conference on Water Resources 2021 (ICWR2021) focusing on innovations and preparations to face the water-related challenges. Focus is given in the area of quantitative and qualitative water resource analyses comprising of forecasting, modelling and water governance. The contents will be useful to researchers, educators, practitioners and policy-makers alike.

Pervious Concrete Pavements - Paul D. Tennis 2004

Report on Pervious Concrete - ACI Committee 522 2010

"This report provides technical information on pervious concrete's application, design methods, materials, properties, mixture proportioning, construction methods, testing, and inspection.

The term 'pervious concrete' typically describes

a near-zero-slump, open-graded material consisting of portland cement, coarse aggregate, little or no fine aggregate, admixtures, and water." [p. 1]

Green Building with Concrete - Gajanan M. Sabnis 2011-10-19

With superior fire resistance, strength, and a long service life, concrete is the most widely used construction material in the world. A sustainable material, concrete is also easily and affordably reused and rehabilitated. The first book to provide an overview of sustainability and concrete, *Green Building with Concrete:*

Sustainable Design and Con

Proceedings of 2021 4th International Conference on Civil Engineering and Architecture - Thomas Hyun-Koo Kang 2022

This book states that the proceedings gathers selected papers from 2021 4th International Conference on Civil Engineering and Architecture (ICCEA 2021), which was taken place in Seoul, South Korea, during July 10-12,

2021. The conference is the premier forum for the presentation of new advances and research results in the fields of theoretical, experimental, and practical civil engineering and architecture. And this proceedings from the conference mainly discusses architectural design and project management, environmental protection and spatial planning, design and analysis of building materials, and structural engineering and safety. And these materials can be useful and valuable sources for researchers and professionals working in the field of civil engineering and architecture.

ACI 325. 9R-15 Design for Construction of Concrete Pavements - American Concrete Institute 2015

Ecosystems and Sustainable Development X - J.L. Miralles i Garcia 2015-06-03

The Tenth International Conference on Ecosystems and Sustainable Development is the latest in a well established series that originated

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from the work of the late Nobel laureate, Ilya Prigogine, who challenged us to develop the science of "ecodynamics," integrating thermodynamics, ecology and economics. The papers presented at the conference, contained in this book, cover not only new research from all over the world related to ecological problems, but also new ideas and emerging concepts resulting from interdisciplinary efforts of scientists, engineers and economists. The included papers cover such topics as: Energy and the Environment; Environmental Indicators; Sustainable Development and Planning; Ecosystem Modelling; Natural Resources Management; Sustainable Development Studies; Waste Management; Soil Contamination and Recovery; Recovery of Damaged Areas; Protection and Mitigation; Sustainable Energy Systems; Economic and Benefit Analysis; Policies; Environmental Management; Climate Change and Adaptation; Forensic Analysis; Knowledge Dissemination; Social Responsibility;

Environmental Monitoring and Assessment; Innovation in Environmental Management; Sustainable Indicators, Monitoring and Assessment; Natural Resources in Periurban Spaces; Territorial Risk Management.

Advances in Sustainable Materials and Resilient Infrastructure - Krishna R. Reddy
2022-03-12

The edited book comprises invited book chapter contributions from global experts in the field of sustainable materials and resilient infrastructure. The book covers the most critical and emerging topics for creating sustainable solutions for the construction industry, promoting the technologies and monitoring methods for resilient infrastructure. It focuses on sustainable solutions and offers techniques and methodologies to deliver high-quality end solutions in civil engineering. In addition, the content provides knowledge-based information for the readers to assess, monitor, measure, and practice sustainability for resilient

infrastructure. The contents of the volume are a blend of academic research work and industrial case studies. It covers the use of sustainable materials like Lime-Pozzolona Binders, biopolymers, lignosulphonate, lightweight aggregates made from fly ash, calcinated clay, paper ash, and limestone as amendments/ameliorators for soil remediation, development of neo-construction materials and composites for civil engineering applications. Design of innovative pavements using alkali activation and pervious concrete for sustainable infrastructure is also discussed. The chapters also highlight the role of civil engineers in achieving UN Sustainable Development Goals, promoting climate change design for urban landscapes, and modelling building energy demand. This book is framed to address the principles and practice from the corners of geoenvironment, sustainable construction materials, low carbon materials, energy efficiency, and waste management. It is a

valuable reference for faculty, researchers, field experts, scientists, and practicing engineers.

Proceedings of SECON 2020 - Kaustubh Dasgupta 2020-11-20

This book gathers peer-reviewed contributions presented at the 1st International Conference on Structural Engineering and Construction Management (SECON'20), held in Angamaly, Kerala, India, on 14-15 May 2020. The meeting served as a fertile platform for discussion, sharing sound knowledge and introducing novel ideas on issues related to sustainable construction and design for the future. The respective contributions address various aspects of numerical modeling and simulation in structural engineering, structural dynamics and earthquake engineering, advanced analysis and design of foundations, BIM, building energy management, and technical project management. Accordingly, the book offers a valuable, up-to-date tool and essential overview of the subject for scientists and practitioners

highlights important elements in the planning and development stages to establish design standards beneficial to the environment and its surroundings. The contributions introduce numerous exciting ideas that spur novel research directions and foster multidisciplinary collaborations between various specialists in the field of civil engineering.

Advances in Construction and Demolition Waste Recycling - Fernando Pacheco-Torgal
2020-02-10

Advances in Construction and Demolition Waste Recycling: Management, Processing and Environmental Assessment is divided over three parts. Part One focuses on the management of construction and demolition waste, including estimation of quantities and the use of BIM and GIS tools. Part Two reviews the processing of recycled aggregates, along with the performance of concrete mixtures using different types of recycled aggregates. Part Three looks at the environmental assessment of non-hazardous

waste. This book will be a standard reference for civil engineers, structural engineers, architects and academic researchers working in the field of construction and demolition waste. Summarizes key recent research in recycling and reusing concrete and demolition waste to reduce environmental impacts Considers techniques for managing construction and demolition waste, including waste management plans, ways of estimating levels of waste, and the types and optimal location of waste recycling plants Reviews key steps in handling construction and demolition waste

Integrated Approaches Towards Solid Waste Management - Ajay S. Kalamdhad 2021-06-23

In the developing countries, pollution through solid waste, sludge from water and wastewater treatment plants and pollution of natural water resources have become one of the grave issues. The root cause is population explosion, industrialization, urbanization and other anthropogenic activities. The increase rate of

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solid waste has become a major challenge for sustainable development of the environment. Poor management of solid waste and sludge from water and wastewater treatment plants may be the cause of health hazards and environmental problems. The book presents new methods and technologies to combat the aforementioned problems and focuses on the importance of using the recycled products. The technologies related to waste and sludge treatment are economical, eco-friendly and bring economic returns, and can be applied to most of the developing countries where waste treatment technologies, viz. composting, anaerobic digestion, recycling of plastic and agricultural waste in construction can be used. The aim of the book is to support everyone who is involved in academics, teaching, research related to solid waste management and water and wastewater treatment study in the leading academic and research organizations globally. This book will be of prodigious value to upcoming researchers,

scholars, scientists and professionals in Environmental Science and Engineering fields, and global and local authorities and policy makers responsible for the management of solid wastes and sludge. Globally, universities can develop new prospectuses on sustainable and eco-friendly waste and sludge management, which are relating to the book's theme. This book can also be of great source for designing and operation of waste reuse and recycling programmes.

Concrete: Microstructure, Properties, and Materials - P. Kumar Mehta 2013-12-03

"THE MOST COMPREHENSIVE AND CURRENT GUIDE TO THE PROPERTIES, BEHAVIOR, AND TECHNOLOGY OF CONCRETEThis thoroughly updated edition contains new information on: Recently built construction projects worldwide Shrinkage-reducing admixtures Self-consolidatingconcrete, pervious concrete, internal curing, and other cutting-edge innovations Modeling of ice formation and alkali-

aggregate reaction in concrete Environmental impact of concrete Each chapter begins with a preview of the contents and ends with a self-test and a guide for further reading. More than 300 drawings and photographs illustrate the topics discussed in this definitive text on

concrete. Comprehensive coverage includes:

Microstructure of concrete Strength Dimensional stability Durability Hydraulic cements Aggregates Admixtures Proportioning concrete mixtures Concrete at early age Nondestructive methods Progress in concrete technology Advances in concrete mechanics Global warming and concrete in the future "--

Sustainable Buildings and Structures: Building a Sustainable Tomorrow -

Konstantinos Papadikis 2019-09-26 Sustainable Buildings and Structures: Building a Sustainable Tomorrow collects the contributions presented at the 2nd International Conference on Sustainable Buildings and Structures (Suzhou, China, 25-27 October 2019). The

papers aim at sharing the state-of-the-art on sustainable approaches to engineering design and construction, and cover a wide range of topics: Sustainable Construction Materials Sustainable Design in Built Environment Green and Low Carbon Buildings Smart Construction and Construction Management Sustainable Buildings and Structures: Building a Sustainable Tomorrow will be of interest to academics, professionals, industry representatives and local government officials involved in civil engineering, architecture, urban planning, structural engineering, construction management and other related fields.

Handbook of Environmental Engineering - Myer Kutz 2018-10-16

A comprehensive guide for both fundamentals and real-world applications of environmental engineering Written by noted experts, Handbook of Environmental Engineering offers a comprehensive guide to environmental engineers who desire to contribute to mitigating

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problems, such as flooding, caused by extreme weather events, protecting populations in coastal areas threatened by rising sea levels, reducing illnesses caused by polluted air, soil, and water from improperly regulated industrial and transportation activities, promoting the safety of the food supply. Contributors not only cover such timely environmental topics related to soils, water, and air, minimizing pollution created by industrial plants and processes, and managing wastewater, hazardous, solid, and other industrial wastes, but also treat such vital topics as porous pavement design, aerosol measurements, noise pollution control, and industrial waste auditing. This important handbook: Enables environmental engineers to treat problems in systematic ways Discusses climate issues in ways useful for environmental engineers Covers up-to-date measurement techniques important in environmental engineering Reviews current developments in environmental law for environmental engineers

Includes information on water quality and wastewater engineering Informs environmental engineers about methods of dealing with industrial and municipal waste, including hazardous waste Designed for use by practitioners, students, and researchers, Handbook of Environmental Engineering contains the most recent information to enable a clear understanding of major environmental issues.

Smart and Multifunctional Concrete Toward Sustainable Infrastructures - Baoguo Han
2017-06-12

This book presents the latest research advances and findings in the field of smart/multifunctional concretes, focusing on the principles, design and fabrication, test and characterization, performance and mechanism, and their applications in infrastructures. It also discusses future challenges in the development and application of smart/multifunctional concretes, providing useful theory, ideas and principles, as

well as insights and practical guidance for developing sustainable infrastructures. It is a valuable resource for researchers, scientists and engineers in the field of civil-engineering materials and infrastructures.

Recent Advancements in Civil Engineering - Boeing Laishram 2022

This book presents select proceedings of the International Conference on Advances in Civil Engineering (ACE 2020). The book examines the recent advancements in construction management, construction materials, environmental engineering, geotechnical engineering, transportation engineering, water resource engineering, and structural engineering. The topics covered include sustainable construction process and materials, smart infrastructures, green building technology, global environmental change and ecosystem management, theoretical and analytical solutions for foundation engineering, smart transportation systems and policy, GIS

applications in water resource management, structural analysis for blast and impact resistance, and soft computing techniques in civil engineering. The book will be useful for researchers and professionals in the field of civil engineering.

Proceedings of the 5th International Symposium on Asphalt Pavements & Environment (APE) - Marco Pasetto

2019-08-29

This volume highlights the latest advances, innovations, and applications in the field of asphalt pavement technology, as presented by leading international researchers and engineers at the 5th International Symposium on Asphalt Pavements & Environment (ISAP 2019 APE Symposium), held in Padua, Italy on September 11-13, 2019. It covers a diverse range of topics concerning materials and technologies for asphalt pavements, designed for sustainability and environmental compatibility: sustainable pavement materials, marginal materials for

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asphalt pavements, pavement structures, testing methods and performance, maintenance and management methods, urban heat island mitigation, energy harvesting, and Life Cycle Assessment. The contributions, which were selected by means of a rigorous international peer-review process, present a wealth of exciting ideas that will open novel research directions and foster multidisciplinary collaboration among different specialists.

Characteristics and Uses of Steel Slag in Building Construction - Ivanka Netinger Grubeša
2016-05-20

Characteristics and Uses of Steel Slag in Building Construction focuses predominantly on the utilization of ferrous slag (blast furnace and steel slag) in building construction. This extensive literature review discusses the worldwide utilization of ferrous slag and applications in all sectors of civil engineering, including structural engineering, road construction, and hydro-technical structures. It

presents cutting-edge research on the characteristics and properties of ferrous slag, and its overall impact on the environment. Comprehensively reviews the literature on the use of blast furnace and steel slag in civil engineering Examines the environmental impact of slag production and its effect on human health Presents cutting-edge research from worldwide studies on the use of blast furnace and steel slag
Proceedings of the Second International Conference of Construction, Infrastructure, and Materials - Han Ay Lie 2022

This book comprises selected proceedings of the 2nd International Conference of Construction, Infrastructure, and Materials (ICCIM 2021) focusing on topics such as structural engineering, construction materials, geotechnical engineering, transportation system and engineering, construction management, water resources engineering, and infrastructure development. Its content will be useful to researchers, educators, practitioners, and

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policymakers alike.

Advances in Road Infrastructure and Mobility - International Road Federation. World Meeting and Exhibition 2022

This volume focuses on recent advances in the planning, design, construction and management of new and existing roads with a particular focus on safety, sustainability and resilience. It discusses field experience through case studies and pilots presented by leading international subject-matter specialists. Chapters were selected from the 18th International Road Federation World Meeting & Exhibition, Dubai 2021.

Stormwater Management - Martin P. Wanielista
1992-11-11

Designed for both students and practicing professionals, it addresses critical issues of water quality, focusing on the illustration and application of both hydrologic and economic water management techniques. Stresses applications using worked examples, case

studies and problems. Software is to assist in solving more complex problems and to apply demonstrated techniques. The software discussed in the book is available for download at <http://www.cee.ucf.edu/software/swm1993.zip>

A System Engineering Approach to Disaster Resilience - Chandan Ghosh 2022

This book presents the select proceedings of the Virtual Conference on Disaster Risk Reduction (VCDRR 2021). It emphasizes on the role of civil engineering for a disaster resilient society. Various topics covered in this book are risk assessment, prevention, mitigation, preparedness and response, early warning system, hazard mapping, engineering innovations for hazard mitigation, and safe design of structures. This book is a comprehensive volume on disaster risk reduction (DRR) and its management for a sustainable built environment. This book will be useful for the students, researchers, policy makers and professionals working in the area of civil

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engineering, especially disaster management.
An Integrated Study of Pervious Concrete Mixture Design for Wearing Course Applications
- Vernon R. Schaefer 2011

Portland cement pervious concrete (PCPC) has great potential to reduce roadway noise, improve splash and spray, and improve friction as a surface wearing course.

Concrete Permeability and Durability

Performance - Roberto J. Torrent 2021-12-23
Durability and service life design of concrete constructions have considerable socio-economic and environmental consequences, in which the permeability of concrete to aggressive intruders plays a vital role. Concrete Permeability and Durability Performance provides deep insight into the permeability of concrete, moving from theory to practice, and presents over 20 real cases, such as Tokyo's Museum of Western Art, Port of Miami Tunnel and Hong Kong-Zhuhai-Macao sea-link, including field tests in the Antarctic and Atacama Desert. It stresses the

importance of site testing for a realistic durability assessment and details the "Torrent Method" for non-destructive measurement of air-permeability. It also delivers answers for some vexing questions: Should the coefficient of permeability be expressed in m^2 or m/s ? How to get a "mean" pore radius of concrete from gas-permeability tests? Why should permeability preferably be measured on site? How can service life of reinforced concrete structures be predicted by site testing of gas-permeability and cover thickness? Practitioners will find stimulating examples on how to predict the coming service life of new structures and the remaining life of existing structures, based on site testing of air-permeability and cover thickness. Researchers will value theoretical principles, testing methods, as well as how test results reflect the influence of concrete mix composition and processing.

Green Building with Concrete - Gajanan M. Sabnis 2015-06-16

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Illustrates the Global Relevance of Sustainability Applicable to roads, bridges, and other elements of the infrastructure, Green Building with Concrete: Sustainable Design and Construction, Second Edition provides an overview of all available information on the role of concrete in green building. A handbook offering viewpoints from worldwide experts **ACI Manual of Concrete Practice** - American Concrete Institute 2007

Road and Airfield Pavement Technology - H. R. Pasindu 2022-03-03

This volume gathers the latest advances, innovations, and applications in the field of pavement technology, presented at the 12th International Conference in Road and Airfield Pavement Technology (ICPT), hosted by the University of Moratuwa, Sri Lanka, and held on July 14-16, 2021. It covers topics such as pavement design, evaluation and construction, pavement materials characterization,

sustainability in pavement engineering, pavement maintenance and rehabilitation techniques, pavement management systems and financing, transportation safety, law and enforcement related to pavement engineering, pavement drainage and erosion control, GIS applications, quarry material assessment, pavement instrumentation, IT and AI applications in pavement. Featuring peer-reviewed contributions by leading international researchers and engineers, the book is a timely and highly relevant resource for materials scientists and engineers interested in pavement engineering.

Concrete Pavement Design, Construction, and Performance, Second Edition - Norbert J. Delatte 2014-05-22

This second edition of Concrete Pavement Design, Construction, and Performance provides a solid foundation for pavement engineers seeking relevant and applicable design and construction instruction. It relies on general

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principles instead of specific ones, and incorporates illustrative case studies and prime design examples to highlight the material. It presents a thorough understanding of materials selection, mixture proportioning, design and detailing, drainage, construction techniques, and pavement performance. It also offers insight into the theoretical framework underlying commonly used design procedures as well as the limits of the applicability of the procedures. All chapters have been updated to reflect recent developments, including some alternative and emerging design technologies that improve sustainability. What's New in the Second Edition: The second edition of this book contains a new chapter on sustainability, and coverage of mechanistic-empirical design and pervious concrete pavements. RCC pavements are now given a new chapter. The text also expands the industrial pavement design chapter. Outlines alternatives for concrete pavement solutions Identifies desired performance and behavior

parameters Establishes appropriate materials and desired concrete proportions Presents steps for translating the design into a durable facility The book highlights significant innovations such as one is two-lift concrete pavements, precast concrete pavement systems, RCC pavement, interlocking concrete pavers, thin concrete pavement design, and pervious concrete. This text also addresses pavement management, maintenance, rehabilitation, and overlays.

Nature-based Solutions for Resilient Ecosystems and Societies - Shalini Dhyani 2020-07-07

Over the past few decades, the frequency and severity of natural and human-induced disasters have increased across Asia. These disasters lead to substantial loss of life, livelihoods and community assets, which not only threatens the pace of socio-economic development, but also undo hard-earned gains. Extreme events and disasters such as floods, droughts, heat, fire, cyclones and tidal surges are known to be exacerbated by environmental changes including

climate change, land-use changes and natural resource degradation. Increasing climate variability and multi-dimensional vulnerabilities have severely affected the social, ecological and economic capacities of the people in the region who are, economically speaking, those with the least capacity to adapt. Climatic and other environmental hazards and anthropogenic risks, coupled with weak and wavering capacities, severely impact the ecosystems and Nature's Contributions to People (NCP) and, thereby, to human well-being. Long-term resilience building through disaster risk reduction and integrated adaptive climate planning, therefore, has become a key priority for scientists and policymakers alike. Nature-based Solutions (NbS) is a cost-effective approach that utilizes ecosystem and biodiversity services for disaster risk reduction and climate change adaptation, while also providing a range of co-benefits like sustainable livelihoods and food, water and energy security. This book discusses the concept

of Nature-based Solutions (NbS) - both as a science and as art - and elaborates on how it can be applied to develop healthy and resilient ecosystems locally, nationally, regionally and globally. The book covers illustrative methods and tools adopted for applying NbS in different countries. The authors discuss NbS applications and challenges, research trends and future insights that have wider regional and global relevance. The aspects covered include: landscape restoration, ecosystem-based adaptation, ecosystem-based disaster risk reduction, ecological restoration, ecosystem-based protected areas management, green infrastructure development, nature-friendly infrastructure development in various ecosystem types, agro-climatic zones and watersheds. The book offers insights into understanding the sustainable development goals (SDGs) at the grass roots level and can help indigenous and local communities harness ecosystem services to help achieve them. It offers a unique, essential

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resource for researchers, students, corporations, administrators and policymakers working in the fields of the environment, geography, development, policy planning, the natural sciences, life sciences, agriculture, health, climate change and disaster studies.

Pavement Materials for Heat Island

Mitigation - Hui Li 2015-08-19

About 90 percent of this excessive heat is due to buildings and pavements that absorb and store solar heat (According to the Green Buildings Council). The only reference that focuses specifically on pavements, *Pavement Materials for Heat Island Mitigation: Design and Management Strategies* explores different advanced paving materials, their properties, and their associated advantages and disadvantages. Relevant properties of pavement materials (e.g. albedo, permeability, thermal conductivity, heat capacity and evaporation rate) are measured in many cases using newly developed methods. Includes experimental methods for testing

different types of pavements materials Identifies different cool pavement strategies with their advantages and associated disadvantages Design and construct local microclimate models to evaluate and validate different cool pavement materials in different climate regions

Concrete Pavement Design, Construction, and Performance - Norbert Delatte 2007-09-12

Addressing the interactions between the different design and construction variables and techniques this book illustrates best practices for constructing economical, long life concrete pavements. The book proceeds in much the same way as a pavement construction project. First, different alternatives for concrete pavement solutions are outlined. The desired performance and behaviour parameters are identified. Next, appropriate materials are outlined and the most suitable concrete proportions determined. The design can be completed, and then the necessary construction steps for translating the design into a durable facility are carried out.

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Although the focus reflects highways as the most common application, special features of airport, industrial, and light duty pavements are also addressed. Use is made of modeling and performance tools such as HIPERPAV and LTPP to illustrate behavior and performance, along

with some case studies. As concrete pavements are more complex than they seem, and the costs of mistakes or of over-design can be high, this is a valuable book for engineers in both the public and private sectors.