Performance Evaluation Of Bamboo As Reinforcement In

Environmentally Responsible Design Architecture/Interior Design/General Learn the principles and practice of sustainable interior design Covering everything from theory to current practices, eight leading design educators present the tools and knowledge needed to implement an environmentally responsible approach for any interior design project. It opens with a broad perspective on global sustainability followed by a timeline of human and environmental interactions. This sets the stage for the book's coverage of the day-to-day issues of environmentally responsible interior design, including: Indoor air quality Environmentally responsible lighting design Energy and water issues Evaluation and specification of interior finishes and furnishings United States Green Building Council and LEED certification The author sets forth and examines a variety of essential design standards and philosophies, including LEED-CI, William McDonough's "Cradle to Cradle," Minnesota Sustainable Design Guide, and Energy Star®. The final part of the book is dedicated to two in-depth case studies that demonstrate how the principles and practices discussed in the book have been successfully put into action. Throughout the presentation, detailed illustrations enable you to better understand how environmentally responsible design works. A bibliography at the end of the book leads you to additional resources. Armed with this book as a reference, students and professional interior designers will make sound design decisions that incorporate the principles of sustainability with aesthetics and functional requirements.

Volume is indexed by Thomson Reuters CPCI-S (WoS). The 13th NOCMAT Conference continued to provide a forum where researchers, governmental and non-governmental agencies could introduce their research results concerning innovations in the field of low-cost energy-saving materials which are renewable and locally available: such as bamboo, soil fibers and cement alternatives. Also covered were technologies which make use of such non-conventional materials as natural fibers and agricultural and industrial residues in a more cost-effective, durable, environment-friendly, energy-efficient and sustainable manner.

The use of fibrous materials in civil engineering, both as structural reinforcement and in non-structural applications such as geotextiles, is an important and interesting development. Fibrous and composite materials for civil engineering applications analyses the types and properties of fibrous textile and structures and their applications in reinforcement and civil engineering. Part one introduces different types of fibrous textiles and structures. Chapters cover the properties of natural and man-made fibres and of yarns, as well as an overview of textile structures. Part two focuses on fibrous material use in concrete reinforcement, with chapters on the properties and applications of steel fibre reinforced concrete, natural fibre reinforced concrete and the role of fibre reinforcement in mitigating shrinkage cracks. In part three, the applications of fibrous material-based composites in civil engineering are covered. Chapters concentrate on production techniques and applications such as reinforcement of internal structures, structural health monitoring and textile materials in architectural membranes. With its distinguished editor and international team of contributors, Fibrous and composite materials for civil engineering applications is a standard reference for fabric and composite manufacturers, civil engineers and professionals, as well as academics with a research interest in this field. Explores the development of fibrous materials in civil engineering, both as structural reinforcement and in non-structural applications such as geotextiles Key topics include short fibre reinforced concrete, natural fibre reinforced concrete and high performance fibre reinforced cementitious composites A standard reference for fabric and composite manufacturers, civil engineers and professionals, as well as academics with a research interest in this field

The exponential growth of urban settings has led to an increase in pollutants and waste management issues around the world. As the environment continues to falter under the weight of these pressing issues, it has become increasingly imperative to develop new technologies and methodologies that have the potential to improve the overall sustainability and cleanliness of these cities. Smart Cities as a Solution for Reducing Urban Waste and Pollution examines emergent research on smart innovations within built urban environments. Featuring best practices and theoretical frameworks, as well as potential issues in the implementation of smart and green technology in urban settings, this publication is a vital reference source for graduate students, researchers, academics, engineers, architects, facility managers, and government officials.

Select Proceedings of ACE 2020

Environmentally Responsible Design

Economics of Agro-based Industries

Special Issue on Bamboo

Current and Future Prospects

Building Code Requirements for Structural Concrete

Technological evolutions have changed the field of architecture exponentially, leading to more stable and energy-efficient building structures. Architects and engineers must be prepared to further enhance their knowledge in the field in order to effectively meet new and advancing standards. Architecture and Design: Breakthroughs in Research and Practice is an authoritative resource for the latest research on the application of new technologies and digital tools that revolutionize the work of architects globally, aiding in architectural design, planning, implementation, and restoration. Highlighting a range of pertinent topics such as design anthropology, digital preservation, and 3D modeling, this publication is an ideal reference source for researchers, scholars, IT professionals, engineers, architects, contractors, and academicians seeking current research on the development and creation of architectural design.

"Green gold" or "Poor Man's Timber" are commonly used terms for bamboo that is a valuable and renewable resource of the world, and has always been an elemental part of human beings in terms of social and economic value. Bamboo is considered a multipurpose plant and has a prolonged history as an adaptable and extensively used renewable resource in conventional and commercial applications. Therefore, the annual demands for bamboos have already out-crossed the annual yields across the world. And the current scenario has forced scientists to pay more attention to the utilization of biotechnological tools for better understanding and improving bamboos. The book provides an overview of the different biotechnological approaches to advance bamboo research and better utilization of bamboo resources for human beings. Various applications of biological techniques in relation to bamboo have been discussed in details, for example, plant tissue culture techniques, somatic embryogenesis, germplasm conservation techniques, use of the molecular markers, transcriptomics, polymorphism, and phylogenetic relations in bamboo. It also addresses the novel industrial applications of bamboo in structural, food, and pharmaceuticals along with traditional uses. The aggregated information in this book demonstrates the way for the improved and sustainable practice of bamboos to fulfill the future needs of the world. This book is intended for use in both the industry and academia

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.

Encyclopedia of Renewable and Sustainable Materials provides a comprehensive overview, covering research and development on all aspects of renewable, recyclable and sustainable materials. The use of renewable and sustainable materials in building construction, the automotive sector, energy, textiles and others can create markets for agricultural products and additional revenue streams for farmers, as well as significantly reduce carbon dioxide (CO_2) emissions, manufacturing energy requirements, manufacturing costs and waste. This book provides researchers, students and professionals in materials science and engineering with tactics and information as they face increasingly complex challenges around the development, selection and use of construction and manufacturing materials. Covers a broad range of topics not available elsewhere in one resource Arranged thematically for ease of navigation Discusses key features on processing, use, application and the environmental benefits of renewable and sustainable materials Contains a special focus on sustainability that will lead to the reduction of carbon emissions and enhance protection of the natural environment with regard to sustainable materials

INDIA 2015

Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering

Resources in education

Designing and Building with Bamboo

Mechanical Performance Evaluation of Bamboo-timber Composite Beams

Sustainable and Nonconventional Construction Materials using Inorganic Bonded Fiber Composites

Including the latest developments in design, optimisation, manufacturing and experimentation, this text presents a wide range of topics relating to advanced types of structures, particularly those based on new concepts and new types of materials.

Collection of selected, peer reviewed papers from the 2014 International Conference on Mechatronics Engineering and Computing Technology (ICMECT 2014), April 9-10, 2014, Shanghai, China. Volume is indexed by Thomson Reuters CPCI-S (WoS). The 1531 papers are grouped as follows: Chapter 1: Materials Science and Materials Processing Technologies, Chapter 2: Building, Construction and Environmental Research, Chapter 3: Researches in Applied Mechanics and Mechanical Engineering, Chapter 4: Power and Electric Research, Electronics and Microelectronics, Embedded and Integrated Systems, Chapter 5: Mechatronics, Automation and Control, Chapter 6: Measurement and Instrumentation, Monitoring, Testing, Detection and Identification Technologies, Chapter 7: Computation Methods and Algorithms for Modeling, Simulation and Optimization, Data Mining and Data Processing, Chapter 8: Communication, Signal and Image Processing, Chapter 9: Information Technologies, WEB and Networks Engineering, Information Security and Software Application, Chapter 10: Modern Tendency in Area of Management, Logistics, Economics, Education, Traffic and Urban Engineering

Bamboo is in the spotlight as a potential building material in the current pursuit of a CO_2-neutral society, due to its rapid maturation and excellent mechanical properties. Despite the growing interest in bamboo in academia and society, there is a lack of systematic understanding of the fabrication, design and construction processes using bamboo as a modern industrial material. This is the first book to describe a new category of structural systems constructed with engineered bamboo. It gives a definition of engineered bamboo (glubam) in an analogy with steel structures and wood structures. Structural systems and components have been designed using glubam; then industrialized production processes of glubam are described. Based on state-of-the-art research, design guidelines are suggested, in a comparable and parallel approach to the existing guidelines for composite wood structures. The book also discusses bamboo structures in the context of sustainable development, including the benefits of using bamboo as an alternative or replacement for wood, especially for developing countries, many of which are faced with the lack or destruction of forest resources.

Mechanical Performance Evaluation of Bamboo-timber Composite BeamsMechanical Performance Evaluation of Bamboo-timber Composite BeamsProceedings of the 5th International Conference on Sustainable Civil Engineering Structures and Construction MaterialsSCESCM 2020Springer Nature

Advanced Fibre-Reinforced Polymer (FRP) Composites for Structural Applications

Civil Engineering And Urban Planning - Proceedings Of The 5th International Conference On Civil Engineering And Urban Planning (Ceup2016)

Biotechnological Advances in Bamboo

Advanced fibre-reinforced polymer (FRP) composites for structural applications

Smart Cities as a Solution for Reducing Urban Waste and Pollution

Portland cement concrete is a brittle material. The main reason for incorporating fibres into a cement matrix is to improve the cracking deformation characteristics, increasing not only the toughness, impact and tensile strength, but also eliminating temperature and shrinkage cracks. Several different types of fibres have been used to reinforce cement-based materials. This chapter briefly discusses the characteristics of fibre-reinforced concrete (FRC), reporting the effect of the fibres on the physico-chemical and mechanical properties. It also presents some of the recent research and future perspectives of FRC.

This book presents the outcomes of the 2021 International Conference on Cyber Security Intelligence and Analytics (CSIA 2021), an international conference dedicated to promoting novel theoretical and applied research advances in the interdisciplinary field of cyber security, particularly focusing on threat intelligence, analytics, and countering cybercrime. The conference provides a forum for presenting and discussing innovative ideas, cutting-edge research findings and novel techniques, methods and applications on all aspects of cyber security intelligence and analytics. Due to COVID-19, Authors, Keynote Speakers and PC committees will attend the conference online.

NEXT GENERATION BUILDING MATERIALS The 21st century faces a radical change in how we produce construction materials a shift towards cultivating, breeding, raising, farming, or growing future resources. This book presents innovative industrialized production methods for cultivated building materials, like cement grown by bacteria, bricks made of mushroom mycelium, or bamboo fibers as reinforcement for concrete. Spanning from scientific research to product development and architectural application, this book builds a bridge between the academic and the professional world of architecture. The book describes the challenges, strategies, and goals in the first part, followed by a second part on bamboo, A cultivated building material and a number of examples in the third part which form the bridge from cultivated materials to building products.

Advanced fibre-reinforced polymer (FRP) composites have become essential materials for the building of new structures and for the repair of existing infrastructure. Advanced fibre-reinforced polymer (FRP) composites for structural applications provides an overview of different advanced FRP composites and the use of these materials in a variety of application areas. Part one introduces materials used in the creation of advanced FRP composites including polyester, vinylester and epoxy resins. Part two goes on to explore the processing and fabrication of advanced FRP composites and includes chapters on prepreg processing and filament winding processes. Part three highlights properties of advanced FRP composites and explores how performance can be managed and tested. Applications of advanced FRP composites, including bridge engineering, pipe rehabilitation in the oil and gas industry and sustainable energy production, are discussed in part four. With its distinguished editor and international team of expert contributors, Advanced fibre-reinforced polymer (FRP) composites for structural applications is a technical resource for researchers and engineers using advanced FRP composites, as well as professionals requiring an understanding of the production and properties of advanced FRP composites, and academics interested in this field. Provides an overview of different advanced FRP composites and the use of these materials in a variety of application areas Introduces materials used in the creation of advanced FRP composites including polyester, vinylester and epoxy resins Explores the processing and fabrication of advanced FRP composites and includes chapters on prepreg processing and filament winding processes

Novel and Non-Conventional Materials and Technologies for Sustainability

SCESCM 2020

Recent Advancements in Civil Engineering

Gully Erosion Studies from India and Surrounding Regions

Developments in Strategic Materials and Computational Design IV, Volume 34, Issue 10

The Green Gold on the Earth

This book offers the scientific basis for the ample evaluation of badland management in India and some surrounding regions. It examines the processes operating in the headwaters and main channels of ephemeral rivers in lateritic environments of India. In particular, the book covers a range of vital topics in the areas of gully erosion and water to soil erosion at lateritic uplands regions of India and other regions in Asia. It explores the probable gully erosion modeling through Remote Sensing & GIS Techniques. It is divided into three units. Unit I deals with the introduction of badland, types of badland and the process of badland formation. Unit II is devoted to a description of quantitative measurements. Unit III deals with the control and management processes related to various issues from different regions. As such this book serves as a reference book for research activities in this area. It is an efficient guide for aspiring researchers in applied geography, explaining advanced techniques to help students recognize both simple and complex concepts.

The subject of this book is " Biofuel and Bioenergy Technology " . It aims to publish high-quality review and research papers, addressing recent advances in biofuel and bioenergy. State-of-the-art studies of advanced techniques of biorefinery for biofuel production are also included. Research involving experimental studies, recent developments, and novel and emerging technologies in this field are covered. This book contains twenty-seven technical papers which cover diversified biofuel and bioenergy technology-related research that have shown critical results and contributed significant findings to the fields of biomass processing, pyrolysis, bio-oil and its emulsification; transesterification and biodiesel, gasification and syngas, fermentation and biogas/methane, bioethanol and alcohol-based fuels, solid fuel and biochar, and microbial fuel cell and power generation development. The published contents relate to the most important techniques and analyses applied in the biofuel and bioenergy technology.

Wood is a gift from nature. It is a sustainable and renewable bio-composite material that possesses a natural ability to mitigate carbon dioxide. However, due to deforestation and climate change, it has become necessary to develop alternative building and construction materials. Engineered wood products (EWPs) such as parallel strand lumber, laminated veneer lumber, and cross-laminated timber are promising substitutions for conventional lumber products. This book presents a comprehensive overview of EWPs, including information on their classification, design, synthesis, properties, and more. It is divided into two sections: " General Overviews and Applications of EWPs " and " Recent Research and Development of EWPs " . The book is a valuable reference for manufacturers, engineers, architects, builders, researchers, and students in the field of construction.

Natural fiber has emerged as a renewable and cheaper substitute to synthetic fiber which is use as reinforcement material. The main objective of this study is to investigate the performance of bamboo fiber reinforced epoxy composite and to investigate the mechanical property of bamboo fiber reinforced composite with different fiber orientation. This analysis was carried out by using commercial Finite Elements software (ALGOR) to evaluate the behavior of the composite. Tensile and flexural test was carried out to obtain tensile and flexural strength of the composite. Three type of composite with different fiber orientation were tested in this project. Unidirectional composite was found had a higher tensile strength and multidirectional composite had higher flexural strength. From the observation, increasing the number of layer in the composite, the value of tensile strength will decrease but the value o flexural strength will increase. Thus, the tensile strength of bamboo fiber composite is depends on the degree of the orientation of the fiber. For the flexural strength of bamboo fiber composite, it depends on the number of layer or thickness of the composite.

15. High performance fibre-reinforced concrete (FRC) for civil engineering applications

(ACI 318-02) and Commentary (ACI 318R-02)

Industrialized Natural Resources for Architecture and Construction

Building Performance Analysis

Solar Energy Update

Proceedings of the 5th International Conference on Sustainable Civil Engineering Structures and Construction Materials

The recent technologies for sustainable development and maintaining ecological integrity in the field of agriculture, forestry and environmental management for the green future. Describes the recent technologies and issues to generate awareness among the global scientific community towards sustainable development. Covers various eco-friendly approaches for successful management of soil, water, forest, agriculture, and other natural resources. Addresses the policy issues promoting conservation, protection and management of various natural resources. Presents the issues of climate change and sustainable strategies to combat such a mega event. The existence of life on the earth primarily depends upon the agriculture, forest and environment. The changing climate is imposing the multifaceted challenges in front of human civilization. The agroecosystem management practices and technologies leads to higher productivity with destruction of agricultural, forest and environmental habitat leading to soil-water-air pollution. Food and Agriculture Organization (FAO) plays a key role in the promoting research and developmental activities in various sectors to achieve the sustainable development goals under 2030 agenda. Gradual growth of science and technology has imposed a significant pressure on the different ecosystem. In this context, approaches such as sustainable agriculture, forestry and eco-friendly technologies need to be address across the world. Keeping view of these facts this book underlines scientific chapters dealing with the issues with proper explanation, and accompanied by illustrative diagrams, tables, database as required. The editors have tried to provide a brief scenario about the current issues related to the agriculture, forestry and environment. Therefore, the book would be a very useful resource for academicians, scientists, and policy makers of the related field.

Bamboos constitute one of a few select categories of plants which are taxonomically related, very rich in species and of vital economic and ecological importance. Since the early 20th century the accepted number of species of bamboos, world wide, has tripled. However, until now information was scattered through numerous, often not easily available publications. The Bamboos of the World, is the first comprehensive (taxonomic as well as horticultural) reference work that provides basic information on bamboos world wide, whether they are wild or cultivated, well-known or rather unknown. The work, based on bamboo literature, facilitates access to further data by citation and a comprehensive bibliography. Among the main data included are botanical names with synonyms, and geographical distribution of genera and species, varieties with their distinctive characters, common bamboo names, plant introductions to the West, plant size and uses. The distribution of genera is mapped. The Bamboos of the World presents a wealth of essential information in an accessible and structured manner. It gives the opportunity to check under what names, and where, relevant information on any bamboo can be found. For the researcher with management and development interests it provides a convenient means of basing bamboo resource on a sound understanding of generic and species relationships, with names that appear in earlier literature put into context. The work should prove to be invaluable for those interested in the morphology, taxonomy, distribution and cultivation of bamboos. It should support botanical, forestry, horticultural and ecological research, training and resource management.

Sustainable and Nonconventional Construction Materials Using Inorganic Bonded Fiber Composites presents a concise overview of non-conventional construction materials with a strong focus on alternative inorganic bonded fiber composites and their applications as construction components. It outlines the processing and characterization of non-conventional cementitious composites, which will be of great benefit to both academic and industrial professionals interested in research, development, and innovation on inorganic bonded fiber composites. The book gives a comprehensive review of the innovative research associated with building components based on inorganic bonded composites. Exploring both natural fibers as reinforcing elements and alternative inorganic binders based on agricultural and industrial wastes, this book also considers the performance and applications of fibrous composites as construction materials and components. Dedicated to analyzing recent developments in inorganic fiber composites research Discusses the broader subjects of processing, characterization, performance, and applications of non-conventional construction materials

The idea of information on research and development carried out on bamboo has emerged with the paradigm shift in the area of utilization of natural fibres in various industries. Technological advancements in bamboo sustenance have involved chemical and physical modification that has led to products of high-performance index. This book provides the latest research developments in many aspects of bamboo process, manufacture and commercialization potential. Apart from the interest to facilitate a complete assessment of bamboo as well as assist readers in achieving their goals, this book is intended to be of value to both fundamental research and also to practicing scientists and will serve as a useful reference for researchers, agricultural practitioners and organizations involved in the bamboo-based industry.

Commodities at a Glance

A Study of Kerala

Green and Sustainable Design for Interior Designers

Fibrous and Composite Materials for Civil Engineering Applications

Engineered Bamboo Structures

Performance of Bio-based Building Materials

This book offers a comprehensive overview of the use of bamboo in building industry. It systematically demonstrates bamboo's utility in terms of its properties, describing the material properties of typical industrial bamboo products, and discussing their performance evaluation and optimization as building components and in the creation of building envelopes. The book also includes examples of the high-value utilization of bamboo forest resources. Further, it examines how building performance may be affected by conditions such as climate. Including insights from material science, construction design, building physics and building climatology, the book also provides data obtained from technology and market status investigation, laboratory test and the computer simulation.This book appeals to scientists and professionals, as it introduces and tests various bamboo products, demonstrating the advantages and disadvantages for each one. The book is also a valuable resource for civil engineers and students interested in this unique plant material and its application in the building industry.

This book compiles papers presented during the 5th International Conference on Sustainable Civil Engineering Structures and Construction Materials (SCESCM) held virtually in December 2020. This is the fifth edition of this conference series; the theme for the 5th SCESCM is "Transforming the World, Foster the Sustainable Development Goals (SDGs)" and it focuses on various issues, novel findings, as well as developments in the area of civil and infrastructure, conforming to the SDGs. This book caters to postgraduate students, researchers, and practitioners involved in advocating and embedding sustainability in various phases of design, construction and maintenance of civil engineering structures and infrastructure facilities.

Explores and brings together the existent body of knowledge on building performance analysis Shortlisted in the CIBSE 2020 Building Performance Awards Building performance is an important yet surprisingly complex concept. This book presents a comprehensive and systematic overview of the subject. It provides a working definition of building performance, and an in-depth discussion of the role building performance plays throughout the building life cycle. The book also explores the perspectives of various stakeholders, the functions of buildings, performance requirements, performance quantification (both predicted and measured), criteria for success, and the challenges of using performance analysis in practice. Building Performance Analysis starts by introducing the subject of building performance: its key terms, definitions, history, and challenges. It then develops a theoretical foundation for the subject, explores the complexity of performance assessment, and the way that performance analysis impacts on actual buildings. In doing so, it attempts to answer the following questions: What is building performance? How can building performance be measured and analyzed? How does the analysis of building performance guide the improvement of buildings? And what can the building domain learn from the way performance is handled in other disciplines? Assembles the current body of knowledge on building performance analysis in one unique resource Offers deep insights into the complexity of using building performance analysis throughout the entire building life cycle, including design, operation and management Contributes an emergent theory of building performance and its analysis Building Performance Analysis will appeal to the building science community, both from industry and academia. It specifically targets advanced students in architectural engineering, building services design, building performance simulation and similar fields who hold an interest in ensuring that buildings meet the needs of their stakeholders.

Performance of Bio-based Building Materials provides guidance on the use of bio-based building materials (BBBM) with respect to their performance. The book focuses on BBBM currently present on the European market. The state-of-the-art is presented regarding material properties, recommended uses, performance expectancies, testing methodology, and related standards. Chapters cover both 'old and traditional' BBBM since quite a few of them are experiencing a comeback on the market. Promising developments that could become commercial in the near future are presented as well. The book will be a valuable reference resource for those working in the bio-based materials research community, architects and agencies dealing with sustainable construction, and graduate students in civil engineering. Takes a unique approach to bio-based materials and presents a broad overview of the topics on relevant areas necessary for application and promotion in construction Contains a general description, notable properties related to performance, and applications Presents standards that are structured according to performance types

2021 International Conference on Cyber Security Intelligence and Analytics (CSIA2021), Volume 2

Engineered Wood Products for Construction

Bamboo

Bamboo Abstracts

Sustainable Agriculture, Forest and Environmental Management

Mechatronics Engineering, Computing and Information Technology

The 5th International Conference on Civil Engineering and Urban Planning (CEUP2016) was held in Xi'an, China on August 23 – 26, 2016. CEUP2016 gathered outstanding scientists and researchers worldwide to exchange and discuss new findings in civil engineer planning associated with transportation and environmental topics. The conference program committee is also greatly honored to have four renowned experts for taking time off to present their keynotes to the conference. The conference had received a total of 410 su after peer review by the Technical Program Committee, only 108 were selected to be included in this conference proceedings, which covers Architecture and Urban Planning; Civil Engineering and Transportation Engineering.

The use of a multi-criteria, decision-making theory was first studied in the 1970s. Its application in civil and environmental engineering is a new approach which can be enormously helpful for manufacturing companies, students, managers, engineers, etc. The purpos to provide a resource for students and researchers that includes current application of a multi-criteria, decision-making theory in various fields such as: environment, healthcare and engineering. In addition, practical application are shown for students manually. In rea problems there are many critical parameters (criteria) that can directly or indirectly affect the consequences of different decisions. Application of a multi-criteria, decision-making theory is basically the use of computational methods that incorporate several criteria and preference in evaluating and selecting the best option among many alternatives based on the desired outcome.

Ceramic Engineering and Science Proceedings Volume 34, Issue 10 - Developments in Strategic Materials and Computational Design IV A collection of 25 papers from The American Ceramic Society's 37th International Conference on Advanced Ceramics and Com Daytona Beach, Florida, January 27-February 1, 2013. This issue includes papers presented in the Geopolymers and Chemically Bonded Ceramics (Focused Session 1); Thermal Management Materials and Technologies (Focused Sessoin 2); and Materials for Extr Environments: Ultrahigh Temperature Ceramics and Nano-laminated Ternary Carbides and Nitrides (MAX Phases) (Symposium 12).

The report on Bamboo provides information on the historical uses of bamboo and an analysis of the physical and mechanical properties of bamboo. It also highlights the opportunities and challenges for using bamboo as a building material.

Biofuel and Bioenergy Technology

Architecture and Design: Breakthroughs in Research and Practice

Breakthroughs in Research and Practice

High Performance Structures and Materials IV

The Bamboos of the World

Mechanical Property Evaluation of Bamboo Fiber Reinforced Epoxy Composite

This book is a comprehensive digest of country's progress in different fields. It deals with all aspects of development-from rural to urban, industry to infrastructure, science and technology, art and culture, economy, health, defence, education and mass communication. The sections on general knowledge, current affairs, sports and important events are a must read for comprehensive understanding of these fields. with its authenticity of facts and data, the book is a treasure for students, researchers and academicians.

Application of Bamboo in Building Envelope

Encyclopedia of Renewable and Sustainable Materials

Cultivated Building Materials

Cyber Security Intelligence and Analytics

Annotated Nomenclature and Literature of the Species and the Higher and Lower Taxa