

SECOND ANNOUNCEMENT & CALL FOR PAPERS

13th International Conference on Non-conventional Materials and Technologies (13 NOCMAT 2011)

Novel Construction Materials and Technologies for Sustainability

September 22-24, 2011

Venue: Changsha, Hunan, China

Organized by:

- *International Committee on Non-Conventional Materials and Technologies (IC-NOCMAT),*
- *National Natural Science Foundation of China (NSFC)*
- *Hunan University, China*
- *China Ministry of Education Key Laboratory of Building Safety and Energy Efficiency*
- *International Network for Bamboo and Rattan (INBAR)*
- *Associação Brasileira de Materiais e Tecnologias não-Convencionais (abmtenc-Rio de Janeiro)*
- *Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio, Brazil*
- *University of Southern California, USA*

Local co-sponsors:

- *Hunan University, China*
- *Central South University, China*
- *Changsha University of Science and Technology*
- *Central University of Forest Technology*

Introduction

The rapidly changing world is facing many threats and serious challenges. The glory of modern industrialization has been in doubt with ample facts of environmental deterioration problems. Yet, development and survival are still the central issues facing a great portion of mankind. The world needs new role models of development and industrialization that are characterized by environmentally friendliness and sustainability. Construction industry is in the forefront facing today's challenges. Providing durable, efficient and effective infrastructure system, affordable housing, clean water, energy, communication and sanitation is fundamental to economic prosperity, social justice, political stability and quality of Life.

The series of NOCMAT Conferences has proven to be a leading forum where scholars, governmental and non-governmental agencies, practitioners exchange innovations of low energy cement technologies, new materials and systems, and innovative material/structural technologies such as bamboo, natural fibers, etc. towards cost-effective, durable, environment-friendly, energy efficient and sustainable construction. The development of Innovative, Non-Conventional Materials and Technologies will also provide a significant role in eradication of poverty, creation of jobs, formation of global partnership for economic progress and social stability.

Non-conventional materials and technologies encapsulate innovation and sustainable use of novel technologies and innovative uses of more established materials. Many non-conventional materials in the 21st century have their roots in traditional vernacular construction, including earth (*unfired clay*), lime and natural plant based materials, such as bamboo, straw and reeds. For traditional materials and techniques to meet modern demands of construction, cost and performance require further development, innovative solutions and systematic scientific research. Meanwhile materials of the industrial age, including steel and concrete, must also deliver more sustainable solutions. Innovations include manufacturing processes, lower carbon materials, greater reuse of components on end-use, greater recycling of materials, reduced waste, multi-span life-cycle design and more prefabrication of components and buildings.

The 13th IC-NOCMAT follows previous successful events in Cairo, Egypt (2010), Bath, England (2009), Hanoi, Vietnam (2002), Bhubanewar, India (1997) and Rio de Janeiro (1984). Over the last several years IC-NOCMAT conferences have also been held in Brazil (João Pessoa (2003); Pirassununga (2004); Rio de Janeiro (2005); Salvador (2006); and Maceió Alagoas (2007)) and the second NOCMAT conference in Colombia (2008).

Objectives

The 13th IC-NOCMAT 2011 will provide an international forum for information dissemination and exchange, discussions and debates on research and practice related to innovative construction materials and technologies with objectives for sustainable development.

The conference is expected to attract a wide range of academics, scientists, researchers, students, builders, designers, NGOs, policy makers and other industrialists from a wide variety of backgrounds, including fields of architecture, engineering, materials, sustainable and ecological technologies, biomaterials, materials sciences, environmental engineering and government agencies, etc. The conference should also be of interest to specialists in geography, economists and administrators of natural resources.

Themes

The conference themes include but not limit papers and presentations on fundamental science and applied research, case study reports and dissemination of innovations in the topics of:

- *Construction materials and technologies for sustainability, energy efficiency and reduction of CO₂;*
- *Innovations in development of low carbon materials and technologies;*
- *Standards and guidelines and policy issues;*
- *Life-cycle assessment of materials;*
- *Seismic strengthening, flood mitigation, disaster prevention and relief;*
- *Advances in research methodologies and materials testing;*
- *Durability and performance of construction materials;*
- *Applications in improving building health through materials and constructional development;*
- *Construction materials and technologies to deliver affordable housing;*
- *Recycling of industrial, agricultural and urban waste stream materials;*
- *Natural materials and technologies for construction;*
- *Green and renewable energy applications in construction and operation.*

Proceedings: The outcome of the conference will be a set of proceedings. The papers related to general topics of NOCMAT-13 will be peer-reviewed and included in the Proceedings of IC-NOCMAT 2011, if meet the acceptance criteria. The proceedings will be published in TTP journal in both hard copy and online available in full text via platform www.scientific.net. The papers to be published as serial papers of *Key Engineering Materials* will be indexed by Web of Science via the index CPCI/ISTP, SCOPUS, Ei and other major index services.

Submission Requirements

Participants are cordially invited to present papers and or participate in this event. Contributors are requested to submit abstracts in English by email or through the conference website: www.glubam.cn/13-nocmat-2011 and www.glubam.com/13-nocmat-2011

Excellent Paper Awards for Student and Young Researcher Participants

Students and young researchers under an age of 35 by the end of 2011, are eligible for the Excellent Paper award, which includes a certificate, honorable mention in press-release and website, and cash award with the amount to be determined by the organizer. The potential awardees must attend the conference and present a paper. The award will be decided by the international scientific committee based on technical merits of the papers presented by the candidates.

Key Dates

- Submission of abstracts Apr. 30, 2011
- Submission of papers Jul. 31, 2011
- Conference Sep. 22-24, 2011
- Acceptance of papers (including revisions) : one month after the conference.
- Publication of proceedings (*Key Engineering Materials*):
six months after the conference.

Contact Information

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Conference Location:

Changsha is the capital of Hunan Province, one of the major bamboo growing areas in Asia. Changsha is also one of the most important and attractive cities in south central region, China. The city is located near the northeast end of the Heng Mountain, one of the five most scenic mountains in China. The Xiang River flows northward through the city before reaching the Yangtze River.

Changsha is a famous city of historical culture in China. Hunan University succeeds the 1033-year old Yuelu Academy, which is known for being the first higher education institute in China and for producing scholars, thinkers and leaders who shaped the history of modern China. Other tourist attractions in the city and nearby include the Han Tombs (206 BC); Shaoshan; Zhangjiajie National Forest Park (world heritage site of natural beauty), etc.

Changsha can be reached by air and train transportations from other major cities of China. Oversea participants can reach Changsha, via a stopover in Beijing, Shanghai, Hong Kong, Guangzhou, or Seoul. Train lovers can also choose to travel to Changsha from Guangzhou by the world's fastest operating high-speed train.

Conference Registration:

The registration fee, including three lunches, coffee breaks, two conference banquets and a copy of the conference proceedings, is as follows:

- Before August 15, 2011 \$400
- After August 15, 2011 and on site \$450
- Student \$150

Conference Secretary:

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