

PRELIMINARY ANNOUNCEMENT & CALL FOR PAPERS

17th International Conference on Non-conventional Materials and Technologies
Construction for Sustainability; Green Composite Materials and Technologies
IC-Chairman: Prof. Khosrow Ghavami

(IC-NOCMAT 2017)

26th–29th of November 2017

Venue: Centro de Investigación Científica de Yucatán A.C,
Mérida, Yucatán, México

Organised by:

- *International Committee on Non-Conventional Materials and Technologies (IC-NOCMAT),*
- *Centro de Investigación Científica de Yucatán, A.C*
- *Associação Brasileira de Materiais e Tecnologias não-Convencionais (abmtenc-Rio de Janeiro)*
- *Pontifícia Universidade Católica do Rio de Janeiro, PUC-Rio*
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Introduction

We live in a complex, troubled, difficult -- and a rapidly changing -- world. All the present indications are that the 21st century will be the most challenging, in almost all aspects of human life on this planet, and to humanity as a whole. A most pressing and urgent need facing all the peoples of the world is the regeneration and rehabilitation of our infrastructure such as affordable housing, water, energy, transport and sanitation systems. A durable, efficient and effective infrastructure system is fundamental to economic prosperity, social justice, political stability and Quality of Life. Civil Engineering Infrastructure is the most costly to create, develop and maintain. The NOCMAT Conferences have shown that we can develop low energy cement technologies, new material systems, and innovative material/structural technologies such as bamboo, palms and different local vegetable fibers, leading to a wide range of cost-effective, durable, environment-friendly, energy efficient and sustainable construction materials that will save energy resources and reduce environmental pollution. The strategy of Non-Conventional Materials and Technologies (NOCMAT) in construction will also go a long way in aiming at eradication of poverty and hunger, ensuring environmental sustainability and the development of global partnership for economic progress and social stability.

Non-conventional materials and technologies encapsulate innovation and sustainable use of novel technologies and new uses of established materials. Many non-conventional materials in the 21st century have their roots in traditional vernacular construction, including Kah-gel which is earth (*unfired clay*), lime and different natural plants based materials, such as bamboo, straw, palm trees and reeds. For traditional materials and techniques to meet modern demands of construction, cost and performance are required further development and innovative solutions. Materials of the industrial age, including steel and concrete, must also deliver more sustainable solutions. Innovations include cleaner manufacturing processes, lower carbon materials, greater reuse of components on end-use, greater recycling of materials,

reduced waste and more production of components using local labour force and materials.

The 17th IC-NOCMAT Merida-Mexico, follows previous events in Winnipeg-Canada (2015), Sao Paulo-Brazil(2014), Paraiba-Brazil (2013),Hunan-China (2011), Cairo-Egypt (2010), Bath-England (2009), Hanoi-Vietnam (2002), Bhubaneswar-India (1997) and the first one was held in Rio de Janeiro (1984). The 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 most recently the second NOCMAT conference in Colombia (2008).

Objectives

The 17th IC-NOCMAT 2017 will provide an international forum for information dissemination and exchange, discussions and debates on research and practice in a range of sustainable and innovative construction materials and technologies. The conference is expected to attract a wide range of academics, scientists, researchers, students, builders, designers, NGO field-workers, specifiers and other industrialists from a wide variety of backgrounds, including fields of architecture, engineering, materials, sustainable and ecological technologies, biomaterials, materials sciences, and environmental engineering. The conference should also be of interest to specialists in geography, economists and administrators of natural resources.

Themes

The conference themes can include papers and presentations on fundamental science and applied research, case study reports and dissemination of innovations in the themes of:

- *Construction materials and technologies for climate change;*
- *Construction materials and technologies to deliver affordable housing;*
- *Innovations in development of low carbon materials and technologies;*
- *Low cost housing concepts, prototypes and applications;*
- *Standards and guidelines;*
- *Life-cycle assessment of materials;*
- *Environmentally friendly, energy efficient construction;*
- *Seismic strengthening, flood mitigation and disaster prevention;*
- *Advances in research methodologies and materials testing;*
- *Infrastructure systems and materials;*
- *Durability and performance of construction materials;*
- *Applications in improving building health through materials and constructional development;*
- *Recycling of industrial, agricultural and urban waste stream materials.*

The conference theme covers all construction materials, with the overall objective of reducing environmental impact (climate change impact) and providing safe affordable construction. Specific conference themes will include: lower carbon cements and concretes; advanced fibre composites in construction; innovative use of metals; natural fibres and plant based materials (bamboo, straw, hemp); timber materials and engineering; masonry construction; insulation materials; sealant and bituminous

materials; glass; plastics; polymeric materials; lime based materials; stone, unfired clay and earthen architecture.

Submission Requirements

You are cordially invited to present a paper and or participate in this event. Contributors are requested to submit concise (max. one-page) abstracts in English by email to the conference chairmen or through the conference web site: (<http://www.abmtenc.civ.puc-rio>)

Key Dates

- Submission of abstracts: June 30th, 2017
- Acceptance of abstracts: July 26th, 2017
- Submission of papers: August 4th, 2017
- Acceptance of papers (including revisions): September 8th, 2017

Please send your abstracts to the conference in the homepage of abmtenc

Contact Information

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