

## Introduction and Venue

The ICCMATS 2014 conference is organized by the University of Johannesburg (UJ) and Harbin Institute of Technology (HIT), China. The conference is the first of its kind on the African continent.

UJ is one of South Africa's largest and top academic institutions located at the culturally diverse, metropolitan City of Johannesburg. The Conference will be held at the University Bunting Road Campus, School of Tourism and Hospitality, Auckland Park. Founded in 1920, Harbin Institute of Technology is a multidisciplinary, world-class university with science, engineering and research at its core. Both UJ and HIT are large academic institutions, each with student populations of about 50,000.

Johannesburg is equipped with world class infrastructure, a high speed train and is home to the busiest airport in the Southern Hemisphere, used strategically to host Africa's first ever FIFA World Cup in 2010, including the final cup match.

## Objectives

The conference aims at providing a platform for articulation of knowledge frontiers, developments and advancements in the domain of construction materials, structures and allied disciplines. Materials are the bridge between an engineering design to functional performance of a structure and eventually its service life or durability. Materials underlie the capabilities of any design and indeed define its limitations too. In this event, engineers, scientists, researchers, academicians, practitioners and professionals from materials, structures, mining, construction, transportation, and related fields come together for **three days** of engagement in cross-cutting presentations, discussions, and social capital.



## Scope

The topics are herein outlined but other relevant titles will be considered. Papers may be based on experimental work, research and development, practice or industry application, case studies, innovations or other relevant work related to:

**Cement, Concrete, Bitumen, Masonry, Steel, Timber, Special Building Materials, Polymers**

## Topics

### 1. Materials and Characterisation

- Physical properties and behaviour
- Chemical admixtures and pozzolans
- Cement chemistry and crystallography
- Geopolymers and clinker-free cements
- Concrete in developing countries
- Computer-aided materials modelling
- Microstructural characterisation
- Nanotechnology in construction
- Performance-based methods and criteria
- New composites and special materials
- Polymers in concrete

### 2. Performance and Service Life of Structures

- Innovative concepts and designs
- Design for durability
- Service life modelling of concrete structures
- Non-destructive testing and struct. health
- Earthquake, impact and fatigue resistance
- Fire performance of materials in structures
- Computer applications

### 3. Durability of Construction Materials

- Deterioration processes in concrete under severe environments: alkali-silica reaction, sulphate attack, corrosion, chloride attack, freeze-thaw action etc.
- Degradation of bituminous pavements, masonry, steel, timber construction
- Life-cycle assessment

### 4. Sustainability and the Environment

- Waste utilization in construction materials
- Alternative fuels for cement manufacture
- Reduction of CO<sub>2</sub> emissions from construction industry
- Appropriate technologies

### 5. Any Other Relevant Topics

## Abstract and Deadlines

Abstracts of 150 to 300 words are invited, outlining the objectives, contents and findings. It should include the title, lead author names, affiliation and contact details.

Abstract submission	22 November 2013
Abstract acceptance	20 December 2013
Paper submission	21 March 2014
Paper acceptance	23 May 2014
Early registration	25 July 2014
Late registration	26 September 2014

Submissions should be sent by email as Word or PDF attachment to:

[confer@iccmats-uj.co.za](mailto:confer@iccmats-uj.co.za)

## Registration

Register by:	25 July 2014	26 Sept. 2014
Author	\$400	\$500
Delegate	\$450	\$550
Sub-Saharan Africa (excl.SA)	\$300	\$300
Student	\$200	\$250
Dinner for guest	\$50	\$50

## Conference Proceedings

Each delegate will receive a copy of the proceedings published in a CD-ROM of full papers and a printed book of Proceedings. A reputable publisher will be selected to produce high quality proceedings indexed at ISTP.

## Exhibition and Sponsorships

Companies and organizations are invited to showcase their products and services in the conference exhibition, and receive special privileges. For booking please contact the secretariat or refer to [www.iccmats-uj.co.za](http://www.iccmats-uj.co.za)

## Sponsoring Organisations



Council for Geoscience



American Concrete Institute®  
Advancing concrete knowledge



CONCRETE SOCIETY  
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## Accommodation and Tours

Delegates will have a wide choice of accommodation at special rates. World class hotels and guest houses are available close to the University. Hotel/accommodation details will be made available at the conference website.

Delegates are warmly invited to consider tour visits to some of the most beautiful attractions of stature in South Africa. About 60 km west of Johannesburg city is the Cradle of Humankind which holds a United Nations world heritage status and a site where in 2009, scientists discovered the oldest ancestors to humankind ever found.

The character of the city is evident from its several colloquial names *Jo'burg*, *Jozi*, *Egoli* meaning the city of gold, for it is founded on the world largest gold mine basin of the Witwatersrand. About 10 km south of the city centre is the Gold Reef City where visitors are transported into an old underground gold mine. The world re-known Kruger National Park is about one hour away by air. At Sun City nearby is the "Palace of the Lost City", Africa's architectural wonder showcasing a recreation of ancient civilization.



## Contacts for Further Enquiries

### Conference Secretariat

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## Call for Papers



## International Conference on Construction Materials and Structures



24 - 26 November 2014



University of Johannesburg, South Africa  
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