



UKIERI Concrete Congress

Concrete Research Driving Profit and Sustainability

2 - 5 November 2015

Venue:

Dr B R Ambedkar National Institute of Technology
Jalandhar – 144 011 (Punjab) India

www.ukiericoncretecongress.com

Third Announcement

The Congress will be honouring seven distinguished persons from world over who have made outstanding contributions in the area of Cement and Concrete Science, Technology, Design and Construction.

Congress Collaborating Institutions



UNIVERSITY OF
BIRMINGHAM



University of Zagreb



TRINITY
COLLEGE
DUBLIN

Host Organisations: Dr B R Ambedkar National Institute of Technology, Jalandhar and Guru Nanak Dev Engineering College, Ludhiana (Punjab)

UKIERI Concrete Congress is a biennial event which has been established by a group of academics from the UK and India who came together in the year 2007, through a research project, funded by the UK-India Education and Research Initiative (UKIERI), and chaired by Professor Ravindra K Dhir.

In 2013, a Congress was held at Dr B R Ambedkar National Institute of Technology, Jalandhar, India that dealt with Innovations in Concrete Construction. The Congress identified the link between research, development and exploitation of new ideas, materials and techniques within the concrete and construction fields.

In 2015 a major concrete based event will bring together those involved in research, technological development and their transfer into commercial opportunities and social well-being. This gathering will identify with the construction industry at large providing new opportunities based on creative thinking, technical knowledge, expertise and practical application. Emphasis will be placed on bringing to market the fruits of research and development. New products, techniques, processes and application will be demonstrated. Efficiency, effectiveness and economy aimed at industrial profitability that is needed now and yet sustainable in the longer term will underwrite the presentations. It is industry that creates wealth and when wealth is used wisely there is benefit for all. In bringing technology and industry together can be summed up in three outcomes, thinking together, working together and achieving together.

This Congress will be a meeting point for achieving these actions and form the basis for concrete, construction and their industrial future.

Chief Patrons

Rajiv Mehrotra, Chairman, Board of Governors
Dr B R Ambedkar National Institute of Technology, Jalandhar, India

Avtar Singh, President, Managing Committee
Guru Nanak Dev Engineering College, Ludhiana, India

Patrons

I K Bhat, Director
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Congress Organising Committee

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Mangabhai Consulting, UK

K S Bedi, Guru Nanak Dev Engineering College, Ludhiana, India

R Bedi, Dr B R Ambedkar National Institute of Technology, Jalandhar, India

B Bhattacharjee, Indian Institute of Technology Delhi, India

S Bhalla, Indian Institute of Technology Delhi, India

S Bishnoi, Indian Institute of Technology Delhi, India

G S Ghataora, University of Birmingham, UK

Ivana B Pecur, University of Zagreb, Croatia

S Goel, DAV Institute of Engineering and Technology, Jalandhar, India

J N Jha, Guru Nanak Dev Engineering College, Ludhiana, India

R Khan, Dr B R Ambedkar National Institute of Technology, Jalandhar, India

C Q Lye, University of Birmingham, UK

C J Lynn, University of Birmingham, UK

D Bjegovic, University of Zagreb, Croatia

Moray D Newlands, University of Dundee, UK

N Stirmer, University of Zagreb, Croatia

Kevin A Paine, University of Bath, UK

A D Singh, Dr B R Ambedkar National Institute of Technology, Jalandhar, India

A P Singh, Dr B R Ambedkar National Institute of Technology, Jalandhar, India

Jagbir Singh, Guru Nanak Dev Engineering College, Ludhiana, India

H P Singh, Dr B R Ambedkar National Institute of Technology, Jalandhar, India

S B Singh, Birla Institute of Technology and Science, Pilani, India

J Yang, Shanghai Jiao Tong University, China

Opening Session
Monday
2 November 2015
13.30 hrs

UKIERI Concrete Congress: Concrete Research Driving Profit and Sustainability

Dedicated to Koji Sakai
Representative, Japan Sustainability Institute, Sapporo, Japan

Opening Paper

*The Essence of
Sustainability in
Concrete Construction of
Emerging Countries*



Currently the Representative of Japan Sustainability Institute, founded in March 2014, Dr Koji Sakai was the Associate Professor at Hokkaido University, the Head and Director of Civil Engineering Research Institute, and the Professor of Kagawa University. He also holds three international positions, including Honorary Professor at the University of British Columbia (Canada), Guest Professor at Southeast University (China), and Special Professor at King Monkut's University of Technology – North Bangkok (Thailand). Dr. Koji Sakai has been involved with the work of various organizations such as federation international du beton (fib), International Standard Organization, American Concrete Institute, and Japan Concrete Institute and has received several honours and awards for his work, especially in the area of sustainability, including JSCE Book of the year Award and ACI Concrete Sustainability Award. He has published about 700 papers and books, etc.

Sponsoring of and Exhibiting at the Congress

The focal point of the Congress will be the exhibition and organisations are invited to sponsor the event and take the opportunity to exhibit and network with the delegates. Sponsors, depending on package, will gain exposure from a range of promotional benefits as shown below:

Sponsorship and Benefits						
Sponsorship Package	Cost (₹ in Lacs)	Free Delegates	Exhibition Spaces (Units)*	Dinner Spaces	Presentation at Opening Session (Minutes)	'Ad' Space in Final Programme (Page)
Patron	10	20	4	20	30	1
Platinum	4	8	3	8	15	1/2
Diamond	3	6	2	6	10	1/2
Gold	2	4	1	4	--	1/4
Silver	1	2	1	2	--	1/4
Congress Dinner	1 / 2	3	1 / 2	3	--	1/4
Congress Lunch	1	2	1	2	--	1/4

*** 2 meter length**

In addition, Congress Website will prominently display details of Sponsors and link directly to the Sponsor's own Website. Sponsor's company profile will also be printed in the programme given to all the delegates at the Congress. For sponsoring and exhibiting information, please contact:

Mr Raman Mangabhai
Sponsorship Coordinator

Mangabhai Consulting, UK
Email: mangabhai@sky.com

Professor Ravindra K Dhir OBE
Congress Chairman

University of Birmingham, UK / Trinity College Dublin, Ireland /
University of Dundee, UK, Email: r.k.dhir@bham.ac.uk

Organisations may simply wish to be Exhibitors at the Congress (at the cost of ₹ 0.50 Lacs per unit space). Please contact.

Conference 1

Tuesday
3 November 2015

Modern Sustainable Cements for Concrete Construction

Dedicated to Georg Dirk
Past Chairman/Managing Director, Dirk India

Themes

- Development in Clinkers
- Portland Cement Combinations, Benefits and Risks
- Potential Materials for Use as Cementitious Materials
- Ultrafine Cements
- Low Heat Cements
- Calcium Sulfo- Aluminate Cements
- Blite Cements (High C2S Cements)
- Magnesium Oxide Cements
- Low Energy and Low Emission Cements
- Alkali Activated Cements
- Cement Kiln Dust Characterisation and Use in Concrete
- Major Changes in Cement Use in Concrete and the Way Forward

Opening Paper

Georg Dirk

Past Chairman/Managing Director, Dirk India

Paper Title : *How to increase the use of Fly Ash in Cementitious Applications?*



Keynote Papers



Professor Bishwajit Bhattacharjee

Indian Institute of Technology Delhi, India

Paper Title : *Enhancing Fly Ash Utilization in Cement and Concrete through Combination with Other Materials*



Professor Ravindra K Dhir

University of Birmingham UK/Trinity College Dublin Ireland/University of Dundee UK; C Q Lye, University of Birmingham, UK

Paper Title : *Pozzolanic Materials Use in Concrete: Carbonation and Carbonation-Induced Corrosion Assessment*

Professor Peter C Hewlett

University of Dundee, UK/David Ball Group, UK
M Liska, David Ball Group, UK

Paper Title : *Cemfree – The Development of Sustainable Non-Portland Cement based Concretes*



Conference 2

Tuesday
3 November 2015

Quality Precast Concrete Construction

Dedicated to Martin Clarke OBE
Past Chief Executive, British Precast Concrete Federation

Themes

- Sustainable Precast Concrete Production
- Quality Control Procedures
- Offsite and Onsite Manufacture
- Precast Concrete and Infrastructure
- Bridge Segmental Construction
- Tunnel Segments
- Tilt-up Construction Technology
- Architectural Finishes
- Precast for Housing Development
- Masonry Construction
- Block Work – Lightweight and Heavy Duty
- Precast Panels/Hollow Floor Beams

Opening Paper

Martin Clarke OBE

Past Chief Executive, British Precast Concrete Federation

Paper Title : *Raising the Bar - How to Achieve Safe, Sustainable and High Quality Precast Concrete Production: Case Studies and Lessons*



Keynote Papers



Professor Ehab Ellobody

Sohar University, Oman

Paper Title : *Precast Hollow Core Concrete Floors: Analysis and Design for Fire*

Andrew P Dix

Managing Director, Charcon Construction Solutions, UK

Paper Title : *Health and Safety: The Global Challenge for the Precast Concrete Industry and its Supply Chains*



Conference 3

Wednesday
4 November 2015

Recycled/Secondary Materials for Concrete Construction

Dedicated to Jianzhuang XIAO

Full Professor, University of Tongji, People's Republic of China

Themes

- Various Recycled/Secondary Materials Used in Concrete
- Use as Aggregate, Filler or Cementitious Material
- Availability, Production, Processes and Properties
- Concrete Construction Challenges/Standards and Specifications
- Fresh Concrete, Engineering and Durability Performance
- Developing the Use of Quarry Fines
- Achieving High Performance and Special Concretes
- Performance- Based Specifications as for All Aggregates
- Use in Reinforced and Prestressed Concrete
- Environment Impact and Sustainable Development of RSA Use
- Use in Precast Construction and Structural Elements
- Special Case Studies/Case Histories

Opening Paper

Jianzhuang XIAO

Full Professor, University of Tongji, **China**

Paper Title : *Dynamic Mechanical Behaviour of Recycled Aggregate Concrete*



Keynote Papers



Dr Ali Akbarnezhad

University of New South Wales, **Australia**

Paper Title : *Identifying the Optimal Concrete Deconstruction Strategy*



Professor M Etxeberria

Universitat Politècnica de Catalunya, Barcelona, **Spain**

Paper Title : *Low to High Performance Recycled Cementitious Materials: Case Studies*

Dr Gurmel S Ghataora

University of Birmingham, **UK**

Paper Title : *Utilisation of Quarry Fines in Concrete*

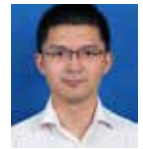


Professor Jian Yang

H Su, Shanghai Jiao Tong University, **China**

R K Dhir and G S Ghataora, University of Birmingham, **UK**

Paper Title : *Recycled Rubber Concrete and its Use in Construction*



Glimpses of UKIERI Concrete Congress 2013



Conference 4
Wednesday
4 November 2015

New Construction and Novel Design

Dedicated to Enzo Siviero
Full Professor, University IUVA of Venice, Italy

Themes

- Long Span Bridges
- Tall Structures
- Wind Farm Elements
- Low Energy Buildings
- Offshore Construction
- Underground Transportation
- Energy Efficient/Intelligent Buildings
- Domestic Housing
- Military Installations
- Coastal Defence Systems
- Terrorist Construction Measures
- Marine Structures

Opening Paper

Enzo Siviero

Full Professor, University IUVA of Venice Italy

Paper Title : *Building Harmony with Concrete Bridges*



Keynote Papers



Professor Bruno Briseghella

FY Huang, Fuzhou University, China
C Nuti, Roma Tre University, Italy

Paper Title : *Innovative Seismic Design and Retrofit of Bridges*



Professor Gai-Fei Peng

G F Peng, X J Niu, Beijing Jiaotong University, China

Paper Title : *Fire Resistance of High and Ultra-High Performance Concrete: A Review*

Professor Yuxi Zhao

J F Dong, W L Jin, Zhejiang University, China

Paper Title : *Corrosion-Induced Concrete Cracking damage*



Professor George R Georgoussis

School of Pedagogical & Technological Education (ASPETE), Greece

Paper Title : *Seismic Torsional Behaviour of Building Structures*



Glimpses of UKIERI Concrete Congress 2013



Conference 5

Thursday
5 November 2015

Construction Techniques

Dedicated to Willie Kay
Chairman and Managing Director, WAK Consultants, Singapore

Themes

- Advances on Soil Stabilisation
- Pre and Post Tensioning
- Tilt-up Construction
- Development in Piling
- Site Instrumentation
- Development in Formwork
- Methods of Demolition
- Structural Health Monitoring
- Gunite and Sprayed Concrete
- Tunnel Linings
- Cement Grouting
- Repair Methods

Opening Paper

Willie Kay

Chairman and Managing Director, WAK Consultants, Singapore

Paper Title : *Infrastructure Construction Development in Singapore*



Keynote Papers



Professor C T Tam

National University of Singapore, Singapore

Paper Title : *Development of Placing Strategy for Thick Raft Foundation – Singapore Experience*



Professor Roger P West

K McConnell, Trinity College Dublin, Ireland

Paper Title : *Formwork Buildability: Bridging the Designer – Constructor Divide*

Professor Lau Joo Ming

Nanyang Technological University, Singapore

Paper Title : *Built by Singapore - Housing a Nation*



Conference 6

Thursday
5 November 2015

Novel Concrete for Construction

Dedicated to Saeed Mirza
Professor Emeritus, McGill University, Canada

Themes

- Lunar Concrete
- Cement Free Concrete
- Novel Fibres
- PCE Developments
- Foamed Concrete
- Admixture Technology
- High and Ultra high Performance Concrete
- Self Compacting Concrete
- Decorative Concrete
- Flexible/Tough Concrete
- Self Cleaning Concrete
- Self Healing Concrete

Opening Paper

Saeed Mirza

Professor Emeritus, McGill University, Canada

Paper Title : *Novel Materials, Design and Constructions Methods for Sustainable Infrastructure*



Keynote Papers



Dr Kevin A Paine

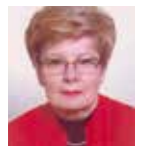
University of Bath, UK; R J Lark, University of Cardiff, UK; Al-Tabba, University of Cambridge, UK

Paper Title : *Biomimetic Multi-Scale Damage Immunity for Concrete*

Professor Dubravka Bjegovic

University of Zagreb, Croatia

Paper Title : *Construction Industry Progress through R&D and Innovation*



Congress Fees

The Congress fee will include all lunches, teas / coffees, refreshments, Congress dinner and proceedings. It has been devised to have wide international participation. The fee structure is shown below.

Fee Per Delegate (INR)			
	1 Delegate	2 Delegates	3 or more Delegates
Early bird registration*	6000	5500	5000
Standard registration	9000	8000	7000
Author registration	7000	6000	5000
Student registration	3500	3000	2500

* On or before 31 August 2015

Registration / Payment Details

The delegates can register by filling up the Registration Form which is supplied separately. The Registration Form can also be downloaded from the Congress Website. The payments such as Registration Fee and Sponsorship etc. can be made either by Bank Transfer or by Demand Draft, the details for which are given below:

Payment by Bank Transfer

Account Name: **UKIERI Concrete Congress**
Account No.: **65155472509**
Bank: **State Bank of Patiala**
REC Jalandhar-144011, India
IFSC Code: **STBP000841**
SWIFT Code: **STBPINBB021**

Payment by Demand Draft

Demand Draft in favour of **UKIERI Concrete Congress**, payable at **Jalandhar**

Kindly send the Registration Form (supplied separately) and the Confirmation Receipt of the Bank Transfer by e-mail at ucc@nitj.ac.in or the hard copies of the same or Demand Draft along with Registration Form to the Congress Secretary to the address given in the adjacent column.

Language and Venue

The language of the Congress is English and will be held at Dr B R Ambedkar National Institute of Technology, Jalandhar (Punjab), India.

Accommodation

Limited accommodation is available in the Institute Guest House. A list of hotels in the city offering discounted Congress rates will be provided on the Congress website shortly. Please note that the accommodation is not included in the Congress fee and the delegates are responsible for their own accommodation.

Travelling to Jalandhar

The city of Jalandhar is situated on National Highway No 1. It is 350 km away from New Delhi and is easily accessible by train. The Shatabdi Express trains plying between New Delhi and Amritsar (via Jalandhar City) are the best mode of travel to and from Jalandhar. The nearest international airport is at Amritsar about 90 km from Jalandhar.

Best Paper and Poster Awards

Three papers and three posters will be selected for these Awards, which will be adjudged by a panel of judges consisting of the following persons:

- Professor Peter C Hewlett, UK (Chairman)
- Professor B Bhattacharjee, India
- Professor Roger P West, Ireland
- Professor S K Kaushik, India

For Further Details, Please Contact

Professor S P Singh, Congress Secretary
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UKIERI Collaborative Concrete Research Partners



Concrete Technology Unit,
University of Dundee, UK



Birla Institute of Technology and
Science, Pilani, India



University of Bath
UK



Guru Nanak Dev Engineering
College, Ludhiana, India



Indian Institute of Technology
Delhi, India



Malaviya National
Institute of
Technology, Jaipur, India



Dr B R Ambedkar
National Institute
of Technology, Jalandhar, India



Sardar Vallabhbhai National
Institute of Technology
Surat, India



National Institute of Technology
Karnataka, Surathkal, India



SRM University
Chennai, India