



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



Second 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



TRINITY
COLLEGE
DUBLIN

University of Zagreb

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 under write 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

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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

The Congress will host the following Conferences: *Opening Paper***Conference 1:**

Modern Sustainable Cements for Concrete Construction

The Essence of Sustainability in Concrete Construction of Emerging Countries**Conference 2:**

Quality Precast Concrete Construction

Conference 3:

Recycled/Secondary Materials for Concrete Construction

Conference 4:

New Construction and Novel Design

Conference 5:

Construction Techniques

Conference 6:

Novel Concrete for Construction

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.

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

Georg Dirk and Dirk India, a Private Ltd company, are synonymous within the concrete construction industry in India and beyond and are linked to Pozzocrete – a visionary development of processing fly ash produced as waste at coal fired power stations into a valuable resource for use as cement component in concrete, which was set up in 2000 with Georg Dirk its Chairman and Managing Director. Prior to coming to India, after studying international business in Germany and a short spell in senior positions with oil giants, Mobil and Shell, he has been involved in various business enterprises within Europe, covering, refining of waste oils (Dirk-Oil), recycling power station by products as expendable abrasive (Dirk-Blastgrit), stabilisation of sewage sludge (Dirk- Rhenipal), various ventures with leading European power generators involving the utilisation of fly ash as RHENIPAL. In 1986, he was awarded the UK Environmental Award for his recycling activities.

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

Raising the Bar - how to achieve safe, sustainable and high quality precast concrete production: case studies and lessons



With a background in market and business development for major players in the UK concrete industry, Martin Clarke joined the British Cement Association in 1990 as its Marketing Director. Here, to compensate for the severe reduction in funding from the cement industry, he pioneered the development of Alliances and Focus Groups within specific market and professional sectors. In 2002 he was invited to join the British Precast Concrete Federation as Chief Executive, where he introduced the use of industry charters to Raise the Bar in safety and environment standards. Under his leadership, the precast industry reduced accident frequency by 75% in 10 years. He was awarded the Order of the British Empire (OBE) for services to the concrete industry by the Queen in 2013. Ever keen on the concrete industry sharing a global platform, in 2014 Martin Clarke launched a new initiative, the World Concrete Forum, along with his own practice, Clarke Consult.

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

Dynamic mechanical behaviour of recycled aggregate concrete



One of the youngest persons to be appointed to the chair, whilst Professor Xiao's research interests cover many areas such as fire response and earthquake resistance of high performance concrete and rehabilitation and strengthening of concrete structures with composite materials such as GFRP and CFRP, recently he has been engaged on the fundamental research on the material properties and structural behaviour of recycled aggregate concrete. He has won many awards, including the Distinguished Young Scholars of China by the National Science Foundation of PR China and the Alexander Von Humboldt Foundation Fellowship in Germany and has nine authorised national invention patents. He is member of several professional organisations, including RILEM. He has published widely and edited the first Code for Recycled Aggregates in China and is current Director of the Recycled Concrete Committee and vice Director of the High-strength and High Performance Concrete Committee in PR China.

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

*Building Harmony with
Concrete Bridges*



Born in 1945 in Vigodarzere (Padua) and graduating in 1969 in Civil Engineering from the University of Padua, Enzo Siviero is Full Professor of Structural Mechanics at the University IUVA of Venice, Italy; Consultant Professor at the College of Civil Engineering of Tongji University, Shanghai, China; Adjunct Professor at Fuzhou University, Fuzhou, China; Vice-Head of CUN, National University Council at the Ministry of Education in Rome (2007-2012) currently adviser and Honorary President and member of Progeest S.r.l. He was awarded the Honorary Degree in Architecture by Politecnico di Bari in 2009 and has been deeply involved in research in the area of bridges and teaching structures to architects in an endeavour to establish a meaningful and practical connection between structure and form and mechanical behaviour and aesthetics features.

Conference 5
Thursday
5 November 2015

Construction Techniques

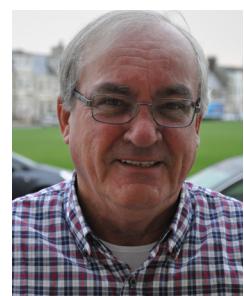
Dedicated to Willie Kay
Chairman and Managing Director, WAK Consultants, Singapore

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

*Infrastructure
Construction
Development in
Singapore*



A globe trotter and a friend of all, Willie Kay has worked with many organisations within construction industry, such as Taylor Woodrow (research laboratories), Colebrand Limited (specialist repair contractor), Chemical Building Products, now known as Fosroc (construction chemicals), and travelled extensively world over, before setting up his own company in Singapore in 1997 – WAK Consultants with a view to establish MC Bauchemie in the region, where the company has, in addition to supplying through Ready Mix companies over one million cubic metres high performance concrete, supported some very high profile projects, such as High Speed Rail and Taiwan, SMART Tunnel, Malaysia. In Singapore, he has worked with many Govt. Agencies such as Building and Construction Authority, Land and Transport Authority, Housing Development Board and Co-Chaired the adoption of EN206 to Singapore standard. WAK Consultants now work independently and have offices in Singapore and Malaysia and Associates in India and Nepal.

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

*Novel Materials,
Design and
Construction Methods
for Sustainable
Infrastructure*



Professor Emeritus Saeed Mirza of McGill University, Canada, is an internationally recognized authority in structural engineering and infrastructure rehabilitation, with emphasis on analysis and design of durable and sustainable structures with optimal service life performance, including routine and preventive maintenance and protection against various forms of deterioration over the service life of the facility. His earlier research interests included structural concrete behaviour, physical modelling and nonlinear finite element analysis of structural concrete. He has published extensively in journals, special publications, research reports and conference proceedings, and has coauthored four textbooks. For his many contributions to education, research, the profession, sports and the society at-large, Dr. Mirza was presented with the Canada 125 Award in 1992, and the Queen's Diamond Jubilee Medal in 2013. A Special Issue of the Canadian Journal of Civil Engineering was published in June 2006 to honour his several contributions to civil engineering profession.

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.

Glimpses of UKIERI Concrete Congress 2013



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: **STBP0000841**
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

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Concrete Technology Unit,
University of Dundee, UK



Birla Institute of Technology and
Science, Pilani, India



University of Bath
UK

UKIERI Collaborative Concrete Research Partners



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