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

First Announcement
Call for Papers

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 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.

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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 Jino 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:

Conference 1:
Modern Sustainable Cements for Concrete Construction

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

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.

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 Politecnice 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.

Call for Papers

Prospective authors are invited to submit papers which are relevant to the themes of the conferences. Authors should submit a 250 word abstract of their proposed paper by 31 January 2015, indicating which Conference and theme under which the paper is to be considered.

Who Should Participate

- Design Engineers and Architects
- Contracting Engineers
- Research Funding and Professional Bodies
- Local and Regional Authorities
- Ready Mixed Concrete Suppliers
- Precast Concrete and Materials Suppliers
- Formwork Designers
- Highway Authorities and Designers
- Academicians, Researchers and Students
- Trade Associations

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, but the details regarding mode of payment etc. shall be intimated shortly.

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 July 2015*

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

Key Dates

Submission of abstracts	31 January 2015
Acceptance notification	28 February 2015
Submission of draft papers	30 April 2015
Review comments to author (s)	30 June 2015
Submission of final papers	31 July 2015

Submission of Abstracts and Further Details

Abstracts may be submitted by email to the following address.

Please indicate the Conference and the theme under which the abstract should be considered.

Professor S P Singh
Congress Secretary

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UKIERI Collaborative Concrete Research Partners

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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
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