UKIERI Concrete Congress

First Announcement
Call for Papers

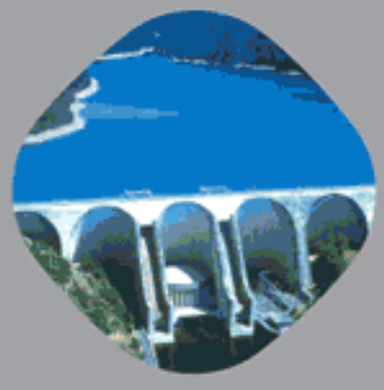
Innovations in Concrete Construction

5 - 8 March 2013

Venue:

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

http://ukiericoncretecongress.com/



Host Organisations:
Dr B R Ambedkar National Institute of Technology
Jalandhar - 144 011 Punjab India
Guru Nanak Dev Engineering College
Ludhiana - 141 006 Punjab India

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.

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
Kamataka, Surathkal

National Institute of Technology Kamataka, Surathkal, India

SRM University Chennai, India

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Developing and maintaining world's infrastructure to meet the future needs of industrialised and developing countries is necessary to economically grow and improve the quality of life. The quality and performance of concrete play a key role for most of infrastructure including commercial, industrial, residential and military structures, dams, power plants and transportation systems. Numerous advances in all areas of concrete construction and technology including materials, mix design, recycling, structural design, durability requirements, testing and specifications have been made. Wide spread use of concrete requires knowledge and informed applications not only covering materials and design but also environmental issues. To succeed, this approach needs to fit within the framework of regional materials and practices. Furthermore, it is important to combine and share knowledge, innovative ideas and practical experiences to yield global confidence in the future use of concrete.

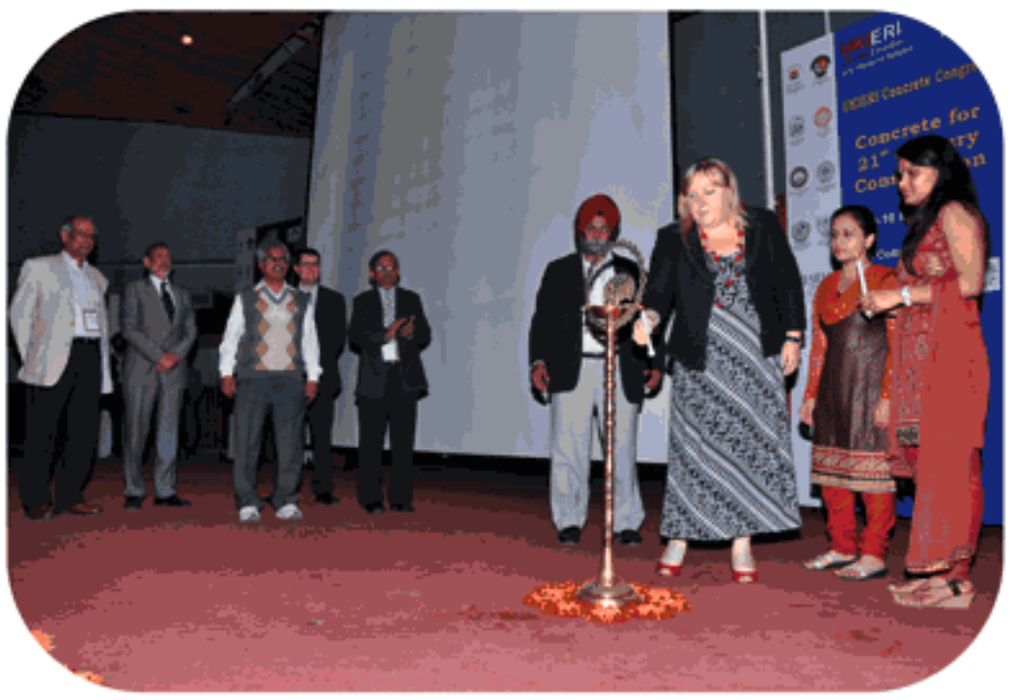
This 4-day Congress will aim to address recent innovations in concrete and construction and their role in responding to the rapid global growth in infrastructure demands. The second half of the first day will be devoted to opening ceremony and opening addresses by those acknowledged experts across the world who will be honoured at the Congress for distinguished contributions in the area of concrete. The other three days will have six Conferences covering different themes.

Genesis of
UKIERI Concrete Congress

In the year 2007, a research project, funded by the UK-India Education and Research Initiative (UKIERI), and chaired by Professor Ravindra K Dhir, for the first time, brought together academics at ten UK/Indian higher education institutions to collaborate in research in the areas of concrete science, technology and structural engineering and to develop solutions for providing sustainable high performance concrete infrastructure. Sustainability beyond UKIERI has been an integral part of this collaboration, and during the final stages of the project, an International Congress, 'Concrete for 21st Century Construction' dealing with themes of new developments in concrete construction and concrete for high performance sustainable infrastructure was held at the Indian Institute of Technology (IIT) Delhi, India on 8-10 March 2011. More than 300 delegates from cement, construction industry and academic institutions participated in the Congress, which was overwhelmingly supported by the cement and construction industry.

Following this success, the Group decided to establish an International Congress Series under the name of *UKIERI Concrete Congress* of which the one to be hosted at Dr B R Ambedkar National Institute of Technology, Jalandhar, Punjab, India, on 5-8 March 2013, will be the second event.

UKIERI Concrete Collaborative Research Project Team



Ms Sally Goggin, British Council, India, Education Director inaugurating the UKIERI Concrete Congress held at IIT Delhi 8-10 March 2011

Key Dates

Submission of abstracts
31 March 2012

Acceptance notification
30 April 2012

Submission of draft papers
31 August 2012

Review comments to author (s)
31 October 2012

Submission of final papers
30 November 2012

Patrons

S K Das
Director, Dr B R Ambedkar National Institute of Technology, Jalandhar, India

M S Saini
Director, Guru Nanak Dev Engineering College, Ludhiana, India

Congress Organising Committee

Ravindra K Dhir OBE
Chairman, University of Dundee, UK / Trinity College Dublin, Ireland

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

H S Rai
Joint Secretary, Guru Nanak Dev Engineering College, Ludhiana, India

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

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

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

Harvinder Singh
Guru Nanak Dev Engineering College, Ludhiana, India

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

B Bhattacharjee
Indian Institute of Technology Delhi, India

S Bhalla
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Malaviya National Institute of Technology, Jaipur, India

M C Narasimhan
National Institute of Technology Karnataka, Surathkal, India

H S Patil
SV National Institute of Technology, Surat, India

N Rajamane
SRM University, Chennai, India

S Kumar
Assistant, UKIERI Concrete Congress

Opening Session
Tuesday
5 March 2013
13.30 hrs

UKIERI Concrete Congress: Innovations in Conacrete Construction

Dedicated to Dr Jean-Marie Chandelle,
Chief Executive, CEMBUREAU

The Congress will host the following Conferences:

Conference 1:
High Performance Concrete Using Admixtures

Conference 2:
Precast Concrete and Construction

Conference 3:
Low Carbon Cements and Concrete in Modern Construction

Conference 4:
Designing Reinforced Concrete for Sustainability

Conference 5:
Efficient Concrete Structures

Conference 6:
Fine, Ultrafine and Nano-based Materials in Concrete

Opening Paper

The European Cement Industry's Quest for Sustainable Construction, its Contribution, Today and Tomorrow

Jean-Marie Chandelle is the Chief Executive of CEMBUREAU, the European Cement Association, a position he has held since 1996. A qualified Belgian lawyer, with a Master of Laws and a Ph.D, Dr Chandelle has held numerous positions including Legal Counsel to SOLVAY, Secretary General of the Interox Group, and Head of Corporate Communications (SOLVAY Group). He teaches Law at the University of Brussels and has published various books and articles in French and in English on Property law, Environmental law and European law as well as articles on Climate Change, the use of alternative fuels in the European cement industry and on EU Policy. He also produces regular contributions as a columnist to international magazines ("Global Cement & Lime Magazine", "Cement International") on topics related to EU law and policies and features relevant to the cement and concrete industries.

Conference 1
Wednesday
6 March 2013

High Performance Concrete Using Admixtures

Dedicated to Professor Peter C Hewlett
Former Chief Executive, British Board of Agrement, UK

Themes

- Measuring Performance and Test Methods
- Self Compacting Concrete
- Rheology/Set Controllers
- High Performance Superplasticisers
- Early High Strength Concrete
- High and Ultra High Strength Concrete
- Shrinkage Compensating Concrete
- Water Proofed Concrete
- Enhanced Permeation Properties
- Durability Enhancement
- High Performance in Multi-Aggressive Exposures
- Developments in Under Water Construction
- Foamed Concrete
- Decorative Concrete
- Other Products/Applications

Opening Paper

Cement Admixtures: Trends, Developments and Attitudes

Peter C Hewlett, a Chemist/Material Scientist and an acknowledged expert in the fields of cement, concrete and admixtures, has been involved in research for almost 50 years. Previously Director of Cementation Research Ltd and British Board of Agrement, President of European Union of Agrement, Chairman of the UK Research and Development Society and Cement Admixtures Association, President of Concrete Society UK and European Organisation for Technical Approvals, Gold Medalist and recipient of the Polish Officers Cross of Merits. He is Chairman of the Editorial Board for the Magazine of Concrete Research. A prolific author and presenter, has research interests in fundamentals of durability, surface characterization, rehology, adhesion and appearance of concrete, was awarded Honorary Doctorate of Laws by the University of Dundee, UK.

Conference 2
Wednesday
6 March 2013

Precast Concrete and Construction

Dedicated to Professor Arnold Van Acker
Former Chairman, fib Commission on Prefabrication, Belgium

Themes

- Production Processes and Innovations
- Developments in Precast Construction
- Sustainable Design
- Structural Frames
- Architectural Cladding
- Normal/Light Weight Building Blocks
- Concrete Floor Beams/Hollow Core Slabs
- Concrete Pipeline Systems
- Foundation Systems
- Concrete Railway Systems
- Applications in Bridge Construction
- Concrete Tilt up Construction
- Concrete Tunnel Segments
- Codal Provisions and Design Aspects
- Safe Erection/ Other

Opening Paper

Precast Concrete: A not to be Missed Construction Technology for 21st Century

Arnold Van Acker is known worldwide as an authority in the design and execution of precast concrete construction. He has been a member of drafting committee of Eurocode 2 for the design of concrete structures and CEN TC 229 for structural precast concrete products. A Visiting Professor at the High School for Engineers in Ghent and a board member of the Technical High School for Architects in Brussels has written a model lecture course on the design of precast concrete structures and has given master courses at the Technical Universities of Leuven (Belgium), Politecnico di Milano (Italy), State University of Sao Paulo (Brasil), University of Cape Town (South Africa) and more. A member of the International Concrete Federation fib - Commission of Prefabrication since 1978 and Chairman from 1986 to 2002, he has been awarded the FIP medal for outstanding contributions.

Conference 3
Thursday
7 March 2013

Low Carbon Cements and Concrete in Modern Construction

Dedicated to John Harrison
Managing Director and Chairman, TecEco P. Ltd, Australia

Themes

- Progress in Carbon Foot Print Reduction in Concrete Construction
- Challenges for Developing Countries
- Appropriate Use of Waste Materials
- Engineering and Durability Performance
- Sulphoalumnates
- Magnesium Oxide/Silicate Based Cements
- Geopolymers
- Production/Process Changes
- Mineralised Portland Clinkers
- Zeolite Cements
- Portland Clinker/Fly Ash Cements
- Portland Clinker/Slag Cements
- Low Carbon Concrete and Construction
- Modeling Cement Composites for Strength and Durability
- Others Cements

Opening Paper

Future Concretes in Perspective and Ramifications of Adding Reactive Magnesia to Hydraulic Cement Compositions

John Harrison has been responsible for a number of innovations including the tech tendon method of pre stressing. He is managing director and chairman of TecEco P. Ltd. and best known for the invention of TecEco Cements including Eco-Cement which, because it sets by absorbing CO_2, has attracted significant global interest. His proposition that reactive magnesia should be included in hydraulic compositions has also attracted considerable interest and led to renewed interest in carbonating magnesia based binders. He was the founder of the Association for the Advancement of Sustainable Materials in Construction (AASMIC) and was for many years their Chair. He has been working on blends of Portland cement, reactive magnesia, GBFS and pozzolans as well as on problems in the supply chain for reactive magnesia. He recently co-chaired the successful SMB-2007 conference in Melbourne, Australia

Conference 4
Thursday
7 March 2013

Designing Reinforced Concrete for Sustainability

Dedicated to C R Alimchandani
Chairman and Managing Director, STUP Consultants P. Ltd, India

Themes

- Design and Analysis of Structural Systems
- Reinforced Cementitious Composites
- Computational Structural Mechanics
- Structural Health Monitoring and Retrofitting
- Life Cycle Analysis
- Safety and Reliability
- Service Life and Sustainable Design Methods
- Structural Optimization
- Minimising Design Cost
- Construction and Environment Issues
- Reinforcing Materials and Their Appropriate Use
- Efficient and Appropriate Use of Virgin/Recycled Materials
- Role of Ready Mixed concrete
- Challenges for Developing Countries
- Others

Opening Paper

Innovations in Concrete Structures Designed for India

C R Alimchandnai obtained a Post Graduate Diploma in Prestressed Concrete in 1958 from France. President IE(I) 1985, Fellow of Indian National Academy of Engineering from 1987, was awarded the FIP Medal in 1986 in recognition of his work in Prestressed Concrete, a Gold Medal by the Japanese Construction Industry at the fib 2002 Congress at Osaka and the International Award of Merit in Structural Engineering by IABSE in 2004 in recognition of lifetime contribution to the development of Prestressed Concrete in 30 countries of Asia and Africa. He was Vice President of FIP for over a decade and a member of the Technical Committee of IABSE 1995-2003, Steering Committee of fib, Permanent Committee of IABSE, Chairman IMC of fib and Member Technical Council of fib. His Company is diversified into every branch of Civil Engineering and Architecture.

Conference 5
Friday
8 March 2013

Efficient Concrete Structures

Dedicated to Professor Michel Virlogeux
President, European Construction Institute

Themes

- High Rise Buildings
- Wide-Span Bridges
- Offshore/Onshore Tunnels
- Naturally Ventilated Structures
- Offshore Oil Applications
- Thermal Mass Effects
- Nuclear Structures
- Embedded Structural and Foundation Systems
- Active and Passive Control Systems
- Plate Systems
- Fire Resistance and Assessment
- Seismic Resistant Structures
- Aesthetics and Sustainability Issues
- Challenges for Developing Countries
- Others

Opening Paper

Cable Stayed Bridges, Modernity and Efficiency

Michel Virlogeux is currently Professor of bridge design and construction at the Ecole Nationale des Ponts et Chaussees. He is Docteur Ingenieur of the Paris University and Doctor Honoris Causa of the Loughborough University. He served as Head of the concrete bridges division in SETRA, the technical service of the French Ministry of Equipment. He has designed many bridges including the Normandie Bridge - which held the world record for several years, the Millau Viaduct, and more recently the Terenez curved cable-stayed bridge. He has been President of Federation Internationale de la Precontrainte and Federation Internationale du Beton. He has received may International Awards. He is a member of the French Academy of Technology, Fellow of ICE, ISE and Associate Member of Indian Academy of Engineering. Since 1995, he settled as independent consultant.

Conference 6
Friday
8 March 2013

Fine, Ultrafine and Nano-based Materials in Concrete

Dedicated to P N Balaguru

Distinguished Professor, The State University of New Jersey, USA

Themes

- Role of Fine/ Ultrafine/ Nano Materials in Concrete Construction
- Role in Promoting Sustainable Construction
- Fine and Ultrafine Calcium Carbonates and Silicates
- Fine and Ultrafine Fly Ash and Slag Materials
- Metakaolin and Silica Fume Materials
- Nano Structural Superplasticisers
- Nano Silica Additions
- Nano Particles and Tubes
- Nano Materials and Cement Hydration
- Nano Instruments
- Hydration and Microstructure Changes
- Next Generation of Nano-based Concrete Construction Products
- Challenges for Designing Concrete in Developing Countries
- Challenges of Reducing Carbon footprint

Opening Paper

Nano Technology and Concrete Structures: Opportunities and Challenges

P N Balaguru served as a Program Director for Infrastructure Materials and Structural Mechanics at National Science Foundation for four years. He has directed 30 PhD and M.S. Dissertations in the areas of his research interest that includes nano composites. His publications include more than 250 papers in Journals and Proceedings. His current research activities include 3 major projects with a total budget exceeding $36M. He served as Chairman of three ACI Technical Committees. His honors and awards include: ASCE Educator of the Year (NJ) 2009, Fellow of American Concrete Institute and an Award for Recognition of Longstanding Contributions to Ferrocement from International Ferrocement Institute, Outstanding Alumni of University of Illinois at Chicago. He is listed in a number of Directories including Who is Who in the World.

Punjab

The Smiling Face of India

Punjab, located in the north west of India, with its capital at Chandigarh, is one of its most prosperous states. The five rivers Sutlej, Beas, Ravi, Chenab and Jhelum gave it its name 'punj-ab' or the 'land of five waters'. Punjab is the cradle of the Indus Valley Civilization, more than 4000 years old. In 1947, at the end of British Rule, the Punjab was split between India and Pakistan. Some of the main cities in Indian Punjab are Amritsar, Jalandhar, Ludhiana and Patiala. Enriched with a distinct blend of rural and urban flavours, Punjab has a lot to offer to a tourist eye. It has a unique religious legacy with a host of Gurudwaras, the largest and the most prominent being The Golden Temple at Amritsar. The Jallianwala Bagh of Amritsar is another historical spot which reminds one of the Punjab's sacrifices to the freedom struggle of India. Punjab is called the *Granary of India* or *India's bread-basket* as it produces 60% of its wheat and 40% of its rice. The famous Bhakra Dam, described as *The New Temple of Resurgent India* by Jawahar Lal Nehru, the first Prime Minister of India, is located across Sutlej River near its border. Above all, the warmth and hospitality of the people are the main attractions in this region.

The Golden Temple, Amritsar

Welcome to Jalandhar

An ancient city in Punjab, Jalandhar, ruled by the Hindus and the Mughals in succession, is believed to be the oldest city in Punjab. The city, which has major road and rail connections, is a market for agricultural products, textiles, leather goods, wood products, and sporting goods. Jalandhar today is a highly industrialized centre being India's foremost producer of world class sports equipments. Popularly called the '*Sports City of India*' as it has not only the finest sports industry but also has the distinction of producing some of the best sports persons in the country. Jalandhar is also considered as a hub for education as many professional Institutions are situated in the city. It has very alive atmosphere, something that is typical to the whole of Punjab. It is situated at a distance of 146 km from its capital Chandigarh and is at a distance of 350 km from New Delhi on Delhi-Amritsar Highway. Nearest international airport is at Amritsar at a distance of 90 km.

Sri Devi Talab Temple, Jalandhar

Dr B R Ambedkar National Institute of Technology, Jalandhar

Dr B R Ambedkar National Institute of Technology, Jalandhar (NITJ) is a leading premier autonomous Institution of northern India. The Institute was established in the year 1987 as a Regional Engineering College, which was given the status of National Institute of Technology in the year 2002 by the Government of India. The institute offers Bachelor of Technology (B.Tech.) programmes in nine disciplines of Engineering and Technology along with the Research Programmes leading to Master of Technology (M.Tech.) and Doctor of Philosophy (Ph.D.). The Institute is located in an eco-friendly environment amidst a rambling campus spread over 154 acres.

The Department of Civil Engineering has the honour of being accredited for a maximum period of five years by the National Board of Accreditation (NBA) in 2004. The Department has also been selected as 'DST-FIST Sponsored Department' by the Ministry of Science and Technology, Government of India.

Sir Allan Langlands, Principal and Vice-chancellor of the University of Dundee, Scotland during his visit to the Institute on its Annual Convocation in 2008 and after laying the foundation stone for the Centre for Concrete Construction

Guru Nanak Dev Engineering College, Ludhiana

Guru Nanak Dev Engineering College, Ludhiana is the oldest engineering college in North India; established in the year 1956 by the Nankana Sahib Education Trust (NSET).The NSET was founded in the memory of the most sacred temple of Nankana Sahib, birth place of Guru Nanak Dev Ji. Shiromani Gurudwara Prabandhak Committee (SGPC), Amritsar, a premier organisation of universal brotherhood, was the main force behind the mission of *Removal of Economic Backwardness through Technology*. The college is now ISO 9001-2008 certified, having all the courses accredited by National Board of Accreditation (NBA).

The Department of Civil Engineering offers academic programs leading to the award of B.Tech., M.Tech. and Ph.D. degree by the Punjab Technical University, Jalandhar. The Department is well known in the region for imparting consultancy services to many Government, Semi Government and private organisations.

Convocation 2011 of
Guru Nanak Dev Engineering College, Ludhiana

Trade Fair

In the last UKIERI Concrete Congress held on 8-10 March 2011 at Indian Institute of Technology Delhi, the trade fair has been the focal point of the event. Concrete manufacturers, material suppliers, contractors, publishers, research, educational and professional institutions are all represented. Their fields of expertise cover the various themes of the Congress and this provides an excellent opportunity to augment the knowledge gained at various sessions through technology demonstrations.

Glimpses of the Trade Fair at the UKIERI Concrete Congress held at IIT Delhi in March 2011

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 March 2012, indicating which Conference and theme under which the paper is to be considered. On-line submission through Congress website is strongly encouraged.

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*	5500	5000	4500
Standard registration	8000	7000	6000
Author registration	6500	5500	4500
Student registration	3000	2800	2600

** On or before 30 November 2012*

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.

Traveling 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.

Pre and Post Congress Tours Within India

The Congress Organising Committee will assist the delegates who wish to undertake Pre and Post Congress tours to important places within India. The Information on this shall be provided on the Congress website in due course.

Day Visit Tours for Accompanying Delegates

The Congress Organising Committee will also assist the accompanying delegates for day visit to important places in and around the City of Jalandhar. The Information on this shall also be provided on the Congress website in due course.

Submission of Abstracts and Further Details

Abstracts may be submitted online at the Congress website at www.ukiericoncretecongress.com or by e-mail, fax or post 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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Sponsorship and Exhibition

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 will gain exposure from a range of promotional benefits including free trade fair space, free delegates, Congress dinner promotion, promotion on the Congress website, brochure and programme. Congress website will prominently display details on Sponsors and a link directly to the Sponsor's own website. Sponsors company profile will also be printed in the Programme given to all the delegates at the Congress.

For sponsorship information, please contact:

Professor Ravindra K Dhir OBE
Congress Chairman

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For exhibition related matters, please contact:

Professor H S Rai
Congress Joint Secretary

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