



# UKIERI Concrete Congress Sustainable Concrete Infrastructure

14 – 17 March 2023

(Virtual Mode)

Congress Secretariat:

Dr B R Ambedkar National Institute of Technology  
Jalandhar – 144 027 (Punjab) India

[www.ukiericoncretecongress.com](http://www.ukiericoncretecongress.com)

## First Announcement Call for Papers



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



**C**ONCRETE is a global construction material, serving the social, engineering and commercial needs of the mankind through means of building the essential infrastructure to sustain our progress. The basic materials that comprise concrete are also global and this makes it second to water only in volume consumption. Notwithstanding these benefits, concrete and its providers and users also have responsibilities and obligations in ensuring its correct, durable and sustainable applications. This UKIERI Concrete Congress is being organised to discuss all aspects relating to concrete's current and future contribution as to how we build the established and develop living world. In achieving this aim, the Congress will be working with the stakeholders worldwide, involving researchers, practitioners, professional institutions, trade organisations and the relating Government departments.

The six Conferences comprising the Congress are designed to cover a wide range of issues reflecting concrete's versatility relevance and potential for further exploitation. The proceedings of the Congress will be managed differently, maximizing the delivery of current knowledge as well as the creation of new knowledge, focusing on the advantages and benefits as well as cutting across barriers that can limit applications. The need for future provision whilst responding to environmental concerns will be discussed. There will be opportunity to learn, network, debate and find solutions and opportunities relating to these issues.

The Congress will appeal to providers of services, manufacturers, practicing engineers, designer's consultants and researchers as well as planners and property developers. In fact, to all that relate to concrete's unique contribution to how we live both now and in the future.

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**Subhash C Ralhan, Chairman, Board of Governors**  
Dr B R Ambedkar National Institute of Technology, Jalandhar, India

**Harjinder Singh Dhani, President Managing Committee**  
Guru Nanak Dev Engineering College, Ludhiana, India

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**H S Rai, Head of Civil Engineering Department**  
Guru Nanak Dev Engineering College, Ludhiana, India

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**H S Rai**  
Guru Nanak Dev Engineering College, Ludhiana, India

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

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**H S Chore**, Dr B R Ambedkar National Institute of Technology, Jalandhar, India

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**S Bhalla**, Indian Institute of Technology Delhi, India

**S Bishnoi**, Indian Institute of Technology Delhi, India

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

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

**Roger P West**, Trinity College Dublin, Ireland

Opening Session  
Tuesday  
14 March 2023  
13.30 hrs

## UKIERI Concrete Congress

### Sustainable Concrete Infrastructure

*The Congress will host the following Conferences:*

**Conference 1:**

Waste Materials for Building Concrete Infrastructure

**Conference 2:**

Smart and Eco-Cement Materials for Concrete Construction

**Conference 3:**

Reinforced Concrete and Precast Concrete for Sustainable Infrastructure

**Conference 4:**

Self-Compacting Concrete in Modern Construction Era

**Conference 5:**

Advances in Geopolymer Concrete and Applications

**Conference 6:**

3D Printing as the Future of Sustainable Concrete Infrastructure

**Wednesday**  
15 March 2023

### Conference 1

#### Waste Materials for Building Concrete Infrastructure

**Themes**

- Recycled and Secondary Materials and Use
- Use of Quarry Fines
- Fresh Concrete, Engineering and Durability Performance
- Performance- Based Specifications
- Environment Impact and Sustainable Development
- CO<sub>2</sub> Life Cycles Assessment/Analysis
- Case Studies, Future Development and Trends
- Others

**Wednesday**  
15 March 2023

### Conference 2

#### Smart and Eco-Cement Materials for Concrete Construction

**Themes**

- Super/Smart Absorbent Polymers
- Self-healing, Self-cleaning and Self-curing Phenomena
- Nano Materials, Novel Fibres and Smart Sensors
- Nano Superplasticisers/Particles/Tubes
- Next Generation of Nano Based Concretes
- Porous Concrete and Applications
- Non-Intervention Techniques
- Others

**Thursday**  
16 March 2023

### Conference 3

#### Reinforced Concrete and Precast Concrete for Sustainable Infrastructure

**Themes**

- Precast/Masonry for Housing and Infrastructure Development
- Bridge/Tunnel Segmental Construction
- Sustainable Design and Structural Frames
- Codal Provisions and Design Aspects
- Seismic Performance of Structural Elements
- Structural Optimization and Life Cycle Analysis
- Service Life and Sustainable Design Methods
- Others

**Thursday**

16 March 2023

## Conference 4

### Self-Compacting Concrete in Modern Construction Era

#### Themes

- Rheology, Early Age Strength and Durability
- Form Work Issues
- Measuring Performance and Test Methods
- Use of Secondary Materials
- Structural and Mechanical Behaviour
- Future Developments and Trends
- Applications and Case Studies.
- Others

**Friday**

17 March 2023

## Conference 5

### Advances in Geopolymer Concrete and Applications

#### Themes

- Materials and Methods
- Fresh Concrete, Engineering and Durability Properties
- Developing Value Added-Use of Materials
- Environment Impact and Sustainable Development
- Portland Cement Combinations, Benefits and Risks
- Innovative and Future Developments
- Potential Applications and Market Acceptance
- Others

**Friday**

17 March 2023

## Conference 6

### 3D Printing as the Future of Sustainable Concrete Infrastructure

#### Themes

- Materials Information and 3D Printing Technology
- Building Information Modelling
- Development of Engineering Properties
- In-Situ performance
- Environmental Benefits of 3D-Printing in Construction
- Life Cycle Assessment and case Studies
- Research Goals and Methods
- Others

## Who Should Participate

- Academicians, Researchers and Students
- 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
- Trade Associations

## 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 August 2022** indicating which Conference and Theme under which the paper is to be considered. The authors should submit abstract(s) in MS Word Format by email at [ucc2023@nitj.ac.in](mailto:ucc2023@nitj.ac.in) as attachment.

## Language

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

Key Dates	
Submission of abstracts	31 August 2022
Acceptance notification	10 September 2022
Submission of draft papers	15 November 2022
Review comments to author (s) & acceptance	15 December 2022
Submission of final papers	15 January 2023

## Congress Fees

The Congress fee includes soft copy of the Abstract Book/Proceedings. The fee structure is shown below, the details regarding mode of payment etc. shall be intimated shortly in due course.

Fee per Delegate (₹)	
Early bird registration*	1000
Author registration	1500
Student registration	1000
Standard registration	2500

\* On or before 15 January 2023

**For Further Details, Please Contact**

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