

# Call for Abstracts

# CONSEC24



10<sup>th</sup> International Conference on  
**CON**crete under **SE**vere **C**onditions (CONSEC)  
– Environment & Loading  
<https://consec24.com>

**Bridging structural and  
materials technologies**

**September 25 - 27, 2024,  
IITM Research Park, IIT Madras, Chennai, INDIA**

CONSEC conferences focus on the advancements in the areas related to the design, construction, testing, and preservation of various construction materials and systems exposed to severe environmental and loading conditions. Earlier CONSECs were held in Japan (1995), Norway (1998), Canada (2001), South Korea (2004), France (2007), Mexico (2010), China (2013), Italy (2016), and Brazil (2019). Now, the *Centre of Excellence on Technologies for Low-Carbon and Lean Construction (TLC2)* at the Indian Institute of Technology Madras feels proud and privileged to organize the 10<sup>th</sup> CONSEC in Chennai, India (named as CONSEC24). We have also planned pre- and post-conference workshops on allied topics. **CONSEC24 will provide a single platform for exchanging ideas in both focussed and holistic manner for the design, construction and conservation of reinforced concrete structures experiencing severe conditions.** We invite students, researchers, faculty members, and practitioners working in the relevant areas of **structural engineering and construction materials** to attend CONSEC24 and make it a huge success.

## Conference themes and subthemes

### Advanced materials for severe conditions

- Cements and binders (SCMs)
- Chemical admixtures
- Hydration and microstructure
- Metallic and non-metallic reinforcement (fibres, mesh, bars, strands)
- Alternative aggregates

### Lab/field testing and characterisation

- Material characterisation tests
- Accelerated tests and long-term performance
- Non-destructive testing
- Forensics and condition assessment
- Naturally deteriorated systems

### Repair and strengthening materials and methods

- Preventive maintenance
- Electrochemical repair
- Waterproofing & coating
- Grouts and grouting methods
- Repair mortar and concrete
- Residual capacity assessment
- Strengthening techniques

### Damage, deterioration and transport properties

- ASR, sulphate or acid attack
- Chloride ingress
- Carbonation and leaching
- Corrosion of reinforcement
- Creep and shrinkage
- Fatigue and fracture

### Service life, reliability, sustainability and resilience

- Simulation of residual capacity
- Service life and durability
- Reliability and resilience
- Sustainability and life cycle assessment (LCA)
- Standardization and codes

### Special concretes and construction techniques

- FRC, TRC, HPC, UHPC, SHC
- Precast concrete
- 3D-concrete printing
- Underwater construction
- Cold-weather construction
- High-rise concrete pumping

# Plenary Speakers



## Prof. Alexandra BERTRON

INSA Toulouse, France  
Topic: The behaviour of SCM and low-CO<sub>2</sub> binders and systems in sewer networks



## Prof. Stefano PAMPANIN

Sapienza University of Rome, Italy  
Topic: Designing precast concrete structures for earthquake resistance - Past, present, and future



## Prof. Jose Ivan ESCALANTE-GARCIA

CINVESTAV Saltillo, Mexico  
Topic: Novel alkali activated binders based on precursors of limestone and recycled pulverized concrete



## Prof. Giovanni PLIZZARI

University of Brescia, Italy  
Topic: Structural repair of tunnel segments



## Prof. Paolo GARDONI

University of Illinois Urbana-Champaign, US  
Topic: Sustainability and resilience of large-scale concrete bridge infrastructure systems



## Prof. Manu SANTHANAM

IIT Madras, India  
Topic: The way forward on performance specifications for achieving durable concrete structures



## Prof. Ipei MARUYAMA

The University of Tokyo, Japan  
Topic: Performance evaluation of concrete under specific conditions for nuclear reactor buildings



## Prof. David TREJO

Oregon State University, US  
Topic: Estimation of service life of concrete structures - challenges and way forward



## Prof. Robert MELCHERS

The University of Newcastle, Australia  
Topic: Resilience of reinforced concrete structures in corrosive conditions

**Bridging structural and materials technologies**

## Tentative Keynote Speakers

- Prof. Hans Beushausen, Univ. of Cape Town, South Africa
- Prof. Enrico Sassoni, University of Bologna, Italy
- Prof. Wolfram Schmidt, BAM, Germany
- Prof. Juhuyuk Moon, Seoul National University, South Korea
- Prof. Prannoy Suraneni, University of Miami, USA
- Dr. David Tepke, SKA Consulting Engineers, USA
- Mr. David Whitmore, Vector Corrosion Technologies, Canada
- Prof. Sylvia Kessler, Helmut Schmidt University, Germany
- Prof. Sreejith Nanukuttan, Queen's University of Belfast, UK
- Dr. Ashish Sapre, Walter P Moore, India
- Dr. Harshavardhan Subbarao, Construma Consultants, India
- Prof. Hong Wong, Imperial College London, UK
- Prof. Marijana Serdar, University of Zagreb, Croatia
- Prof. Burkan Isgor, Oregon State University, USA
- Prof. Pedro Castro-Borges, Avanzados del IPN Unidad Mérida, Mexico
- Prof. Tutikian, Univ. do Vale do Rio dos Sinos, Brazil
- Mr. Peter Emmons CEO, Structural Technologies, USA
- Prof. Liberato Ferrara, Politecnico di Milano, Italy
- Dr. Asit N Baxi, Baxi Engineering Inc., USA
- Prof. Sriramya D. Nair, Cornell University, USA
- Prof. Pang Sze Dai, NUS, Singapore
- Mr. Terrence F. Paret, WJE, USA

## Other Speakers and Attendees

- 90+ abstracts from across the world has been received so far
- By January 31, 2024, we anticipate to receive about 150+ abstracts from industry and academia.
- About 600+ structural and materials engineers are expected to attend the conference to provide huge networking and marketing opportunities.

## Important Dates

Submission of 250-word Abstract	January 15, 2024
Acceptance of Abstract	January 31, 2024
Submission of 4-page Extended Abstract / 8-page Full Paper	February 29, 2024
Early-Bird Registration	March 15, 2024
Submit application for Indian Conf. Visa, if needed	March 20, 2024
Acceptance of 4-page Extended Abstract / 8-page Full Paper (optional)	May 1, 2024

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Type of delegate	Conference Registration fee			
	Before March 1 <sup>st</sup> ,2024		After March 1 <sup>st</sup> ,2024	
	Indian (INR)	Foreign (USD)	Indian (INR)	Foreign (USD)
Student Authors (Regular)	14,000	450	18,000	550
Student Authors (Subsidized)	8,000	250	12,000	350
Regular	25,000	800	30,000	900
Discounted Regular (RILEM/ICI members)	22,000	700	27,000	800
Subsidized	15,000	450	20,000	550

*The Registration Fee entitles the delegates to attend all technical sessions of the conference, exhibition, lunch, reception and banquet, and receive the proceedings.*

- For full-time students wanting to attend only the pre- and post-conference workshops, a fee of INR 2000 per workshop is applicable. For others, INR 4000 per workshop is applicable.
- Students without an abstract for paper/poster presentations will be considered as Regular category.

**\*Countries eligible for subsidized fee:** Albania; Algeria; Angola; Argentina; Bangladesh; Bosnia and Herzegovina; Botswana; Brazil; Bulgaria; Burkina Faso; Cambodia; Cameroon; Chile; Colombia; Congo; Costa Rica; Croatia; Cuba; Dominican Republic; Ecuador; Egypt; Estonia; Ethiopia; Federal Republic of Nigeria; Georgia; Ghana; Guatemala; Hungary; India; Indonesia; Iran; Iraq; Ivory Coast; Jordan; Kazakhstan; Kenya; Latvia; Lebanon; Lesotho; Libya; Lithuania; Macedonia; Malawi; Malaysia; Mauritius; Mexico; Montenegro; Morocco; Mozambique; Myanmar; Nepal; Pakistan; Paraguay; Peru; Poland; Philippines; Republic of Moldova; Romania; Russian Federation; Senegal; Serbia; South Africa; Sri Lanka; Syrian Arab Republic; Tanzania; Thailand; Togo; Tunisia; Turkey; Ukraine; United Republic of Tanzania; Uruguay; Venezuela; Vietnam; Yemen; Zimbabwe, and other countries with similar or lower GDP.

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*Hosted by*

**Centre of Excellence on  
Technologies for Low-Carbon and Lean Construction (TLC2)**



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<b>CONFERENCE PARTNER</b> <b>INR 20,00,000</b> 1 Company	<ul style="list-style-type: none"> <li>Brief talk during inauguration</li> <li>Proposal of technical speakers</li> <li>Exhibition stall</li> <li>20 free delegates</li> <li>Distribution of publicity material</li> <li>Mention in banners and all conference literature</li> </ul>
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<b>BRONZE</b> <b>INR 1,00,000</b>	<ul style="list-style-type: none"> <li>3 free delegates</li> <li>Distribution of publicity material</li> </ul>
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