Call for Abstracts

CONSEC24

10th International Conference on
CONcrete under SEvere Conditions (CONSEC) – Environment & Loading

https://consec24.com

Bridging structural and materials technologies

September 25 - 27, 2024,
Radisson BLU Hotel GRT 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 10th 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

T1: 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

T2: Lab/field testing and characterisation
- Material characterisation tests
- Accelerated tests and long-term performance
- Non-destructive testing
- Forensics and condition assessment
- Naturally deteriorated systems

T3: 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

T4: Damage, deterioration and transport properties
- ASR, sulphate or acid attack
- Chloride ingress
- Carbonation and leaching
- Corrosion of reinforcement
- Creep and shrinkage
- Fatigue and fracture

T5: 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

T6: 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
Behaviour of SCM and low-CO_2 binders and systems in sewer networks

Prof. Jose Ivan ESCALANTE-GARCIA
CINVESTAV Saltillo, Mexico
Novel alkali activated binders using precursors of limestone and recycled pulverized concrete

Prof. Paolo GARDONI
University of Illinois Urbana-Champaign, US
Sustainability and resilience of large-scale concrete bridge infrastructure systems

Prof. Ippei MARUYAMA
The University of Tokyo, Japan
Performance evaluation of concrete under specific conditions for nuclear reactor buildings

Prof. Robert MELCHERS
The University of Newcastle, Australia
Resilience of reinforced concrete structures in corrosive conditions

Prof. Lisbeth M. OTTOSEN
Technical University of Denmark, Denmark
Reuse of structural concrete components in new buildings

Prof. Stefano PAMPANIN
Sapienza University of Rome, Italy
Designing precast concrete structures for earthquake resistance - Past, present, and future

Prof. Giovanni PLIZZARI
University of Brescia, Italy
Structural repair of tunnel segments

Prof. Manu SANTHANAM
Indian Institute of Technology Madras, India
Sulphate Attack: After 20 years of 'w hither'ing

Prof. David TREJO
Oregon State University, USA
Service life of concrete structures and standardization - challenges and w ay forward

Keynote Speakers

Prof. Shashank BISHNOI, IIT Delhi, India
Carbonation of low clinker concretes: when it is a concern and w hen it is not

Prof. Pedro Castro Borges,
Avanzados del IPN Unidad Mérida, Mexico
Social appropriation of know ledge about concrete durability in vulnerable coastal communities. The role of the participatory action research (PAR)

Prof. Gino Ebell, BAM - Berlin, Germany
Stress corrosion cracking in prestressed concrete bridge - A case study

Prof. Yang EN-HUA, NTU, Singapore
Characterization and tailoring of mechanical properties of engineered cementitious composites under dynamic loading condition

Prof. Liberato FERRARA, Politecnico di Milano, Italy
Material and process design in 3D Concrete Printing via AI driven experiments and modelling

Prof. Burkan ISGOR, Oregon State University, USA
Innovative approaches to mitigate reinforcement corrosion in concrete

Dr. Fragkoulis KANAVARIS, ARUP, UK
New perspectives for sustainable and durable concrete materials and structures

Prof. Sriramya Duddukuri NAIR, Cornell University, USA
Viability of Utilizing Supplementary Cementitious Materials for Subsurface Infrastructure

Prof. Sreejith Nanukuttan,
Queen's University of Belfast, UK
Calcium focused design for longevity of concrete structures in silage environment

Prof. Suriya Prakash S., IIT Hyderabad, India
Use of GFRP Rebars in Construction: Recent Research on Short Term and Long Term Performance

Prof. Enrico Sassoni, University of Bologna, Italy
Phosphate treatments to enhance the durability of cementitious materials

Prof. Marijana SERDAR,
University of Zagreb, Croatia
Does carbon footprint reduction impair mechanical properties and service life of concrete?

Dr. Ali Akbar SOHANGHPURWALA,
CONCORR, Inc., USA
Application of service life modeling and selecting appropriate technologies for extending service life of RC structures

Prof. Pang SZE DAI, NUS Singapore
Effect of Climate Change on Building Materials: Predictions from Accelerated Testing and Machine Learning

Prof. Anya VOLLPRACHT, RWTH Aachen University, Germany
Carbonation in concretes with SCMs

Important Dates

Submission of 250-word Abstract	April 15, 2024
Acceptance of Abstract	April 25, 2024
Submission of 4-page Extended Abstract / 8-page Full Paper	May 31, 2024
Early-Bird Registration	May 31, 2024
Submit application for Indian Conf. Visa, if needed	May 31, 2024
Acceptance of 4-page Extended Abstract / 8-page Full Paper (optional)	June 15, 2024

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Registration

Category of registration	Conference Registration fee (including tax)			
	On or before May 31st, 2024		After May 31st, 2024	
	Indian (INR)	Foreign (USD)	Indian (INR)	Foreign (USD)
Student Author	8,000*	450	18,000	550
Student Author (subsidized**)	-	250	-	350
Individual	25,000	800	30,000	900
Individual (Discounted) (RILEM/ACI/ICI members)	22,000	700	27,000	800
Individual (Subsidized**)	-	450	-	550
Accompanying person***	8000	150	8000	150
Pre-conference workshop	2000	25	4000	50

The Registration Fee entitles the delegates to attend all technical sessions of the conference, exhibition, lunch, welcome reception, banquet and receive the proceedings, except that banquet is not included for Indian student authors who have paid reduced fees of Rs. 8000 (INR).

Students without an abstract for oral/poster presentations will be considered as Individual category.

* Does not include banquet; banquet ticket of Rs. 4000 can be availed

**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; 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.

*** Fee includes lunches, banquet and local sightseeing trips on conference days

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Conference Venue

Radisson BLU Hotel GRT Chennai, Tamil Nadu

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Please contact Fulcrum Tours & Travels for any queries on travel and accommodation in Chennai (https://www.fulcrumtours.com/iitm/consec24/)

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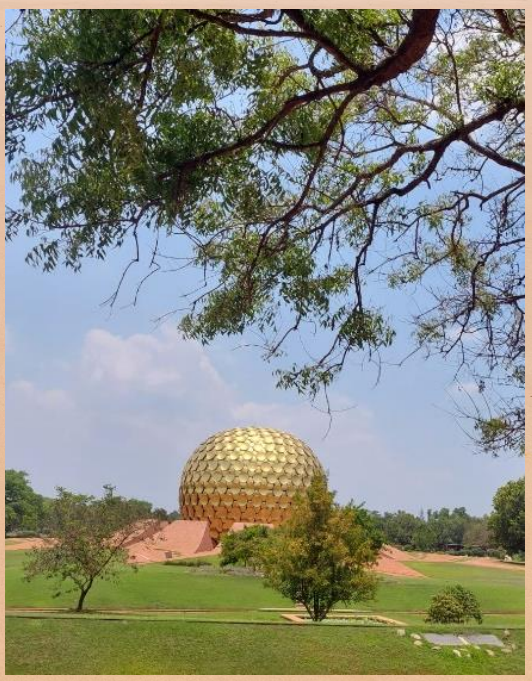

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