

NEWSLETTER

November 2024



Indian Institute of
Technology Madras



Technologies for
Low-Carbon and Lean
Construction



IITM team and TLC2 team with TLC2 consortium members at IC&SR, IIT Madras, Chennai

The Centre of Excellence on Technologies for Low-carbon and Lean Construction (TLC2), IIT Madras, possesses the unique advantage of having faculty members with expertise in different aspects of construction, which has been further strengthened by the involvement of industry partners in the **TLC2 Consortium**. At TLC2, we have established a consortium aimed at fostering collaboration, innovation, and implementation of advanced and sustainable technologies in the construction industry. Through this consortium, we aim to bring together industry leaders to drive excellence through academia-industry partnership. Short term research projects will be taken up with active collaboration with the industry partners to come up with solutions, guidelines, white papers, and model specifications, as well as research findings, to benefit the industry.

A warm welcome to the esteemed leaders from the Cement and Construction sector - FOSROC, ULTRATECH, L&T HEAVY CIVIL INFRASTRUCTURE, ASIAN PAINTS, SCHWING STETTER, CHIRAYU and CONCRETE OEM as they join the TLC2 Consortium. Their significant contributions are deeply appreciated, and we eagerly anticipate partnering with them towards creating a sustainable ecosystem.

TLC2 Consortium Platinum members



TLC2 Consortium Silver members



Find us: <https://tlc2.iitm.ac.in/>

BSB 205, Department of Civil Engineering, IIT Madras, Chennai - 600036, India



Benefits of Membership to TLC2 Consortium Partners

- Engagement in an interdisciplinary research ecosystem across IIT Madras — brainstorm real - world problems, define research priorities, and keeping abreast with the latest developments in the domain and hold a position in Advisory Board
- Establishment of long-term, impactful collaborations with academic institutions, peer industry partners, and policy leaders on a global stage.
- Participation in joint R&D efforts – Feasibility stage R&D (TRL 1-3), scale up validations (TRL 4-6) and pilot demonstrations (TRL 7-9)
- Access to a large talent pool of researchers and entrepreneurs at IITM — acts as an RoI multiplier for your R&D spend
- Engagement in projects on the cutting edge where IITM could also seek Government of India funding to benefit the research and country at large

For more details, please visit: <https://tlc2.iitm.ac.in/benefits-of-membership/>

TLC2 Advisory Board Meeting

The first TLC2 consortium advisory board meeting was held on November 19, 2024 in IC&SR, IIT Madras. The discussions with our industry partners were truly engaging, focusing on future actions and various elements related to the advancement of low-carbon construction materials and durability of concrete structures.

Advisory Board was formed with the representatives from each company and TLC2 faculty members. Core projects for the year 2025 were selected on broad topics like Mitigation & repair of early age cracks, Fatigue performance of grout, Virtual Reality (VR) module for Defect Identification and Quality Management Training, Recycled aggregates from C&D waste, Early-age strength gain of high volume SCM concretes for applications in precast industry.

We extend our heartfelt gratitude to experts from our consortium member companies - Mr. Mohankumar and Mr. Vijay Kulkarni from Fosroc, Mr. Raj Narayan, Mr. S. V Patil, Mr. Jayasankar and Mr. Devender Pandey from Ultratech, Mr. K. Senthilnathan and Mr. Prasad Selvam S.R from L&T Heavy Civil Infrastructure, Mr. Rajeev Kumar Goel, Mr. Shashank Sharma, Mr. Pravinkumar Sharma and Mr. Arunangshu Chakraborty from Asian Paints, for their participation and valuable insights regarding the industry's current needs — such as the importance of reducing carbon footprints, implementing Lean Design in Construction, and enhancing energy efficiency. Support of the consortium partners is vital as we strive to address these pressing issues and work towards a more sustainable future in construction.



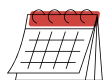
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4th International Workshop on Technologies for Low-Carbon & Lean Construction (TLC2)



January 28, 2025



IIT Madras Research Park, Chennai, India

Tentative List of Speakers



Dr. O. Burkan Isgor
School of Civil & Construction
Engineering, Oregon State University,
USA

Challenges related to reinforcement corrosion in
low-clinker systems



Dr. John Babafemi
Civil Engineering Department,
IStellenbosch University,
South Africa

FRC & 3D Printed Concrete



Dr. K Siva Teja Chopperla
Civil Engineering Department,
IIT Gandhinagar, India

Assessing Alternative SCMs for Use in Concrete



Dr. Hemanta Dolo
School of Design, University of
Melbourne, Australia

Making Affordable Housing Sustainable: The Importance
of Blending with Local Cultures and Practices



Dr. R. K. Mantha Bharadwaj
Department of Civil & Environmental
Engineering,
University of Sharjah, UAE

Impact of Automation and Information Technology
on Sustainability



Mr. Srinivasan T
Larsen & Toubro, India

Implementing Sustainability through Contract Specifications



Dr. Aritra Pal
Civil Engineering Department,
IIT Madras, India

Time Overruns and Unsustainable Projects:
The Importance of Quick and Reliable Project
Progress Monitoring

Registration

Early bird registration for TLC2 workshop 2025 is open now. [Scan](#) to register.



Category	Young Researchers' Symposium (YRS) Monday, January 27, 2025	One day workshop on TLC2 Tuesday, January 28, 2025
Industry - Practicing engineers	Rs. 2000	Rs. 4000
Academia - Faculty members, Scientists, Part-time Research Scholars	Rs. 1000	Rs. 2000
Academia - Students, Full-time Research Scholars	Rs. 1000	Rs. 1000



3rd Young Researchers' Symposium & Award



on

Technologies for Low-Carbon & Lean Construction

27th January 2025 (Monday) | 9 am to 5 pm IST | @ Research Park, IIT Madras

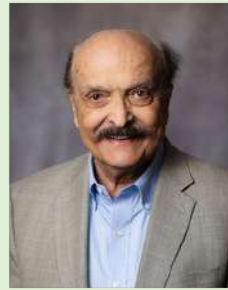
About the symposium

Young Researchers' Symposium (YRS) is an international forum for senior PhD students and recent doctoral graduates to showcase their cutting-edge research outcomes in the areas of Technologies for Low-Carbon and Lean Construction (TLC2).

The previous symposium featured participants from top universities, including:

- Politecnico di Milano, Italy
- University of Toronto, Canada
- Ghent University, Belgium
- University of Leeds, UK
- Monash University, Malaysia
- Thapar Institute of Engineering & Technology, India
- The University of Sheffield, England
- University of Capetown, South Africa
- Oregon State University, USA
- UPC Barcelona, Spain
- IIT Madras, IIT Hyderabad & IIT Palakkad, India
- Anna University, India

**Prestigious
Prof. Surendra P. Shah
Award is given to the
best speaker of YRS**



PROF. SURENDRA P. SHAH

Presidential Distinguished Professor, Center for Advanced Construction Materials, University of Texas at Arlington, USA
Distinguished Professor, IIT Madras

Themes (*but not restricted to...*)

- Supplementary/alternative cementitious materials
- Identification, processing, and valorization of waste for use in concrete construction
- Service life and life cycle assessment, sustainability and carbon footprint of the construction industry
- An Integrated Test-Bed for large-scale processes and visualization
- Organizational and policy research for large-scale and accelerated construction technology
- Implementing lean techniques in construction projects

YRS finalists 2023



YRS finalists 2024



What you need to do ?

Send a 200 words abstract and a 5-minute video on your PhD thesis by 15th December 2024

**Travel grant of upto EUR 2000
(Two Thousands) could be
available to selected speakers
travelling from abroad**



tlc2.iitm.ac.in/tlc2-events/yrs-2025/

[Submission link](https://tlc2.iitm.ac.in/tlc2-events/yrs-2025/)