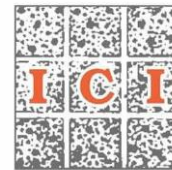




**IIT Madras**  
Building Technology,  
Construction Materials & Management

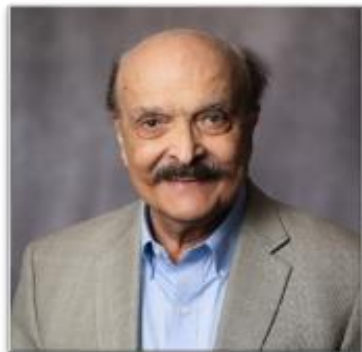


Centre of Excellence on  
Technologies for  
Low Carbon & Lean  
Construction



Indian Concrete Institute

Dedicated to



## Prof. Surendra P. Shah

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

# 5<sup>th</sup> TLC2 Week

on Technologies for Low-Carbon & Lean Construction (TLC2) 2026



IC&SR Auditorium, IIT Madras



27<sup>th</sup> - 30<sup>th</sup> January 2026 (Tuesday - Friday)

## About TLC2 Week

TLC2 Week is an annual event, organized in collaboration with ICI, RILEM, and our members and sponsors aiming at disseminating recent findings and identifying new challenges in the areas of TLC2. During this week, we conduct the following programs:

- Young Researchers' Symposium (YRS)
- International Workshop on TLC2 topics.

## Registration Fee (including tax) on or before January 15<sup>th</sup>, 2026

\* After January 15<sup>th</sup>, 2026 the registration fee will be increased.

Categories	Young Researchers' Symposium (YRS)	5 <sup>th</sup> TLC2 Workshop		
	Jan 27th	Jan 28th	Jan 29th	Jan 30th
Industry – Practicing engineers	₹2000	₹3000	₹3000	₹3000
Academia - Faculty members, Scientists, Part-time Research scholars	₹1000	₹2500	₹2500	₹2500
Academia - Students, Full-time Research Scholars	₹1000	₹1000	₹1000	₹1000

## Reach out to TLC2 Group:

BSB 205, Department of Civil Engineering,  
Indian Institute of Technology Madras,  
Chennai, Tamil Nadu - 600036, India

Email: [tlc2@civil.iitm.ac.in](mailto:tlc2@civil.iitm.ac.in)

Website: <https://tlc2.iitm.ac.in/>

Scan for Registration



# Program Schedule

4 <sup>th</sup> Young Researchers' Symposium, January 27 <sup>th</sup> , 2026		
08:00 to 09:00 am	Registration	
Time	Speaker	Topic
09:00 to 09:15 am	<b>Inaugural session: Welcome address by Prof. Ravindra Gettu</b>	
09:15 to 09:30 am	Akpabot Ifioke Tongji, University, China	Mechanical and Durability Performance of Limestone Calcined Clay Cement Concrete Made from Selected African Raw Materials
09:30 to 9:45 am	Amitkumar R. Chauhan, IIT Madras, India	Extending the Service Life of Limestone Mines Through the Use of Low-Grade Limestone in Sustainable Concrete
09:45 to 10:00 am	Andrea Marcucci, Politecnico di Milano, Italy	An Advanced Tunnel Refurbishment Methodology Based on Slip forming Fast-Setting Steel Fibre Reinforced Concrete
10:00 to 10:15 am	Ashirbad Satapathy, IIT Delhi, India	Mechanism of Flow Loss in Limestone Calcined Clay Cement Systems
10:15 to 10:30 am	Dor Simon Ben Gurion, Univ. of the Negev, Israel	Development of hollow constructive Textile-Reinforced Concrete structures
10:30 to 10:45 am	Keerthi V. Thalakkal, IIT Madras, India	Electrochemical studies towards non-destructive testing of large-scale galvanic cathodic protection systems in reinforced concrete structures
10:45 to 11:00 am	Luiza Rodrigues Meira de Miranda Ghent, Univ. Belgium	Concrete Printing through Lace Pressing: Head, Shoulders, Knees and Toes
11:00 to 11:30 am	<b>Coffee/Tea Break</b>	
11:30 to 11:45 am	Nilakanmani Manimaran, IIT Madras, India	Valorising Agro-based Biomass Ash for Chemically Activated Binders
11:45 to 12:00 pm	Pratik Kumar Goyal, C. S. V. Tech. Univ., Bhilai, India	Experimental Study on Performance of Weathered BOF Slag as Coarse Aggregate in Fly Ash based Geopolymer Concrete
12:00 to 12:15 pm	Ramakrishna Samanthula, IIT Madras, India	Study of the Tensile Response of E-Glass Textile Reinforced Concrete and its Applications in Design
12:15 to 12:30 pm	Ramya Anandhan, Univ. of Texas at Arlington, USA	Monitoring Early Age Cement Hydration Using Statistical Approach through Rheological and Electrical Measurements
12:30 to 02:00 pm	<b>Lunch Break</b>	
02:00 to 02:15 pm	Rubendran Loganathan, Monash University, Malaysia	Codifiable Protocols for Recycled Aggregates and Tyre Steel Fibres in Semi-Structural Concrete
02:15 to 02:30 pm	Sreelakshmi S, IIT Madras, India	Electrochemical and mechanical characterization of steel in prestressed concrete exposed to chlorides
02:30 to 02:45 pm	Suresh Bishnoi, IIT Delhi, India	Physics-Informed Graph Neural Networks for Accelerated Materials Modelling
02:45 to 03:00 pm	Syed Bustan Fatima Warsi, IIT Guwahati, India	Lean and Low-Carbon 3D Printed Concrete Mixtures with Strain-Hardening Ductile Behaviour for Seismic Applications
03:00 to 03:15 pm	Veronica Bertolli, Politecnico di Milano, Italy	Shear strengthening of concrete structures with organic- & inorganic-matrix composites
03:15 to 03:30 pm	Yogesh R, IISc Bangalore, India	Experimental investigations into tensile properties & fracture behaviour of large concrete specimens under direct tension
03:30 to 04:30 pm	<b>Coffee/Tea Break &amp; Poster Session</b>	
04:30 to 04:40 pm	About RILEM	
04:40 to 05:00 pm	Announcement of the Surendra P Shah Awardee & Best Poster Awardee for 2026	

## 5<sup>th</sup> International Workshop on TLC2, January 28<sup>th</sup>, 2026

<b>08:30 to 09:30 am</b>	<b>Registration</b>	
<b>Time</b>	<b>Speaker</b>	<b>Topic</b>
09:30 to 10:00 am	<b>Inaugural session: Welcome address by Prof. Manu Santhanam</b>	
10:00 to 10:30 am	<b>Talk by Prof. Surendra P. Shah</b>	
10:30 to 11:00 am	Talk by YRS winner	
11:00 to 11:30 am	<b>Coffee/Tea Break</b>	
11:30 to 12 noon	Liberato Ferrara, Politecnico di Milano, Italy	A holistic approach to the design of 3D concrete printing materials and processes, combining experiments, Computational Particle Fluid Dynamics modelling and AI- driven experiments
12:00 to 12:30 pm	KVL Subramaniam, IIT Hyderabad, India	Insights from LCA analysis of Material Efficient Structural Systems Produced by Concrete Printing
12:30 to 02:00 pm	<b>Lunch Break</b>	
02:00 to 03:30 pm	Roundtable with CxOs & faculty members <b>(By Invite only)</b>	Poster Session
03:30 to 05:00 pm	Salient Achievements of CoE on TLC2 (2021-2025)	
	Overview of TLC2 Workshop: Key Takeaways	
	TLC2 Consortium: A Brief Overview	

## 5<sup>th</sup> International Workshop on TLC2, January 29<sup>th</sup>, 2026

<b>08:30 to 09:00 am</b>	<b>Registration</b>	
<b>Time</b>	<b>Speaker</b>	<b>Topic</b>
09:00 to 09:30 am	Radhakrishna G Pillai, IIT Madras, India	Corrosion assessment and service life design of concrete structures
09:30 to 10:00 am	Devin Harris, University of Virginia, USA	Evaluation of In-Service Concrete Structures using Non-Destructive Methods
10:00 to 10:30 am	Yuvaraj Dhandapani, University of Leeds, UK	Unlocking the Potential of Calcined Clay as a Manufactured SCM in the UK: Recent Advances and Industrial Trials
10:30 to 11:00 am	<b>Coffee/Tea Break</b>	
11:00 to 11:30 am	Alexandra Bertron, INSA Toulouse, France	Biogeochemical interactions between cementitious materials and their environments in the context of the durability and sustainability of strategic civil engineering infrastructures.
11:30 to 12:00 noon	Johann Plank, Technical University of Munich, Germany	Innovations in New Admixture Technologies for Low Carbon Binders
12:00 to 12:30 pm	Piyush Chaunsali, IIT Madras, India	Development of Calcium Sulfoaluminate-Belite Cement Using Industrial Wastes
12:30 to 02:00 pm	<b>Lunch Break</b>	
02:00 to 02:30 pm	Pat Rajeev, Swinburne Univ. of Technology, Australia	Printability to Performance: A Dual Assessment of 3D-Printable Concrete
02:30 to 03:00 pm	Biranchi Panda, IIT Guwahati, India	Integrating Manufacturing into sustainable 3D printed concrete design
03:00 to 03:30 pm	Shravan Muthukrishnan, TU Dresden, Germany	Outcomes of RILEM 304-ADC interlaboratory study on compressive mechanical properties of 3D printed specimens
03:30 to 03:45 pm	Hanuman Naik, Simpliforge Creations, India	Concrete 3D Printing under High-Altitude and Low-Oxygen (HALO) Conditions Using Local Materials
03:45 to 04:15 pm	<b>Coffee/Tea Break</b>	
04:15 to 04:45 pm	Mirosław J. Skibniewski, University of Maryland, USA	Construction 5.0 for Low-Carbon Technologies
04:45 to 05:15 pm	Leon Olde Scholtenhuis, University of Twente, Netherlands	Digital Twins at the Interface of Underground Infrastructures and Building Energy Renovation Projects
06:00 to 10:00 pm	<b>Cultural Program and Banquet at Ramada Plaza by Wyndham Chennai (By Invite only)</b>	

## 5<sup>th</sup> International Workshop on TLC2, January 30<sup>th</sup>, 2026

09:00 to 09:30 am	Registration	
Time	Speaker	Topic
09:30 to 10:00 am	Philippe Jost, Sika Switzerland	TBA
10:00 to 10:30 am	Arjun Mudambi, TRC, India	Precast Engineering: The Ancient Blueprint for Modern Construction
10:30 to 11:00 am	Coffee/Tea Break	
11:00 to 11:30 am	Ashwin Mahalingam, IIT Madras, India	Why Sustainable Technologies DO NOT Get Adopted
11:30 to 12:00 noon	Marian Bosche Rekveldt, TU Delft, Netherlands	Creating value by projects: fit for purpose project management
12:00 to 12:30 pm	Dhruvesh Shah, BuildAid, India	Effect of durable repair of multi-storey building on life cycle cost and carbon footprint - case study
12:30 to 01:00 pm	Sri Sai Baba Ankala, Ex-Chief Engineer, Indian Railways	Challenges in the design and construction of expressway tunnels
1:00 to 02:30 pm	Lunch Break	
02:30 to 03:00 pm	Alva Peled Ben-Gurion, University of the Negev, Israel	Advancing Concrete with Textiles: Sustainable and Durable Solutions
03:00 to 03:30 pm	Gonzalo Ruiz, Universidad de Castilla-La Mancha, Spain	Leveraging SFRC compressive behaviour for superior ductility and sustainability in composite structures
03:30 to 04:00 pm	Navneet Narayan, Bekaert India	Industry experience of sustainable concrete reinforcing solutions using steel fibres
Closure		

## TLC2 Consortium Members and Sponsors

