



2026 CTIL Technical Seminar on **ENGINEERING THE FUTURE OF CONCRETE STRUCTURES: SUSTAINABILITY AND RESILIENCE**

— and —
Launch of WOH HUP-SIT-A*STAR
Consortium Research Programme for
Sustainable Construction Technology



Guest-of-Honour

Mr Chee Hong Tat

Minister for National Development



Thursday, 1 October 2026



SIT Punggol Campus
Ho Bee Auditorium



Organised By



In Partnership with



In Support of



The Construction Technology Innovation Laboratory (CTIL) is proud to present the 2026 CTIL Annual Technical Seminar on Engineering the Future of Concrete Structures: Sustainability and Resilience and Launch of WOH HUP-SIT-A*STAR Consortium Research Programme for Sustainable Construction Technology.

This annual event brings together regulators, industry leaders, engineering professionals and researchers to exchange knowledge and explore applied innovations shaping a more sustainable, resilient and high-performance built environment. We are honoured to welcome Mr Chee Hong Tat, Minister for National Development as our Guest of Honour for this milestone occasion.

The programme features ten technical presentations covering major infrastructure developments, advanced construction materials and emerging digital technologies. Industry experts will share engineering challenges and innovative solutions from the Changi East Development, the Cross Island Line and other landmark concrete projects. The materials-focused sessions will examine Cretecal repair grout, MgO-based anti-cracking concrete, carbonated steel slag cement and functional porous concrete for urban heat island mitigation. Presentations on physics-informed AI and AI-assisted structural analysis and design will also demonstrate how digital technologies can improve engineering productivity, reliability and design efficiency.

Complementing the presentations is an industry exhibition showcasing research outcomes, emerging technologies and practical solutions developed across the Consortium's research work packages. Participants will have opportunities to engage with project teams and learn how collaborative research is being translated into scalable, real-world applications.

The event will also mark the launch of Woh Hup-SIT-A*STAR Consortium Research Programme for Sustainable Construction Technology, the official opening of the CTIL laboratory space, and the pre-launch of the new CRC Press book - Design of Headed Anchorage Bars in Reinforced Concrete Structures.

Through technical sharing, exhibitions, discussions and networking, the seminar aims to strengthen collaboration among industry, academia and public agencies while accelerating the adoption of sustainable and resilient construction solutions.

ABOUT CTIL

The Construction Technology Innovation Laboratory (CTIL) at the Singapore Institute of Technology is an applied research platform established in collaboration with Woh Hup (Private) Limited. It brings together researchers and industry partners to develop practical and innovative solutions for the construction sector.

CTIL's research covers advanced structural systems and materials, sustainable concrete, high-strength steel, artificial intelligence, digitalisation, automation and construction robotics. Its work focuses on translating research into scalable, industry-ready technologies that enhance safety, productivity, cost efficiency and sustainability. Through collaborative research, professional training and knowledge-sharing initiatives, CTIL strengthens industry capabilities, develops future-ready talent and accelerates the adoption of innovative construction technologies.



Er. Yeo Choon Chong

Deputy Programme Director
Changi East Construction
Changi Airport Group

01



Er. Ng Choon Yeang

Group Director, Cross Island Line
Land Transport Authority

02



Er. Kam Mun Wai

Senior Executive Director
Meinhardt (Singapore) Pte Ltd

03



Mr Eric Leong

Chairman & CEO
Mlion Corporation Pte Ltd

04



Prof. Mo Liwu

Nanjing Tech University
China

05



Assoc. Prof. Zhao Ming Shan

CTIL
Singapore Institute of Technology

06



Dr Ng Chow Goon

CTIL
Singapore Institute of Technology

07



Prof. Yang Bo

Chongqing University
China

08



Asst. Prof. Zhang Lulu

CTIL
Singapore Institute of Technology

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TIME	SEMINAR PROGRAMME
● TECHNICAL SESSION 1	
7:45 – 8:45 AM	Registration & Morning Coffee
8:45 – 9:00 AM	Welcome and Overview of Seminar Er. Prof. CHIEW Sing Ping
9:00 – 9:30 AM	Technical Presentation 1 The Changi East Development: Engineering Challenges and Innovative Solutions Er. YEO Choon Chong
9:30 – 10:00 AM	Technical Presentation 2 Cross Island Line: Engineering Challenges in Singapore's Largest Underground MRT Project Er. NG Choon Yeang
10:00 – 10:30 AM	Technical Presentation 3 Engineering Complex Concrete Structures: Some Recent Innovations Er. KAM Mun Wai
10:30 – 11:00 AM	Morning Refreshment Break and Viewing of Exhibition Booths
● LAUNCH CEREMONY	
11:00 – 11:15 AM	Address by President of Singapore Institute of Technology Prof. CHUA Kee Chaing
11:15 – 11:30 AM	Address by Guest-of-Honour Mr. CHEE Hong Tat, Minister for National Development
11:30 – 11:45 AM	Signing Ceremony for WOH HUP-SIT-A*STAR Consortium Research Programme for Sustainable Construction Technology
11:45 – 12:00 PM	Official Opening of CTIL Laboratory Space @ SIT E6-09-10
12:00 – 12:30 PM	Pre-Launch of New CRC Book and Technical Presentation 4 - Design of Headed Anchorage Bars in Reinforced Concrete Structures
12:30 – 2:00 PM	Networking Lunch and Viewing of Exhibition Booths
● TECHNICAL SESSION 2	
2:00 – 2:30 PM	Technical Presentation 5 Case study on Adaptation and Application of <i>Cretecal</i> Repair Grout in Time- and Space-Constrained Environments Mr. Eric LEONG
2:30 – 3:00 PM	Technical Presentation 6 Development and Application of MgO-based Anti-Cracking Concrete in Mass Concrete Projects Prof. MO Liwu
3:00 – 3:30 PM	Technical Presentation 7 Enhancing Sustainability and Resilience in Low-Carbon Concrete Construction using Carbonated Steel Slag Cement Assoc. Prof. ZHAO Ming Shan
3:30 – 4:00 PM	Afternoon Refreshment Break and Viewing of Exhibition Booths
● TECHNICAL SESSION 3	
4:00 – 4:30 PM	Technical Presentation 8 Valorization of Steel Slag into Functional Porous Concrete for Urban Heat Island Mitigation Dr. NG Chow Goon
4:30 – 5:00 PM	Technical Presentation 9 Improving Reliability in Control Demolition Analysis using Physics-Informed AI Prof. YANG Bo
5:00 – 5:30 PM	Technical Presentation 10 Case Study on AI-Assisted Structural Analysis and Design Asst. Prof. ZHANG Lu Lu
5:30 – 6:00 PM	Q&A Panel Session
6:00 PM	Closing Remarks & Adjournment



2026 CTIL TECHNICAL SEMINAR

REGISTRATION NOW!



REGISTRATION CLOSING ON

**20 SEPTEMBER
2026**



REGISTRATION FEE

S\$54.50*

(inclusive of GST)

*Fees include refreshments & lunch.



PDU POINTS

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OUR VALUED SPONSORS



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