



CONCRETE EVOLUTION

TRANSFORMING PRODUCTIVITY
THROUGH INNOVATION

American Concrete Institute
SINGAPORE CHAPTER

2024 ANNUAL SEMINAR

Boosting Productivity and Efficiency in Modern
Construction with Advanced Materials

DATE:

11TH NOV 2024

TIME:

0830 to 1730

VENUE:

CROWNE PLAZA CHANGI AIRPORT

75 Airport Boulevard, #01-01, Changi Airport Terminal 3, Singapore (819664)



SUPPORTED BY:



ASSOCIATION OF
CONSULTING ENGINEERS
SINGAPORE



Centre of Innovation
Built Environment - Advanced Materials
(COI BE-AM)



Centre for Advanced
Materials and
Structures (CAMS)

Who Should Attend?

- Architects
- Contractors
- Consultants
- Concrete Suppliers
- Developers
- Engineers
- Project Managers
- Site Engineers
- Site Supervisors
- Sub-Contractors
- Technical Officers
- Researchers

Registration Fee

ACI-SC/ SCI/ IES/ ACES/

SRMEG/ RMCAS/ TJ Alumni

Member

S\$327.00 W/GST

Non - Member

S\$381.50 W/GST

Student

S\$163.50 W/GST

admin@concrete.org.sg

<https://www.concrete.org.sg>

PEB PDUs: 5

BOA-SIA CPD: pending



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INTRODUCTION

As the construction industry continues to evolve, the need for innovative solutions that enhance productivity and efficiency has never been more critical. With the theme “Boosting Productivity and Efficiency in Modern Construction with Advanced Materials”, ACI-SC 2024 Annual Seminar organized by ACI Singapore Chapter promises to be a premier event for professionals, academics, and industry leaders who are committed to advancing the field of concrete technology. Our seminar brings together a distinguished panel of speakers from across the globe to share their insights, research, and experiences on a wide range of topics, including advanced materials, digital transformation, and sustainable construction practices.

SPEAKERS & TOPICS

Lu Jin Ping

President, American Concrete Institute Singapore Chapter

Welcoming Speech

Er. Kaliannan Thanabal

Commissioner of Building Control, Group Director (Building Resilience) BCA

Opening Address

Future Trends in Construction Productivity & Efficiency with Advanced Materials

Prof. Liu Jiaping

Southeast University, China

Mitigation Strategies for Shrinkage Cracking of concrete

Dr. Jeyatharan Kumarasamy

Land Transport Authority, Singapore

Productivity Initiatives in the Land Transport Infrastructure Development

Dr. Du HongJian

National University of Singapore

Enhancing Sustainability Education through Structural Concrete Design Competition

Advancing Productivity in Contemporary Construction Practices

Dr. Justin Yeoh Ker Wei

National University of Singapore

AI and BIM Applications to Enhance Concrete Building Design and Maintenance

Assoc. Prof. Muhd Norhasri Muhd Sidek

Universiti Teknologi MARA (UiTM) Malaysia

Non Destructive Test (NDT) for Building Materials

Dr. Herbert Zheng Wei

Glorious Concrete (H.K.) Ltd / Orientfunds Precast Ltd, Hong Kong SAR

DfMA with Lightweight Concrete

Cutting-Edge Techniques for Enhancing Construction Efficiency

Dr. Tan Jun Yew

Samwoh Ready Mix Pte Ltd, Singapore

Revolutionizing Construction: Latest Advances in Concrete Technology for Enhanced Efficiency

Dr. T. Tamilselvan

Joe Green Pte Ltd, Singapore

High Strength Lightweight Concrete for Productivity and Efficiency in Modern Construction

Assoc. Prof. Yang En-Hua

Nanyang Technological University, Singapore

High Performance Fibre-reinforced Cementitious Composites for Speedy Pavement Rehabilitation

Digital Transformation in Construction: Tools & Strategies

Dr. Wang Jun

West Construction, China

Exploration and Reflection on Intelligent Manufacturing Technology for Concrete

Daryl Chew Kok Hoong

Pylon AI Pte Ltd

Transforming our Built Environment (BE) – harnessing the power of IoT technology and data-driven solutions for a smarter and sustainable future

Chang Qingyang

Concrete AI, Singapore

Optimizing Construction with Concrete Maturity Method and Temperature-Matched Curing for Shorter Cycle Times



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Er. Kaliannan Thanabal

Commissioner of Building Control, Group Director (Building Resilience) BCA

Er. Thanabal's career in the built environment sector covers infrastructure design, supervision and regulatory work, including standards development. During his stint in the Public Works Department, he had designed a wide range of infrastructure covering buildings, municipal facilities, and bridges, including the elegant Robertson and Jiak Kim Bridges across the Singapore River that are now iconic landmarks. In his current regulatory role, he was involved in the development of policies, frameworks and standards, ensuring that buildings remain safe, which includes the development and publication of the previous 2 editions of BC1 in 2008 and 2012 respectively.



Lu Jin Ping

President, American Concrete Institute Singapore Chapter

Mr. Lu Jin Ping is the President of the American Concrete Institute - Singapore Chapter and Managing Director of Hitchins International Pte Ltd, Singapore. With over 30 years of experience in research & development, testing and technical consultancy for construction materials. Mr. Lu is an Advisory Committee member at Temasek Polytechnic, School of Applied Science and a board member of International Congress on Polymers in Concrete (ICPIC). He has presented over 50 papers at various international conferences, published articles on construction materials, and co-authored the book Multifunctional Concrete Technology (2022)



Prof. Liu Jia Ping

Southeast University China

Prof. Liu Jiaping is an expert in civil engineering materials, academician of the Chinese Academy of Engineering 中国工程院院士, and a distinguished professor and doctoral supervisor at Southeast University. He also serves as a director of Jiangsu Sobute New Materials Co., Ltd. In 2012, he was awarded the National Science Fund for Distinguished Young Scholars. In 2014, he was selected as a leading talent in the first batch of the National "Ten Thousand Talents Program" for scientific and technological innovation. In 2021, he was elected as an academician of the Chinese Academy of Engineering. Prof. Liu Jiaping has been consistently engaged in the fundamental theories and key technologies for controlling the fluidity of high-performance concrete, crack control, and enhancing service performance.



Dr. Jeyatharan Kumarasamy

Land Transport Authority, Singapore

Dr. Jeyatharan Kumarasamy is currently a Director (Civil Design) at Land Transport Authority (LTA) Singapore. He has more than 20 years of experience in geotechnical design of deep excavations, underground stations, cut-and-cover and mined tunnels, shallow and deep foundations, earth fill and embankments, stabilisation of slopes, soil improvement techniques, waterfront structures, liquefaction evaluation, seismic designs, settlement estimates and damage assessment due to tunnels and excavations. He is also familiar with soil investigations, field and laboratory tests, interpretation of those test results, and preparation of Geotechnical Interpretative Baseline Reports (GIBR). He has also extensively worked on geotechnical instrumentation and monitoring and interpretation of those monitoring data.



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Dr. Du HongJian

National University of Singapore

Dr. Du Hongjian worked as a Research Fellow and then as a Senior Research Fellow at NUS and a Lecturer at Swinburne University of Technology, Australia. Dr. Du joined CEE as a lecturer in 2020. Hongjian has a strong research focus on the digital fabrication of reinforced concrete to increase construction automation and the development of low-carbon building materials to combat climate change. Hongjian provides professional consultancy to the construction and concrete. He holds a few inventions and patents related to green cement and low-carbon building materials. He is the co-founder of CIRCRETE, a deep-tech startup visioned to decarbonize the built environment.



Dr. Justin Yeoh Ker Wei

National University of Singapore

Dr. Justin Yeoh is a Senior Lecturer and the Director of the Centre for Built Environment 4.0 Cluster (BE4) at the Department of Civil and Environmental Engineering, NUS. Prior to his current appointment, Dr. Yeoh worked as a post-doctoral research fellow at NUS, overseeing a research project involving the use of Building Information Modelling (BIM) to enhance the capabilities of an A1-grade construction company. In particular, the project looks at site layout planning, equipment optimization, and cost estimation. Dr. Yeoh has also worked as a project management consultant, identifying good site practices for construction



**Assoc. Prof. Muhd
Norhasri Muhd Sidek**

Universiti Teknologi MARA (UiTM)
Malaysia

Dr. Muhd Norhasri Muhd Sidek is an Associate Professor at School of Civil Engineering, Universiti Teknologi MARA (UiTM) Malaysia. His career in UiTM started at UiTM Perlis then to UiTM Pulau Pinang and presently at UiTM Shah Alam. During his academic career, on 2015 he pursue his internship and training at France majoring in cement studies and Kyoto University at 2019 majoring in advance materials and non-destructive test. His research interest are concrete, sustainable materials, Nano materials, Ultra High Performance Concrete (UHPC) and non-destructive test (NDT) for building materials. Currently, he is a registered Professional Technologist (Ts) from Malaysian Board of Technology (MBOT) and currently an active reviewer for Construction and Building Materials, Elsevier since 2016 until present



Dr. Herbert Zheng Wei

Glorious Concrete (H.K.) Ltd /
Orientfunds Precast Ltd, Hong Kong SAR

Dr. Herbert Zheng is the CEO, Glorious Concrete (H.K.) Ltd / Orientfunds Precast Ltd, Hong Kong SAR. He received his BS from Tongji University in Shanghai, China and PhD from the University of Hong Kong. He is a member of ACI Construction Liaison Committee and a past president of ACI China Chapter. He has focused in the area of Concrete Technology for more than 25 years, and worked in different sectors of concrete construction industry. His working experiences include the management of ready-mixed concrete design, production, supply and application, and the research and development of various high-performance concrete used at a number of landmark construction projects in Hong Kong.



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Dr. Tan Jun Yew

Samwoh Ready Mix Pte Ltd, Singapore

Dr. Tan Jun Yew is a construction industry veteran with 20 years of experience driving innovation and sustainability. His expertise has been instrumental in shaping Singapore's infrastructure development particularly in pavement management. As Assistant General Manager at Samwoh Ready Mix Pte Ltd, he pioneers eco-friendly concrete solutions and has led various initiatives in quality control, mix design, and technical training. His strategic leadership has earned the company numerous prestigious accreditations and certifications. With a PhD in Civil Engineering from the National University of Singapore, Dr. Tan has published numerous technical papers and presented at local and international conferences and served as reviewer at prestigious journals.



Dr. T. Tamilselvan

Joe Green Pte Ltd, Singapore

Dr. Tamilselvan is the R&D Director of JOE Green Pte Ltd. He obtained his Bachelor and Doctorate degree from National University of Singapore and thereafter served as Senior Research Fellow in the Department of Civil and Environmental Engineering for more than 10 years. He has experience in supervising many research projects and his research interest includes fracture mechanics, high strength lightweight concrete, and recycling of waste in concrete. He has jointly published more than 30 international refereed journals and conference papers including 9 patents. He also served as concrete specialist in construction industry, and as expert witness in high court cases.



Assoc. Prof. Yang En-Hua

Nanyang Technological University,
Singapore

Dr. Yang En-Hua is Associate Professor with the School of Civil and Environmental Engineering at the Nanyang Technological University. He received his PhD degree in Civil Engineering (Materials) from the University of Michigan. His principal areas of research are high performance fibre-reinforced cementitious composites, intelligent cement-based materials, and waste to resource for construction materials. He is a LEED Accredited Professional certified by the U.S. Green Building Council. He currently serves as Associate Editor of Journal of Sustainable Cement-based Materials, Associate Editor of Frontiers in Built Environment - Construction Materials, Guest Editor of Engineering Structures, and Section Editor of Handbook of Cementitious Composites



Dr. Wang Jun

West Construction, China

Dr. Wang Jun obtained his PhD in Engineering in 2011 and is currently the Deputy General Manager of China West Construction Group. He has been organizing research and application of intelligent concrete manufacturing technology for more than ten years and is one of the authoritative experts in the field in China. He has organized or directed over 10 super-high (400 meters and above) buildings concrete execution and application in China, like Wuhan Greenland Center (construction height 636m), Tianjing 117 Mansion (construction height 597m), etc. Under his direction, the super-height pumping in the Tianjin 117 Mansion project reached 621m and set a Guinness World Record.



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Daryl Chew Kok Hoong
Pylon AI Pte Ltd, Singapore

Daryl is currently COO of PylonAI. Prior to PylonAI, Daryl was an Assistant Director at the Ministry of National Development (MND), where he is responsible for the formulation and review of policies pertaining to the Built Environment. At Soilbuild, he spearheaded the ICPH's Research and Development (R&D), Innovation, and Sustainability programmes, and was an active advocate for Design for Manufacturing and Assembly (DfMA) methodologies and the concept of Digital Fabrication and Process Transformation. Concurrently, he served as an Adjunct Lecturer at the Building and Construction Authority (BCA) Academy.



Chang Qingyang
Concrete AI, Singapore

Chang Qingyang is the Co-founder and CEO of ConcreteAI, a Singapore-based construction technology company that originated from the National University of Singapore (NUS). ConcreteAI specializes in reducing concreting cycle times and optimizing concrete designs to minimize carbon footprints in construction projects. With a background in civil engineering from NUS and experience in both construction and startups, Qingyang is dedicated to harnessing technology to streamline construction processes. She is a strong advocate for data-driven strategies that enhance efficiency and quality across the construction industry.

Registration & Payment

Please register early to avoid disappointment.

Registration is only confirmed upon receipt of payment.

No walk-in registration is accepted on actual day.

Please scan QR code for registration:



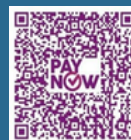
Or click the Registration [LINK](#)

For corporate registration, please : email your contact details and list of participants to : liwei@concrete.org.sg for invoices or E-invoice for Government Agencies.

For further enquiries, please contact:

The Chair of Seminar : Dr. Geng GuoQing
ceegg@nus.edu.sg or admin@concrete.org.sg

Payment for the seminar must be made before **15 Oct 2024** by **PayNow**:



UEN No. :
T08SS0195J

Crossed cheque payable to "ACI (Singapore Chapter)" and mail to:
ACI (Singapore Chapter)
13 Hillview Crescent Singapore (669437)

Internet banking:

ACI (Singapore Chapter) Bank Name: DBS
Bank Code: 7171, Branch Code: 028 Account No: 0280025505

Telegraphic Transfer:

DBS Bank Ltd Address: 12 Marina Boulevard, Marina Bay Financial Centre Tower 3, Singapore 018982,
Bank Code: 7171, Branch Code: 028, Account No: 0280025505,
Swift Code: DBSSSGSG (Please email a copy of the TT slip to us.
The payer is responsible for all bank charges incurred)

Withdrawal

There will be no refund for withdrawal but replacements are allowed. Withdrawal requests must be made in writing 3 days before the seminar. The full fee will be charged for withdrawal or no-show on the day of the seminar.

Cancellation

The organizers reserve the right to amend any details relating to the seminar, revise the seminar fees without prior notice, or cancel or postpone the seminar.

Others

The CPD points indicated for the seminar is subject to change and final approval by the relevant professional accreditation bodies. The materials supplied to the company and individual applicant for the seminar ("Materials") are for their personal reference only and the company and individual applicant are not supposed to otherwise use the Materials.



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Accommodation

Special Hotel Room Reservations at Crowne Plaza Changi Airport

Location:

Connected to Terminal 3 of Changi Airport, Singapore

Walking Distance:

- 2 minutes from Terminal 3
- 5 minutes from Terminal 2 via covered mezzanine link bridge (basement 2)

Access: Terminal 1 via Skytrain to Terminal 3

Room Details

Room rates from now till 14th October 2024

Deluxe Room (1 King Bed Standard Jewel Wing) @ \$270++ per room per night (inclusive of 01 breakfast and wifi)

Cut off date: 14 October 2024

Cancellation: 7 days prior to arrival

Room rates after 14th October 2024

Deluxe Room (1 King Bed Standard Jewel Wing) @ \$290++ per room per night (inclusive of 01 breakfast and wifi)

Cut off date: 4 November 2024

Cancellation: 7 days prior to arrival

(Rates subject to 10% service charge and prevailing Goods & Services Tax)

Room rates are non-commissionable.

Note: Rates are exclusively for this event. Changes in room bookings or event dates may lead to a price review. Room availability is subject to change if dates are revised

Reservation Information

Booking Deadline: Monday, 4 November 2024

Reservation Procedure: Please contact us via the provided form or QR code to book your stay. A booking form will be sent for your room reservation.

Include the following details:

- Guest name
- Stay dates

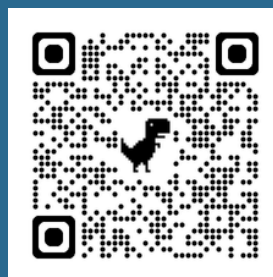
Important Policies

No-show Policy:

- One (1) night room charge for no-shows.
- Guestrooms for subsequent nights will be released for resale.

Contact Us for More Information

Please contact us via the [form](#) or QRCode for your interest on the Hotel booking.





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Possibility of chemistry



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