

# Civil Engineering Virtual Industry Week 2021

(27 September - 1 October)

## Advancement in Construction and Infrastructure Technologies

*A virtual industry networking event by the Discipline of Civil  
Engineering, School of Engineering, Monash University Malaysia.*

All are invited with  
**APPLIED BEM CPD POINT**  
and  
**E-Certificate** of participation is provided

Contact person:  
**Dr. Vivi Anggraini**  
Senior Lecturer  
School of Engineering  
([vivi.anggraini@monash.edu](mailto:vivi.anggraini@monash.edu))

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STRUCTURAL

### DAY 1: Structural and Infrastructural Engineering in Practice (27.09.2021 4pm to 6pm)

Speaker: Ir. Dr. Ng Soon Ching (Engineering Manager -Sepakat Setia Perunding Sdn Bhd)  
Moderator: A/P Sudharshan Raman

TRAFFIC

### DAY 2: Win-Win Solutions in Transportation Planning (28.09.2021 4pm-6pm)

Speaker: Er Emily Tan (Managing Director of TSM Consultancy Pte Ltd, a Singapore-based  
Traffic and Transport Consultancy firm)  
Moderator: Dr. Susilawati

CONSTRUCTION  
MANAGEMENT

### DAY 3: BIM and Construction 4.0 & BIM in Construction industry: Challenges, Lesson Learnt and Opportunities (29.09.2021 4-6pm)

Speakers:  

- Ir. Kesavan Jaganathan (Freelance consultant - Engineering solutions and project management)
- Muhammad Imran (BIM Coordinator – HSS Engineers Berhad)

Moderator: Dr. Md Aslam Hossein

WATER

### DAY 4: Coastal Reservoir: The Way Forward for Sustainable Water Resources Management in Malaysia (30.09.2021 4-6pm)

Speaker: Dato' Ir Lim Chow Hock (MyCDNet)  
Moderator: A/P Chow Ming Fai

GEOTECHNICAL

### DAY 5: Role and Contribution of Geotechnical Engineering to Modern Society (1.10.2021 4-6pm) (Closing Ceremony by A/P Amin Talei)

Speaker: Ir. Liew Shaw Shong (Founder/Senior Director of G&P Professionals Group)  
Moderator: Dr. M.E Raghunandan

CIVIL ENGINEERING VIRTUAL INDUSTRY WEEK 2021

# STRUCTURAL AND INFRASTRUCTURAL ENGINEERING IN PRACTICE

## DETAILS

Date : 27 September 2021  
Time : 4pm-6pm  
Venue : Zoom  
Price : Free admission

## ABOUT

This lecture is a sharing session by a speaker who is a researcher, academician and practicing engineer. This lecture will provide insight about research and development work of lightweight foamed concrete on heat insulation aspect and the actual application of lightweight foamed concrete in the industry. The speaker will also touch on his attachment to MC Hee and Associates on high-rise building modelling and analysis and earthquake design. Lastly, the speaker will share his current experience and involvement in several infrastructure projects as a practicing engineer in a renowned consulting firm, Sepakat Setia Perunding Sdn Bhd.



## SPEAKER

**Ir. Dr Ng Soon Ching**  
Engineering Manager  
Sepakat Setia Perunding Sdn Bhd.

Ir Dr Ng Soon Ching is currently an Engineering Manager at Sepakat Setia Perunding Sdn Bhd. He was previously an Assistant Professor at Universiti Tunku Abdul Rahman (UTAR). Ir Dr Ng Soon Ching is also a registered Professional Engineer with Practising Certificate (PEPC) and an ASEAN Chartered Professional Engineer (ACPE) with the Board of Engineers Malaysia (BEM) as well as a Fellow of The Institution of Engineers Malaysia (IEM). He is also a Committee Member in the Training and Education Committee of BEM for 2020/21. Ir Dr Ng is an active member of IEM and has served as the Executive Committee and Council of IEM as well as the Chairman of the Civil and Structural Engineering Technical Division of IEM. He is also actively serving as a Committee Member in Technical Committee and Working Group of Department of Standards Malaysia (DSM) for Malaysian Standard Development.



## MODERATOR

**A/P Sudharshan Raman**  
Associate Professor  
School of Engineering

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CIVIL ENGINEERING VIRTUAL INDUSTRY WEEK 2021

# Win-Win Solutions In Transportation Planning

## DETAILS

Date : 28 September 2021  
Time : 4pm-6pm  
Venue : Zoom  
Price : Free admission

## ABOUT

This talk aims to share good practices with real-life examples to enable industry professional to be self-directed in their design. Case studies of how transport planning and engineering has facilitated the planning and design of better facilities in Singapore will be explained by the speaker.



## MODERATOR

**Dr. Susilawati**  
Lecturer  
School of Engineering



## SPEAKER

**Er. Emily Tan**  
Managing Director  
TSM Consultancy Pte Ltd

Er. Emily Tan is the Managing Director of TSM Consultancy Pte Ltd, a Singapore-based Traffic and Transport Consultancy firm of more than 20 years. She was stationed in UK and Australia prior to setting up TSM in Singapore. She also served as an appointed Town Councilor from 2013 to 2017 and a District Councilor at the North-East Community Development Council from 2011 to 2014 in Singapore. She was also serving in the Citizen Consultative Committee from 2012 to 2016. She is a board member Singapore's Professional Engineers Board, Board of Architects and the Chartered Institute of Logistics and Transport. She is also the Founding President of the Association of Women in Construction (Singapore).

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## CIVIL ENGINEERING VIRTUAL INDUSTRY WEEK 2021

**BUILDING INFORMATION MODELLING****BIM and Construction 4.0**

&amp;

**BIM in Construction Industry:  
Challenges, Lesson Learnt & Opportunities****DETAILS**

Date : 29 September 2021  
Time : 4pm - 6pm  
Venue : Zoom  
Price : Free admission

**ABOUT****1. BIM and Construction 4.0 (Ir. Kesavan Jaganathan)**

A complete automation contributes to project life cycle from planning to operation. Modern technologies such as drones, sensors, robotics and monitoring systems are used to set up an effective system for preventive maintenance management. This lecture aims to provide an overview of how disruptive technologies related to BIM and digitisation will change the construction industry landscape. Furthermore, this lecture also aims to reveal how big data connects with construction sites using smart factories, smart design and smart cities and introduce how Malaysia's construction industry has implemented BIM systems.

**2. BIM in Construction Industry (Mr. Muhammad Imran)**

BIM implementations in the industry have faced different limitations, including shortage of skilled-manpower, overlapping workflows, resistance from industry, etc. This lecture aims to introduce and apprise BIM theories and applications in real world scenario. The latest ISO 19650 and local requirement mandates will also be shared in this lecture. Besides, an insight of new opportunities that focus on sustainability and reducing carbon footprint will also be provided, by using new technologies such as Augmented Reality (AR), Artificial Intelligences (AI), and Internet of Things (IoT) to enhance BIM process and execution.

**SPEAKER 1**

**Ir. Kesavan Jaganathan**  
Freelance Consultant, Engineering  
Solutions & Project Management

Ir. Kesavan Jaganathan has more than 20 years experience in project management has involved in many projects in different countries. His valuable commercial knowledge and technical background have allowed him to resolve many technical problems and complete many District Energy Projects in Middle-East countries such as King Abdullah Financial District (Saudi Arabia), Knowledge Economic City (Saudi Arabia), Abu Dhabi International Airport, etc. He was also the District Energy Market Sector Leader of AECOM Middle East and was the Executive Director of AECOM Malaysia.

**SPEAKER 2**

**Mr. Muhammad Imran**  
BIM Coordinator  
– HSS Engineers Berhad

Mr. Muhammad Imran has 10 years of experience in the AEC industry and has a proven track record in delivering projects within scope and time.

He has been in the BIM industry for the past 10 years working in both contractor and sub-contractor environments and completed several successful projects as a BIM Coordinator and Senior Project Engineer.

**MODERATOR**

**Dr. Md Aslam Hossain**  
Senior Lecturer  
School of Engineering

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## CIVIL ENGINEERING VIRTUAL INDUSTRY WEEK 2021

**COASTAL RESERVOIR****The Way Forward for Sustainable Water Resources Management in Malaysia****DETAILS**

Date : 30 September 2021  
Time : 4pm-6pm  
Venue : Zoom  
Price : Free admission

**ABOUT**

This lecture will promote the benefits and potential of coastal reservoir development to ensure water security in the future. Traditional water resource infrastructural developments can be classified as: dam with upstream reservoir, groundwater abstraction, off-river storage, storm water retention, wastewater reuse and desalination. However, in water scarce countries, these measures may not provide enough freshwater, along with ever-increasing water demand.

To overcome these shortcomings, the concept of resorting water with coastal reservoir is gaining global recognition and acceptance. Coastal reservoir is generally sited at or near the river mouth, and as such the volume of water that can be extracted at the downstream will be significantly more than the available water in reservoir at upstream. Coastal reservoir have multiple types and forms of design to suit different locations. This relatively new strategy has been found to be technically feasible, cost effective and environmentally sustainable, and has a high potential to be implemented in Malaysia.

**SPEAKER**

**Dato' Ir. Lim Chow Hock**  
Chairman of MyCDNet  
Deputy Chairman of IACRR  
(Malaysia Chapter)

YBhg. Dato' Ir. Lim Chow Hock is the Past President of the Institution of Engineers, Malaysia (IEM). He is also a Fellow of the Academy of Sciences Malaysia (ASM) and an Honorary Fellow of IEM.

From 2015–2019, YBhg. Dato' Ir. Lim has served as a Commissioner of SPAN, a national body which regulates the services related to potable water supply and sewerage. He is currently the Chairman of the Malaysia Network for Capacity Development in Sustainable Water Management (MyCDNet) and the Deputy Chairman for the International Coastal Reservoir Research Association (Malaysia Chapter).

YBhg. Dato' Ir. Lim has served 36 years with the Department of Irrigation and Drainage Malaysia (DID). He has an extensive experience in fields of irrigation, agricultural drainage, flood mitigation, urban stormwater management, dam engineering, river engineering, coastal zone management, hydrology, water resources management, and coastal reservoir

**MODERATOR**

**Ir. Ts. Gs. Dr. Chow Ming Fai**  
Associate Professor  
School of Engineering

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## CIVIL ENGINEERING VIRTUAL INDUSTRY WEEK 2021

# How to Improve the Role and Contribution of Geotechnical Engineering to Modern Society by Leveraging Theories, Practices, Innovation and Use of Technology

## DETAILS

Date : 1 October 2021  
Time : 4pm - 6pm  
Venue : Zoom  
Price : Free admission

## ABOUT

This lecture aims to reveal the development of geotechnical engineering from practical experience in construction, theoretical development, fusion with multi-engineering disciplines with wider applications, adoption of advance technologies and innovative culture. Case studies in geohazard assessment with historical data, improvement of design performance with instrumentation, early warning system for risk management and adoption of advanced technology for mechanism understanding are presented. The objectives of this lecture are to explore how framework of engaging in modern technology and innovative ideas comprehends with future potential in traditional engineering discipline.



## SPEAKER

### Ir. Liew Shaw Shong

Founder and Senior Director G&P Geotechnics Sdn Bhd.  
BSc (1st Class Honours) National Taiwan University  
MSc University of New South Wales

Ir. Liew Shaw Shong has extensive experience in numerous major infrastructure projects, including Lebuhraya Damansara Puchong (LDP), Tanjung Pelepas Port, KLIA, etc. In the past 26 years, he has been involved in numbers of forensic investigations into landslide problems at mountainous roads and is one of the project team members in the National Slope Master Plan Study commissioned by JKR.

Ir. Liew was also the past chairman of Geotechnical Engineering Technical Division of the Institution of Engineers, Malaysia (IEM) for Session 2010 to 2013 and is also a retired advisor of Geotechnical Engineering Technical Division of IEM for Session 2014 to 2016. He was the President of Malaysian Geotechnical Society (MGS) for Session 2018 to 2021 and retired as immediate Past President of MGS. He is a member of Malaysian National Committee On Large Dam (MYCOLD), member of Professional Fellow Member, and member of Engineers Australia (EA).



## MODERATOR

### Dr. M.E. Raghunandan

Senior Lecturer  
School of Engineering

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