

# CONCET2020

15<sup>TH</sup> INTERNATIONAL CONFERENCE ON CONCRETE  
ENGINEERING AND TECHNOLOGY



## Innovation and Resilience in Concrete Construction

20 – 23 July 2020 | Kuala Lumpur, Malaysia

BEM Approved  
CPD Hours



Sponsorship  
and  
Exhibition  
Packages

CONFERENCE  
POSTPONED



## About

15<sup>th</sup> in the series since 1989 and one of the prominent international built environment technical events held in Malaysia

This biennial international conference on concrete engineering and technology, 15<sup>th</sup> in the series since 1989 is one of the prominent international built environment technical events held in Malaysia, attracting speakers and audiences from across the globe

Since inception, this conference has been jointly organised by;

The Institution of Engineers, Malaysia (lead organiser for CONCET2020)

University of Malaya, Kuala Lumpur, Malaysia

Universiti Teknologi MARA, Shah Alam, Malaysia

## Who will attend

This conference gathers concrete industry professionals from the region and across the globe, those in research, design, planning, project, construction and maintenance. Attendees will have the opportunity to learn about advances in the concrete industry and expand their network beyond their immediate environment

- Local authorities
- Academics
- Researchers
- Design and project engineers
- Concrete specialists
- Contractor and project professionals
- Owners and developers of concrete facilities
- Operators of concrete facilities
- Students with interest in concrete

# Innovation and Resilience in Concrete Construction

CONCET2020 will cover fresh perspectives and the latest in the wider topic of innovation and a more specific topic of resilience, in concrete construction

**Innovation** Innovation is a wide concept of exploring, creating, changing and adopting. With the pace of change and development seen within Malaysia, the ASEAN region and globally, there is an increasing pressure for industry professionals to meet the demands for better and faster. This in return requires the knowledge of the latest and current, which the conference will explore

**Resilience** The resilience design institute defines resilience as the capacity to adapt to changing conditions and to maintain or regain functionality and vitality in the face of stress or disturbance. It is the capacity to bounce back after a disturbance or interruption. With this term in mind, the conference will explore advancements in concrete engineering and technology with regards to use of concrete in resilient design in construction, focusing in particular on sustainability, safety and durability

Topics	
New-generation concrete materials	Building information modelling
Recycled materials and by-products in concrete	Aging infrastructure
Modular and prefabricated construction	Repair, rehabilitation and strengthening
Advanced structures and infrastructure	Life-cycle assessment of concrete structures
Construction management	Service life design
Testing, inspection and health monitoring	Climate-resilient design of concrete structures
Alkali-activated cementitious composite	Disaster preparedness and mitigation
3D printing of concrete	



**Professor P. A. Muhammed Basheer**

PhD DSc FEng FIAE FICE FACI FICT FIStructE MIE(I) CEng  
Chair in Structural Engineering and Head of School of Civil Engineering  
University of Leeds, UK

Topic

**Durability Assessment of Concretes Under the Combined Chloride and Carbonation Exposure Environments Using Embedded Electrical Sensors**



**Professor Emad Gad**

PhD  
Professor and Dean, School of Engineering  
Swinburne University of Technology, Australia

Topic

**Human-Induced Floor Vibration Assessment and Development of Innovative Passive Dampers**



**Ir. Adj. A/Prof. Dr. Voo Yen Lei**

PhD, UNSW (Australia)  
Executive Director and CEO  
Dura Technology Sdn Bhd, Malaysia  
Adjunct Associate Professor  
School of Civil and Environmental Engineering, UNSW Sydney, Australia

Topic

**Making UHPC Prefabricated Bridge Elements as Standard Products**



**Professor Somnuk Tangtermsirikul**

D.Eng. (Civil Engineering)  
Professor, School of Civil Engineering and Technology  
Sirindhorn International Institute of Technology  
Thammasat University, Thailand

Topic

**Effective Utilization of Fly Ash and Bottom Ash in Concrete Industry in Thailand**



**Dr. Surendra Keshav Manjrekar**

PhD  
Chairman and Managing Director  
Sunanda Speciality Coatings Pvt Ltd, India

Topic

**Newer Corrosion Inhibiting Admixtures to Enhance Service Life for Infrastructures**



**Professor Kiang Hwee Tan**

Dr.Eng., FIES, FJCI, FJSCE, PEng(S)  
Professor  
National University of Singapore, Singapore

Topic

**Innovative Applications of Fibre-Reinforced Concrete in Construction**



**Ir. Huang Zee Meng**

Master of Engineering (NUS)  
Associate Principal  
Arup, Malaysia

Topic

**Development and Implementation of High-Performance Concrete in Merdeka 118 Tower**



**Prof Khalifa S Al-Jabri**

PhD  
Professor  
Department of Civil and Architectural Engineering  
Sultan Qaboos University, Oman

Topic

**Properties of Concrete containing Waste Slag as Fine Aggregate at Elevated Temperature**

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# Pre-conference workshop

MONDAY 20 JULY

## DURABILITY OF CONCRETE STRUCTURES – MECHANISMS, ASSESSMENT METHODS AND ENSURING DURABLE STRUCTURES

Despite numerous reported cases of failure of concrete structures, the durability of concrete is still compromised due to lack of clarity on: the causes of deterioration, interactions between different factors causing the deterioration and the mechanisms themselves, methods of assessing the susceptibility of deterioration as well as the causes and extent of deterioration; and ensuring its performance in the exposure environment. As a consequence, the current situation in most developed countries is that repair and rehabilitation costs of structures far exceed the total budget for capital development programmes. Therefore, an important consideration for the design and construction of durable concrete structures should be to ensure that exposure classes are appropriately identified/specified, concrete is specified and designed for the intended exposure regime, design and construction techniques are suitable for the expected performance, and measures are introduced for monitoring their performance in the service environment during their life so that any deviation from the anticipated performance could be identified in a timely manner and appropriate repair and rehabilitation measures are taken. In addition to dealing with most of the above topics, this workshop will introduce the concept of performance-based specifications for ensuring the durability of concrete structures and a strategy for performance testing using both in-situ test techniques and sensors embedded in concrete

### SESSIONS

Mechanisms of deterioration of concrete

Methods of identifying and quantifying the deterioration

Durability designs

Methods of improving the durability



**Professor P. A. Muhammed Basheer**

PhD DSc FREng FIAE FICE FACI FICT FStructE MIE(I) CEng  
Chair in Structural Engineering and Head of School of Civil Engineering  
University of Leeds, UK

# Post-conference workshop

THURSDAY 23 JULY

## EARTHQUAKE ENGINEERING AND FLOOR VIBRATIONS

This workshop aims to cover fundamentals of structural dynamics and applications in design for earthquakes and floor vibrations. It introduces the principles of dynamics and simplification of structures into single and multi-degree of freedom systems and their response to excitation which form the basis of many design codes

The section on earthquake engineering provides an introduction to plate tectonics, earthquake design philosophy and typical damage types from past earthquakes. The different methods for calculating earthquake actions will be discussed with specific focus on the force based approach which is used in various design standards around the world. Key design factors such as soil amplification, structural ductility and detailing will be covered with a specific focus on concrete structures. Finally, the displacement based method as an alternative to the force based approach for earthquake design and analysis will be introduced

The section on floor vibrations focuses on human induced vibrations especially walking. Explanations of design assumptions and acceptance criteria will be provided. Considerations for prediction of maximum floor vibration will be highlighted to show the limitations and features of various tools. Rectification measures for in-service problematic floors will be covered including the use of passive floor dampers. Specific requirements for sensitive floors such as for hospitals and labs will be highlighted

### SESSIONS

**Structural dynamics** Single degree and multi degree of freedom systems; Earthquake excitation and response including response spectra; Periodic and impulsive dynamic excitation and response

**Introduction to earthquakes** Inter-plate and intra-plate earthquakes; Earthquake scales, hazard maps, soil effects; Building response and damage from past earthquakes

**Earthquake design** Earthquake Loading Standards and Force based design; Static force method including hazard, site, building type and ductility; Displacement based design including capacity design method

**Floor vibrations** Footfall excitation; Design guidelines and acceptance criteria; Analysis considerations; Rectification methods; Sensitive floors



**Professor John Wilson**

PhD

Deputy Vice-Chancellor and Chief Executive Officer  
Swinburne University of Technology Sarawak Campus, Malaysia



**Professor Emad Gad**

PhD

Professor and Dean, School of Engineering  
Swinburne University of Technology, Australia

DAY 1 | TUESDAY 21 JULY

REGISTRATION   REFRESHMENTS, NETWORKING AND EXHIBITION	0800 - 0845
Opening address	0845 - 0910
Chair's opening remark	
Address by the guest of honour	
Address by the president of IEM	
Keynote lecture 1	0930 - 1015
<b>Durability Assessment of Concretes Under the Combined Chloride and Carbonation Exposure Environments Using Embedded Electrical Sensors</b>	
Professor P. A. Muhammed Basheer PhD DSc FREng FIAE FICE FACI FICT FStructE MIE(I) CEng Chair in Structural Engineering and Head of School of Civil Engineering University of Leeds, UK	
REFRESHMENTS, NETWORKING AND EXHIBITION	1015 - 1045
Keynote lecture 2	1045 - 1130
<b>Human-Induced Floor Vibration Assessment and Development of Innovative Passive Dampers</b>	
Professor Emad Gad PhD Professor and Dean, School of Engineering Swinburne University of Technology, Australia	
Keynote lecture 3	1130 - 1215
<b>Making UHPC Prefabricated Bridge Elements as Standard Products</b>	
Ir. Adj. A/Prof. Dr. Voo Yen Lei PhD, UNSW (Australia) Executive Director and CEO Dura Technology Sdn Bhd, Malaysia Adjunct Associate Professor School of Civil and Environmental Engineering, UNSW Sydney, Australia	
LUNCH, NETWORKING AND EXHIBITION	1215 - 1415
Keynote lecture 4	1415 - 1500
<b>Effective Utilization of Fly Ash and Bottom Ash in Concrete Industry in Thailand</b>	
Professor Somnuk Tangtermsirikul D.Eng. (Civil Engineering) Professor, School of Civil Engineering and Technology Sirindhorn International Institute of Technology Thammasat University, Thailand	
REFRESHMENTS, NETWORKING AND EXHIBITION	1500 - 1530
Parallel sessions	1530 - 1830
Details to follow	
Networking and exhibition	1830 - 1900
Close of Day 1	1900
CONFERENCE DINNER	1900 till late



# DAY 2 | WEDNESDAY 22 JULY

REGISTRATION   REFRESHMENTS, NETWORKING AND EXHIBITION	0800 - 0900
Keynote lecture 5 <b>Newer Corrosion Inhibiting Admixtures to Enhance Service Life for Infrastructures</b>	0900 - 0945
Dr. Surendra Keshav Manjrekar PhD Chairman and Managing Director Sunanda Speciality Coatings Pvt Ltd, India	
Keynote lecture 6 <b>Innovative Applications of Fibre-Reinforced Concrete in Construction</b>	0945 - 1030
Professor Kiang Hwee Tan Dr.Eng., FIES, FJCI, FJSCE, PEng(S) Professor National University of Singapore, Singapore	
REFRESHMENTS, NETWORKING AND EXHIBITION	1030 - 1100
Keynote lecture 7 <b>Development and Implementation of High-Performance Concrete in Merdeka 118 Tower</b>	1100 - 1145
Ir. Huang Zee Meng Master of Engineering (NUS) Associate Principal Arup, Malaysia	
Keynote lecture 8 <b>Properties of Concrete containing Waste Slag as Fine Aggregate at Elevated Temperature</b>	1145 - 1230
Prof Khalifa S Al-Jabri PhD Professor Department of Civil and Architectural Engineering Sultan Qaboos University, Oman	
LUNCH, NETWORKING AND EXHIBITION	1230 - 1400
Parallel sessions Details to follow	1400 - 1500
REFRESHMENTS, NETWORKING AND EXHIBITION	1500 - 1530
Parallel sessions continues Details to follow	1530 - 1740
Close of Day 2 Closing address	1740 – 1800

# DAY 3 | THURSDAY 23 JULY | TECHNICAL VISIT

Details to follow  
Limited to 35 person

Email shahrul@iem.org.my to reserve your place

# PRE-CONFERENCE WORKSHOP I MON 20 JULY

DURABILITY OF CONCRETE STRUCTURES – MECHANISMS, ASSESSMENT METHODS AND ENSURING DURABLE STRUCTURES

REGISTRATION I REFRESHMENTS, NETWORKING AND EXHIBITION	0800 - 0900
Opening address	0855 - 0900
Session 1 Mechanisms of deterioration of concrete	0900 - 1030
REFRESHMENTS, NETWORKING AND EXHIBITION	1030 - 1100
Session 2 Methods of identifying and quantifying the deterioration	1100 - 1230
LUNCH, NETWORKING AND EXHIBITION	1230 - 1400
Session 3 Durability designs	1400 - 1530
REFRESHMENTS, NETWORKING AND EXHIBITION	1530 - 1600
Session 4 Methods of improving the durability	1600 - 1730
Q&A	1730 - 1830
Close of pre-conference workshop	1830

# POST-CONFERENCE WORKSHOP I THU 23 JULY

EARTHQUAKE ENGINEERING AND FLOOR VIBRATIONS

REGISTRATION I REFRESHMENTS, NETWORKING AND EXHIBITION	0800 - 0855
Opening address	0855 - 0900
Session 1 Structural dynamics	0900 - 1030
REFRESHMENTS, NETWORKING AND EXHIBITION	1030 - 1100
Session 2 Introduction to earthquakes	1100 - 1230
LUNCH, NETWORKING AND EXHIBITION	1230 - 1400
Session 3 Earthquake design	1400 - 1530
REFRESHMENTS, NETWORKING AND EXHIBITION	1530 - 1600
Session 4 Floor vibrations	1600 - 1730
Q&A	1730 - 1830
Close of post-conference workshop	1830

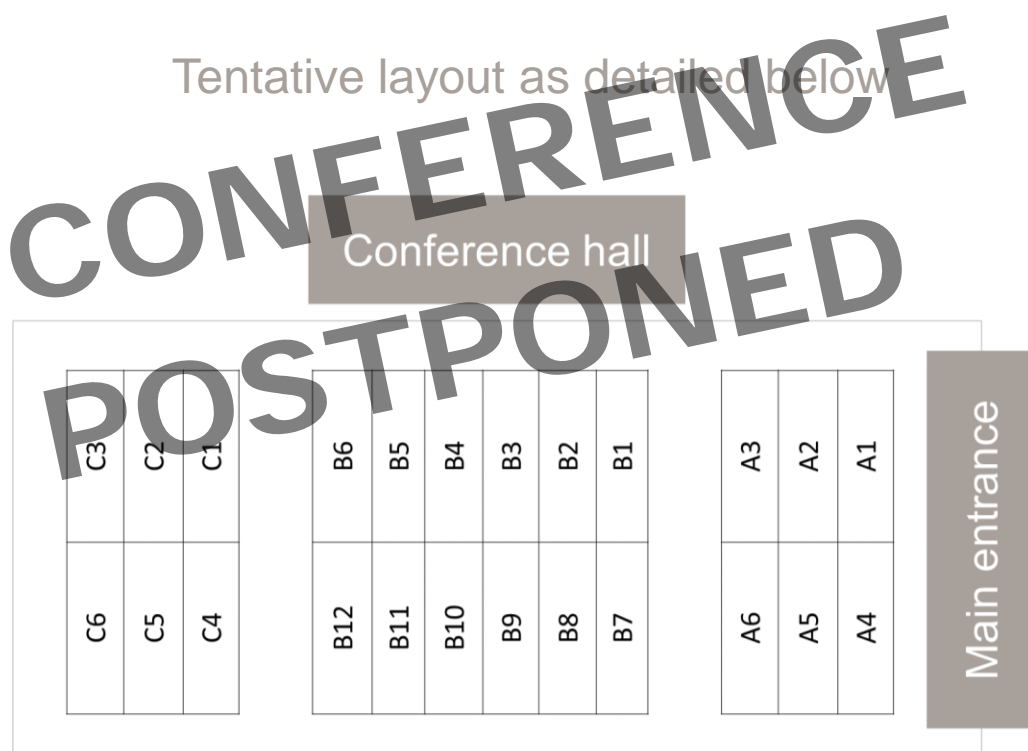
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# Exhibition

21 – 23 July  
Pre-conference workshop  
to  
Close of conference

The exhibition will take place next to the main conference hall. Refreshments will be served in the exhibition area

Tentative layout as detailed below



Priority for booth allocation will be in decreasing order of the sponsorship packages, followed by the order of confirmed purchases of a package

# CONFERENCE POSTPONED

## Why get involved

Being one of the prominent international built environment technical events held in Malaysia, CONCET2020 offers an excellent opportunity to showcase products and services to a local and international audience of the built industry

Network with the delegates at the conference dinner

Join the long list of industry players who regularly support our events as a sponsor or exhibitor

# How to get involved

## Gold sponsor

RM35,000

Company acknowledgement and logo featured in all conference literature, including pre-event advertising, website and the conference

Acknowledgement in the final conference programme

One complimentary exhibition booth

One page complimentary company advertisement in the conference programme

Three complimentary conference delegate registrations\*

Three complimentary dinner places

One complimentary insert in the conference delegates bag\*\*

## Silver sponsor

RM25,000

Company acknowledgement and logo featured in all conference literature, including pre-event advertising, website and the conference

Acknowledgement in the final conference programme

One page complimentary company advertisement in the conference programme

Two complimentary conference delegate registrations\*

Two complimentary dinner places

One complimentary insert in the conference delegates bag\*\*

## Bronze sponsor

RM15,000

Company acknowledgement and logo featured in all conference literature, including pre-event advertising, website and the conference

Acknowledgement in the final conference programme

One page complimentary company advertisement in the conference programme

One complimentary conference delegate registration\*

One complimentary dinner place

One complimentary insert in the conference delegates bag\*\*

## Exhibitor

RM10,000

Acknowledgement in the final conference programme

One exhibition booth

One page complimentary company advertisement in the conference programme

One complimentary conference delegate registration\*



## Lanyard sponsor (limited to one sponsor)

RM8500

Acknowledgement in the final conference programme

Logo included in the delegate lanyard

One-page complimentary company advertisement in the conference programme

One complimentary conference delegate registration\*

## Lucky draw sponsor (limited to three sponsors)

RM8500

Acknowledgement in the final conference programme

Sponsor will be invited to give away the prizes

One-page complimentary company advertisement in the conference programme

One complimentary conference delegate registration\*

## Coffee break sponsor (limited to one sponsor)

RM6000

Acknowledgement in the final conference programme

Two company advertisement banner in the refreshment area

One complimentary conference delegate registration\*

## Promotional gift inserts

RM3000

Acknowledgement in the final conference programme

One insert per conference delegate bag\*\*

## Print advertisement in the conference programme

Back cover

RM6000

Two complimentary conference delegate registration\*

Inside of front cover

RM4500

One complimentary conference delegate registration\*

Inside of back cover

RM4500

One complimentary conference delegate registration\*

Full page

RM3000

One complimentary conference delegate registration\*

\* For the main conference only, excludes dinner (unless noted otherwise), pre and post events

\*\* Example: Pens, notebooks, pen drives. Adequate inserts must be provided to cater for all delegates. We will advise on the quantity required

Packages at a glance

	Gold sponsor RM35,000	Silver sponsor RM25,000	Bronze sponsor RM15,000	Exhibitor RM10,000	Lanyard sponsor RM8,500	Lucky draw sponsor RM8,500	Coffee break sponsor RM6,000	Promotional gift inserts RM3,000	Back cover print advertisement RM6,000	Inside front cover print advertisement RM4,500	Inside back cover print advertisement RM4,500	One page print advertisement RM3,000
Company acknowledgement and logo featured in all conference literature, including pre-event advertising, website and the conference												
Acknowledgement in the final conference programme												
Exhibition booth	1											
One-page company advertisement in the conference programme		1	1	1	1	1						
Conference delegate registrations (excluding pre and post events)	3	2	1	1	1	1	1		2	1	1	1
Dinner places	3	2	1									
Insert in the conference delegate bag (eg. Pens, notebooks, pen drive)	1	1	1					1				
Logo included in the delegate lanyard												
Sponsor invited to give away the prizes												
Company advertisement banner in the refreshment area							2					

# CONCET2020 involvement confirmation

On behalf of my organisation I confirm that we will be obtaining the following packages for CONCET2020  
Please tick the packages you require

Gold sponsor RM35,000	
Silver sponsor RM25,000	
Bronze sponsor RM15,000	
Exhibitor RM10,000	
Lanyard sponsor RM8,500	
Lucky draw sponsor RM8,500	
Coffee break sponsor RM6,000	
Promotional gift inserts RM3,000	
Back cover print advertisement RM6,000	
Inside front cover print advertisement RM4,500	
Inside back cover print advertisement RM4,500	
One page print advertisement RM3,000	

Delegates bag inserts

Details of our inserts are as follows. I confirm that we will provide adequate inserts to cater for all delegates. *CONCET2020 Secretariat will advise on the quantity required*

Insert 1	
Insert 2	
Insert 3	

Submitted by;

Name	Company address
Designation	
Company	Company stamp
Contact email	
Contact phone	

Stay up to date at [www.concet2020.com](http://www.concet2020.com)

# CONFERENCE POSTPONED



Conference partners

