



PDU/STU
Accredited
Webinar
(TBC)

Basic Structural Analysis Concepts in Structural Eurocodes & Latest Construction Technology

Date: 25 November 2020
Time: 2 - 5pm
Venue: Virtual Zoom Webinar

Registration

\$16.05 (IES Member)
\$21.40 (Non Members)
Fee inclusive of GST

Scan to register now!



For any enquiries, please contact Charlotte Seah | charlotte.seah@iesnet.org.sg

Programme Outline

Session Chair: Er. Dr. Ho Kwong Meng

2:00 – 3:00pm

Basic Structural Analysis Concepts in Structural Eurocodes

By Professor Chiew Sing Ping

Programme Director, Singapore Institute of Technology

3:00 – 4:00pm

Drones and Digital Technologies for Construction

By Professor David Chua Kim Huat

Professor, National University of Singapore

4:00 – 5:00pm

Case Studies on Construction Equipment and Construction Automation

By Er. Dr. Ho Kwong Meng

Council Member, The Institution of Engineers, Singapore

Our Speakers

Professor Chiew Sing Ping

Topic Synopsis: Basic Structural Analysis Concepts in Structural Eurocodes

In linear elastic analysis, equations relating applied loads to the resulting deformation is linear and the principle of superposition can be used to solve the problems efficiently. However, because of its inherent limitations, linear elastic analysis cannot predict structural response in large deformation and/or failure range, nor it can detect instability conditions. A lot of design checks need to be done after the analysis. The alternative approach – second order analysis takes the deformed shape of the structure into the equation for calculating the internal forces. Compared to the linear elastic analysis, the second order analysis is much more complicated, but design workload is much less.



Bio: Prof Chiew is a Professor of Civil Engineering and Director of Civil Engineering Programmes at the Singapore Institute of Technology. His research and expertise are related to structural steel and composite steel concrete construction and he has completed many external-funded research projects as Principal Investigator (PI) with a total research funding of more than SGD\$3.6M. He has delivered many industry and keynote lectures, written 5 books and published more than 200 refereed technical papers in international refereed journals and conference proceedings.

Professor David Chua

Topic Synopsis: Drones and Digital Technologies for Construction

Prof Chua will share his recent research work on autonomous drones and the use of drones for façade inspection. Deep machine learning will change the way inspections will be carried out by being more comprehensive and more efficient and effective. He will also share on how augmented reality and virtual reality will increase collaboration and facilitate planning. He will also share the new directions with digital lean project delivery.



Bio: Prof Chua is a registered professional engineer in Singapore and is currently a Professor in the Department of Civil and Environmental Engineering at the National University of Singapore. His research interests in the recent years have been in lean construction, computer integrated and IT-based construction management, BIM, construction simulation, risk management and construction safety. Arising from his research works, he has written over 180 technical publications, editor for two books, and contributed a chapter to three books.

Er. Dr. Ho Kwong Meng

Topic Synopsis: Case Studies on Construction Equipment & Construction Automation

In the case studies, the construction equipment for tall buildings, wharves, reclamation, tunnels etc., will be presented and discussed. Similarly, some construction automation systems in Japan, Europe and China etc., will be introduced.



Bio: Er. Dr. Ho has 30 years working experience in The Port of Singapore Authority / PSA Corporation Ltd involved in planning, design and supervision of construction of seaport and building projects and due diligence for overseas seaport investment projects. He has also another 10 years working experience in Surbana Jurong Consultants Pte Ltd. He is currently managing his own consulting firm - Port and Building Consultants. He is also currently an IES Council Member, Chairman of IES/ISTRUCTE Joint Committee and Chairman of Overseas Infrastructure Project Technical Committee.