

# The Institution of Engineers, Malaysia

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# Technical Talk on "Mega Reclamation Projects – Challenges and Lessons Learned in Ground Improvement Works and Acceptance Tests from Past Experiences."

(Organized by Geotechnical Engineering Technical Division IEM)

Date: 28<sup>th</sup> November 2019

Time : 5.30pm to 7.30pm (Refreshment will be served at 5.00pm)

Venue : Auditorium Tan Sri Chin Fung Kee, Wisma IEM, PJ

Speaker: Ir. Kenny Yee

### **SYNOPSIS**

Singapore is the world's second busiest port after Shanghai, with an average of 60 vessels calling daily. As a testament to Singapore's commitment to maintain its position as a global maritime nation, the government is going full steam ahead with the multi-billion dollars mega-terminal development at Tuas. It is certain that land-scarce Singapore will continue pressing ahead with more mega reclamation projects to meet its demand in the foreseeable future. But there are limits to land reclamation – the rising cost of imported sand! The scale and complexity of these mega reclamation projects while pose serious challenges, presents opportunities for innovative solutions to overcome resource constraints. One such innovative solution is the use of ground improvement methods which will allow the dredged materials from the deepening of basins and nearby fairway, as well as excavated earth from land construction projects, to be reused as reclamation fill materials instead of sand. Reusing such materials, which would otherwise be disposed of, reduces the quantity of sand fill required for reclamation, resulting in huge cost savings. Another innovative solution is the use of prefabricated large caissons instead of traditional piling methods for the construction of the sea wall. This talk describes the ground improvement techniques used and it highlights the challenges and lessons learned in the ground improvement works and its acceptance tests and results.

### SPEAKER'S BIODATA

Ir. Kenny Yee graduated from the University of New South Wales, Australia in 1984. He joined Menard Lankhorst in 1985 as a design geotechnical engineer. In 1994, he founded Menard Geosystems – a subsidiary of Menard, France. In December 2013, he retired as the Regional Director of Menard Asia after serving 28 years with the company. He is the Honorary Secretary-General of the Association of Geotechnical Societies in Southeast Asia (AGSSEA) since 2007; Treasurer of AGSSEA since 2016; a committee member of the Southeast Asian Geotechnical Society (SEAGS) since 2007, a committee member of the International Committee on Pressuremeter (ICP), Tunisia since 2016; panel member of the Editorial Advisory of the Institution of Civil Engineers, UK's international journal Ground Improvement since 2016; a member of the Asian Regional Technical Committee on Urban Geoengineering (ATC-6) since 2014 and a committee member of the Geotechnical Engineering Technical Division of the Institution of Engineers, Malaysia (GETD, IEM) since 1996. He served as a member of the Technical Committee TC-211 on Ground Improvement for the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) from 2010 – 2015; chairman of GETD from 2002 – 2004; chairman of SIRIM Drafting Committee MS-1314 on precast piles from 2004 – 2007; and an editor for the conference proceedings of the 16th Southeast Asian Geotechnical Conference in 2007. He is a registered Professional Engineer with Practising Certificate. He has published more than 70 technical papers on ground improvement. In 2005, he was awarded the Tan Sri Haji Yusoff medal from IEM – awarded for an outstanding technical paper on engineering subject contributed by corporate members of IEM. In 2013, he was awarded the IGS - Shri A. G. Dastidar Biannual Prize from the Indian Geotechnical Society (IGS) for the best published paper on Ground Improvement for the years 2012 - 2013. In 2009, he was featured in the Personal Money – The Edge Magazine issue # 90 (February 2009).

# FEE ANNOUNCEMENT

BEM Approved CPD/PDP Hours: 2
Ref Number: IEM19/HQ/517/T

(Effective: 1st October 2017)

#### **Members:**

- (i) Registration Fee: No Charge
- (ii) Administrative Fee:
  - (a) Online RM15 (b) Walk-In RM20

## Non-Members:

- (i) Registration Fee: RM50 (ii) Administrative Fee: RM20
- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- To secure your seat, kindly register online at www.myiem.org.my

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Ir. Sin Peng Tean Chairman, Geotechnical Engineering, Technical Division