

Talk on Wireless Tunnel Monitoring Technology and Case Studies
Organised by Tunnelling & Underground Space Technical Division, IEM
BEM Approved CPD/PDP Hours: 2 Ref No: IEM18/HQ/387/T

Date : 26th September 2018
Time : 5.30pm – 7.00pm (Refreshments will be served at 5.00pm)
Venue : TUS and C&S Lecture Room, Second Floor, Wisma IEM, Petaling Jaya, Selangor
Speaker : Ir. Neo Boon Kheng and Mr. Arnaud Lancon

SYNOPSIS

Lack of technical knowledge or fear of challenging the standards has often left the construction industry far behind other engineering branches in terms of innovation. While sectors like materials developments and management processes have helped to catch up, electronics have always had a hard time to make their way to construction sites. This is particularly true for wireless monitoring instrumentation.

In this talk, I will take the challenging world of tunneling as a base to build my case. I will discuss the reasons why such a common technology in our everyday life has taken so long to adapt to the structural and geotechnical applications.

Through concrete comparisons, I will then show how different wireless monitoring instrumentation can help:

- Cutting down a project cost
- Shortening a construction program
- Improving health and safety on site

Finally, I will present successful case studies from around the world and the latest technology available on the market.

This will include examples of :

- tunnel convergence calculation through tilt and optical displacement sensors
- Adjacent structure assessments
- Pre-tunnel drive baselines
- Underground railway monitoring

Live sensors demo and open Q&A will finish the workshop proving that wireless instrumentation has gained the trust of experts and must be accepted as a new standard in the monitoring field.

BIODATA OF SPEAKERS

Ir. Neo Boon Kheng obtained his Bachelor of Engineering & Master of Science in Geotechnical from Illinois, USA. He has over 15 years of experience in trenchless technology projects, ie pipe jacking, micro-tunnelling, horizontal directional drilling and over 10 years of experience in design of sewerage network. He is members of Board of Engineers, Malaysia, Institutions of Engineers, Malaysia, American Society of Civil Engineer, ASEAN Engineer, Road Engineering Association of Malaysia and Permanent Way Institution. He is actively serving in TUSTD since year 2010 and currently a committee member of WTC 2020.



Arnaud is a Civil Engineer with an international career focused on bringing innovation in the construction industry. Arnaud gained an MSc in Civil Engineering at Polytech Orleans (France) and at the University of Arkansas (USA) with a specialization in Public Works and Planning.

Whilst completing his studies, he gained a rich and practical field experience working as a bricklayer and then foreman for local companies in the South of France. He then took on the role of Site Engineer for industry world leaders; Colas and Soletanche Bachy. With the latter, he worked in Paris on major projects developing team management abilities and quality control expertise in the highly technical field of geotechnics. He then was recruited to London, where he worked as a Monitoring Engineer for Soldata Ltd, helping a wide range of clients, such as Crossrail, HS1, Network Rail and TFL, with their environmental, geotechnical, hydrological and structural measurements. Whilst there he learned to provide the best instrumentation and data analysis solutions, specially adapted to each site. Arnaud joined Senceive in late 2016. In the role of International Business Development Support, he is tasked with spurring on Senceive's worldwide expansion and helping the company to continue exceeding customer expectations.

Ir. Khoo Chee Min

Chairman,

Tunnelling & Underground Space Technical Division, IEM

ANNOUNCEMENT TO NOTE

EFFECTIVE 1st OCTOBER 2017

FEES FOR TALKS

Members

Registration Fee
Free of Charge - FOC

Administrative Fee

Online - RM15.00
Walk In - RM20.00

Non-Members

Registration Fee:
RM50.00
Administrative Fee:
RM20.00

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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