

# **Talk On Introduction to LiDAR Survey Technology**

(Organised by the Highway & Transportation Engineering Technical Division, IEM BEM Approved CPD/PDP Hours: 2 Ref No: IEM17/HQ/332/T

- Date : 6<sup>th</sup> September 2017 (Wednesday) Postponed to 7<sup>th</sup> September 2017, Thursday
- Time : 5.30 pm– 7.30 pm (*Refreshment will be served in 2<sup>nd</sup> Flr*)
- Venue : C&S & TUS Lecture Hall, 2<sup>nd</sup> Floor, Wisma IEM, PJ.
- Speaker : Ms Trudy R Ganendra Grad. IEM

### **SYNOPSIS**

The evolution of airborne laser scanning systems and the development of automated 3D point cloud processing tools have produced a valuable source of information for many engineering, environmental, natural resource, and infrastructures applications. This has led to an increase in the use of laser scanning systems in the road industries for road planning, design, operation and maintenance, asset inventorization and geotechnical risk and environmental impact management. During this talk, the principals of LiDAR and how it can be used effectively to benefit road designers and managers will be introduced. The benefits of integrating MX software with LiDAR data for detailed analysis of multiple alignments and its capability for quick re-alignment survey and design will also be discussed using the example of the East Coast Expressway Phase 2 Project.

## **SPEAKER BIODATA**

**Ms Trudy R Ganendra Grad. IEM** graduated from the University of Cambridge in 1997 with a Masters in Engineering, and, in 1999, obtained a Masters of Science from Imperial College in Environmental Engineering.

In 2001, she was appointed as the Director of Ground Data Solutions R&D Sdn Bhd (GDS), a Malaysian-owned high-tech LiDAR survey and mapping service provider. GDS has been providing accurate and cost efficient maps and mapping products to a broad range of clients since 1991, and has been widely contracted by developers, planners and designers throughout South east Asia. GDS is the only local Malaysian service provider of Airborne Laser and Digital Imagery Surveys that owns its own LiDAR system, is involved in the research and development of new systems and is a direct operator with a proven track record of more than 25 years in airborne laser survey projects in Malaysia and South east Asia.

Ms Trudy R Ganendra Grad. IEM has successfully overseen 128 LiDAR projects to date including the following road projects:

- North-south expressway (PLUS) proposed production of as-built drawings, contours, longitudinal profiling & cross-section plans, hydraulic modeling and GIS spatial data updates using light detection and ranging system (LiDAR) for NSE stretches at sections N1, N2 and Northern part of N5
- Cameron Highlands highway project for MTD construction sdn bhd
- Airborne survey & mapping for stability assessment of rock slope along Jalan Duta expressway for plus expressway Berhad by Minconsult Sdn Bhd.
- Proposed airborne laser and digital imagery survey Kuala Lumpur-Karak highway for MTD Prime Sdn Bhd
- East Coast expressway (phase 2) aerial survey and realignment for MTD construction & MTD capital Sdn Bhd
- Wuskwatim new route survey in Canada LiDAR services Intl inc.
- spatial data acquisition by airborne laser scanning and GIS data integration of producing digital terrain modelling and slope maps for IKRAM research centre

## Ir. Richard Wong Chuen Fun Chairman Highway and Transportation Engineering Technical Division, IEM

#### **ANNOUNCEMENTS TO NOTE:**

Nonmembers may also attend the talk but will need to pay a registration fee of RM50 and an administrative fee of RM15. GST is inclusive.

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.

#### ADMINISTRATIVE FEE

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Student Members are however exempted.

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