

PRE AGM TALK ON “ENGINEERING SURVEY AND MAPPING USING UN-MANNED AERIAL VEHICLE (UAV) A.K.A DRONE”

(Organised by Seniors Special Interest Group, IEM)

Date : **8 July 2017 (Saturday)**
Time : **9.00am – 11.00am** (Refreshments will be served at 8.00am)
Venue : **Auditorium Tan Sri Prof. Chin Fung Kee, 3rd Floor, Wisma IEM, Petaling Jaya**
Speaker : **Ir. TV Lim & Mr. Marko Mesaric**

BEM Approved CPD/PDP: 2 hours
Ref No: IEM17/HQ/262/T

SYNOPSIS

Un-manned Aerial Vehicle (UAV), more commonly known as “Drone”, is simply defined as “a powered aerial vehicle which does not carry a human operator, is usually piloted remotely or can fly autonomously”. Drone was originally developed for military applications in the early 1990’s. Aided by the recent-year advancement in computer software, GPS system, radio-transmitted commands, digital camera, composite materials and hard wares like on-board battery and memory storage chip, the use of Drone is expanding rapidly and extensively to civilian use such as in engineering, scientific, commercial, agricultural, recreational applications and in other applications like “search & rescue”, surveillance, and aerial photography.

Basically two sets of software are used in engineering survey and mapping. The first one is used to remotely pilot the drone and to define the targeted area, the height of flight, extent of photo-over-lapping, etc. The second set of software is used for data processing, for image, graphics & map generation, for engineering data computation such as contour map, cross section, elevation, isometric view, linear & volumetric calculation, etc.. These softwares are commercially available.

The first part of the Talk is about the use of drone in rock-quarrying operation and in reconnaissance or investigative survey. The second part covers a software used for data processing, called “3Dsurvey”. It is developed in Slovenia for photogrammetric approach to land surveying, for environmental monitoring and landmass movement detection, fast prototyping, image processing, orthophoto generation, volume calculation, full textured 3D digital terrain modeling and professional survey map calculation. These two parts will cover how this technology can greatly benefit the industry in terms of time and cost efficiency.

BIODATA OF SPEAKER

Ir. TV Lim graduated from UM in 1976 with a B.Eng degree in civil engineering. He is a member of IEM since 1982. He has more than 40-year of experience in building construction, civil engineering and property development. He is currently a business owner of an engineering firm involved in rock blasting, quarrying operation, highway and dam construction.

Mr. Marko Mesaric graduated from Faculty of Civil Engineering and Geodesy, University of Ljubljana Slovenia in Master's Degree in Geodesy, 2011. He experienced in commercial drone use in relation to aerial surveying and mapping operations. He has more than 7 year's practical experience in land surveying and photographic approach to data collection. He has been involved in more than 100 projects in cadaster, quarrying, remote sensing and land survey software development.

Ir. Khor Hock Keat

Chairman

Seniors Special Interest Group, IEM

ANNOUNCEMENTS TO NOTE:

- **Non members** 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

- Kindly be informed that an administrative fee of **RM15** is payable for talks organized by IEM. GST is inclusive.
- Student Members are however exempted.

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