

## TALK ON “SURVEY FOR WATER RESOURCES ENGINEERING PROJECTS”

Organised by Water Resources Technical Division, IEM

BEM Approved CPD/PDP Hours: 2 Ref No.: IEM18/HQ/391/T

**Date** : 4<sup>th</sup> October 2018 (Thursday)  
**Time** : 5.30pm to 7.30pm (*Refreshments will be served*)  
**Venue** : Auditorium Prof. Tan Sri Chin Fung Kee, 3<sup>rd</sup> Floor, Wisma IEM, Petaling Jaya  
**Speaker** : Ir. Liam We Lin

### SYNOPSIS

Surveys provide important and often critical data on the terrain and ground features required for water resources engineering and management. Many water resources projects involve substantial survey input and experience has shown that, in spite of this, there were problems.

There are different types of surveys and various levels of survey details required. How do we specify survey types, scope and details to ensure that the survey is relevant, cost effective?

Survey needs for concept studies (for hydraulic analyses) differ from that required for detailed design for estimation of quantities and for land acquisition. Recognising this is important to avoid under specifying or over specifying the survey works. There is also the question of rates to apply and some survey scope may not be covered by the Surveyor's standard rates.

LiDAR survey was touted as an effective survey technique. The degree of spatial detail captured in LiDAR is impressive but is the accuracy of levels in a LiDAR acceptable in view of the importance of accurate levels in water projects? What is the extent of LiDAR calibration (with ground spot levels) needed to ensure accuracy in levels is satisfactory for the purpose of design.

RTK survey is another new technology which claims to simplify survey and it was implied that even non surveyors can use RTK technology successfully if not for engineering survey, at least to fill in gaps in details and levels not picked up in the original survey – a common experience as, after all, the survey scope is derived from a general idea of the terrain and surprises do occur and design changes may warrant additional data.

This talk gathers the output from a recent Forum organised by MyWP involving surveyors and engineers. Issues discussed in the Forum are presented and would be useful to those involved in studying, designing or project managing water resources engineering projects.

### BIODATA OF SPEAKER



Ir. Liam We Lin is currently the Technical Director of RPM Engineers Sdn Bhd and has more than 30 years' experience in water resources engineering projects as an engineering consultant and as an engineer attached to Jabatan Pengairan Dan Saliran Malaysia during the first 16 years of his career. He is currently the Treasurer of MyWP, an organisation involved in

Integrated Water Resources Management and was involved in organising a recent Workshop and Forum between consultants, government agencies and surveyors on Survey Works For Water Resources Development and Management. His work experience covers flood mitigation, urban drainage, dams, irrigation and agriculture drainage and coastal engineering, coastal hydraulic modelling training to officers of the Department of Environment, Malaysia.

**Dato Ir. Hj. Mohd. Azmi bin Ismail**  
Chairman, Water Resources Technical Division, IEM

### ANNOUNCEMENT TO NOTE FEES

#### Members

Administrative Fee :

<u>Online</u>	RM15
<u>Walk In</u>	RM20

#### Non-Members

Registration Fee: RM50  
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](http://www.myiem.org.my)

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