

The Institution of Engineers, Malaysia

Bangunan Ingenieur, Lots 60/62, Jalan 52/4, Peti Surat 223, 46720 Petaling Jaya, Selangor Darul Ehsan Tel: 03-79684001/2 Fax: 03-79577678 E-mail: sec@iem.org.my IEM Homepage: http://www.myiem.org.my

Evening Talk on "Development and Application of Software for the Urban Stormwater Management Manual for Malaysia (MSMA)"

Organised by Water Resources Technical Division, IEM BEM Approved CPD/PDP Hours: 2 Ref No: IEM15/HQ/381/T

Date : **28th October 2015 (Wednesday**)

Time : **5:30 pm - 7:30 pm** (*Refreshments will be served in 2nd Flr at 5.00pm*)
Venue : **Tan Sri Prof. Chin Fung Kee Auditorium, 3rd Floor, Wisma IEM, PJ**

Speaker: Ir. Dr. Quek Keng Hong

SYNOPSIS

<u>Development and Application of a Software for the Urban Stormwater</u> <u>Management Manual for Malaysia (MSMA)</u>

The Department of Irrigation and Drainage has released the second edition of **MSMA** (Manual Saliran Mesra Alam Malaysia or Urban Stormwater Management Manual) in 2011. Like its predecessor, this publication is heavy on computational methods and design procedures. The topics covered in **MSMA** include computational methods like design storms and temporal patterns, computation of peak design discharge and hydrograph like Rational Method and Time-Area Method, and design procedures on On-Site Detention (OSD), detention basins, sediment basins, culverts and rainwater harvesting.

Most engineers perform drainage computation and design using a calculator or spreadsheet. This approach is laborious and time consuming.

This talk is about the development of a software for **MSMA** computation. The software consists of the following modules: (1) design storm, (2) temporal patterns, (3) Rational Method, (4) Time-Area Method, (5) OSD design, (6) detention basin design and (7) culvert design.

The software allows the computation of design storm by simply clicking on a map of 135 rainfall stations in Peninsular Malaysia. The software also allows the computation of design storm in Sarawak based on a map of Sarawak rainfall stations.

The software is flexible as it allows the engineer to pick and choose the modules needed. For example, for design storm computation, you can select only Module (1). To compute design discharge using Rational Method, you select Module (1) and (3). To compute design hydrograph using the Time-Area Method, you select Module (1), (2) and (4). To design a detention basin using Time-Area Method, you select Module (1), (2), (4) and (6). For culvert design using Rational Method, you select Module (1), (3) and (7). Participants of the talk will get a free copy of the lite version of the software with unlimited usage if they bring in their pc.

BIODATA OF SPEAKER

Ir. Dr. Quek Keng Hong has a PhD and a Master's degree in water resources from the University of NSW, Australia. He is a consulting engineer by practice and specialises in the field of urban drainage design and hydrology. He has conducted many training workshops and seminars on **MSMA** since 2000, and is the codeveloper of **MSMAware**- a software designed specifically for **MSMA**. Dr. Quek has nearly 30 years of post-graduate industry experience and has published more than 20 papers in his field of specialisation.

Dato' Ir. Haji Hanapi Mohannad Noor Chairman Water Resources Technical Division, IEM

ANNOUNCEMENTS TO NOTE:

- Preferential admission to talk shall be accorded to IEM members (<u>pre-registration</u> and online registration are NOT required).
- Non members may also attend the talk but will need to pay a registration fee of RM50 and an administrative fee of <u>RM15</u>. GST is inclusive.
- Members of affiliated organisations upon producing their membership cards will be exempted from paying registration fee. Administrative fee is nevertheless applicable.
- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- IEM members are reminded to produce membership cards for confirmation of attendance (CPD purpose) failing which a fee of RM25 will be imposed. GST inclusive.

ADMINISTRATIVE FEE

- Kindly be informed that an administrative fee of <u>RM15</u> is payable for talks organized by IEM. GST is inclusive.
- The fee would be used to cover overhead costs, building maintenance expenses as well as contribute to Wisma IEM Building Fund.
- All contributions will be deeply appreciated by IEM.
- Student Members are however exempted.

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