The Institution of Engineers, Malaysia

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

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 co-developer 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

CPD HOURS CONFIRMATION

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