The Institution of Engineers, Malaysia
IEM
SARAWAK BRANCH

One-Day Seminar

How the Advent of New Storm Data Affects the Design of Drainage Structures including On-Site Detention (OSD) and the Application of Software for Impact Assessment?

FAQ: When, Where, Who, What, How?

16 DEC

8 AM - 5 PM

📍 **International Engineering Centre (IntEC)**

Speaker

Participation Fees:
IEM MEMBER - RM 60.00
NON-IEM MEMBER - RM 80.00
Limited to 50 pax REGISTER NOW!

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Bachelor, Master, and PhD
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About the Seminar

The Department of Irrigation and Drainage (JPS) released the second edition of MSMA (Manual Saliran Mesra Alam Malaysia or the Urban Stormwater Management Manual) in 2011. In 2018 and 2021, JPS released updates to the procedures for the estimation of design storms in Peninsular Malaysia (HP1) and for East Malaysia (HP26), respectively.

Firstly, the differences in design storms based on MSMA (2011), HP1 (2021) and HP26 (2018) are compared for selected stations. These storm intensities are used as input to the Rational Method and the Time-Area Method to estimate the peak discharges and flow hydrographs- and the differences assessed.

Secondly, the Approximate Swinburne Method in MSMA (2011) and the Exact Swinburne Method (Quek, 2017) are applied to estimate the SSR in the design of OSD. The latter was found to result in significant optimization of SSR estimates in the design of OSD. The differences are due fundamentally to the approximation of computational results in the Approximate Swinburne Method and the application of the Swinburne Method with available storm data in the Exact Swinburne Method. Design of OSD based on the Exact Swinburne Method can result in about a 50% reduction in the storage size of an OSD.

The one-day seminar will cover the following key topics:

- Impact of differences in design storms based on MSMA (2011), HP1 (2021) and HP26 (2018) on the design of drainage structures.
- Problems of SSR (Site Storage Requirement) estimates based on the Approximate Swinburne Method in MSMA (2011) and how the application of the Exact Swinburne method can result in the optimization of SSR estimate in the design of OSD?
- Application of the software for computing the design storm intensities based on MSMA (2011), HP1 (2021) and HP26 (2018) and for the design of OSD using the Approximate Swinburne Method in MSMA (2011) and the Exact Swinburne Method.

The Seminar will also cover the application of software for computing the design storm intensities based on MSMA (2011), HP1 (2021) and HP26 (2018) and for the design of OSD using the Approximate Swinburne Method in MSMA (2011) and the Exact Swinburne Method.