

## Objective

This hands-on workshop is targeted towards developing basic working knowledge in the planning and design of urban drainage systems in compliance with the guidelines spelled out in Jabatan Pengairan dan Saliran (JPS)'s Urban Stormwater Management Manual or also popularly known as MSMA (acronym for Manual Saliran Mesra Alam). MSMA was introduced in year 2000. It has since been subjected to review and modifications which resulted in MSMA2. This workshop will deal with both MSMA and MSMA2.

## Target Audience

This workshop would be useful particularly to engineers directly involved in the planning and design of urban drainage systems. It would also be beneficial to participants from local authorities, planners, contractors and developers who are involved in the implementation of urban drainage systems.

## Registration Fee

ACEM member firms RM 700.00 per person

Others RM 850.00 per person

\*EFT by Government departments RM 857.00 per person

*\*electronic fund transfer / e-perolehan*

*10% discount for registration of 3 or more participants from the same firm.*

The registration fee shall be made payable to '**The Association of Consulting Engineers Malaysia**' by crossed cheque and to be submitted with the completed registration form by **1 October 2013** to:

The Association of Consulting Engineers Malaysia  
No. 63-2 & 65-2, Medan Setia 1  
Damansara Heights, 50490 Kuala Lumpur

The registration fee is non-refundable. However, substitution of participants can be arranged by informing the organiser at least one week before the workshop commences.

## Continuing Professional Development (CPD)

The workshop is eligible for 14 CPD hours for Professional Engineers registered with the Board of Engineers Malaysia. Certificate of Attendance will be issued subject to full attendance.

## Enquiries

For further enquiries, please contact the ACEM secretariat at tel. 03-20950031, fax 03-20953499 or e-mail sec@acem.com.my.

## Programme

Time	Day 1	Day 2
9.00 a.m.	Registration	Registration
9.30 a.m.	Introduction to Urban Drainage Planning and Design based on MSMA & MSMA2	Revision of Day 1 Work
10.00 a.m.	Tea break	Tea break
10.30 a.m.	Hydrological analyses	Storage routing
11.30 a.m.	Hydraulic analyses	OSD/ESCP*
12.30 p.m.	Lunch	Lunch
1.30 p.m.	Workshop session: Hydrology, channel and culvert design	Workshop session: Storage routing OSD/ESCP
3.30 p.m.	Q&A	Q&A / Closing
4.30 p.m.	Refreshments	Refreshments

\*OSD (on-site detention) ESCP (erosion & sedimentation control plan)

## Speakers' Biodata

**Ir. Liam We Lin** B.E. (University of Malaya), Dip Hydrologic Engineering (IHE, Delft), M.E. (University of Roorkee) has had more than 30 years experience in the field of hydrology, drainage and flood mitigation. He has worked with Jabatan Pengairan dan Saliran (JPS) for 16 years and is currently the Technical Director of RPM Engineers Sdn Bhd, a civil engineering consulting firm specialising in water resources engineering. He would be conducting this workshop based on his many years of experience in the area of hydrology, hydraulics, urban drainage both in government service as well as in consultancy practice.

**Engr Chee Shai Choon** is a civil engineer who has combined good technical knowledge with great programming skill to produce commercial software in civil engineering. Currently, he leads a group of software developers in C&S Software Solutions Sdn Bhd, MSMAware Sdn Bhd and Infravera Sdn Bhd. He is the developer of the Infravera suite of software for earthworks, urban stormwater design, water reticulation, drain and sewer network. In developing software for MSMA, he has gained in-depth knowledge of the design process involved and would be able to share his knowledge and experience with participants.

**Registration Form**  
(to be returned by 1 October 2013)

**Hands-on Workshop on  
Urban Drainage Design based on JPS MSMA Guidelines  
8 & 9 October 2013  
MATRADE Exhibition & Convention Centre, Kuala Lumpur**

Name: \_\_\_\_\_

Designation: \_\_\_\_\_ BEM PE No.: \_\_\_\_\_  
(if applicable)

Organisation: \_\_\_\_\_

Address: \_\_\_\_\_

Tel.: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Contact person: \_\_\_\_\_  
(confirmation of registration will be sent via e-mail)

ACEM member firm RM 700.00 per person

Others RM 850.00 per person

\*EFT by Government departments RM 857.00 per person

*\*electronic fund transfer / e-perolehan*

*10% discount for registration of 3 or more participants from the same firm.*

Enclosed is cheque no. \_\_\_\_\_ for RM \_\_\_\_\_ being  
registration fee for the workshop.

\_\_\_\_\_  
Signature & Company Stamp

\_\_\_\_\_  
Date



**Hands-on Workshop on  
Urban Drainage Design based on  
JPS MSMA Guidelines**

**8 & 9 October 2013**

**MATRADE Exhibition & Convention Centre  
Jalan Khidmat Usaha, off Jalan Duta  
50480 Kuala Lumpur**

Organised by



**The Association of Consulting Engineers Malaysia**