



Hands-on Workshop on Stormwater Management & Flood Modeling Model with DID MSMA2 Design Rainfall



1, 2 & 3 December 2014

Organiser:
University Technology Mara (UiTM)
Lestari Software Enterprise (LSE)



About the Workshop

This Workshop will focus on basic and intermediate stormwater & flood modeling, starting with basic hydrology and hydraulics. We will then move into using Malaysian design storms & infiltration from MSMA to simulate the model. The second day will provide more in-depth instruction and exercise for advanced stormwater modelling tools and 1D river and bridge modeling, as well as other more advanced modeling functions such as flow control devices and storage (Pond). The third day will cover integrated 1D/2D flood modelling.

xpswmm comes with built in JPS MSMA1 & MSMA2 design rainfall calculator

Who Should Attend?

- Civil engineers who want to enhance their knowledge in stormwater & flood modeling
- Authorities & academics involved with Stormwater management & mitigation projects

Presenter Mr. Gavin Fields, Senior Water Resources Engineer, XP Solutions Australia

Gavin is a Senior Water Resources Engineer at XP Solutions. Gavin brings practical expertise in the design of stormwater quantity and quality infrastructure to the XP Solutions team. His responsibilities include providing technical support to our expansive client base to ensure product users are able to deliver best practice outcomes on their projects. Prior to joining XP Solutions team in Brisbane, Gavin worked as a consultant for 9 years delivering a broad range of projects across Queensland with a core focus on cost effective water sensitive urban design and drainage solutions.

Venue - University Technology Mara (UiTM)

B1-A5-03, Komputer Lab, Fakulti Kejuruteraan Awam UiTM, 40000 Shah Alam, Selangor Darul Ehsan

For More Details Please Contact

LSE: Ms. Loke @ 03 - 9010 4368 or 012 306 3510
UiTM: Pn. Suzana Ramli 03 - 55436428

How to Register

1. Please complete this form, email or fax to 03 9010 4328
2. Courier the form with payment to **Lestari Software Enterprise**

Address:

No. 5-2, Jalan Temenggung 5/9, Bdr. Mahkota Cheras, 43200 Cheras, Selangor

Email: syloke@lestarisoftware.com Tel: 03 9010 4368 www.lestarisoftware.com

Registration Form

Fax to 03 9010 4328

Dates: 1, 2 & 3 December 2014 (Mon to Wed)

Cost per Attendee

Full Payment	By 5 Nov 2014	After 5 Nov 2014
1, 2 & 3 Dec 2014 (3Day)	RM1,450	RM1,690
1 & 2 Dec 2014 (2Day)	RM1,350	RM1,550
3 Dec 2014 (Last Day)	RM900	RM1,150

Please tick (/) Please make cheque payable to **Lestari Software Enterprise**

Name: 1) _____ HP: _____

2) _____ HP: _____

3) * _____ HP: _____

Company: _____

Address: _____

Tel: _____ Fax: _____

E mail: _____

Cheque no. (Total): _____ Contact Person: _____

Please put any special dietary requirements here

*** Enroll 3 participants for 3day training, a 20% off for 3rd participant.**

Registration fees include professional training, 1 set of workshop notes, CD, certificate and complimentary trial version of xpswmm plus refreshment & lunch. Computer will be provided to work on the examples during the workshop.

Time: 8.30am (Registration and setting up). 9.00am – 5.15pm

Level: Basic & Intermediate

Please refer to detail workshop program overleaf

Day 1		
Introduction	Hydrology Analysis	Advanced Storm Water Hydrology
<ul style="list-style-type: none"> • Good model setup using xpswmm or xpstorm Interface • xpswmm/xpstorm Graphical User Interface (GUI) • File management • Model control and object creation tools • xpswmm/xpstorm layer control • Pull-down menus • Icons • Model output review tools • Users will build a simple network with the tools to gain familiarity with the XP interface 	<ul style="list-style-type: none"> • Rainfall-runoff modelling • Time Area Hydrology Method • Digital terrain modelling • CAD and aerial images • GIS integration to create network entities • Import nodes, links and catchments from shape files • Use xpswmm/xpstorm tools to calculate subcatchment areas • Connect subcatchments to runoff nodes • Creating Malaysian design storms (JPS MSMA2 rainfall calculator) • Loss processes and models • Analysis and review results 	<ul style="list-style-type: none"> • Rainfall statistics • Simulation using continuous rainfall data • Rainfall import options • Setting up global storms

Day 2	
Advanced Stormwater Modelling Tools	1D River Modelling
<ul style="list-style-type: none"> • Rational hydrology for sizing system • Automated design of stormwater pipes • Tools for determining missing data • Culvert and road-overflow flow modelling • Hydraulic structures • Outfall boundary conditions (free, backwater, natural channel, etc.) • Inlet modelling • Dual drainage analysis • Ponding options • Pond storage and optimization • NEW Assessing performance of detention basin infiltration • NEW Comparing pre and post development results • NEW Assessment of flow control devices 	<ul style="list-style-type: none"> • Creating River Links • NEW Import HEC-RAS model • Generate cross-sections from a Digital Terrain Model • Modelling Bridges (Multi-Links vs. NEW Bridge Link)

Day 3	
Integrated 1D/2D River and Culvert Modelling in xp2D	Advanced 1D/2D Integrated Modelling in Urban Areas with xp2D
<ul style="list-style-type: none"> • 2D model theory • 2D modelling with culverts • Linking 1D (Channel) and 2D model • Creating 1D and 2D domains • Flow boundaries and 1D/2D integration • Land use patterns • 1D river floods and 2D overland floods • 2D model troubleshooting • Flood inundation mapping and hazard classification • Solving and 2D map and vector results tools • Exporting inundation maps to GIS 	<ul style="list-style-type: none"> • Linking stormwater drainage to 2D modelling • Integrated 1D/2D urban flooding example • Modelling buildings • Distributed hydrologic modelling using rainfall on 2D grids • Scenario manager and 2D modelling of flood mitigation • Flood levee modelling • NEW Multiple domain example in an urban area • NEW Emergency response tools