5th Workshop on: Rainfall-runoff Simulation Supporting with GIS and Satellite Data

July 18-20, 2016

CCD 20 CPD 9

Universiti Malaysia PAHANG
Engineering • Technology • Creativity

Arc GIS ESRI

ESRI

HEC-HMS

Venue:

FKASA 5, Level 1, Faculty of Civil Engineering & Earth Resources University of Malaysia Pahang (UMP), 26300 Gambang, Kuantan, Malaysia

Grab CCD and CPD points only in one package

Speaker:

Dr. Abolghasem Akbari
Faculty of Civil Engineering & Earth Resources
University of Malaysia Pahang (UMP)

introduction:

Rainfall-runoff simulation is important part of hydrological analysis and design. It is more important when peak runoff and time to peak become a key criteria in design for rural and urban infrastructure. By rapid growing of computer software and earth observation industries, there is high demand to teach/learn of recent advances in integration of GIS tools into the hydrological and hydraulics models supported with remote sensing dataset. It is also provides a better framework for understanding of the hydrological process throughout the visualization and taking the spatial domain into consideration.

Main topics:

✓ Basic concept of GIS and Remote Sensing
✓ ASTER-derived watershed boundary delineation and characterization using HEC-GeoHMS
✓ Rainfall-runoff simulation using HEC-HMS

Who Should Attend?

✓ Local Authority Engineers and Planners
✓ Engineering Consultants, Researchers, Hydrologists, Civil and Environmental Engineers and Scientists
✓ Student and lecturers from relevant fields
✓ Professionals involved with the implementation of the various water management Directives.

Booking & Fees:

Normal rate:	RM600
Student:	RM400
UMP student:	RM300

Places are allocated on a first-come basis, and pre-booking is essential (using the registration form on this page). The cost of attendance are includes lecture notes, breakfast, refreshments, lunch and certificate. Invoices will be issued following receipt of registration forms requesting the reservation of a place. Receipts will only be issued upon demand.
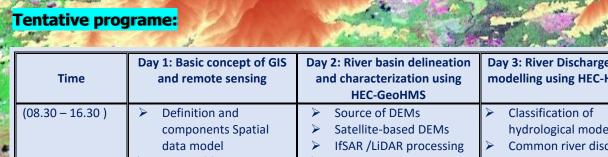
Objective:

The main objective of this workshop is to illustrate rainfall-runoff modelling using GIS-base and semi-distributed hydrological model supporting with public domain remote sensing data. It will also explore the main component of the GIS and required tools for watershed delineation and characterization.

Registration form:

Name: ....

Job title: ....

Institusion: ....

Address: ....

....

....

Email : ....

Tel: ....

Fax: ....

Category:

Normal: ☐
Student: ☐
UMP student: ☐

Signature: ....

NIOSH CERTIFICATION
MSC MALAYSIA Status Institution
CIDB MALAYSIA

Tentative programe:

Time	Day 1: Basic concept of GIS and remote sensing	Day 2: River basin delineation and characterization using HEC-GeoHMS	Day 3: River Discharge modelling using HEC-HMS
(08.30 – 16.30) 10.00 – 10.30 Refreshment 12.30 – 14.00 Lunch 16.15 - 16.30 Refreshment	➢ Definition and components Spatial data model ➢ Types of features ➢ Spatial data structure ➢ Coordinate systems and projection ➢ Remote Sensing of Hydrology ➢ Integrating Google Earth with GIS software ➢ Data management tools in ArcGIS • Intersection • Clip • Dissolve • Union • Merge • Adding XY data • Buffer • Spatial query ➢ GIS applications	➢ Source of DEMs ➢ Satellite-based DEMs ➢ IfSAR /LiDAR processing ➢ ASTER-GDEM processing ➢ DEM optimization ➢ Filling sinks ➢ Reconditioning ➢ River Basing boundary delineation process ➢ River Basing characterization ➢ Creating SCS Curve Number using HEC-GeoHMS	➢ Classification of hydrological model ➢ Common river discharge model ➢ Hydrologic Modelling System (HEC-GMS) ➢ Component of HEC-HMS • Basin model • Metrological model • Control specifications • Time-series data manager ➢ Setting up HEC-HMS for actual data ➢ Running HEC-HMS for real rainfall events ➢ Model Calibration

Note:
- All participants need to bring laptop
- All participants should install ArcGIS, HEC-HMS, HEC-GeoHMS

Registration / Further Information:

Registration fee should be paid through the Maybank:
- Account holder : Bendahari UMP
- Account number : 556235304266

To register for the workshop, please complete the registration form and email (with the proof of payment) to **safwan@ump.edu.my** or fax to **+6095492998** (Faculty of Civil Engineering & Earth Resources, University of Malaysia Pahang)

To request further information, please contact:
- Mr. MOHD SAFWAN RIZAL BIN SARIPUDIN   ☎ +6095493006 or 0192292078 or safwan@ump.edu.my
- Mr. WAN MUSLIMIN BIN WAN NAWANG   ☎ +6095492973 or 0133699178 or wmuslimin@ump.edu.my

For technical questions, please contact:
- DR ABOLGHASEM AKBARI   ☎ +6095492983 or 0129454233 or akbari@ump.edu.my

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