Workshop on GIS-based River Discharge Modelling

Date : 1 – 3 June 2016
Time : 8.30 am – 5.30 pm
Venue : Cube Room, Level 4, Institute of Graduate Studies University of Malaya

We are happy to announce that the Institute of Ocean and Earth Sciences (IOES), University of Malaya will be organizing GIS-based River Discharge Modelling Workshop. The workshop is scheduled to be held on 1 – 3 June 2016 at the University of Malaya.

River discharge modelling is important part of hydrological process. It became more important when peak river discharge play as a key element and design criteria for rural and urban infrastructure and other developments. By fast growing of computer software and earth observation industries, it is highly motivated to teach the recent advances in integration of this tools for better understanding of the process and providing convenience results.

This workshop aimed to demonstrate river discharge modelling using GIS-base hydrological model incorporating with public domain remote sensing data. It will also explore the main component of the GIS and required tools for river basin delineation and characterization.

In this workshop, participants will learn:

  i.   Basic concept of GIS and Remote Sensing
  ii.   River basin delineation and characterization using HEC-GeoHMS
  iii.   River Discharge modelling using HEC-HMS

Speaker: Dr Abolghasem Akbari (Assistant Professor, University Malaysia Pahang)

Tentative Programme:

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 – 17.30
 	
*10.00 – 10.30 Refreshment
 	
*12.45 – 14.00 Lunch
 	
*16.00 - 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 are required to bring laptop.
- Software requirement: ArcGIS, QGIS, HEC-HMS, HEC-GoeHMS

REGISTER NOW

Kindly send your registration form via e-mail or fax to:
GIS-based River Discharge Modelling Workshop
Institute of Ocean and Earth Sciences, University of Malaya, 50603 Kuala Lumpur

Registration Fees (Including 6% GST):
RM636 per person
RM424 (Non-UM Student rate)
RM318 (UM Student rate)

For further information, please contact us/ Miss Norshazwana bt Shariff at
Tel:603-7967 6995 Fax:603-7967 6994 or Email: hicoe.ioes@um.edu.my