HALF DAY WEBINAR COURSE ON APPLICATION OF QGIS (GIS FREEWARE) FOR CIVIL ENGINEERING & WATER RESOURCES MASTERPLANNING & DESIGN (VIRTUAL EVENT) BY: Ir. CHEOK HOU SENG ORGANISED BY: WATER RESOURCES TECHNICAL DIVISION, IEM SYNPOSIS

The course is an introduction to QGIS, which is free Geographical Information System (GIS) software that can and has been used for master-planning and design of various water resources and civil engineering projects locally and internationally. GIS is one of the key digital engineering tools that supplements conventional CAD draughting. On top of being able to digitize geographical information and produce digital maps, GIS allows engineers/analyst to attach attributes and parameters to geometry assets, thus allowing them to carry out advance spatial analysis which is crucial for the masterplanning and design of water resources and civil engineering projects. GIS is widely used for digital mapping, geospatial and engineering calculations and analysis, asset inventory and geodatabase



development and seamlessly integrates with 3D Building Information Modelling (BIM) workflows.

The course will provide a good mix of short lectures and with a series of hands-on tutorials, allowing participants to appreciate how GIS can be applied and how to use QGIS to carry out common GIS mapping and spatial analysis tasks. The course will cover the key fundamental topics of GIS application using QGIS software as listed below:

- Application of GIS in water resources & civil engineering projects
- How to use QGIS to produce digital GIS maps
- Loading, creating and editing of raster files such as satellite images, heat maps, etc.
- Loading, creating and editing of vector files for digitization of geometric assets
- Creation, editing of parameters and attributes for vector elements
- Carrying out geospatial analysis and GIS processing tools typically used for masterplanning and engineering design.
- How to import and export your QGIS work with CAD and Google Earth for seamless inter-operability between commonly used engineering applications.
- Lecture of how GIS can be integrated seamlessly with CAD and 3D BIM modelling.

By the end of the course, participants will be equipped with the fundamental skills in using QGIS (which is free!) for GIS mapping and spatial analysis in Civil Engineering Projects. Participants will be able to apply this newly acquired knowledge and skill into their daily work, which will greatly enhance their productivity and efficiency in water resources / civil engineering master-planning and design. Participants will also get a good idea of how this newly acquired skill can be further developed to integrate with 3D BIM workflows for engineering design in the future.

REGISTRATION FFES (SUBJECT TO SST 6%)			
Registration Fee		Normal Fee	On-line Fee
IEM Student Member		50.00	40.00
IEM Graduate Member		90.00	75.00
IEM Corporate Member		150.00	125.00
Non-IEM Member	:	300.00	240.00



COURSE DETAILS Date: 5th June 2021 (SATURDAY) Time : 9.00AM TO 1.00PM Venue : Virtual Platform (ZOOM)

Approved CPD Hours : 4 Ref No: IEM21/HQ/174/C(w)



Chairman,

Water Resources Technical Division, The Institution of Engineers Malaysia, Lots 60 & 62, Jalan 52/4, P.O. Box 223 (Jalan Sultan),46720 Petaling Jaya Selangor Darul Ehsan Tel: 03-7968 4001/2 Fax to 03-7957 7678 (Email: roselein@iem.org.my)

PERSONAL DATA PROTECTION ACT

I have read and understood the IEM's Personal Data Protection Notice published on IEM's website at http://www.myiem.org.my" and I agree to IEM's use and processing of my personal data as set out in the said notice.

CANCELLATION POLICY

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund if cancellation is received in writing more than 7 days before start date of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with prior notification and substitute will be charged according to membership status.

REGISTRATION FORM

HALF DAY COURSE ON APPLICATION OF QGIS (GIS FREEWARE) FOR CIVIL ENGINEERING & WATER RESOURCES MASTER PLANNING & DESIGN

Date : 5th June 2021 | Venue : Online Webinar (Zoom Meeting) | Closing Date: 2nd June 2021

No	Name(s)	M'ship No.	Grade	Fee (RM)*
SUB TOTAL				
	ADD GST @6%			
Total	Payable			

*Fees MUST be fully paid BEFORE the CLOSING DATE. Seats could only be confirmed upon payment.

Enclosed herewith a crossed cheque No: _______ for the sum of RM _______ issued in favour of "<u>The Institution of Engineers, Malaysia</u>" and crossed 'A/C payee only'. I/We understand that the fee is not refundable if I/We withdraw after my/our application is accepted by the Organising Committee as stated in the cancellation term. If I/We fail to attend the seminar, the paid registration fee will not be refunded.

Contact Person:		I	Designation:	
Name of Organization:				
Address:				
Telephone No.:		(0)		
(HP)	_Email:			
-	Signature & Stamp		Date	

BIODATA OF SPEAKER

Ir. Cheok Hou Seng is the Head of Upstream Water Resources & Digital Engineering at Ranhill Consulting Sdn. Bhd. Throughout his 19 years of working experience, Ir. Cheok has delivered more than 80 water resources and civil infrastructure design projects for Malaysia and more than 6 overseas countries (UK, Singapore, Australia, Canada, Taiwan, Scotland, etc). Ir. Cheok has led and completed on some of the most complex and high-profile water & civil infrastructure projects locally (ie: SMART Tunnel, the Johor Barrage, the KL-Singapore High Speed Rail Project, Johor Water Resources Study, Pilot application of Radar Rainfall for Flood Forecasting in Malaysia, various catchment wide flood mitigation project etc) and internationally (ie: Flood Risks Review of the Lower Thames River, London, UK, Integrated Catchment Wide Modelling for 5 out of 9 Coastal Reservoirs in Singapore, National Scale Flood Modelling for Taiwan, M6 Motorway Tender Design in Sydney Australia, etc).

Ir. Cheok has vast experience in spearheading the application of Digital Engineering (DE) including Geographical Information System (GIS), 3D reality capture, 3D Building Information Modelling (BIM) and various programming and workflow automation technologies in water and civil engineering projects. Ir. Cheok is an active committee member of the Water Resources Technical Division of the IEM.

PROGRAMME				
900am	-	915am	Introduction to QGIS	
915am	-	945am	Raster Files & Satelite Images	
945am	-	1015am	Georeferencing Raster Image & Vector Editing	
1015am	-	1020am	5-minutes Break	
1020am	-	1050am	Editing Attributes, Vector Tools & Processing Toolbox	
1050am	-	1120am	Attribute Calculations in Excel, Profile Tool and Open-Source Vector Data	
1120am	-	1125am	5-Minutes Break	
1125am	-	1155am	Import / Export to CAD and Google Earth	
1155am	-	1225pm	Integration of GIS with CAD and 3D BIM	
1225pm	-	0110pm	Q & A Session Closing & End of Course	
0110pm	-	0130pm	Closing & End of Course	

Terms & Conditions:

- For ONLINE REGISTRATIONS, only ONLINE PAYMENT is applicable [via RHB and Maybank2u –Personal Saving & Personal Current; Credit Card -Visa/Master].
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK -IN will be considered as NORMAL REGISTRATION.
- FULL PAYMENT must be settled before commencement of the course, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participants fail to attend the course, the fee is to be settled in full.
- Fee paid is not refundable. Registration fee includes lecture notes, refreshment.
- The Organizing Committee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the
 registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as possible
 so as to avoid disappointment.