

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

**REGISTRATION FORM**  
**2 DAY GEOMETRIC ROAD DESIGN WORKSHOP:**  
**FROM THEORY TO PRACTICE**

**Date at Venue**  
**Closing Date :2<sup>nd</sup> December 2014**

No	Name(s)	M'ship No.	Grade	Fee (RM)*
<b>Total Payable</b>				

**\*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 "**The Institution of Engineers, Malaysia**" 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: \_\_\_\_\_ Designation: \_\_\_\_\_

Name of Organization: \_\_\_\_\_

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

Telephone No.: \_\_\_\_\_ (O) \_\_\_\_\_ (Fax)

\_\_\_\_\_ (H) \_\_\_\_\_ (HP)

Email: \_\_\_\_\_

\_\_\_\_\_  
 Signature & Stam

\_\_\_\_\_  
 Date

**Photocopies are acceptable**



*The Institution of Engineers, Malaysia*

**2 DAY GEOMETRIC ROAD DESIGN WORKSHOP:**  
**FROM THEORY TO PRACTICE**

**Organised By:**  
**Highway & Transportation Engineering Technical Division, IEM**

**Date** : 3<sup>rd</sup>-4<sup>th</sup> December 2014  
**Venue** : Faculty of Engineering & Science, UTAR, Setapak Campus  
**Time** : 9.00 a.m. - 5.30 p.m.

BEM Approved CPD/PDP Hours: 14Hrs =  
 Ref. No: IEM14/HQ/392/W

	<u>Registration Fee</u>	<u>Normal Fee</u>	<u>On-line Fee</u>
IEM Student Member	: 280.00	250.00	
IEM Graduate Member	: 600.00	500.00	
IEM Corporate Member	: 900.00	800.00	
Non IEM Member	: 1200.00	1100.00	

**IMPORTANT NOTES**

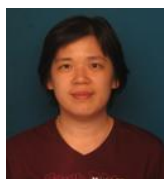
- **Closing Date : 2<sup>nd</sup> December 2014**
- For ONLINE REGISTRATION, payment **MUST BE MADE VIA ONLINE PAYMENT [via RHB Now and Maybank2u -Personal Saving & Personal Current; Any Credit Card - Visa/Master]**. If payment is not received within the stipulated time, the registration fee will automatically be reverted to the normal fee.
- Payment via CASH/CHEQUE/BANK-IN TRANSMISSION/BANK DRAFT/MONEY ORDER/ POSTAL ORDER/LOU/LOG/WALK -IN will be considered as **NORMAL REGISTRATION**
- **FULL PAYMENT** must be settled before commencement of the event, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non-refundable. IEM reserve the right to reject any LOU/LOG not in accordance with these instructions.
- The Organising Committee reserves the right to alter or change the programme due to unforeseen circumstances.

## SYNOPSIS

Road geometry design concerns the design of road alignment that conforms to the site constraints and standards. The basic objectives are to optimize efficiency and safety while minimizing cost and environmental damage. As such, it is important for a highway engineer to learn the best practices in road design. The intention of having this course is to provide the fundamental knowledge and design principles to engineers as well as to highlight the application of these principles in real world.

The course consists of several modules that cover the essential components of road design, i.e. horizontal, vertical, and cross sectional design. The content of the lectures are conforming to the road design guidelines in Malaysia. Besides theoretical knowledge, the speakers will share their valuable experiences on practical aspects of the road design. The issues and challenges of road design would be highlighted through the (real) case study presented at the end of each module. An introduction to the use the popular road design software, i.e. MX Road will be presented in the course as well. Participants will have the opportunity to conduct hands-on practice with the temporary keys for a simple road design case study. This course is tailor made for those highway and transport engineers who need to design roads, those who have taken on a new responsibility on road design related work, those who are looking to refresh knowledge on road design principles, or those who just wish to broaden their knowledge. In addition, it is also suitable for those who would like to know more about MX Road software and try out the software before purchase.

## BIODATA OF SPEAKERS



Ir. Khoo Hooi Ling graduated from National University of Singapore in 2008. She has the Master of Engineering Science and Bachelor of Civil Engineering from University Malaya in 2005 and 2002 respectively. She is currently an Associate Professor in the Universiti Tunku Abdul Rahman. Her research interest is in traffic modeling and simulation, transportation network design, traffic safety and sustainable transportation. To date, she has made over 40 publications in the international and regional journals. Dr. Khoo Hooi Ling obtained her PhD from the .She is the Head of Department of Civil Engineering in UTAR since 2009.



**Ir. Meheron Selowara Joo** obtained his degree in civil engineering from University Malaya in 2001 and Master of Engineering (Highway and Transportation) from University Putra Malaysia in 2009. He is a registered Professional Engineer, member of Road Engineering Association Malaysia (REAM) and Asia & Australasia (REAAA) and a Professional Member of Malaysian Green Building Confederation. He has over 12 years of industrial and academic experience and currently holds position as lecturer at SEGi University, Kota Damansara. He is also a certified trainer by Construction Industry Development Board (CIDB).



**Ir. Gary Chien** obtained the Bachelor of Engineering from University of Melbourne. He has more than 20 years of engineering experience in infrastructure and built environment projects. He is currently working with OPUS Group Berhad which is a member of UEM. He is an active participant of Young Engineers Programme (YEP) at OPUS/UEM and serves as a mentor. Ir Gary Chien serves on the Highway and Transportation Engineering Technical Division (HTETD) and Log Book Committee (LBTS) at IEM. He has also serve as Second Interviewer for Professional Interview examinations.

**Ir. Lee Choy Hin** obtained his Bachelor of Science in Engineering (Honours) from the University of Aberdeen in United Kingdom in 1981. He then had the Master of Science in Transport Planning and Engineering from University of Leeds in 1987. Ir. Lee has over 20 years of experience in highway and transportation studies. He was engaged by the Ministry of Works Malaysia to conduct various urban transport studies. He is a specialist in urban transport planning and traffic management, intersections and highway capacity studies, as well as road design.

## TENTATIVE PROGRAMME- Day 1

Module	8:15 am – 9:00 am	Registration
<b>Module 1:</b> Introduction to Road Design (Ir. Meheron)	9:00 -10:30am	<ul style="list-style-type: none"> <li>• Road functions</li> <li>• Design controls and criteria</li> <li>• Sight distance</li> <li>• Case study on practice</li> </ul>
	<b>10.30 – 10.45am</b>	<b>Tea Break</b>
<b>Module 2:</b> Design of Horizontal Alignment (Ir. Meheron)	10:45 – 12:15 pm	<ul style="list-style-type: none"> <li>• Types of horizontal curve</li> <li>• Super elevation rates</li> <li>• Minimum radius, Spiral curves</li> <li>• Case study and good practice</li> </ul>
	<b>12.20 – 1.15pm</b>	<b>Lunch</b>
<b>Module 3:</b> Design of Vertical Alignment (Ir. Gary)	1.15pm- 3.15pm	<ul style="list-style-type: none"> <li>• Maximum grades</li> <li>• Critical grades</li> <li>• K values for Crest and Sag curves</li> <li>• Case study and good practice</li> </ul>
	<b>3.15pm – 3.30pm</b>	<b>Tea Break</b>
<b>Module 4:</b> Cross sectional design (Ir. Gary)	3.30pm – 5.30pm	<ul style="list-style-type: none"> <li>• Pavement / Lane widths / Shoulders</li> <li>• Kerbs / Sidewalks / Medians</li> <li>• Traffic Barriers</li> </ul>
	<b>5.30pm</b>	<b>End</b>

## TENTATIVE PROGRAMME- Day 2

Module	8:15 am – 9:00 am	Registration
<b>Module 5:</b> Design on Existing Road Layout (Ir. Lee Choy Hin)	9:00 -10:30am	<ul style="list-style-type: none"> <li>• Differences of new road and existing road design</li> <li>• Issues and challenges</li> </ul>
	<b>10.30 – 10.45am</b>	<b>Tea Break</b>
<b>Module 6:</b> Issues and Challenges in Road Design (Ir. Gary)	10:45 – 12:15 pm	<ul style="list-style-type: none"> <li>• Features/ elements affecting road design</li> <li>• Combination of horizontal and vertical alignment</li> <li>• Case studies sharing</li> </ul>
	<b>12.20 – 1.15pm</b>	<b>Lunch</b>
<b>Module 7:</b> Geometry road design with MX Road (Ir. Khoo Hooi Ling assisted by Engr. Aida)	1.15pm- 3.15 pm	<ul style="list-style-type: none"> <li>• Introduction to MX Road</li> <li>• Horizontal and vertical alignment design with MX Road</li> <li>• Hands-on practice with MX Road</li> </ul>
	<b>3.15pm – 3.30pm</b>	<b>Tea Break</b>
<b>Module 7 (cont'd)</b> Geometry road design with MX Road (Ir. Khoo Hooi Ling assisted by Engr. Aida)	3.30pm – 5.30 pm	<ul style="list-style-type: none"> <li>• Hands-on practice with MX Road</li> </ul>
	<b>5.30pm</b>	<b>End</b>

