



# The Institution of Engineers, Malaysia

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Talk on:

## “CALCULATION AND MEASUREMENT OF ILLUMINANCE AND LUMINANCE IN ROAD LIGHTING”

BEM Approved CPD/PDP Hours: 2  
Ref No: IEM12/HQ/ 308 /T

(Organised by Highway and Transportation Engineering Technical Division, IEM)

Date : 19 November 2012 (Monday)  
Time : 5.30 pm – 7.30 pm (Refreshments will be served at 5.00pm)  
Venue : Tan Sri Prof. Chin Fung Kee Auditorium, 3<sup>rd</sup> Floor, Wisma IEM, Petaling Jaya  
Speaker : Mr. Siew Choon Thye

### SYNOPSIS

Historically, two complementary measures of road lighting system performance have been employed: illuminance, or the amount of light from luminaires incident upon a given surface of interest, and luminance, or the amount of reflected light returned to the driver's eye from the surface of interest.

The right method of measurement and calculation ( MS 825: 2007) need to be implemented as the technology and standard have developed to ensure the road lighting design is towards safety, energy-efficiency and economics.

A good lighting will create a comfortable visual environment that will enable people to see, move about safely and perform visual tasks efficiently, accurately and safely without causing undue visual fatigue and discomfort. The authorities, engineers and stakeholders appreciate that road lighting plays an important role in human visual capabilities, ensure comfort and create appropriate lighting conditions. The most important criterion in road lighting is actually to audit and apply the method of measurement and calculation in a practical condition site. International standards such as CIE 140 2000 and BS EN 13201 have been well established on this requirement. The MS 825, Part 6 has also been adopted and published. There are many manufacturers and traders in the field of lighting. With the rapid development of LED lighting, players are now focusing on Road Lighting with LED as a new light source.

Technology and standards evolve quickly. This talk will facilitate all in the street lighting industry to have an enhanced understanding and knowledge in applying the right methods of measurement and calculation on road lighting professionally.

### BIODATA OF SPEAKER

Mr. Siew Choon Thye graduated and has a background in Electrical Engineering from The Chartered Institute of Marketing (CIM) and the Institute Lighting Engineer (ILE) from United Kingdom. He has been active in the area of lighting for over 18 years. His activities primarily include Lighting Design Application, Lighting Product Development , Electrical Engineering and installation of various types of lighting applications such as stadiums, golf courses, ports, architectural facades and public street lighting. He has experience in the lighting engineering, design & development with GE Lighting USA, Philips and Gruppe –Italy.

Mr. Siew is actively and deeply involved in the Malaysia government standards development and activities related to lighting. He is the Chairman of MyCIE (Malaysia National Council on Illumination) and Council Member of TEEAM – (The Electrical and Electronics Association of Malaysia.) He is also involved in writing the standards for:

- SIRIM (Technical Committee Lighting ) – Department of Standards Malaysia
- SIRIM (Working Group on MS Standard) – for Street and Tunnel Lighting
- SIRIM (Working Group on MS Standard) – for LED Light & Lighting
- SIRIM (Working Group on MS Standard) – for Energy Efficient for Building Management.

Ir. Chin Kar Keong  
Chairman 2012/2013,  
Highway & Transportation  
Engineering Technical Division, IEM

### CPD HOURS CONFIRMATION

Name	:
Membership No.	:
Signature	:

### ANNOUNCEMENT TO NOTE

1. Talk is **STRICTLY** for IEM members only (pre-registration is **NOT** required).
2. Telephone and/or fax reservation will **NOT** be entertained.
3. Limited seats are available on a "first come first served" basis (maximum 110 participants).
4. IEM members are required to produce your **membership cards** for confirmation of attendance (CPD purpose).
5. Latecomers will not be allowed to enter if the lecture hall is full nor be entitled to CPD.

**IEM members who fail to produce their membership cards will be charged a fee of RM20.00**

### FUNDS FOR IEM NEW BUILDING (WISMA IEM)

Kindly be informed that participants will be charged **RM10.00** administrative fee for talks organized by IEM. The fee will be used for overhead costs, building maintenance expenses as well as to support the purchase of Wisma IEM. However, students are exempted. Your understanding is much appreciated.