

Chairman
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BEM APPROVED
CPD/PDP Hours: 6
Hours
Ref. No:



Organized by:
 Engineering Education Technical Division, IEM

ONE DAY SEMINAR ON "SOLID STATE LIGHTING"

By:
 Dr. A S M Mukter UZ Zaman

23 November 2016
 9.00am – 5.30pm

REGISTRATION:

Name(s)	IEM M'ship No. / Grade	Fees (RM)
	SUB TOTAL	
	ADD GST @ 6%	
	TOTAL PAYABLE	

Company: _____

Address: _____

Mobile: _____

E-mail: _____
 (Please write clearly)

Contact Person: _____

Signature: _____

SEMINAR RE-SCHEDULED TO 2017.
NEW DATE TO BE ADVISED.

PAYMENT DETAILS

Cash RM _____

Cheque no. _____ for the amount of RM _____
 (non-refundable) and made payable to "THE INSTITUTION OF ENGINEERS, MALAYSIA" and
 crossed 'A/C Payee Only'".

Terms & Conditions:

- For ONLINE REGISTRATIONS, only ONLINE PAYMENT is applicable [via Credit Card]
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK-IN will be considered as NORMAL REGISTRATION
- For online registrations, please note that **payment MUST be made on 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. If the participant failed to attend the course, the fee paid is no- refundable. Registration fee includes lecture notes, refreshment and lunches.
- The Organising 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.

WHO SHOULD ATTEND?

Energy sales manager, Design Engineer, Electronics/Material test Engineer, Production specialist, Testing and calibration specialists, regulators, engineers, scientists, accreditation professionals and users of LED lighting.

Member Type	Online Rate (RM)	Normal Rate (RM)
IEM Student Member	150.00	200.00
IEM Graduate Member + SEEM & CEM Members	350.00	400.00
IEM Corporate Member	500.00	550.00
Non IEM Member	700.00	750.00

GST is implemented effective 1 April 2015

FEES COVER

- Course notes
- Refreshment (1 lunch & 2 breaks)
- Certificate of attendance (CPD & CCD)

SYNOPSIS

Solid-state lighting (SSL) refers to a type of lighting that uses semiconductor light-emitting diodes (LEDs), organic light-emitting diodes (OLED), or polymer light-emitting diodes (PLED) as sources of illumination rather than electrical filaments, plasma (used in arc lamps such as fluorescent lamps), or gas. It is estimated that by 2025 SSL could reduce the global amount of electricity used for lighting by 50%; no other electricity consumer has such a large energy-savings potential.

This seminar is targeted to enhance the knowledge, interest and skill set in advance photonics techniques, basic design consideration, and driver system design in SSL technology. The topics will also highlight The CIE International Standard Test Method for LED Lamps, Modules and Luminaries.

TENTATIVE PROGRAMME

Time	Event
0900	Arrival of participants, Opening address
0930	Introduction to Solid State Lighting (SSL) <ul style="list-style-type: none">- History of Light-emitting diodes- Lighting Economy- General Light Source
1030	Break + Refreshment
1100	Introduction to Human vision and Measurement of Light <ul style="list-style-type: none">• Human eye response to visible light Photometry• Radiometry, Colorimetry ,Color temperature• Color rendering index• LEDs and Lighting Measurement Instrument
1230	Lunch
1400	Injection Luminescence LED Performance, Recombination of Electrons and Holes, Injection in p-n Junction LED, Heterostructures and Quantum Wells.
1445	Light Extraction from LEDs Escape Cones, Distributed Bragg Reflectors, Absorption Losses and Photon Recycling, Trade-off between Luminous Efficacy and Color Rendering, Dichromatic Systems
1530	Break + Refreshment
1600	Case study and LEDs Packaging in Solid State Lighting.
1700	Wrap up session.

BIODATA OF THE SPEAKER

Dr. A S M **Mukter** Uz Zaman is an enthusiastic academic & globally recognized expert in the area of micro-nano and opto-electronic system and devices. **Dr. Mukter** is currently working in the Faculty of Engineering, Multimedia University, Cyberjaya, Malaysia. Besides teaching he is actively involved in the R&D of micro-nano and opto-electronics technologies. Prior to that, he worked for 5 years in MIMOS Berhad, Malaysia with a standard of research excellence (platinum badge holder). **Dr. Mukter** is the inventor of many innovative product and solution and filled more than **20 patents**.

Dr. Mukter received his BSc in 2003 (KUET), MSc in 2008 (MMU), and PhD (2012) from FKAB, UKM Malaysia. Dr. Mukter published 2 books and over 45 research articles in various reputed high impact journals and conferences. He was the leader and co-researcher in various research grant such as E-science (3 projects) funded by MOSTI, FRGS (3 projects) funded by MOE, PRGS (1 project), LRGS (1 project) funded by MOHE, and MMU grants. He received several local and international awards for innovative research outcome. Dr. Mukter is the member of IEEE, ECF, IEB and Deputy Representative of IEICE-Malaysia section. He is the reviewer of several international journal/ conferences. **Dr. Mukter** is currently providing expert knowledge service/ consultancy to various companies in Malaysia including MIMOS Berhad.

CANCELLATION POLICY

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund less 30% 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.

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.