Chairman,

Electrical Engineering 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 : valli@iem.org.my)

REGISTRATION FORM

One Day Course on Practical Design and Selection of Lightning Protection Systems to MS IEC 62305 Part 1 to 4

(Closing Date: 6 OCTOBER 2018)

No	Name(s)	M'ship No.	Grade	Fee (RM)*
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*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	
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9TH OCTOBER 2018

One Day Course on Practical Design and Selection of Lightning Protection Systems to MS IEC 62305 Part 1 to 4

> ORGANISED BY ELECTRICAL ENGINEERING TECHNICAL DIVISION, IEM IN COOPERATION WITH WISEPRO SDN BHD

Venue: Tan Sri Prof. Chin Fung Kee Auditorium, 3rd Floor, Wisma IEM, PJ Time: 8.30am – 5.30pm Speaker: Mr. SF Ng and Mr. Ritesh Lutchman

BEM Approved CPD/ PDP hours: 7 Ref. Np. : IEM18/HQ/402/C

REGISTRATION FEES					
	ONLINE	NORMAL (Offline)			
IEM Student Member	RM 50.00	RM 80.00			
IEM Graduate Member	RM 150.00	RM 200.00			
IEM Corporate Member	RM 250.00	RM 300.00			
Non-IEM Member	RM 500.00	RM600.00			

SYNOPSIS

Malaysia has adopted the MS IEC 62035 Part 1 to 4 Protection Against Lightning since 2006. Britain replaced BS6651 with BS EN 62035 from 1st September 2008. What are the main differences between BS6651 and MS IEC 62035? The MS IEC 62305 Part 2 covers the risk analysis for lightning protection, specifying the levels of external lightning protections, namely LPS I, II, III or IV. The process of risk analysis can be simplified with the use of an analysis software, which would be demonstrated in the course. The three components of external lightning protection are the air termination, down conductors and earthing. The course will include the rolling sphere protection angle and mesh size calculation, allowing proper placement of the air termination rod, definition of the separation distance and spacing between down conductors according to LPS I, II, III or IV. The use of reinforcement bars as down conductors, comparison of welded joints, clamped joints, bound joints and latched joints, Type A or B earthings and equipotential earthing would be discussed. Knowledge of the materials and installation methods would allow great savings while still complying with the MS IEC 62305 standard. Table 5 and 7 of the MS IEC 62305 Part 3 lists the LPS materials and conditions of use, and the material, configuration and minimum dimensions of air-termination conductors, air-termination rods, earth lead-in rods, down-conductors and earth electrodes. MS IEC 62305 Part 4 focusses on the internal lightning protection. Malaysia has adopted the IEC Standard for the risk analysis and Surge Protection Device (SPD) application. The course discusses the correct application, differences in energy level, common terminologies that defines the protection rating and the comparison and coordination of Class I, II and III for all types of SPD such as spark gap technology and MOV. Correspondingly, the fuse or MCCB rating should match that of the SPD circuit it protects

SPEAKERS' PROFILE

Mr SF Ng is currently the sales and marketing engineer at Wisepro Sdn Bhd. He has been working in the industry for the past 10 years and has gathered great experience in the design, installation, troubleshooting and site works for the industries mentioned above. He has also received extensive training on the Lightning Protection at Dehn headquarters in Germany, power factor capacitors, reactors and harmonics at Shizuki headquarters in Japan and ATS applications and troubleshooting at Vitzrotech headquarters in Korea. He graduated from the University of Hertfordshire with a Master's Degree in Automotive Engineering in 2007.

Mr Ritesh Lutchman is currently the Senior Sales and Marketing Manager at Wisepro Sdn Bhd. He has been working in the industry for the past 15 years and has gathered great experience in the design, installation, troubleshooting and site works for the industries mentioned above. He has also received extensive training on the Lightning Protection at Dehn headquarters in Germany, power factor capacitors, reactors and harmonics at Shizuki headquarters in Japan and ATS applications and troubleshooting at Vitzrotech headquarters in Korea. He graduated from the University of Cape Town with a degree in Electrical Engineering in 2004 and Master's Degree in Electrical Engineering in 2006.

Time	Description
8.30 am	Registration
9.00 am – 9.15am	 Introduction Design and Selection of Lightning Protection Systems to MS IEC 62305
9.15am – 10.45am	 Definition of lightning current and surge voltage Comparison of 10/350uS and 8/20us energy Definition of Lightning zones Equipotential bonding
10.45am – 11.00am	Morning Break
11.00am – 1.00pm	 Risk components and tolerable risks Bases risk calculation Addition of measures. Demo of risk analysis software
1.00pm – 2.00pm	Lunch
2.00pm – 3.30pm	 Definition of Lighting protection level I, II, III and V Rolling Sphere, Protective Angle, Meshing External lighting protection components: Air termination Down conductor Earthing Review of materials used for external lighting protection.
3.30pm – 3.45pm	Review of materials used for external lighting protection.
3.45pm – 5.00pm	 Internal Lightning Protection: Selection of SPD Installation of SPD SPD for signal lines
5.00pm – 5.30pm	Question and Answer
5.30pm	End of Course
 Current; Credit Card - Payment via CASH / C -IN will be considered FULL PAYMENT must enter the hall. If a plac Fee paid is not refund The Organizing Comm Every effort will be ma 	HEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WAL as NORMAL REGISTRATION. be settled before commencement of the course, otherwise participants will not be allowed to be is reserved and the intended participants fail to attend the course, the fee is to be settled in full able. Registration fee includes lecture notes, refreshment. ittee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. ade 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.
IFM recorded the right to p	CANCELLATION POLICY ostpone, reschedule, allocate or cancel the course. Full refund if cancellation is received in writ