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REGISTRATION FORM

Industrial Seminar on IEC 61439-1 and IEC 61439-6 for Busbar Trunking Systems (Busways)

Date : 02nd July 2019 (Tuesday)

(Closing Date: 24 June 2019)

No	Name(s)	M'ship No.	Grade

*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 & Stamp

Date

Photocopies are acceptable

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.



Industrial Seminar on IEC 61439-1 and IEC 61439-6 for Busbar Trunking Systems (Busways)

ORGANISED BY
ELECTRICAL ENGINEERING TECHNICAL DIVISION, IEM
IN COOPERATION WITH
UL INTERNATIONAL SINGAPORE PTE LTD

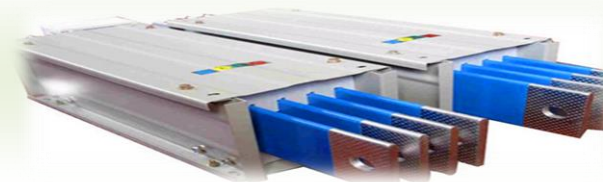
02nd July 2019

BEM Approved CPD/ PDP hours: Applying

Speakers: Mr. S. Chandrakumar (CK), Ir. Chong Chew Fan & Ir. Siti Nor binti Hassan

Venue: Sunway Clio Hotel, Westpoint 1 & 2

Time: 8.30am – 3.00pm



REGISTRATION FEES (SST shall be at 6% with effect from 1 Mar 2019)

	ONLINE	NORMAL (Offline)
IEM Student Member	RM60.00	RM80.00
IEM Graduate Member	RM80.00	RM100.00
IEM Corporate Member	RM100.00	RM150.00
Non-IEM Member	RM200.00	RM250.00

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.

SYNOPSIS

Background

Safety Testing and Compliance Verification for Busways

The International Electro-technical Commission (IEC) 61439 series of standards provides a frame work to meet the needs of all associated stake-holders in today's Electrical assemblies Global Supply Chain trends (original manufacturer, assembly manufacturer, Component manufacturer, Installer, Specifier and etc.). IEC 61439 series of standards considers a practical approach with multiple design verification options, clearly specifying the safety and performance requirements for reference and use by Engineering consultants, Manufacturers, planners, system engineers, testing lab and end users in order to define the protection objectives for people and plants in electrical installations. This standard has now been widely accepted Globally and more than 25 countries across the world have either adopted, or harmonized their national standards with the IEC 61439 series, making it truly international for testing and certification of assemblies including busways. The IEC 61439 series applies to low-voltage switchgear and control-gear assemblies, for rated voltage up to 1,000 V (AC) and 1,500V(DC).

Market trends and requirements of Busduct in Malaysia

Application of busduct is getting popular in Malaysia. Copper and aluminium busducts are being used to replace cable installation for various applications due to issues on quality of cable termination and jointing and the neat installation of busduct. In Malaysia, IEC standards are commonly used by M&E Consultants as the technical reference when they are "specifying" the technical requirements of the busduct installation. The speaker will share some of his view and experience on the market trends and requirements of busduct as a practicing M&E consultant in various types of project and industry with project from various scale.

Benefits of UL Type Testing and Certification Services.

- Demonstrates Compliance / Verification to applicable safety standard as required by Engineering consultants / specifiers and end users.
- UL Type Test Certificates (UL Type Examination Certificate – TEC), Test Reports and UL mark certification are well accepted by stakeholders including regulatory organizations, Manufacturers, Specifiers and have International Recognition.
- Helps in Risk and Plant Safety Management for specifiers and Installers.
- Type test Flexibility: Specific type tests can be added or updated depending on the needs of the specifier / engineering consultant / end user or based on application if additional tests are required later or in case of standards revision in case of UL Selected type test programs after UL's engineering review.

UL mark certification programs to IEC and UL standards consider unique product safety due diligence approach through

- Detailed product construction review / documenting product construction, ratings, marking and critical components.
- Follow-up verification of products at manufacturer's facility through un-announced inspections for construction compliance to the ones originally evaluated.
- Mitigation of risk of counterfeits.
- On-line traceability and verification of certification at www.ul.com.

This workshop will provide you with the first hand, real time, industry critical information. It not only covers IEC and UL standards but also address specific topics intended to help you create and/or install safe products, increase efficiency and provide a faster time to market.

Who Should Attend

- Government Building/Electrical Officials and Policy Makers
- Engineering Consultants and Practitioners
- Busways and Switchgear Assembly manufacturers planning for ASEAN and Global Market Access
- Electrical Competent Persons
- Operations and maintenance personnel

Scope

- IEC 61439-6 lays down the definitions and states the service conditions, construction requirements, technical characteristics and verification requirements for low voltage Busbar Trunking System (BTS)
- BTS intended for use in connection with the generation, transmission, distribution and conversion of electric energy, and for the control of electric energy consuming equipment. IEC 61439-6 applies to all BTS whether they are designed, manufactured and verified on a one-off basis or fully standardized and manufactured in quantity.

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.

SPEAKER'S PROFILE

Mr. S. Chandrakumar (CK) has over 26 years of experience in Product Testing and Certification to National and International standards and is a Distinguished Member of Technical staff – William Henry Merrill society. His current responsibilities include:

- Asia Regional Lead for Global Market Access Programs
- Product Safety Investigations and review based on National / International standards including: IEC 61439 and IEC 60947 series – Low Voltage Switchgear and Control-gear assemblies / Equipment

CK is a certified UL University instructor and has delivered technical presentations on Product certification at various technical forums in Countries including Asia, Europe and USA and is an UL Mark of Excellence award winner. He was responsible for establishing UL's Short Circuit, Power and Controls Test laboratory in India. Prior to his joining UL in 2000, CK worked for over 9 years at the 50kA Short Circuit Laboratory, Central Power Research Institute CPRI, Bangalore as Engineering Officer.

CK graduated from University Visvesvaraya College of Engineering, Bangalore, India in 1996 with a Bachelor of Engineering Degree in Electronics.

Ir. Chong Chew Fan is a Practising Electrical Engineer attached to a M&E consulting firm with more than 15 years of experience. He graduated with a degree in Electrical and Electronic Engineering from Universiti Kebangsaan Malaysia (UKM). He is a Professional Engineer with Practising Certificate (PEPC) registered with Board of Engineers Malaysia (BEM) and Registered Electrical Energy Manager (REEM) with Energy Commission Malaysia. Ir. Chong is involved in design, contract administration, project management and consultancy works for Infrastructure and Building Works including green building and sustainable designs, township development, mixed development, office and commercial building, water and wastewater treatment plants, roads and railways projects. Ir. Chong is active members in standard development and a strong supporter of green and sustainable initiatives.

Ir. Siti Nor binti Hassan completed her Bachelor degree in Electrical Engineering in 1992 and graduate with Master of Electrical Engineering in 2012. Ir. Siti has more 20 years of working experience, and started her career with JKR as electrical engineer. Ir. Siti is currently Head of Electrical Engineering, JKR HQ, KL. She is responsible in planning and managing quality of electrical design.

tentative Programme	
Time	Description
8.30am – 9.00am	Registration and welcome reception
9.00 am – 9.05am	Welcome address by UL
9.05 am – 9.10am	Introduction speech by IEM
9.10am – 9.40am	Market trends and requirement of busduct (EITA director, Mr. Lee Peng Sian)
9.40am – 10.40am	<p>UL Speaker (Mr. S. Chandrakumar)</p> <p>Overview of IEC standard for Low-voltage switchgear and Control-gear assemblies IEC 61439 Standards series</p> <p>IEC 61439-1: General rules</p> <p>IEC 61439-6: Busbar trunking systems (Busways)</p> <ul style="list-style-type: none"> • Overview of construction requirements • Overview of performance and test requirements (Key Tests) • Lab testing facilities in Malaysia, UAE, China, Australia, Germany and India • Tender requirement from Middle East Utilities • Comparison of test requirements in Middle East with other countries
10.40 – 11.10am	Tea Break
11.10am – 11.30am	Introduction to testing capabilities and facilities for IEC 61439-6 at SIRIM
11.30am – 12.15pm	<p>UL Speaker (Mr. S. Chandrakumar)</p> <p>Overview and value proposition of different UL testing and certification programs for IEC61439-6</p> <ul style="list-style-type: none"> • UL full type test certificate • UL selected type test certificate • UL classification mark certification for busways in accordance with IEC standards • Follow-up Service (FUS) random sample, pre-shipment inspection through request from manufacturer. • Examples of TEC and UL Classification Mark Report. <p><u>SPEAKERS' PROFILE</u></p> <p>Validation of test certificate, issues with counterfeit certificates and mitigation</p> <p>Key Highlights of Type Test Certificate and UL Classification Mark</p> <ul style="list-style-type: none"> • UL product IQ access for certificate validation (CCN: CWTN) • Case study
12.15pm – 1.15pm	Lunch
1.15pm – 1.45pm	Design specification and Requirement of busduct from consultant perspective in Malaysia (M&E Consultant, Ir. Chong Chew Fan)
1.45pm – 2.15pm	Introduction, approval procedure and requirement for JKR Electrical Material Approval List (EMAL) Case study, current trends and future plans for JKR (Ir. Siti Nor binti Hassan)
2.15pm – 2.45pm	Panel discussion
2.45pm – 3.00pm	Q&A / Feedback form
3.00pm	End of seminar