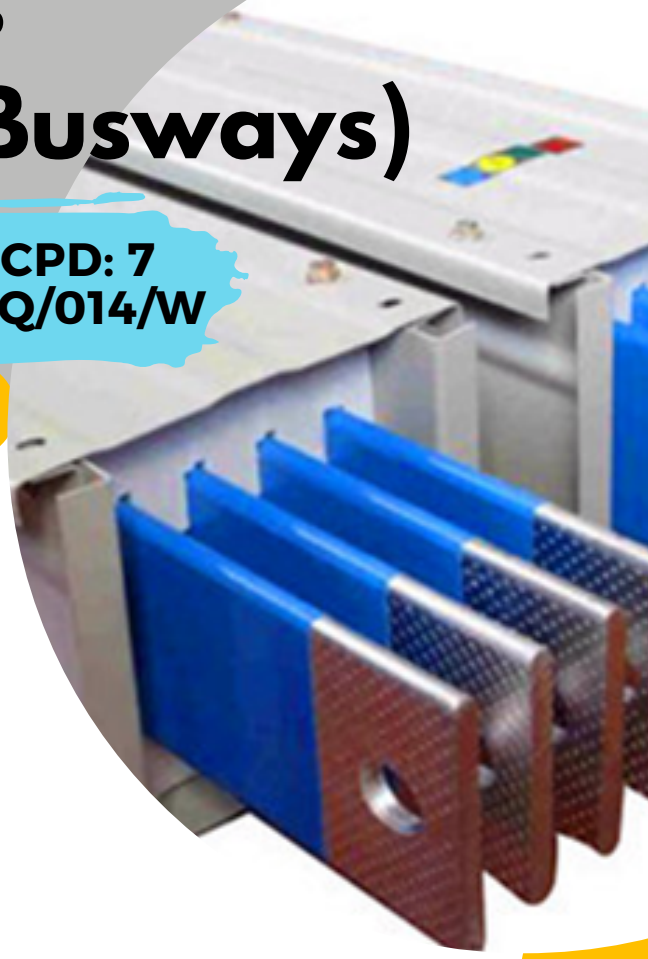
Organised by Electrical Engineering Technical Division in Collaboratiobn with UL Services (Malaysia) Sdn Bhd

One Day Workshop on

Global Market Access Through Testing and Certification for Bus Trunking Systems (Busways)

BEM Approved CPD: 7
Ref. No.:IEM23/HQ/014/W



1st MARCH 2023

9AM - 5.30PM

MALAKOFF AUDITORIUM,
WISMA IEM, PETALING JAYA

SPEAKER:

MR. S. CHANDRAKUMAR (CK)

Organised by Electrical Engineering Technical Division in Collaboratiobn with UL Services (Malaysia) Sdn Bhd

SYNOPSIS

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 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)

UL Standard for Safety for Busways (UL 857)

In North America, UL 857 / NMX-J-148-ANCE / CSA C22.2 No. 27 is the harmonized tri-national Safety Standard for Busways with NMX-J-148-ANCE (3rd edition) for Mexico, CSA C22.2 No. 27 (6th edition) for Canada, UL 857 (13th edition) for USA. The first edition of UL 857 was published in 1948. The requirements have been developed to ensure compliance with the National Electrical Code (NEC), NFPA 70. Application within the NEC includes installations in accordance with Article 368 (2017 Edition) and use in Service Entrance applications (NEC Article 230). UL 857 was harmonized with the Canadian Standards Association (CSA) and the Association of Standardization and Certification (ANCE) in 2001 to ensure compliance with the Canadian Electrical Code (CE Code – CSA C22.1). UL 857 is the American National Standard for Busways as accredited by the American National Standards Institute (ANSI).

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, 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
- Engineering Competent Person

SPEAKER'S PROFILE

Mr. S. Chandrakumar (CK) has over 29 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 - EIA, UL Solutions**
- **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.

Time	Description
8.45am - 9.00am	Registration
9.00am - 9.15am	Welcome Address and Introduction to IEC and UL Standard for Busways
9.15am - 11.00am	IEC 61439 Standard Series IEC 61439-1: General Rules IEC 61439-6: Bus-bar Trucking Systems (Busways) • Busways: Overview of Construction requirements • Busways: Overview of Performance and test requirements • Establishing a Test plan
11.00am - 11.20am	Tea Break
11.20am - 1.00pm	IEC 61439-6: Busways: Testing and Certification Introduction to North American market access and UL Standard for Busways Overview of UL/CSA/ANCE standard for Busways – UL 857/CSA C22.2 No. 27, NMX-J-148-ANCE UL Certification Program for "Busways and Associated Fittings" (CWFT), and "Busways and Associated Fittings Certified for Canada" (CWFT7)
1.00pm - 2.00pm	Lunch
2.00pm - 4.00pm	Overview and Value Proposition of different UL Testing and Certification programs for IEC 61439-6: • UL Full Type Test Certificate | UL Selected Type Test Certificate | UL Test Report • UL Classification Mark Certification for Busways in accordance with IEC standards (CWTN) • IECEE CB testing and certification Validation of Test Certificates, issues with counterfeit certificates and mitigation Key Highlights of Type Test Certificate and Test Report UL Verified Mark Certification
4.00pm - 4.20pm	Tea break
4.20pm - 5.00pm	Brief comparison of UL and IEC standards and UL's Global Market Access services for Busways covering major markets including Europe, Asia, Middle east and North America
5.00pm - 5.30pm	Question & Answer

Registration Fees
IEM Members : RM100.00
IEM Non-Members: RM150.00
www.myiem.org.my