

# One Day Workshop on

# Global Market Access For Industrial Control Panels & Electrical Machinery Through Testing And Certification

BEM Approved CPD: 7  
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**2nd MARCH 2023**



**9AM - 5.30PM**



**MALAKOFF AUDITORIUM, WISMA  
IEM, PETALING JAYA**

## **SPEAKER:**



**MR. S. CHANDRAKUMAR  
(CK)**

# SYNOPSIS

Manufacturers of Industrial Control Panels (ICP) and Electrical machinery will need to demonstrate product safety compliance and Many countries have mandatory Safety regulations that must be complied to ensure market access. We will discuss the high level requirements of two key regions viz. North America and Europe in this seminar .

**I. North America :** The following will be covered:

Overview of Safety Regulations and Standards for Control Panels and electrical machinery for North America market access

Overview of UL Safety Standards :

UL 2011 – UL standard for Safety for Factory Automation Equipment - This Standard covers production equipment for attended or unattended assembly of products or subassemblies. The production equipment covered by this standard is designed to be programmed for a specific manufacturing application such as the assembly of components, packaging, sorting, or counting of parts, or hole punching or cutting. UL2011 is based on NFPA79- Electrical Standard for Industrial Machinery.

UL 508A : UL Standards for Safety for Industrial Control Panel – This standard covers requirements for a control panel which can be used independently or forming part of overall factory automation equipment.

**II. European Union :** Manufacturers of Industrial Control Panels (ICP) and electrical machinery intended for European union must comply with applicable EU Directives and requires CE Marking. The following will be discussed during the seminar :

Overview of Safety regulations and Standards for Control panels and Electrical machinery , CE marking requirements for European union.

Key steps involved in CE marking

Testing and evaluation to EN harmonized standards,

EU directives,

IEC/EN 60204-1 : Safety of machinery –Electrical equipment of machines,

UL Testing and Certification programs for EU market access will be discussed.

**Benefits of UL Type Testing, Certification and CE marking advisory 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](http://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

## 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.

# PROGRAMME

Time	Description
8.45am - 9.00am	Registration
9.00am - 9.15am	Welcome Address and Introduction to IEC and UL Standard for Industrial Control Panels
9.15am - 11.00am	<ul style="list-style-type: none"> <li>• Overview of Safety Regulations and Standards for Control Panels and electrical machinery for North America market access</li> <li>• Overview of UL 2011 - UL standard for Safety for Factory Automation Equipment</li> <li>• Overview of UL 508A - UL standard for Safety for Industrial Control Panel</li> </ul>
11.00am - 11.15am	Tea Break
11.15am - 1.00pm	UL testing and certification programs for North American market Access
1.00pm - 2.00pm	Lunch
2.00pm - 4.00pm	<p>Overview of Safety regulations and Standards for Control panels and Electrical machinery for European union.</p> <ul style="list-style-type: none"> <li>• IEC/EN 60204-1 : Safety of machinery –Electrical equipment of machines</li> <li>• Testing and evaluation to EN harmonized standards and Steps involved for CE marking process</li> <li>• UL Testing and Certification programs for EU market access</li> </ul>
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 Machinery 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: RM 150.00

[www.myiem.org.my](http://www.myiem.org.my)