

ASSOCIATION OF
CONSULTING ENGINEERS
SINGAPORE

IES-ACES QEC Distinguished Seminar - Fire Rated Cable Standard Updates and Electrical Safety

**27 October 2023 (Friday)
6.00pm to 10.00pm**

Venue:

**NUSS Guild House @ Suntec
Function Room
3 Temasek Boulevard (Tower 5)
#02- 401/402 Suntec City Mall
Singapore 038983**

***3 STU (M&E) - Confirmed
3 PDUs (PE) - TBC***

TO REGISTER:

**[https://form.jotform.com/
232311541039445](https://form.jotform.com/232311541039445)**



Registration Fees:

M&E RE/RTO: \$80 nett

IES/ACES Members: \$80 nett

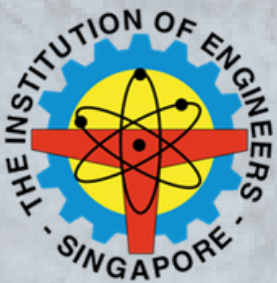
Others: \$115 nett

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For Enquiries, Please Email to: me.rerto@ies.org.sg or Call 6461 1242



PROGRAM AGENDA

27 October 2023

(Friday)



6.00pm
Registration

6.30pm
Buffet Dinner cum Registration

7.00pm to 7.15pm
Welcome Speech by Er. Simon Lee
IES/ACES QEC Chairman

7.15pm to 8.00pm
Speaker 1: Er. Lee Wai Meng

Topic: Case Study of Catastrophic Failure of Dry Type Transformer in Singapore

8.00pm to 8.45pm
Speaker 2: Mr Orlando Bacordio Jr.

Topic: Difference between BS6387 and New Singapore Standard SS 299:2022 and Its Impact on Industries

8.45pm to 9.30pm
Speaker 3: Mr Ong Peck Seng

Topic: Electrical Safety from mA to kA, Presentation cum Demonstration of Arc Characteristics and Arc Fault Protection

9.30pm to 9.45pm
Q&A with Speakers

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Er. Lee Wai Meng
ON Engineers Pte Ltd
Managing Director

Case Study of Catastrophic Failure of Dry Type Transformer in Singapore

Er. Lee Wai Meng has extensive knowledge and experience in the practice of electrical engineering accumulated over more than thirty years. He is an alumni of National University of Singapore (NUS), an ASEAN Chartered Engineer and one of the few 400kV Authorised High-Voltage Switching Engineer (AHVSE) by Energy Market Authority (EMA) and presently On Engineers' Managing director. Wai Meng has published and presented technical papers on various areas of electrical engineering, especially in the area of effective condition monitoring and fault detection.

Synopsis

A catastrophic failure on New, dry type transformer after first time energization In Singapore. Integration of Partial Discharge (PD) measurement to be part of Site Acceptance Test (SAT) in Singapore. Onsite PD Measurement during Applied Voltage (AV) or Induced Voltage (IV) withstand test.



Mr Orlando Bacordio Jr. Tai Sin Electric Limited Technical Engineer

Difference between BS6387 and New Singapore Standard SS 299:2022 and Its Impact on Industries

With over a decade of expertise in the cable manufacturing industry, Mr Orlando Bacordio Jr. currently holds the role of Technical Engineer at Tai Sin Electric Limited, a renowned cable manufacturing company based in Singapore. In his current capacity, Orlando's responsibilities encompass the design of Low Voltage (LV) power cables, control cables, and instrumentation cables, all meticulously crafted to adhere to both local and international standards. Orlando's solid foundation in electrical engineering is exemplified by his Bachelor of Science degree in Electrical Engineering, conferred by the esteemed University of San Carlos in the Philippines. Before joining the ranks of Tai Sin Electric Limited, Orlando embarked on a significant chapter of his career with Riyadh Cables Group, Saudi Arabia. This experience enriched his professional repertoire, enabling him to garner insights into the global cable manufacturing landscape and further honing his technical acumen. His current role at Tai Sin Electric Limited is marked by his adeptness in designing LV power cables, control cables, and instrumentation cables that align seamlessly with rigorous local and international standards.

Synopsis

In this seminar, we will discuss the new performance requirements for electrical cables to maintain circuit integrity under fire conditions. The new standard specifies the construction and performance on mechanical and electrical requirements. It describes the methods of test relating to circuitry integrity, for armored and non armored fire resistant power and control cables of rated voltages up to and including 600/1000V having low emission of smoke and corrosive gases when affected by fire. We will also discuss what this standard means to the developers, contractors and users of the building and construction industry.

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Mr Ong Peck Seng
Ex. ABB, AVP Marketing,
Low Voltage Products Division

Electrical Safety from mA to kA, Presentation cum
Demonstration of Arc Characteristics and Arc Fault
Protection

Mr Ong Peck Seng obtained a Diploma in Electrical Engineering (1981), Advance Diploma in Power Electronic (1989), Special Diploma in Energy Efficiency Study (2011).

Mr Ong has 50 years working experience in the Electrical Industry, specialised in Motor Control, VSD, Harmonics, EMC and LV Power Distribution

Synopsis

Electric Power Systems are designed to provide safe and continuity of services, earth protection is one of the key protections looking into the safety of human life, safeguard of our property as well as improve the continuity of services of power supply.

Beginning of this sharing session, we will briefly recap on the basic of earth protection, differentiation of "Life" protection and the "Property" protection, typically prevention of Fire caused by leakage.

Follow by sharing the concept of latest technology and products available to improve the safety and reliability, typically the Arc Characteristics and high fault current caused by Arc Flash Over.