

Talk on “Power Quality and EMI/Harmonic Interference”

Organised by:

Consulting Engineers Special Interest Group



14th July 2022 (Thursday)



5.30pm to 7.30pm



**Malakoff Auditorium,
Ground Floor Wisma IEM,
PJ.**

**BEM Approved CPD/PDP Hours: 1
Ref No IEM22/HQ/216/T**

REGISTRATION FEES

IEM Students: FOC

IEM Members: RM15 (Online) / RM20 (Offline)

Non-IEM Members: RM70

Presenter 1: Mr Stefano Bertone

Stefano Bertone, Electronic Engineering, graduated from University POLITECNICO of Turin (ITALY) in 1994. He started to work in 1995 in the company PMM (Italian manufacturer of EMC instruments and Competent Body for the EMC directive). In PMM was for three years manager of the EMC laboratories and also part of the Italian committee for the EMC standards (77A and 77B). After this became pre and post-sale support manager, in charge to manage also all the training and the EMC course for the customers.

In the 1999 joined the FINMOTOR group as Manager of the EMC laboratory FINLAB.

In the 2003 joined FINMOTOR as technical manager for the products, in charge to develop new products like RFI filters, Passive and active Harmonic filters, high frequency reactors, MRI filters; support the sales network with training and courses, follow the international standards as for example the UL approval of the products.

Part of the job was also to prepare many EMC seminars for the customers in different area of Italy.

In the 2007 started to develop the international market with the brand ENERDOOR, including the startup of the subsidiaries in Switzerland, Germany and USA.

For this activity prepared several seminars in these countries for the sales network and for the customers relating to EMC, Harmonics and power quality.



Biodata

Ir. Dr. Ng Kok Chiang is a Professional Engineer with Practising Certificate (Electrical) registered with the Board of Engineers Malaysia since 2011, a Corporate Member (Electrical) of The Institution of Engineers Malaysia since 2011. He is also a Chartered Engineer registered with the Engineering Council of United Kingdom since 2014, and a Chartered Engineer with The Institution of Engineering and Technology, United Kingdom since 2014. Since 2012, he also has been a Professional Member of the Malaysia Green Building Confederation (now known as the Malaysia Green Building Council) and registered as a Green Building Index Facilitator with the Green Building Index Accreditation Panel of Malaysia. From 2017 to 2018, he was the Chairman of the Consulting Engineers Special Interest Group in the Institution of Engineers, Malaysia and the Honorary Auditor of the Institution of Engineering and Technology United Kingdom from 2016 to 2018.

He is also an Industrial Advisory Board Member of the Heriot Watt University, Malaysia Campus, and the University of Nottingham, Malaysia Campus as well as the Assistant Honorary Secretary of the Electrical and Electronics Association of Malaysia for the term of 2019 to 2021. From 2017 to 2018, he was the Chairman of the Consulting Engineers Special Interest Group in the Institution of Engineers, Malaysia and the Honorary Auditor of the Institution of Engineering and Technology United Kingdom from 2016 to 2018.

Moderator:

Ir. DR. NG KOK CHIANG



Presenter 2: Mr Edmund Wan

Edmund Wan holds the position of General Manager with Electrimec Asia Pacific Pte Ltd. He graduated from the Management Institute of Singapore with a Diploma in Sales and Marketing and a graduate Diploma in Engineering from the Singapore Polytechnic.

Edmund Wan has accumulated more than 25 years of experience in theoretical and practical applications in the electrical industry. He has worked with companies like Telemecanique (Schneider) and Fuji Electric in the motor control and automation industry since 1993. He is involved in Power Quality Solution, Power Factor Correction and Capacitors industry for the past nine years and has gained in depth knowledge in EMC Interference, capacitor design and applications.

Beside Singapore and Malaysia, Edmund is responsible for the export sales to Indonesia, Philippines, Myanmar, Bangladesh and Pakistan.



SYNOPSIS 1

The purpose of this course is to describe the EMC problematic normally found in the automation, with reference to harmonic emission, RFI emission, motor protection, surge protection.

The course will include the description of the international standards, the different solution for solving EMC problems with several examples of practical applications.

Agenda

Part 1 – Harmonics - What is harmonics

- a. Effects of harmonics on power quality
- b. Standards, Possible solutions, Passive filters & Active filters

Part 2 – **EMC** Source of disturbance

- a. EMC Regulations / Standards
- b. RFI filters application
- c. EMC applications in cabinets
- d. Effect on motors life / Output filters / Sinus filters

SYNOPSIS 2

The purpose of this course is to introduce the Power Quality Solutions available and describe the effects of harmful harmonic interference affecting capacitor banks and new capacitor design with built-in temperature protection.

Agenda

Part 1 – Capacitors – Design Technology

- a. Capacitors protections (built in)
- b. Effects of Harmonics in capacitor banks
- c. Smart Compensation (SVCB)

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