



HALF DAY COURSE ON “HARMONIC DISTORTION OF DRIVES, ISSUE AND SOLUTION”

**SPEAKER:
Mr. Martin Elvhage**

Date : 26th September 2023 (Tuesday)
Venue : Auditorium Tan Sri Prof. Chin Fung Kee Auditorium
3rd Floor, Wisma IEM, P.Jaya, Selangor
Time : 9.00 a.m. – 1.30 p.m.

**BEM Approved CPD/PDP Hours: 4
Ref. No.: IEM23/HQ/343/C**

Closing Date: 18TH SEPTEMBER 2023

NO online registration will be allowed after the Closing Date

**Organized by:
Building Services Technical Division (BSTD),
The Institution of Engineers, Malaysia (IEM)**

Cancellation Policy

No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with 7 days prior notification and substitute will be charged according to membership status.

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.

**“IEM reserves the right to alter or cancel the programme due to unforeseen circumstances at its discretion’.
For intending participants who choose to ‘walk in without prior registration’,
IEM SHALL NOT be responsible for any direct or consequential losses”.**

SPEAKER



Mr. Martin Elvhage is the Business Development Manager and shareholder of the company Revcon. He received his Bachelor of Engineering: Mechatronic Systems and Electrical Engineering, FH-SWF-University of Applied Science. (2008-2013). Martin Elvhage has provided several company internal trainings for drive brands such as Danfoss and Mitsubishi in most parts of Europe and some international training. He also produced technical papers and product tests in customer mandate. Martin Elvhage has been working within the drive business for over 16 Years.

SYNOPSIS

Variable Frequency Drives is now a commonly use electronic devices to control speed of motor to achieve the desire speed control for air conditioning comfort in building or process application in factory and plant room.

Harmonic is a by product of modern electronics, it occurs when large numbers of personal computers, uninterruptible power supplies (UPS), variable-frequency drives (VFDs), and other devices using solid-state power-switching supplies to convert (AC) power to (DC) power are present. Harmonics are harmful, energy-wasting currents which flow in the electrical system.

This course provide an overview of harmonic distortion in VFD, the effect of harmonic , problems and issue. It will also cover the IEEE519 standard and the various mitigation technology.

PROGRAMME

Time	Programme
08.30 am – 09.00 am	Registration and Welcome Coffee / Tea
09.00 am – 10.00 am	Harmonic Basic
10.00 am – 10.20 am	<i>Morning Tea Break</i>
10.20 am – 12.10 pm	Harmonic Problems and Issues The IEEE 519 and the Impact of the Short Power Ratio
12.10 pm – 12.45 pm	Harmonic Solution Available Passive Harmonic Filter and Active Filter Technology Hybrid Harmonic Filter
12.45 pm – 13.30 pm	Q & A Session and Discussion End of Course
13.30 pm onwards	<i>Lunch</i>

FOR FURTHER DETAILS, PLEASE CONTACT:

Building Services Technical Division (BSTD)

c/o The Institution of Engineers, Malaysia

Bangunan Ingenieur, Lots 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan)

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REGISTRATION FORM

HALF DAY COURSE ON "HARMONIC DISTORTION OF DRIVES, ISSUE AND SOLUTION"

26TH SEPTEMBER 2023

Closing Date: 18TH SEPTEMBER 2023

Email: shahrul@iem.org.my, amira@iem.org.my

Grade	Registration Fees (RM)	Registration Fees (RM) (via email)
IEM Student Member	RM 80.00	RM 100.00
IEM Graduate Member	RM 150.00	RM 180.00
IEM Corporate Member	RM 250.00	RM 300.00
Non IEM Member	RM 400.00	RM 500.00

No	Name(s)	Membership No.	Grade	Fee (RM)*
SUB TOTAL				
+ 6% SST				
TOTAL PAYABLE				

PAYMENT DETAILS :

Cash RM _____

Cheque No. _____ for the amount of RM _____ (non refundable) and made payable to
"THE INSTITUTION OF ENGINEERS, MALAYSIA" (SHOULD PAYMENT IS MADE, KINDLY EMAIL THE 'BANK-IN-SLIP' TO IEM FOR VERIFICATION BEFORE THE EVENT FOR EASY REGISTRATION)

FULL PAYMENT must be settled before commencement of the seminar, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. The Registration Fee includes lecture notes, refreshment and lunch.

For **ONLINE REGISTRATIONS**, please note that payment **MUST** be made **BEFORE** the closing date. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.

Contact Person: _____ Designation: _____

Name of Organization : _____

Address : _____

Telephone No. : _____ (O) Fax No : _____ (O)

Handphone: _____ (HP) Email: _____

Signature & Stamp _____

Date _____

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
- The Organising 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.