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**REGISTRATION FORM**  
**ONE DAY COURSE ON**

**“ENERGY MANAGEMENT BASED ON MS ISO 50001”**

Date : 6<sup>th</sup> May 2016

Venue : C&S & TUS Lecture Hall , 2<sup>nd</sup> Floor, Wisma IEM, Petaling Jaya

**Closing Date : 3<sup>rd</sup> May 2016**

| No                   | Name(s) | M'ship No. | Grade | Fee (RM)* |
|----------------------|---------|------------|-------|-----------|
|                      |         |            |       |           |
|                      |         |            |       |           |
| <b>SUB TOTAL</b>     |         |            |       |           |
| <b>ADD GST @6%</b>   |         |            |       |           |
| <b>Total Payable</b> |         |            |       |           |

**\*Fees MUST be fully paid BEFORE the CLOSING DATE. Seats could only be confirmed upon payment.**

Enclosed herewith a crossed cheque No: \_\_\_\_\_ for the sum of RM \_\_\_\_\_ issued in favour of **“The Institution of Engineers, Malaysia”** and crossed ‘A/C payee only’. I/We understand that the fee is not refundable if I/We withdraw after my/our application is accepted by the Organising Committee as stated in the **cancellation term**. If I/We fail to attend the seminar, the paid registration fee will not be refunded.

Contact Person: \_\_\_\_\_ Designation: \_\_\_\_\_

Name of Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ (O) \_\_\_\_\_ (Fax)

\_\_\_\_\_ (H) \_\_\_\_\_ (HP)

Email: \_\_\_\_\_

\_\_\_\_\_  
Signature & Stamp

\_\_\_\_\_  
Date

**Photocopies are acceptable**



**The Institution of Engineers, Malaysia**

**ONE DAY COURSE ON**  
**“ENERGY MANAGEMENT BASED ON MS ISO 50001:2011**

Organised by: Electrical Engineering Technical Division, IEM

Date : 6<sup>th</sup> May 2016

Venue : C&S & TUS Lecture Hall, 2<sup>nd</sup> Floor, Wisma IEM, Petaling Jaya

Time : 9.00 a.m. - 5.30 p.m.

BEM Approved CPD/PDP Hours : 7 Ref No: IEM16/HQ/141/C

**REGISTRATION FEE (GST NOT INCLUDED)**

| Registration Fee     | Normal Fee | On-line Fee |
|----------------------|------------|-------------|
| IEM Student Member   | : 180.00   | 150.00      |
| IEM Graduate Member  | : 300.00   | 250.00      |
| IEM Corporate Member | : 450.00   | 400.00      |
| Non IEM Member       | : 1200.00  | 1100.00     |

*Closing Date: 3<sup>rd</sup> May 2016*

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

**CANCELLATION POLICY**

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund if cancellation is received in writing more than 7 days before start date of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with 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.

## SYNOPSIS

Most energy efficiency targets in industries are achieved through changes in how energy is managed in an industrial facility, rather than through installation of new technologies. An energy management standard provides a method for integrating energy efficiency into existing industrial management systems for continuous improvement. Companies which have voluntarily adopted an energy management plan (a central feature of an EM standard) have achieved major energy intensity improvements.

This course will show how to:

- Develop a baseline of energy use
- Actively manage energy use and costs
- Reduce emissions without negative effect on operations
- Continue to improve energy use/product output over time
- Document savings for internal and external use (e.g. emission credits)

It will also include on the methods to develop:

- A strategic plan that requires measurement, management, and documentation for continuous improvement of energy efficiency;
- A cross-divisional management team led by a representative who reports directly to the management and is responsible for overseeing the implementation of the strategic plan;
- Policies and procedures to address all aspects of energy purchase, use, and disposal;
- Projects to demonstrate continuous improvement in energy efficiency;
- The creation of an energy manual, a living document that evolves over time as additional energy saving projects and policies are undertaken and documented;
- Identification of key performance indicators, unique to the company, that are tracked to measure progress;
- Periodic reporting of progress to the management based on these measurements

**Ir. FRANCIS XAVIER JACOB**, was until recently, a Senior Analyst with the Energy Commission, Malaysia. He was previously the Director of Energy Management and Industrial Development in the Energy Commission, Malaysia. He had been with the Commission and the then Department of Electricity and Gas Supply since 1991. The Commission, among others, regulates the electricity and piped gas industries in Malaysia. Prior to this, he was with the Public Works Department Malaysia, where he was involved with the design and project management of public electrical installations. He was also, for some time, involved with the maintenance aspects of these installations. He is the Chairman of the Technical Committee on the Standards for Energy Management and also sits in various standards working committees.

Francis Xavier Jacob graduated in 1977 with a Bachelors of Engineering degree from the University of Malaya and also holds a Masters degree in Environment. He is a Professional Engineer and is a member of the Institution of Engineers Malaysia.

**Ir. TEJINDER SINGH** is a consultant to a supplier of services to a large energy company. He has worked in many industries, from steel manufacturing to semiconductor industry, from energy contracting to electrical consulting, from telecommunications to academia and ICT. He was involved in the design and installation of the electrical and ICT networks for many clients. He is also one of the few experts in both the electrical and cyber security domains. He is a certified National EnMS Expert by United Nations Industrial Development Organization (UNIDO), a Lead Auditor for ISO 27001, a Six Sigma Black Belt, a HRDF Certified Trainer, a GBI facilitator and a Certified Information Systems Security Professional (CISSP).

Tejinder Singh graduated in 1994 with a Bachelors of Science in Electrical and Computer Engineering from Tri-State University, Angola, Indiana, USA and also holds a Masters degree in Embedded Systems Design from University of Lugano, Switzerland. He is a Professional Engineer with Practicing Certificate and is a member of the Institution of Engineers Malaysia.

## PROGRAMME

| TIME     | TOPIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9.00 am  | Program introduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 9.15 am  | Overview of MS ISO 50001 <ul style="list-style-type: none"> <li>• Background &amp; Introduction</li> <li>• Scope &amp; Definitions</li> <li>• Energy Management System Requirements</li> <li>• Implementation and Operation</li> <li>• Why isn't industry more energy efficient</li> <li>• Overall Goal</li> <li>• Barriers to Improve EE</li> </ul>                                                                                                                                                                                                                                       |
| 10.15 am | Coffee break                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 10.30 am | Top Management Responsibility <ul style="list-style-type: none"> <li>• Management Role – Foundation of the System</li> <li>• Foundation of Management Commitment</li> <li>• How does Top Management Demonstration Commitment</li> <li>• Energy Management Policy Basics and Document</li> <li>• Energy Management Planning – Legal and other Requirements</li> <li>• Scope and Boundaries</li> <li>• Reporting</li> <li>• Energy Management Team</li> <li>• Roles, Responsibilities and Authority</li> <li>• Common Barriers &amp; Typical Pitfalls</li> <li>• Tips for Success</li> </ul> |
| 11.45 am | Taking the first step to reduce energy costs: <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Implementation and Operational Controls</li> <li>• Performance Checking</li> <li>• Management Review</li> </ul>                                                                                                                                                                                                                                                                                                                                                             |
| 1.00 pm  | Lunch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2.00 pm  | Energy Performance Indicators, Baselines and Regression Analysis <ul style="list-style-type: none"> <li>• Energy Metrics</li> <li>• Examples of Energy Performance Indicators</li> <li>• Levels of Complexity</li> <li>• Other Indicators</li> <li>• Relation between Energy and Driving Factors</li> <li>• Performance Checking with EnPIs</li> <li>• What are Energy Baselines</li> <li>• Targets and Baselines</li> <li>• Documents and Records</li> </ul>                                                                                                                              |
| 3.30 pm  | Tea break                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 3.45 pm  | Industrial Energy Efficiency <ul style="list-style-type: none"> <li>• Concept , Methods and approaches</li> <li>• Industrial EE Polices and Program</li> <li>• Energy Audits</li> <li>• Energy Conservation Planning</li> <li>• Energy Efficiency Evaluation and Energy Balance Test</li> <li>• Measuring and monitoring equipments.</li> <li>• Energy intensity or consumptions benchmarking/baseline</li> <li>• Verification of results from energy saving measures</li> </ul>                                                                                                           |
| 5.15 pm  | Wrap Up                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5.30 pm  | End of Program                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |