

**TALK ON "OPTICAL SENSING IN POWER TRANSFORMER MONITORING"**

Organised by the Engineering Education Technical Division, IEM in collaboration with  
Engineers Australia Malaysia Chapter (EAMC), and Institute of Mechanical Engineers Malaysia Branch (IMechE)  
**BEM Approved CPD/PDP: 2 Ref: IEM19/HQ/082/T**

Date : **11 April 2019 (Thursday)**  
Time : **5.30 p.m. – 7.30 p.m.**  
Venue : **Auditorium Tan Sri Prof. Chin Fung Kee,  
Third Floor, Wisma IEM, Petaling Jaya, Selangor**  
Speaker : **Dr. Ker Pin Jern**

**SYNOPSIS**

The applications of optical detection techniques in energy-related industries will be discussed. The main focus will be on the utilization of optical sensing in the monitoring of power transformers. The talk will discuss on the optical characteristics of transformer insulating oil for different oil contents, such as dissolved gases, inhibitor content and furan content. Aiming at carrying out power transformers maintenance using a faster and more affordable method, the design of portable optical sensing devices for transformer insulating oil monitoring will also be presented.

**SPEAKER BIODATA**



**Dr. Ker Pin Jern** is a senior lecturer in the College of Engineering, Universiti Tenaga Nasional (UNITEN), Malaysia. He is also the Head of Unit (Electronics & IT) in the Institute of Power Engineering (IPE), a research institute of UNITEN. His research interests include the characterization of optical sensors, development of optical sensing and intelligent control system for applications in energy industries. He has been

associated with technical education for more than five years and he is currently supervising / co-supervising >10 postgraduate students. He is a project leader and a member of various government and industrial research projects related to the characterization of infrared sensors, optical characterization of transformer insulating oil, power cable monitoring and development of intelligent control system using optical sensing. Under the UNITEN R&D Sdn. Bhd., he is also a research consultant who provides customized solutions for many problems associated with the energy industries. He has published more than 30 technical papers in international journals, conferences and magazines. He is a Member of Institute of Electrical and Electronics Engineers (IEEE), USA, The Institution of Engineering & Technology (IET), UK, and a member of the Institution of Engineers Malaysia (IEM).

**Ir. Assoc. Prof. Dr. Mohamed Thariq Bin Haji Hameed Sultan**  
**Chairman**  
**Engineering Education Technical Division**  
**Session 2018 / 2019**

**ANNOUNCEMENT TO NOTE**

**FEES**

**(Effective 1<sup>st</sup> October 2017)**

**Members**

Registration Fee :	FOC
Administrative Fee :	
<b><u>Online</u></b>	RM15
<b><u>Walk In</u></b>	RM20

**Non-Members**

Registration Fee :	RM50
Administrative Fee :	RM20

- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- **To secure your seat, kindly register online at [www.myiem.org.my](http://www.myiem.org.my)**

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