

# THE INSTITUTION OF ENGINEERS, MALAYSIA

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# TALK ON "RAILWAY POWER SUPPLY AND DISTRIBUTION (PS&D) SYSTEMS"

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 hours** 

Ref: IEM18/HQ/027/T

Date	:	03 MAY 2018 (Thursday)
Time	:	5.30 p.m. – 7.30 p.m.
Venue	:	C&S and TUS Lecturer Room, 2 <sup>nd</sup> Floor, Wisma IEM, Petaling Jaya, Selangor
Speaker	:	Ir. DR. LING CHEN HOE

## **SYNOPSIS**

Railway engineering is a multi-faceted engineering discipline dealing with the design, construction and operation of all types of railway systems. It encompasses a wide range of engineering disciplines and subdisciplines. Urban rail transit is an all-encompassing term for various types of rail systems providing passenger service within and around urban or suburban areas. Rapid transit, underground, subway, tube, elevated, metro or Mass Rapid Transit (MRT) system is a railway-usually in an urban area-with high passenger capacities and frequency of service, and usually full grade separation from other traffic including other rail traffic. It is often known as "heavy rail" to distinguish it from light rail and bus rapid transit. A light rail system is a rail-based transit system that has higher capacity and speed than a tram, usually by operation in an exclusive right-of-way separated from automobile traffic. Light rail also generally operates with multiple unit trains emerging as an evolution of trams/streetcars. Light rail systems can vary significantly in terms of speed and capacity. A monorail is a railway in which the track consists of a single rail, as opposed to the traditional track with two parallel rails. Rail transport generally comprises heavy rail (including commuter rail), light rapid transit (LRT), monorail and airport rail link. Heavy rail is mostly used for intercity passenger and freight transport as well as some urban public transport, while LRT's are used for intra-city urban public transport. High-speed rail (HSR) is a type of rail transport that operates significantly faster than traditional rail traffic, using an integrated system of specialized rolling stock and dedicated tracks. While there is no single standard that applies worldwide, new lines in excess of 250 kilometres per hour are considered to be high-speed. The first such system began operations in Japan in 1964 and was widely known as the Bullet Train. Many countries have developed high-speed rail to connect major cities, including Austria, Belgium, China, France, Germany, Italy, Japan, Poland, Portugal, Russia, South Korea, Spain, Sweden, Taiwan, Turkey, United Kingdom, United States and Uzbekistan. In Europe, the HSR cross international borders. China has 22,000 kilometres of HSR as of end December 2016, accounting for two-thirds of the world's total. This technical talk will focus on the configurations of the PS&D of a railway system with the technical expertise and worldwide project experiences of an established Japanese equipment manufacturer and system integrator (Meidensha Corporation) shared for this talk.

### **SPEAKER BIODATA**

Ir. Dr. LING Chen Hoe has been working with Meiden Malaysia, a company in the electrical engineering and construction industry in Malaysia since 1990. The company is a subsidiary of Meidensha Corporation, Japan (http://www.meidensha.com/) a manufacturer of electrical equipment and provider of electrical engineering products and services to both the private and public sectors in Malaysia. He is currently the Senior General Manager and Director of the company, with roles for Business Development, Strategic Planning and overseeing of the Engineering and Corporate Departments of the company. Dr Ling obtained his Bachelor's Degree in Electrical



Engineering, RMIT University, Melbourne, Australia in year 1989. He holds a MBA from the University of Lincoln, United Kingdom (2003) and obtained his Doctorate in Business Administration (DBA) in 2015 from SEGi University, Malaysia. He is also a certified Chartered Professional Engineer of Australia, a Competent Engineer (33kV,132kV) & Professional Engineer in Malaysia. Dr Ling also serves part-time in various universities' programs, namely in the engineering faculty and post-graduate business management studies.

Ir. Assoc. Prof. Dr. Mandeep Singh Chairman Engineering Education Technical Division Session 2017 / 2018

## ANNOUNCEMENT TO NOTE

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

### Members

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

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