

ORGANISED BY ELECTRICAL ENGINEERING TECHNICAL DIVISION (EETD)



WEBINAR ON ELECTRICAL INFRASTRUCTURE DESIGN IN DATA CENTRE.

Speaker:
Ir. Maxx Wong Meng Fai



18 SEPTEMBER 2021
11.30AM - 1.30 PM

Registration Fees
Student Members: FOC
IEM Members : RM 15.00
IEM Non Members : RM 70.00
Register online | www.myiem.org.my

SYNOPSIS

Data Centre is much more complicated than a traditional warehouse. When one goes offline, it can cost up to millions of dollars. That's why data centres need sophisticated support systems in place, which refer to as infrastructure. Within the broader umbrella of Infrastructure, we will look specifically at electrical power system. In addition, we will cover the concept of redundancy across the system.

1. Power

Digital world supported by servers, processors, and storages, which requires power to operate. A fraction of interruption can have significant impact on the electronic devices. As such, power infrastructure becomes one of the most critical components in data centre. A power distribution path starts from utility intake substation through switchgear and power transformer, an Uninterruptible Power Supply (UPS), a Power Distribution Unit (PDU) and finally arriving at the rack PDU and server. Data Centres also equipped with on-site generators to power the facilities when there is a service disruption from the utility grid. Each step of the path has its own features and purpose where it needed. In the talk, we will be sharing what each component does and why it is important.

2. Redundancy

As the data center infrastructure is increasingly getting more critical and important, it is not sufficient to only have one system or necessary system component for operations. Data Center users also require additional equipment so that there is no single point of failure (SPOF) in the system, which may cause failure in the infrastructure and servers. This measure is called redundancy. Redundancy applies to most of the aspects of a data center, including power system and cooling system. Different international standards, such as TIA, or Uptime Institute Tier Classification, has been widely adopted in the industry. In the talk, we will be sharing basic concept of Tier System and some of the examples/application.

SPEAKER'S PROFILE

Ir. Maxx Wong Meng Fai has 13 years of experience involving planning, design, construct, testing and commissioning on greenfield and brownfield data centre in different countries across Asia Pacific region. While he is leading in design and construction, schedule planning, cost management and project control in Singapore, he is also providing technical supports / leadership to other Asia countries data center teams. One of his projects in Singapore has been shortlisted as one of the finalists of Multi-Tenant Data Centre Design Award (APAC region) by Data Centre Dynamic in 2019 and also awarded Design Excellence Award by ACES in 2020. Ir. Maxx Wong is a Registered Professional Engineer with Bachelor of Engineering (Honours) degree in Electrical Engineering from Multimedia University in 2008. He is a Corporate Member of Institution of Engineers Malaysia and hold Chartered Professional Engineer registered with Engineers Australia, ASEAN Engineer, APEC Engineer and International PE. He is also Data Centre Accredited Tier Designer (ATD) by Uptime Institute.