IEM
The Institution of Engineers, Malaysia

WEBINAR
2 HALF-DAY COURSE ON
INTRODUCTION TO INTERNET OF THINGS

SPEAKER :
Ir. Dr. HAFIZAL MOHAMAD

Date   : 17th June 2021 (Thursday) & 18th June 2021(Friday)
Time   : 9:00 a.m. – 1:00 p.m.

BEM Approved CPD/PDP Hours: 7.5 Hours
Ref. No : IEM21/HQ/140/C(w)

REGISTRATION FEE : 6% SST EFFECTIVE 01ST MARCH 2019		
	ONLINE (Log-in for registration & payment: www.myiem.org.my/member/login.aspx)	**NORMAL FEE (RM)** (by fax & email) Payment by cash, credit card and bank-in
IEM Student Member	75.00	90.00
IEM Graduate Member	125.00	150.00
IEM Corporate Member	200.00	225.00
Non-IEM Member	480.00	540.00

Organized by:
Seniors Special Interest Group (SSIG), IEM

<u>Cancellation Policy</u>
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.

<u>Personal Data Protection Act</u>
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".

HRDF MALAYSIA
REGISTERED TRAINING PROVIDER

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CLAIMABLE

Ir. Dr. Hafizal Mohamad is the recipient of ASEAN Outstanding Scientist and Technologist Award (AOSTA) 2017 and Top Research Scientist Malaysia (TRSM) by Academy of Sciences Malaysia. Currently, he is a Senior Staff Researcher at Corporate Technology Division, MIMOS Berhad. Hafizal has more than 20 years working experience in the ICT industry and passionate about creating a hyper-connected world. He is the co-inventor of 36 filed patents and nine granted patents in the field of wireless communications. He served as a visiting fellow at NICT, Japan in 2005. He has published over 100 journal and conference papers. He has delivered keynote and expert talks at national and international events. Hafizal is a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), USA and he has served in various leadership roles in the IEEE. Hafizal was has also been appointed as an expert panel for technical committees related to E&E and ICT areas. Hafizal earned BEng (first class) and PhD degrees in electronic engineering from University of Southampton, UK. He is a registered professional engineer with Board of Engineer Malaysia and a certified HRDF trainer.
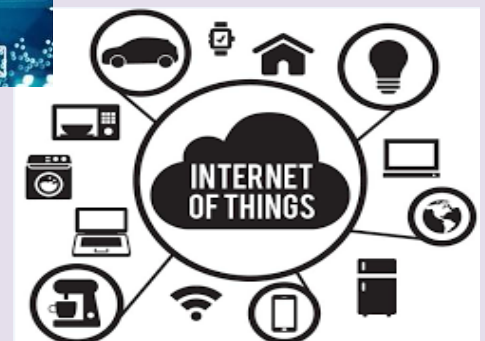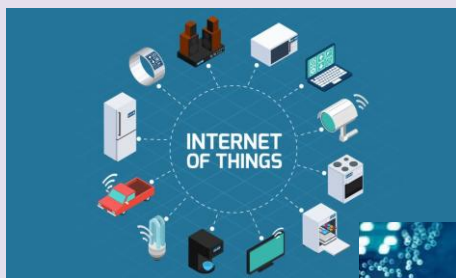
PAST EXPERIENCE/TRAINING PROGRAM

- Internet of Things Specialist Course, 14-16 May 2018, Kuala Lumpur

- Internet of Things Specialist Course, 2-4 July 2018, Kuala Lumpur

- Introduction to IoT, 20 September 2018, Kuala Lumpur

- Introduction to IoT, 24 September 2018, Kuala Lumpur

- Internet of Things Specialist Course, 21-23 November 2018, Kuala Lumpur

- Internet of Things: Digital Upskilling Program, 26-28 November 2018, Kuching

- Internet of Things Specialist Course, 15-17 January 2019, Kuala Lumpur

- Internet of Things Specialist Course, 19-21 March 2019, Kuala Lumpur

- Internet of Things Specialist Course, 24-26 April 2019, Kuala Lumpur

- Internet of Things Specialist Course, 23-25 July 2019, Kuala Lumpur

- IoT Application to Business, 5-6 September 2019, Kuala Lumpur

- Internet of Things Specialist Course, 24-26 September 2019, Kuala Lumpur

- Internet of Things: Digital Upskilling Program, 2-4 October 2019, Kuching

- Internet of Things: Digital Upskilling Program, 9-11 October 2019, Sibu

- IoT Application to Business, 19 October 2019, Ipoh

- Internet of Things: Digital Upskilling Program, 30 October - 1 November 2019, Miri

- Internet of Things Start-up, 5-7 November 2019, Kuala Lumpur

- Internet of Things – Overview and Trends, 19 January 2018

- Internet of Things – Overview and Trends, 3 May 2018

- Internet of Things – Overview and Trends, 13 July 2018

- Internet of Things – Overview and Trends, 9 October 2018

- Internet of Things – Overview and Trends, 7 March 2019

- Internet of Things – Overview and Trends, 1 April 2019

- Internet of Things – Overview and Trends, 20 June 2019

- Internet of Things – Overview and Trends, 2 August 2019

- Internet of Things – Overview and Trends, 16 October 2019

FEEDBACKS FROM PAST PARTICIPANTS

- This course is a must if you want to have knowledge in IOT
- It is very good IoT training for exploring and learning
- One of the best and engaging training providers as well as having experienced and knowledgeable instructors.
- You will learn something new and interesting that is not widely known particularly in Malaysia
- Good and details flow
- Good place to start for IoT
- Try it out as it will provide some valuable information on what's in store in the future
- This course is a good eye opener to all on the IoT offerings
- Good for introductory course to IoT
- An awesome training
- Interesting training
- Join this training for IOT knowledge
- I would definitely recommend to anyone wanting to learn and know more about IOT
- Very highly skill trainer
- Very good knowledge in IoT. Very experience instructors

INTRODUCTION

This course introduces the fundamental concept of Internet of Thing (IoT) and discuss potential impact to various industries by illustrating numerous application examples and use cases. IoT ecosystem consists of sensors, communications network and platforms. The widespread usage of smart phones and smart sensors in the network today has transformed the network into a connected web of smart devices and intelligent services. IoT will become ubiquitous and revolutionize various industry verticals.

LEARNING OUTCOMES

Upon completion of the training, participants should be able to demonstrate the following:
- To understand IoT fundamental, ecosystem, technologies, standards and protocols.
- To introduce the use cases, business application, practical IoT application by connecting smart devices to the Internet.
- To understand the implementation structure of IoT and identify hardware and software components for related to IoT.
- To implement basic IoT applications with sensors (data generation), connectivity (data transfer) and platform (data visualization).

METHODOLOGY

- Instructor led classroom training. It is a combination of lecture, discussions and practical hands-on exercise.
- Practical hands-on session will allow participants to experience real IoT application in the classroom, using sensors to generate data and laptop to visualize the dashboard.

PRE-REQUISITE

Not applicable

SYSTEM REQUIREMENT

Not applicable

TENTATIVE PROGRAMME

17th June 2021	
08:30 – 9:00	**Registration**
09:00 – 10:30	**Module 1: Overview of IoT** • What is IoT? • Motivation and background • Industrial revolution and digital waves • Technology trend and market potential **Module 2: IoT Ecosystem** • IoT fundamental building blocks • Sensors for data collection • Wired and wireless connectivity • Platform to aggregate data
10:30 – 10:45	**Break**
10:45 – 12:30	**Module 3: IoT Application and Use-Cases** • IoT applications • 50 IoT use-cases • Demonstration and hands-on exercise: Tracking International Space Station (ISS)
12:30 – 1:00	**Q&A Session**
18th June 2021	
09:00 – 11:15	**Module 4: Sensor, Network and Platform** • Device evolution and role of sensors • IoT device anatomy • Classification - PAN, LAN and WAN • Low power wide area network: LoRa, Sigfox and NBIoT • IoT platform: device management, application enablement, storage and cloud • Platform architecture and requirement • Functional components of IoT platform • Demonstration and hands-on exercise: Noise, light intensity and proximity sensors
11:15 – 11:30	**Break**
11:30 – 12:30	**Module 5: Protocol and Standardization** • Protocol stack • Messaging protocol • Standard bodies and consortia • IEEE, ETSI, ITU perspective • Demonstration and hands-on exercise: The power to control things (over the Internet)
12:30 – 1:00	**Q&A Session**
1:00	**Adjournment**

* IEM reserves the right to postpone, reschedule, allocate or cancel the course

REGISTRATION FORM

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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**" and crossed '**A/C Payee Only".** **Bank Account No. : 640320010020215,**
Bank Name: Alliance Bank Malaysia Berhad. (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 : _____

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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.

For further details, kindly contact:
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Bangunan Ingenieur, Lots 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan), 46720 Petaling Jaya, Selangor
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