

## ICTSIG Junior Digital Class (November 2017)

*S.T.E.M fun learning Introduction: Prototyping of Arduino application using Microduino #1*

Organised by Information and Communications Technology Special Interest Group, IEM

**SPEAKER BY: IR. AMIR HUSSEIN BIN JAAFAR**

Equipment Sponsored by Micro Concept Tech

Date	Venue	Description	Target Participants
8th Nov 2017 8:30 am to 11:30 am	C&S Room, Wisma IEM, Petaling Jaya, Selangor	Prototyping of Arduino application using Microduino #1 - Explore Microduino basics to build up their familiarity with the Microduino modules, sensors and trinkets and build <b>energy efficient lighting control</b>	1 primary school <b>15 students</b> / programme
8th Nov 2017 1:30 pm to 4:30 pm	C&S Room, Wisma IEM, Petaling Jaya, Selangor		1 primary school <b>15 students</b> / programme
10th Nov 2017 8:30 am to 11:30 am	TUS Room, Wisma IEM, Petaling Jaya, Selangor		1 primary school <b>15 students</b> / programme
10th Nov 2017 1:30 pm to 4:30 pm	TUS Room, Wisma IEM, Petaling Jaya, Selangor		1 primary school <b>15 students</b> / programme
17th Nov 2017 8:30 am to 11:30 am	YES Room, 2 <sup>nd</sup> Floor, Bangunan Ingenieur, Lot 60/62, Jalan 52/4, Peti Surat 223 (Jalan Sultan), Petaling Jaya, Selangor		1 primary school <b>10 students</b> / programme
24th Nov 2017 8:30 am to 11:30 am	YES Room, 2 <sup>nd</sup> Floor, Bangunan Ingenieur, Lot 60/62, Jalan 52/4, Peti Surat 223 (Jalan Sultan), Petaling Jaya, Selangor		1 primary school <b>10 students</b> / programme

### SYNOPSIS

Ministry of Education Malaysia (MOE) and Malaysia Development Economic Corporation Sdn Bhd (MDEC) launched Science Technology Engineering Mathematics or STEM education initiatives to address the reducing number of students interested in Science studies. IEM being the forefront in promoting and advancement of the science and profession of engineering is taking up the challenge to deliver higher quality STEM activities for school students in the area of physical computing, software development and engineering design.

In this Junior Digital Class, students will explore Microduino basics to build up their familiarity with the Microduino mCookie modules, sensors and trinkets. Microduino mCookie is Arduino-compatible open source electronic hardware for makers, designers, engineers, students and curious tinkerers of all ages. Microduino mCookie is powerful, small, LEGO-compatible and also magnetically stackable.

Student will learn the basics of circuitry, **electronic controller, power source, mechanical sensor (switch), light sensor, sound sensor (microphone) and colour LED trinket to construct an energy efficient light prototype**. Students will try different of sensors and trinkets configurations and operation parameters to modify the energy efficient light prototype for different types of real world application.

### BIODATA OF SPEAKER

Ir. Amir Hussein Bin Jaafar graduated from University of Technology Petronas (UTP) with Bachelor Engineering (Electrical and Electronics) and from Universiti Teknologi Malaysia (UTM) with Master of Science (Real Time Software). He is registered as a Professional Engineer (Electronics) status with Board of Engineers Malaysia since 2007. He has more than 16 years of experience in electronics hardware and embedded software development projects, and development and testing of advance powertrain and electronic control system for automotive application. With the industry experience, he has been giving specialized green technology training to TVET trainers and also conducting STEM courses for school students since 2016. He is currently the Head of Design and Development Engineering of Eco Motive Sdn Bhd and Technical Director for Micro Concept Tech Sdn Bhd.

### ANNOUNCEMENTS TO NOTE:

- Free Admission for **all primary student**
- Limited seats are available on a "first come first served" basis. **To secure your seat, kindly register online at [www.myiem.org.my](http://www.myiem.org.my).**

### 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.

**Ir. Chai Chen Sing**

Chairman,  
Information and Communication Technologies Special Interest Group