Registration Form

3 DAYS ICTSIG JUNIOR DIGITAL CLASS (DECEMBER 2017)

S.T.E.M FUN LEARNING BASIC: PROTOTYPING ARDUINO SMART CAR USING MICRODUINO

5 December 2017 to 7 December 2017 (Tuesday to Thursday) | Bangunan Ingenieur, IEM

Organised by: Information and Communications Technology Special Interest Group, IEM

Name of Organisation _____

Mailing Address _____

Email: _____ Hand Phone: _____

Tel (Office): _____ Fax: _____

Contact Person: _____ Designation: _____

I/We wish to enrol the following person(s) for the above-mentioned Course:

Name		Reg. Fee (RM)
	SUB TOTAL	
	ADD GST @ 6%	
	TOTAL PAYABLE	

Enclosed herewith a crossed cheque No. ..... for the sum of RM ..... issued in favour of "The Institution of Engineers, Malaysia" and crossed 'A/C payee only'. I/We understand that the fee is not refundable if I/we withdraw after my/our application is/are accepted by the Organizing Committee but substitution of participant will be allowed. If I/we fail to attend the workshop, I/we will still pay the registration fee in full.

Signature: ..... Date: .....

Registration Fee (Subject to 6% GST)

GRADE	ONLINE	NORMAL (OFFLINE)
SCHOOL STUDENT IEM MEMBER	RM 300.00	RM 350.00
SCHOOL STUDENT NON IEM MEMBER	RM 350.00	RM 400.00

PERSONAL DATA PROTECTION ACT

I have read and understand 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.

Correspondence

The Institution of Engineers, Malaysia
Bangunan Ingenieur, Lots 60/62,
Jalan 52/4, P.O.Box 223 (Jalan Sultan),
46720 Petaling Jaya, Selangor Darul Ehsan
Tel No.: +(603) 7968 4001/4002 Fax No.: +(603) 7957 7678
Email: mirdeeliani@iem.org.my (Ms. Mirdeeliani)

GST is implemented effective of 1 April 2015

The Institution of Engineers, Malaysia

3 Days ICTSIG Junior Digital Class (December 2017)

S.T.E.M fun learning Basic:
Prototyping Arduino Smart Car using Microduino

Date: 5 December 2017 to 7 December 2017 (Tuesday to Thursday)
Venue: GETD Room, 2nd Floor, Bangunan Ingenieur, Lot 60/62, Jalan 52/4, Peti Surat 223 (Jalan Sultan), Petaling Jaya, Selangor
Speaker: Ir. Amir Hussein Bin Jaafar

Organised by: Information and Communications Technology Special Interest Group, IEM

Equipment Sponsored by: Micro Concept Tech

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
- FULL PAYMENT must be settled before commencement of the course, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participants fail to attend the course, the fee is to be settled in full.
- Fee paid is not refundable. Registration fee includes lecture notes, refreshment.
- The Organizing 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.

Cancellation Policy

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund less 30% if cancellation is received in writing more than 7 days before start date of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with prior notification and substitute will be charged according to membership status.

SYNOPSIS

Ministry of Education Malaysia (MOE) and Malaysia Development Economic Corporation Sdn Bhd 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 also explore Scratch, a visual programming language created to help young people learn to think creatively, reason systematically and work collaboratively. With Snap for Arduino (Snap4Arduino), Scratch modifications that allow for simple programming of the Arduino open source hardware platform, students will explore new blocks for managing sensors and trinkets connected to Microduino mCookie modules.

Finally, student will also explore programming with Arduino software platform that is based on C programming language. With Arduino integrated development environment (IDE) for Microduino that allows for programming of the Arduino open source hardware platform, students will explore new libraries and programming syntax for managing sensors and trinkets connected to Microduino mCookie modules.

On the first day, student will learn the **basics of circuitry, basics of Arduino software platform, electronic controller, power source, line finder sensor, infrared sensor, sound sensor (microphone), buzzer trinket, colour LED trinket and electric motor trinket.** Students will try different types of sensors and trinkets configurations and different control logics and operation parameters to understand how sensor and output trinket works.

On the second day, student will learn intermediate level circuitry, intermediate level of Arduino software platform, **electronic controller, power source, line finder sensor, infrared sensor, sound sensor (microphone), buzzer trinket, colour LED trinket and electric motor trinket to construct a remote control smart car prototype.** Students will try different types of sensors and trinkets configurations and different control logics and operation parameters to modify the remote control smart car prototype for different types of real world application.

On the third day, student will learn advance level circuitry, advance level of Arduino software platform, **electronic controller, power source, line finder sensor, infrared sensor, sound sensor (microphone), buzzer trinket, colour LED trinket and electric motor trinket to construct an autonomous smart car prototype.** Students will try different types of sensors and trinkets configurations and different control logics and operation parameters to modify the autonomous control smart car 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.

SCHEDULE JUNIOR DIGITAL CLASS

Date	Program Name + Description	Target Participants
5th Dec 2017 9:30 am to 4:30 pm	Basics of Arduino and Microduino electronics - Explore Microduino basics to build up their familiarity with the Microduino modules, **sensors and output trinkets**	10 students per programme - Open to primary school students
	Basics of Arduino and Microduino programming - Explore basic Arduino programming language for managing **sensors and output trinkets** connected to Arduino	
6th Dec 2017 9:30 am to 4:30 pm	Prototyping of Arduino application using Microduino #1 - Explore Microduino basics to build up their familiarity with the Microduino modules, **sensors and trinkets** and build a **remote control smart car**	
	Programming using Arduino software platform #2 - Explore Arduino programming language for managing sensors and trinkets connected to Arduino and enhance a **remote control smart car**	
7th Dec 2017 9:30 am to 4:30 pm	Prototyping of Arduino application using Microduino #2 - Explore Microduino basics to build up their familiarity with the Microduino modules, sensors and trinkets and build an **autonomous smart car**	
	Programming using Arduino software platform #2 - Explore Arduino programming language for managing sensors and trinkets connected to Arduino and enhance an **autonomous smart car**	

* Laptops and other learning tools required for the class will be prepared for students in group