

Chairman,
Information and Communications Technology Special Interest Group,
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Website: www.myiem.org.my    **IEMICTSIG**

REGISTRATION FORM ONE-DAY WORKSHOP ON ARDUINO

25 July 2015 (Saturday, 9.00 a.m. – 5.00 p.m.)

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| Name(s) | Grade & IEM M'ship No. | Fees (RM) |
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| | SUB TOTAL | |
| | Add GST @ 6% | |
| Total Amount Payable | | |

Cheque no. _____ for the amount of RM _____
(non-refundable) and made payable to “THE INSTITUTION OF ENGINEERS,
MALAYSIA”. I/We understand that the fee is not refundable if I/We withdraw after
my/our application is accepted by the organizing committee as stated in the cancellation
term. If I/We fail to attend the seminar the paid registration fee will not be refunded.

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|-----------------|--|--------------|--|------|
| Company: | | | | |
| Address: | | | | |
| Mobile: | | Tel. (O): | | Fax: |
| Email: | | | | |
| Contact Person: | | Designation: | | |
| Signature: | | Date: | | |

IMPORTANT NOTE: IEM members are required to produce their IEM membership cards for CPD scanning at the start and end of the course.



One-Day Workshop on Arduino

Date: 25 July 2015 (Saturday)

Time: 9.00 a.m. – 5.00 p.m.

Venue: TUS and C&S Lecture Rooms, 2nd Floor Wisma IEM,
Petaling Jaya, Selangor

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

BEM Approved CPD/ PDP hours: 7 Hours

Ref No: IEM15/HQ/198/W

PREREQUISITES

As this is a hands on workshop, participants are required to bring :

1. Your own Notebooks (Win/OS/Linux)
2. Starter kit for Arduino Uno (Loan unit/ purchase on site (workshop day))

| REGISTRATION FEE (GST NOT INCLUDED) | | |
|-------------------------------------|-----------|------------------|
| Grade | Online | Normal (Offline) |
| IEM Student Member | RM 150.00 | RM 180.00 |
| IEM Graduate Member | RM 250.00 | RM 300.00 |
| IEM Corporate Member | RM 400.00 | RM 450.00 |
| Non-IEM member | RM 550.00 | RM 600.00 |

- Closing Date : **22 July 2015, Wednesday**
- Online registration will **NOT** be allowed after the closing date.

IMPORTANT NOTES

- For **ONLINE REGISTRATION**, only **ONLINE PAYMENT** is applicable [via RHB Now and Maybank2u -Personal Saving & Personal Current; Credit Card - Visa/Master] before the closing date. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.
- Payment via **CASH, CHEQUE, BANK-IN TRANSMISSION, BANK DRAFT, MONEY ORDER, POSTAL ORDER, L/O or WALK-IN** will be considered as **NORMAL REGISTRATION**.
- **FULL PAYMENT** must be settled before commencement of the course. If the participant failed to attend the course, the fee paid is non-refundable. However substitution of participants(s) will be permitted with approval by IEM. Registration fee includes lecture notes, refreshment and lunch.

SYNOPSIS

Microcontroller is playing an increasingly important role in the monitoring and control of engineering processes with Arduino at the heart of the open source hardware movement. Designed as a low cost rapid prototyping board, Arduino lets even a novice do amazing projects that spans from a DNA analysis kit to a 3D printer. It has created an international Do-It-Yourself (DIY) craze among not only engineers but hobbyists, artists, students and anyone that dreams of making an innovative product with a brain. Arduino is well supported with an ecosystem that spreads across social media sites, forums and various dedicated websites that shares ideas, creations and solutions to countless projects and innovations. All schematics and source code are available for free under the creative common license. With Arduino, creative people have found an easy to understand entry level solution that they can then use as a platform in creating more sophisticated product even without any prior knowledge of electronics or programming.

This workshop comprises of practical hands-on exercises with supporting lectures where participant will be using their own laptop to develop a temperature monitoring device with on-board display capabilities. This would enable participants to gain real-world experience in using microcontroller to monitor and control engineering processes. The practical problems-based approach provides the opportunity for tackling problems that would not be normally encountered in traditional microcontroller courses.

Benefits

- Broadening perspective on microcontroller applications.
- Develop and enhance practical skills in microcontroller design to monitor and control engineering processes.
- Develop microcontroller programming capabilities.
- To help promote and act as a catalyst towards understanding engineering design process.

Who Could Benefit From The Workshop

- Engineering Professional
- IT Professional
- Academician & Vocational Instructors
- Electronics Hobbyist
- Science Teacher (Primary/Secondary)
- Project Student
- Entrepreneurs

ABOUT THE WORKSHOP LEADER

Mr. Zulkifli Mahmoodin is a senior lecturer with Universiti Kuala Lumpur and has more than 14 years of experience in the field of Biomedical Engineering. An Open Source Hardware advocate, he has won numerous awards in international innovation competitions and act as a consultant for the development of several engineering institutions under MARA and Ministry of Youth and Sports. Zulkifli is currently pursuing his PhD in the study of EEG for Dyslexia and also acts as an academic consultant for Myinvent Enterprise.

Course Schedule & Outline

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|---------------|--|
| 08:30 – 09:00 | Course Registration |
| 09:00 – 10:15 | Introduction to Arduino Software & Hardware Requirement |
| 10:15 – 10:30 | Tea Break |
| 10:30 – 11:30 | Writing & Reading to/from Digital Ports (LED & Switches) |
| 11:30 – 12:45 | Pulse Width Modulation (PWM) & Analog-to-Digital Converter |
| 12:45 – 14:00 | Lunch Break |
| 14:00 – 15:30 | Serial Communication & Liquid Crystal Display (LCD) |
| 15:30 – 15:45 | Tea Break |
| 15:45 – 16:45 | Mini Project (Digital Thermometer) |
| 16:45 – 17:00 | Workshop Summarization |

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.