

SHORT COURSES ON COMPUTER VISION

12 – 14 November 2014, FKEE UMP PEKAN

Organized by: Vision and Intelligent System Group, FKEE, UMP.

<http://visisump.wordpress.com/>



Short Course1: ADVANCED APPLICATIONS ON SIGNAL & IMAGE PROCESSING TECHNIQUES USING MATLAB

Date : 12-13 November 2014 (Wednesday- Thursday)

The course will cover image processing techniques, signal processing and hardware implementation using Arduino on selected advanced applications. Specific applications on image processing for thermal images, and biomedical application to detect sputum cells will be included. Participant will also be exposed to signal processing application for EEG signal and Arduino for Matlab's hardware implementation. On the second day of training, hands on presentation on these topics will be included in our lab tour. Related examples from our research project will be given in each section.

By the end of the course, participants will have hands on experience in these special topics:

Image Processing in Thermal Imaging
Basic EEG recording, signal processing & interpretation
Biomedical: Sputum Quality Testing System
Hardware Interfacing with Arduino

INSTRUCTORS



Assoc Prof Dr Kamarul Hawari Ghazali received his PhD in Electrical, Electronics & Systems from Universiti Kebangsaan Malaysia in 2008. His research expertise areas are thermal imaging, computer vision, image processing and artificial intelligent. He is currently the Dean of the Faculty of Electrical & Electronics Engineering, UMP and Head of Vision and Intelligent System (ViSIS) Research Group.



Mahfuzah Mustafa completed her viva voce exam for PhD in Electrical Engineering from Universiti Teknologi Mara (UiTM), Malaysia in 2014. Her research expertise areas are Biosignals (EEG), Signal Processing, Image Processing, artificial intelligent and robotics. She is currently a Senior Lecturer at the Faculty of Electrical & Electronics Engineering, UMP. She has been serving UMP since 2005.



Rosyati Hamid received her MEng in Wireless Communication in 2005 from Universiti Kebangsaan Malaysia. Her research expertise areas are image processing, communication and signal processing. She won a gold medal award in British Invention Show 2013 with her research entitled Sputum Quality Testing System. She has experience in teaching for more than 10 years serving various universities and institutes including UMP, UTHM and KLIUC.



Mohd Falfazli Jusof received his MEng in Applied Electronics from Ehime University, Japan in 2010. His research expertise areas embedded controller, physical computing, user interfacing, robotics and electronics. He is currently a Lecturer at the Faculty of Electrical & Electronics Engineering, UMP. He has been serving UMP since 2010.

Short Course2: OPEN SOURCE COMPUTER VISION (OPEN CV) AND KINECT APPLICATION

Date : 14 November 2014 (Friday)

Open Source Computer Vision (OpenCV) is a library of programming functions that can be implemented for offline and real-time computer vision applications. Kinect is a motion sensing input device. This one-day course provides an advanced programming technique with OpenCV for applications that use Kinect as an input device. Microsoft Visual C/C++ will be used as interface and programming language. For further understanding of the topic, participants will be introduced to some examples of computer vision applications that use OpenCV and Kinect for detection and tracking purposes. By the end of the course, participants will be able to do object tracking and detection using Kinect and OpenCV.

INSTRUCTOR



Dr Rosdiyana Samad received her PhD in Intelligent Mechanical Systems Engineering from Kagawa University, Japan in 2012. Her research expertise areas are facial analysis and computer vision, image processing and artificial intelligent. She is currently the Head of Cluster for Electronics department and Head of Part-Time degree Program at the Faculty of Electrical & Electronics Engineering, UMP. She has been serving UMP since 2005.



MATLAB:

individual participant: RM990,
Group participant: RM950 per person
(minimum 3 person in a group)

Open CV:

Individual participant: RM500,
Group participant: RM475 per person
(minimum 3 person in a group)

Register for Both Courses to get a Special Price:

Individual participant: RM1450
Group participant: RM 1400 per person
(minimum 3 person in a group)

Last date to register : 31 October 2014



CONTACT INFO

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<https://www.facebook.com/visisfkeeump>

Short Course1: ADVANCED APPLICATIONS ON SIGNAL & IMAGE PROCESSING TECHNIQUES USING MATLAB

Date : 12-13 November 2014 (Wed- thu)



Day 1:

Image Processing in Thermal Imaging

- Introduction on Thermal Images
- Techniques of Image Processing for thermal images
- Real-time application for Thermal Imaging

Basic EEG recording, signal processing & interpretation.

- Introduction of EEG signal
- Application: Body Earthing Effects On Student Stress Performance
- Basic EEG signal recording
- Signal processing & interpretation
 - Artefact removal
 - Band pass filter
 - Power spectral density

Biomedical : Sputum Quality Testing System

- Introduction to Sputum Quality
- Bacterial Cells detection in Sputum Samples using Image Processing

Hardware Interfacing with Arduino

- Introduction to Arduino
- Connecting Arduino
- MATLAB Programming for Arduino

Day 2

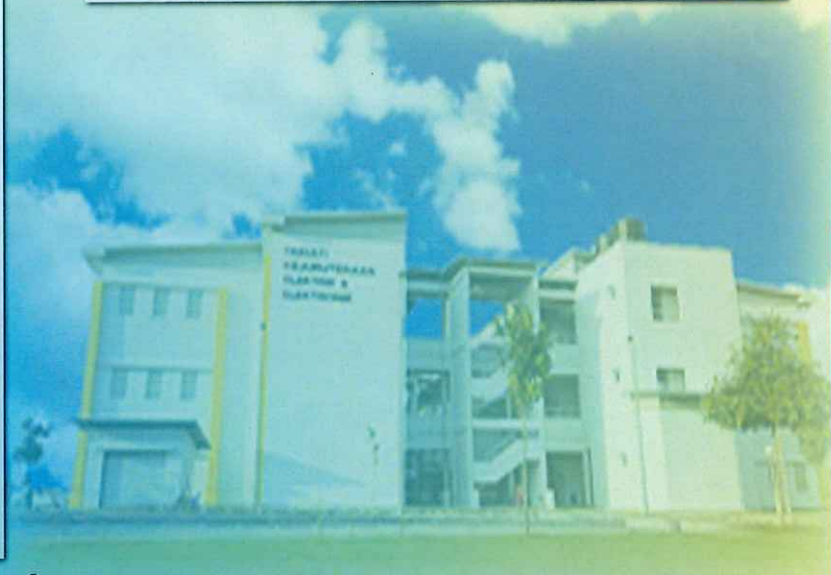
Lab Tour I & Project Demo

- Thermal Imaging Applications
- EEG Applications
- Sputum Quality Testing System
- Arduino Application

Short Course2: OPEN SOURCE COMPUTER VISION (OPEN CV) AND KINECT APPLICATION

Date : 14 November 2014 (Fri)

- Introduction to opencv & Kinect
- Open cv-kinect installation & setup
- Opendv applications
- Opendv & kinect applications



NO.	NAME	DESIGNATION	CONTACT NO.	EMAIL	*SC1	*SC2

*SC1 & SC2: Please tick for short Course 1 (SC1) and/ or Short Course 2 (SC2)

Organization: _____ Department: _____

Address: _____

MODE OF PAYMENT

I enclose slip of	Number	Bank	No. of participants	Amount (RM)
LO/PO				
Bank Draft				
Cheque				
Telegraphic Trans (TT)				

Note: Payment must be made payable to: 'Bendahari Universiti Malaysia Pahang'

Bank Transfer [Please fax your Bank Slip (Print your name & details on the slip)]

Payee Name: BENDAHARI UNIVERSITI MALAYSIA PAHANG

Name of Bank: Malayan Banking Berhad (MAYBANK) Pekan, Pahang.

Account No.: 556235304266

A Local Order (LO) or Purchase Order (PO) must be presented before the event.

The organizer reserves the right to refrain a registered participant from taking part in the event of no proof of payment can be presented.

This only applies to registered participants who have NOT PAID the registration fee PRIOR to the event date.

****Please fax or send this registration form to: Faculty of Electrical & Electronics Engineering (Attn to: Cik Norasyikin Fadilah), Universiti Malaysia Pahang, 26600 Pekan, Pahang.**

Tel: 09-4246000(ext 6080). Fax: 09-4246111.