

# Introduction to MATLAB & Intelligent Data Analysis

29 - 30 March 2018 (Thu & Fri)

UKM Bangi

[Medium: Malay / English]

Are you doing research that requires you to develop a system or predict outcomes? **Do you want to impress your supervisor or colleague with advanced techniques and intelligent data analysis?**

Perhaps, you're now thinking which software is right for you. **You may use software like SPSS, Minitab, C++, R and Visual Basic. Why don't you consider MATLAB?**

Programming using MATLAB is easier and faster than any other language. It promotes research and development since **MATLAB has toolboxes for various fields such as Statistics, Artificial Neural Networks (ANN), Optimization, Signal Processing and others.**

In this course, **MATLAB programming, ANN, ANFIS (neuro-fuzzy system) and Response Surface Methodology (RSM) will be explained in an easy and effective manner** based on years of experience working in this area.

This course is **suitable for researchers from various fields such as Science, Technology, Engineering, Economics, Business study, Medicine, Laws and Social Science.** You can expect no difficult terminology or jargon used.

It is open for all researchers. The outcome is that participants will know how to use MATLAB, ANN, ANFIS and RSM to solve their own problems and present their results in thesis or journals. No prior knowledge of computer programming is needed.

## Programme

Day 1

| Time     | Module   |
|----------|--|
| 8:50 am  | Registration   |
| 9:00 am  | Working with the MATLAB User Interface. Variables and Expressions          |
| 10:30 am | Tea Break  |
| 11:00 am | Analyses and Visualization with Vectors                                    |
| 1:00 pm  | Lunch  |
| 2:30 pm  | Analyses and Visualization with Matrices, Automating Commands with Scripts |
| 3:30 pm  | Tea Break  |
| 4:00 pm  | Working with Data Files, Multiple Vector Plots and Logic & Flow Control    |
| 5:00 pm  | End  |

Day 2

| Time     | Module                       |
|----------|------------------------------|
| 9:00 am  | Artificial Neural Networks   |
| 10:30 am | Tea Break                    |
| 11:00 am | Artificial Neural Networks   |
| 1:00 pm  | Lunch                        |
| 2:30 pm  | ANFIS (neuro-fuzzy system)   |
| 3:30 pm  | Tea Break                    |
| 4:00 pm  | Response Surface Methodology |
| 5:00 pm  | End                          |

Contact:

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Organizers:



Pusat Penyelidikan  
Pendidikan  
Kejuruteraan (P3K),  
UKM

## Facilitators



*Anuar Kasa (Ir. Dr.)*

- PhD, P.Eng, MIEM, MSSA, CPESC
- Retaining Structures, MATLAB, Response Surface Methodology and Neuro-Fuzzy System

*Tarig Mohamed (Mr.)*

- MSc (Geotechnical Engineering)
- Slope Stability, MATLAB, Artificial Neural Networks and Neuro-Fuzzy System

### Preparation

**Please bring your own laptop**

(Windows XP/7/8/10).

Please inform us if you need one.

### Fee Cash

Normal: RM800 (LO/Invoice RM1000)

Postgraduate: RM700 (LO/Invoice RM800)

### Registration

Please e-mail/SMS your (1) Full Name, (2) Contact Number, (3) E-mail address.

### Payment

**Excel Info Enterprise**

Payment through cheque or cash deposited to account no: **8600451771** (CIMB Bank). For further information, please SMS/WA:

**018 - 379 2011**

**Thank You!**