

# Introduction to MATLAB & Intelligent Data Analysis

20 & 21 Nov 2014 (Thu & Fri)

Fac. of Engineering & Built Environment,  
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++ and Visual Basic. However, MATLAB could be a better choice.**

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, 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
8:45 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
2:00 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
2:00 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:



Geotechnical &  
Geoenvironmental  
Engineering Research  
Group (GGERG), 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).

Please inform if you need one.

### Fee

Normal: RM800

Postgraduate: RM600

UKM staf/student: RM400

### 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). Invoice will be issued on registration day for payment using research grant or Local Order (LO). For further information, please SMS/call:

**018 - 379 2011**