### **Course outline**

#### Matlab basics

- Introducing Matlab environment
- Simple mathematical operation
- Variables
- Variable naming
- Specific variables
- Descriptive sentences
- Complex numbers
- Matlab functions
- Matlab guide
- m- files

•

#### Arrays

- Writing arrays in Matlab
- Special matrices
- Mathematical operation on matrices
- Using mathematical functions for arrays
- Extracting or deleting some parts of arrays
- Searching arrays
- Array size
- Solving Systems of Linear Equations

#### Logical and relational operation

- Logical operators
- relational operators
- Logical and relational functions

#### Loops and conditional command

- For loop
- While loop
- If command

#### **Functions in matlab**

- Writing functions
- Calling functions

## **Drawing plots in matlab**

- Two dimentinal
- Three dimentional

# Polynomials in matlab

- Roots of polynomials
- Summation and subtraction of polynomials
- Multiplication and division of polynomials
- Derivative of polynomials

**Fitting** 

Excel

**Powerpoint** 

word