



Independent University Bangladesh (IUB)
School of Engineering and Computer Science (SECS)
Department of Electrical and Electronic Engineering
Autumn 2020 EEE 321LAB

Lab 1: Introduction to EEE 321Lab

Objectives:

1. MATLAB introduction
2. Getting familiar with MATLAB environment.

Lab work:

1. MATLAB introduction

- I. Introduction to MATLAB**
 - a. What is MATLAB?
 - b. Use of MATLAB & its key features
- II. Getting familiar with MATLAB environment**
 - a. Working on the Command Window
 - b. Working on the workspace
 - c. Command History
 - d. Current folder
 - e. Docking & undocking files
 - f. Figure window
 - g. Help
 - h. Working on Editor window
 - i. Naming and saving a file
 - j. Running a file

2. Continuous time signal generation using MATLAB.

- a. Sinusoidal (sin, cos) signal (without and with phase shift)
- b. Exponential signal (exp)
- c. Complex signal (e.g. $\cos x + j\sin x$)
- d. Combination of above signals (e.g. $\sin x + \cos x$)
- e. Square wave signal (square)
- f. Random signal (rand and randn)
- g. Periodic signals (sin, cos, square)

3. Plotting and sub plotting

- a. Continuous signal plotting (plot) using MATLAB
- b. Sub plotting (subplot)

4. Making a MATLAB function. (e.g. make a function named “**addition**” having a form “**function** [z] = **addition** (x,y)” that will add 2 numbers or 2 signals

Assignment:

Make a MATLAB function that will provide the factorial of a given number