

PERI INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF ECE  
**Two days National Workshop On**  
**Communication & Image Processing Using Matlab “CIPM 2017”**

**MATLAB EXERCISE -1**

1. Use the help and look for commands and look at the normal Matlab help section in the pull down menu (F1). How does the sin() function work?
2. Evaluate expressions such as  $7*8/9$ ,  $8^2$ ,  $6+5-3$
3. Using the in-built Matlab functions, evaluate  $\sin(0)$ ,  $\sin(\pi/2)$ ,  $\text{abs}(-3)$
4. Using the editor, write a Matlab script to solve the quadratic equation  $2x^2 - 10x + 12 = 0$
5. Evaluate, using a for loop, the first twenty numbers of the Fibonacci series

$$x_n = x_{n-1} + x_{n-2}, \quad x_0 = 1, x_1 = 1$$

6. Create the two vectors  $[1 \ 2 \ 3]$ ,  $[4 \ 5 \ 6]$  and calculate their inner product
7. Create the 3\*3 matrix  $A = [1 \ 2 \ 3; 4 \ 5 \ 6; 7 \ 8 \ 9]$  and the column vector  $b = [1 \ 2 \ 3]$ , and multiply the two together  $A*b$ .
8. Solve the equation  $A*x = b$ , where A and b are given in (6)
9. Modify (8), so that you neglect the 3<sup>rd</sup> row & column of information