3/4 B.Tech. FIRST SEMESTER

EE5T6   **MAT LAB**   **Credits: 4**

Lecture: 4 periods/week   **Internal assessment: 30 marks**
Tutorial: 1 period /week   **Semester end examination: 70 marks**

Objective:
In this course they understand introduction to programming using Matlab. Covers the Matlab environment, assignment, conditionals, scripts, functions, iteration, and arrays, as well as graphics.

Learning outcomes :
After completing the course student
1. Shall be able to write MAT lab programmes
2. Able to handle graphic and draw plots
3. Have knowledge of writing MAT lab programme for engineering problems

UNIT I
Basics of MAT LAB – windows – Input – output – File types – platform dependence commands

UNIT II
Simple arithmetic calculation – Arrays – Numbers – Printing simple plots – creating, saving and executing script files – function files

UNIT III
Matrices – vectors – Matrix and array operations – arithmetic operations – relational operations – logical operations – matrix functions

UNIT IV
Built in function – saving and loading data plotting simple graphs

UNIT V
Script files – function files – language specific features – Advanced data objects

UNIT VI
Solving problems in linear algebra – curve fitting and interpolation – Data analysis – statistics – Integration – Differential equations

UNIT VII
Graphics – 2D plots – 3D plots – Handling graphics

UNIT VIII
Advanced programming techniques – special variables operators and logical functions – Math functions – character string functions – graphics functions