SECOND YEAR

MATLAB Programming	COE207
Prerequisite : E108	(2-1-0-2)

Introduction to MATLAB: MATLAB Interactive Sessions, Menus and the toolbar, Computing with Matlab, Script files and the Editor Debugger, and Matlab Help System. Arrays: Arrays, Multidimensional Arrays, Element by Element Operations, Polynomial Operations Using Arrays. Functions & Files: Elementary Mathematical Functions, User Defined Functions, Advanced Function Programming, Working with Data Files. Programming Techniques: Program Design and Development, Relational Operators and Logical Variables, Logical Operators and Functions, Conditional Statements, Loops, The Switch Structure, Debugging Mat Lab Programs. Plotting: XY- plotting functions, Subplots and Overlay plots, Special Plot types, Interactive plotting, Function Discovery, 3-D plots. Linear Algebraic Equations: Elementary Solution Methods, solving system of linear equations. Symbolic Processing With Matlab: Symbolic Expressions, Algebra, Calculus (Limits and series), Symbolic Linear Algebra, symbolic plotting. Introduction to Simulink.

Practical part: Introduction to MATLAB. Vectors and Arrays. Linear Algebraic Equations. Functions & Files. Plotting. Programming Techniques. Random number Generation. Symbolic Processing With Matlab.