



Matlab Programming and Simulation for Engineering Applications

(Intermediate Level)

Matlab Programming (90 Minutes)

- Working with the MATLAB user interface
- Entering commands and creating variables
- Analyzing vectors and matrices
- Visualizing vector and matrix data
- Working with data files
- Working with data types
- Automating commands with scripts
- Writing programs with branching and loops
- Writing functions
- Case studies

Matlab Simulink (90 Minutes)

- Creating and modifying Simulink models and simulating system dynamics
- Modeling continuous-time, discrete-time,
- Modifying solver settings for simulation accuracy and speed
- Building hierarchy into a Simulink model
- Creating reusable model components using subsystems, libraries, and model references
- Mathematical modelling
- Generate various types of signals
- M – Function for Simulation
- Simulation modelling of Electrical Circuits and Electronics Engineering Applications
- Case Studies: Demo of Engineering Applications
- Stateflow introduction