

## MATLAB

**Matrix laboratory is a multi-paradigm numerical computing environment and proprietary programming language. MATLAB allows matrix manipulations plotting of functions and data, implementation of algorithm, creation including user interfaces and interfacing.**

The course involves a span of 50 hours where the student will be trained from the basic level to the industrial level with hands on real time projects involving signal processing, image processing concepts.

The students will be given course completion certificate at the end of the course and will be assisted in placements.

The course involves 3 stages of learning matlab

1. Beginner level
2. Intermediate level
3. Advanced level

The beginner level involves the

- basic setup of matlab environment on the laptop
- learning about basic commands used in matlab
- the GUI of Matlab
- Basics of programming language
- How to use functions

The intermediate level involves

- Applying different algorithms
- Learning about edge detection in image processing
- Image segmentation
- Feature extraction
- Image compression

The advanced level involves

- Applying those methods learned in previous levels on mini projects
- In this level the candidate will be working on real time examples on signal processing, image processing.
- Basics on Simulink library will be provided.
- How to use stateflow in simulink