

**Course Title: DSP with MATLAB/ Simulink for Control System Application**      **Course Code: EEA 151**

**Course Background / Summary:**

Matlab/Simulink has been widely used in Engineering research environments due to the ability of the software for complex computation in several engineering fields. This course will introduce participants to how to make use of DSP (Digital signal processing from Texas instrument (TMS2385) for control system application. The program is done through TARGET using MATLAB/Simulink. The study system will be speed, position, and level.

**Course Objectives:**

- Program DSP using Target method with MATLAB/Simulink
- Download Program to DSP TMS2385
- Interface DSP with sensors and actuators
- Utilize DSP in target mode for Control speed, position, level, and temperature

**Target Audience:**

- Electricians, Research assistants, Research officer, Researcher, Academicians
- Technicians & Engineers
- Instructors

**Course Duration: 3 Days**

**Course Contents**

**1.0 Introduction to PIC Microcontroller and DSP Instrument**

**2.0 Basic Theory of Control System**

**3.0 DSP Programming Data Transfer using MATLAB/Simulink**

**4.0 DSP Programming with MATLAB/Simulink in Target Mode**