ELECTRICAL, ELECTRONIC AND AUTOMATION

Course Title: MATLAB/ Simulink for Control System Application

Course Code: EEA 161

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 on how to make use of MATLAB/Simulink for solving a linear differential equation, finding transfer function, state-space equation, constructing physically-based models, and controlling the application based on its transfer function. This includes the use of system identification and the SISO tool. The study system will be speed, position, and level.

Course Objectives:

- Construct a physical-based model, state-space model, and transfer function model.
- Make use of system identification and the SISO tool for control application.
- Control the MATLAB/ Simulink model studied.

Target Audience:

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

Course Duration: 3 Days

Course Contents
1.0 Basic Knowledge About MATLAB/ Simulink
2.0 Theory of Control System
3.0 Construct Physical Based Model, Transfer Function, State Space from Linear Differential Equation
4.0 Control Speed, Position, Level System with Aid of System Identification and SISO tool