Course Title: Mechatronics System Troubleshooting

Course Code: EEA 177

Course Background / Summary:

The course focuses on the automation system which includes programmable logic controllers. It covers both theory and practical related which form the basis for automated system application. This course will provide participants with the knowledge and practical skills required for maintenance/troubleshooting techniques.

Course Objectives:

- Identify main elements in a mechatronics system
- Read, analyze and utilize the technical documents such as datasheets, timing diagrams, operation manuals, schematics, etc. for a mechatronic system
- Trace and describe the flow of energy in a given mechatronic system or subsystem.
- Carry out measurements on electrical components in a mechatronic system.
- Correctly localize, identify and document causes of malfunctions in the mechatronics system, based upon the technical documentation.

Target Audience:

- Technical personnel, engineers, technicians, teaching staff (vocational & technical teachers)
- Lecturers, and students who wish to learn about mechatronics system troubleshooting.

Course Duration: 3 Days

Course Contents

1.0 Mechatronics system overview

2.0 Mechatronics system documentation

3.0 Energy flow in mechatronics system

4.0 Basic measurement

5.0 Systematic system troubleshooting

6.0 Fault finding exercise