

HIGHER NITEC IN MECHATRONICS ENGINEERING

Electives (Course Specific)

Hydraulics

On completion of the module, students should be able to maintain hydraulic systems in industrial automation.

Single Board Micro-controller Applications

On completion of the module, students should be able to write structured programs to interface with peripheral devices and solve simple problems using single board micro-controller.

Lean Manufacturing

On completion of the module, students should be able to work effectively as a team member to support lean manufacturing and process improvement in the industries and apply PDCA in continuous process improvement to increase productivity.

Industrial Internet of Things (IIoT) System Integration

On completion of the module, students should be able to set up, integrate and program IIoT system with Programmable Logic Controller (PLC), gateway, Ethernet and internet connection from machine level (sensor and actuator in automation application) to data analytic and visualization in the cloud.

Electives (Inter-disciplinary)

Applied Aviation Science and Mathematics

On completion of the module, students should be able to apply fundamentals of mathematics, law of physics and basic aerodynamics principles to solve engineering related problems which are applicable to aircraft flight and ground operations.

Electives (Joint ITE-Industry)

Integration of Vision with Servo Control

On completion of the module, students should be able to implement a vision inspection system, perform servo motor control and interface vision system with servo motor control for inspection process.