(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus
S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

## **Department of Mechatronics Engineering**

(Accredited by NBA, New Delhi)

## Value Added Course on "Advanced Industrial Automation" Total:40 Hours

## **Course Outcome:**

A value-added course on "Advanced Industrial Automation" would likely focus on enhancing students' knowledge and skills in the latest technologies and methodologies used in industrial automation systems.

PLC: 7 Hours

Introduction, types, leading hardware and software, logic development, important instruction, Industrial real applications, Industrial I/Ps & O/Ps, PLC wiring & Industrial project development.

HMI / MMI: 7 Hours

Introduction, interfacing with PLC, screen development, digital & analog data configuration, analog data scaling, password level, screen display & Industrial project development.

SCADA: 7 Hours

Introduction, interfacing with PLC, screen development, digital & analog data configuration, analog data scaling, driver selection and configuration, tag creation and configuration & Industrial project development.

AC DRIVE: 7 Hours

Introduction, hardware, parameter setting, speed, direction, acceleration and deceleration time control of induction motor, interfacing with PLC, multispeed & multidirectional control project.

ANALOG: 7 Hours

Introduction to analog signal, standard signal type, block diagram, ATD and DTA conversion program and wiring, Interface with SCADA.

## INTERFACING PROJECT:

Complete interface of PLC, HMI, SCADA, AC DRIVE, AC motor, Digital I/Os with a real Industrial application.

5 Hours