

KAMARAJ

COLLEGE OF ENGINEERING & TECHNOLOGY

(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 ELECTRICAL & ELECTRONICS ENGINEERING

VALUE ADDED COURSES

Name of the Value added course	Conducted by
Machine Learning & AI	 Quantanics Techserv Pvt., Ltd
IoT and Machine Learning & AI	 Quantanics Techserv Pvt., Ltd
PLC Automation	 IPCS Global Solutions Pvt., Ltd



Internet of Things (IoT)

IoT Introduction

6 Hours

IoT Introduction - Basics of C Programming - Basic Electronics Setting up Arduino IDE - LED Blinking Traffic Light System Diving deep into C programming (functions) LED control using push button – Motor switching on using relay C pointers - arrays and memory allocation.

Sensors and Types of Arduino Controller

6 Hours

Temperature sensor to display temperature - ESP 32/ ESP8266 architecture- LED and Switch Control basics using ESP Display Interfacing - 7 segment - LCD display - Keypad.

IoT Protocols and Applications

6 Hours

ADC Conversion - keypad relay control - USART - USART Communication Timer – Counter Clock - PWM - PWM Example - NODEMCU IOT –Raspberry pi, NVIDIA Jetson Nano - Temperature & Humidity - PIR CLOUD – MQTT

Introduction to Data Manipulation and Data Visualization

6 Hours

Introduction to Data Science, Flow of Data Science, Numpy, Pandas, Matplotlib

Lab: Data Manipulation using Numpy and Pandas, Data Visualization in different Graphs.

Introduction to Machine Learning

6 Hours

Introduction, Types of Machine Learning: Supervised, Unsupervised and Reinforcement learning, Applications, Classification vs Prediction Problems, Linear Regression Algorithm (Prediction Problem)