## SUBJECT NO-EE60098, SUBJECT NAME- PROGRAMMABLE AND EMBEDDED SYSTEM LTP- 3-1-0, CRD- 4

## SYLLABUS :-

Introduction to Embedded Systems; Embedded Systems Hardware: Processors - Digital Signal Processors, Microcontrollers, Special Purpose Processors, I/O devices, interfacing and control - Analog I/O, Digital I/O, Bus I/O, Serial and Network I/O, Memory, Power and Display Devices - Reconfigurable and Custom Logic Devices, System Hardware Design Case Study; Embedded Systems Software: Introduction to Operating Systems, Real Time Operating Systems, Device Drivers; Embedded Systems Application Design and Programming Environments: System Specification and Modelling, Programming, Simulation and Verification, Performance Analysis and Optimisation; Selected Application Case Studies from areas such as: Instrumentation and Signal Processing Systems, Control and Actuation Systems, Power Electronic Drive Systems etc; Embedded Systems Testing.