Techno-Social Excellence
Marathwada Mitra Mandal's
INSTITUTE OF TECHNOLOGY (MMIT)
Lohgaon, Pune-411047.

Department of Mechatronics Engineering

Course Name: Microcontrollers
Class: TE Mechatronics Engineering
Course Code: 317545 (2019 Course)

Course Objectives:

Objectives of the course are to
● Explain the microcontroller architecture & describe the features of a typical microcontroller.
● To use the 8051 addressing modes and instruction set and apply this knowledge to develop programs in assembly language and C language.
● To define the protocol for serial communication and understand the microcontroller development systems.
● Explain the interrupt structure of the microcontroller and to develop programs related to interrupt handling
● To introduce students to Global System for Mobile Communication (GSM)
● To provide students with interfacing concepts and develop interfacing circuits for simple devices.

Course Outcome:

Upon successful completion of this course, the students will be able to:-
CO1: Describe the architecture and features of various types of the microcontroller.

CO2: Illustrate addressing modes and execute programs in assembly language for the microcontroller.

CO3: Write programs in C language for microcontroller 8051.

CO4: Elaborate interrupt structure of 8051 and program to handle interrupt and ADC809

CO5: Define the protocol for serial communication and understand the microcontroller development systems.

CO6: Interface input output devices and measure electrical parameters with 8051 in real time.