

Techno-Social Excellence Marathwada Mitra Mandal's INSTITUTE OF TECHNOLOGY (MMIT)

Lohgaon, Pune-411047.

"Mechanized Design Application"

Department of Mechanical Engineering

Course Name: Electrical and Electronics Engineering

Class: SE Mechanical Engineering Course Code: 203156 (2019 Pattern)

Course Objectives:

- 1. To understand Arduino IDE; an open source platform and its basic programming features
- 2. To interface Atmega328 based Arduino board with different devices and sensors
- 3. To study principle of operation of DC machines and speed control of DC motors
- 4. To know about three phase induction motor working and its applications
- 5. To get acquainted with Electric Vehicle (EV) technology and subsystems
- 6. To get familiar with various energy storage devices and electrical drives

Course Outcomes:

On completion of the course, learner will be able to

- CO1. APPLY programming concepts to UNDERSTAND role of Microprocessor and Microcontroller in embedded systems
- CO2. DEVELOP interfacing of different types of sensors and other hardware devices with Atmega328 based Arduino Board
- CO3. UNDERSTAND the operation of DC motor, its speed control methods and braking
- CO4. DISTINGUISH between types of three phase induction motor and its characteristic features
- CO5. EXPLAIN about emerging technology of Electric Vehicle (EV) and