S.S.G.M.C.E. SHEGAON

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

COURSE OUTCOMES OF ALL COURSES OF THE FIFTH SEMESTER B.E. (ELECTRONICS AND TELECOMMUNICATION ENGINEERING)

5ETC01 - Microcontroller

After successfully completing the course, the students will be able to:

CO1	Describe the architecture of 8085/8051 and advanced RISC processors
CO2	Understand /analyse addressing modes, Instructions set and execute algorithm in assembly language using processor for timers /counters
CO3	Develop a skill to write a simple algorithm for different applications
CO4	Apply various interfacing of peripheral devices

5ETC02 - Control System

After successfully completing the course, the students will be able to:

CO1	Classify mathematical models of electrical, mechanical and electromechanical systems
CO2	Determine transfer functions from block diagrams and signal flow graph
CO3	Evaluate transient response and steady state response parameters
CO4	Analyse stability of the LTI system using Routh criterion and root locus
CO5	Analyse stability of the LTI system using bode plot and Nyquist criterion
CO6	Create the state model and Evaluate response of the system using state variable method

5ETC03 - Digital Signal Processing

After successfully completing the course, the students will be able to:

CO1	Understand the basic concepts of signals, systems and their characteristics.
CO2	Analyse the concepts of Z-transformation and their applications.
CO3	Apply DFT and DTFT for the analysis of digital signals and systems.
CO4	Design FIR, IIR filters and understand the basics of Multirate Digital Signal

5ETC04 - Power Electronics (PE-I)

After successfully completing the course, the students will be able to:

CO1	Understand the characteristics of SCR and firing circuits.
CO2	Understand Triac /Diac Power devices like Transistor, MOSFET and IGBT and force commutation techniques.
CO3	Understand and analyse controlled rectifiers and dual converters.
CO4	Understand DC to AC and DC to DC converters.
CO5	Understand principle of Cyclo-Converter and controlling DC/universal motor.

5ETC04 - Fiber Optics Communication (PE-II)

After successfully completing the course, the students will be able to:

CO1	Understand the principles of fiber-optic communication, the components and Losses and dispersion in fiber
CO2	Understand the properties of optical fibers and optical components in sources.
CO3	Understand operation of lasers, LEDs and detectors in fiber
CO4	Analyze system performance of optical communication systems in networks
CO5	Understand the block diagram of FOC system with Power budgeting parameters.
CO6	To apply the knowledge of fiber optical components, links and systems

5ETC05 - Sensors and Transducers

After successfully completing the course, the students will be able to:

CO1	To understand the basic aspect of transducers and sensors
CO2	To gain knowledge of statistical characteristic and Errors of system.
CO3	To realize the fundamental concept about temperature and Velocity measurement
CO4	To acquire knowledge of measurement of displacement and Humidity.
CO5	To familiarise the basic information about measurement of Pressure, Flow, Level
CO6	To aware about the basics of Strain gauge and smart sensors