



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

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

**COURSE OUTCOMES OF ALL COURSES OF THE FIRST SEMESTER M.E.
(DIGITAL ELECTRONICS)**

1UMEF-1/2UMEP-1- Digital Instrumentation

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

CO1	Design and implement the various digital measurement techniques, display and recording systems..
CO2	Comprehend the knowledge of the concept of digital signal analysis & analyzers.
CO3	Comprehend the knowledge of smart sensors/digital sensors and smart or automatic test equipment's and reliability.
CO4	Design and implementation of digital controllers, Programmable Logic controller and its functions.
CO5	Design of various biomedical instrumentation systems.

1UMEF2-Advanced Digital Signal Processing

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

CO1	Understand the various analysis techniques of discrete time signals..
CO2	Analyse the finite impulse and infinite impulse response filters
CO3	Understand the implementation of sampling rate converters.
CO4	Develop the various adaptive filtering and two dimension transformation algorithms

1UMEF3- Modern Electronic Design Techniques

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

CO1	Understand isolation and Design techniques for amplifiers.
CO2	Design buck, boost, buck-boost their control techniques
CO3	Understand Communication and Control System Design
CO4	Understand design of Portable Electronic System
CO5	Understand design of Electronic System for Production

1UMEF4- Digital Communication Technique

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

CO1	Understand the fundamental and advanced concepts of digital communication systems including the digital transmission over fading channels.
CO2	Solve the problems associated with various impairments in digital communication systems.
CO3	Study and analyse the effects of channel bandwidth and channel noise on transmitted waveform.
CO4	Design optimum receivers for a given signal-space structure for additive Gaussian channels and assess performance of digital communication receivers for additive Gaussian channels.
CO5	Analyse the effect of ISI and Equalization in digital communication.
CO6	Apply the knowledge to analyse the digital communication system with spread spectrum modulation

1UMEF5- Embedded System Design

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

CO1	Explain architecture of Microcontroller
CO2	Distinguish real-time embedded systems from other systems.
CO3	Evaluate the need for real-time operating system
CO4	Interpret real-time algorithm for task scheduling.
CO5	Summarize technique used for product enclosure design and development