



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Basic Electronics Engineering

Subject Code: RBL1B001/ RBL2B002

Semester: 1st/2nd

Course Outcome:

Students will be able to:

CO1	Describe the principle and characteristics of semiconductor diode
CO2	Analyze various transistor configurations
CO3	Describe the operation of field effect transistor (FET)
CO4	Analyze CMOS inverters and design of various CMOS circuits
CO5	Construct and study operational amplifier
CO6	Analyze various number systems and demonstrate various logic gates

Analog Electronic Circuits

Subject Code: REC3C001

Semester: 3rd

Course Outcome:

Students will be able to:

CO1	Understand MOS Field-Effect Transistor
CO2	Analyze and design biasing of BJTs
CO3	Understand small signal analysis of BJTs
CO4	Study high frequency response of FETs and BJTs
CO5	Analyse feedback amplifier, oscillators and power amplifier
CO6	Understand an Operational Amplifier



Signals and Systems

Subject Code: REC3C002

Semester: 3rd

Course Outcome:

Students will be able to:

CO1	Learn about the discrete time signals and systems
CO2	Analyse discrete time LTI systems
CO3	Study the continuous time fourier series
CO4	Study the continuous time fourier transformation
CO5	Analyse the Z-Transform and its application to the analysis of LTI systems
CO6	Learn about the Discrete Fourier Transform

Digital System Design

Subject Code: REC4C002

Semester: 4th

Course Outcome:

Students will be able to:

CO1	Understand number system, boolean algebra and logic gates
CO2	Understand K-map method for simplification of logic circuits
CO3	Understand combinational logic circuits
CO4	Analyze synchronous sequential logic circuit design
CO5	Analyze binary counters, memory and programmable logic
CO6	Study IC logic families



Analog and Digital Communication

Subject Code: REC5C002

Semester: 5th

Course Outcome:

Students will be able to:

CO1	Learning frequency domain representation of signals and basic modulation technique
CO2	Understanding Gaussian noise and white noise characteristics in modulation systems
CO3	Study threshold effect in angle modulation and idea of pre-emphasis and de-emphasis
CO4	Learn amplitude and pulse code modulation (PCM)
CO5	Understand the concept of diffrenet modulation process and ISI
CO6	Learn about digital modulation trade-offs and equilization technique

Digital Signal Processing

Subject Code: REC5C001

Semester: 5th

Course Outcome:

Students will be able to:

CO1	Study discrete time signals and systems
CO2	Analyse discrete time LTI systems
CO3	Understanding Discrete Fourier Transform and its applications
CO4	Analyse the structure and implementation of FIR filter
CO5	Discuss the structure for IIR filter
CO6	Study of analog and digital filters



Microprocessors & Microcontrollers

Subject Code: REC5C003

Semester: 5th

Course Outcome:

Students will be able to:

CO1	Understand the architecture and features of 8086 microprocessors
CO2	Study of 16 bit microprocessors and basic instructions set
CO3	Apply 8086 assembly language code to solve problems for arithmetic operations
CO4	Understand about the microprocessor peripheral interfacing
CO5	Study on 8-bit microcontroller- H/W architecture instruction set and programming
CO6	Learn on interfacing of A-to-D converter and D-to-A converter

Electronics Instrumentation and Measurement

Subject Code: REC5D005

Semester: 5th

Course Outcome:

Students will be able to:

Co1	Discuss basics of measurements
Co2	Understand electronic instruments for measuring basic parameters
Co3	Study operation of Oscilloscopes
Co4	Familiarise with frequency synthesized signal generator
Co5	Familiar with Wave Analyzer, Spectrum Analyzer
Co6	Learn digital data acquisition system



Biomedical Instrumentation

Subject Code: REI5D002

Semester: 6th

Course Outcome:

Students will be able to:

CO1	Learn about bioengineering, biochemical engineering, biomedical engineering
CO2	Gain brief idea on bioelectrical signals & electrodes
CO3	Analyse electrodes for ECG
CO4	Study physiological transducers
CO5	Analyse basic recording systems
CO6	Analyse electrostatic coupling to AC signals

Microwave Engineering

Subject Code: RCS6C001

Semester: 6th

Course Outcome:

Students will be able to:

CO1	Discuss high frequency transmission lines and wave guides
CO2	Study different types of waveguider
CO3	Analyse TEM mode in Co-ax line
CO4	Learn about waveguide Components
CO5	Study about principle of operation as an amplifier at high frequency
CO6	Analyse microwave antennas



Wireless Communication

Subject Code: RCS6C002

Semester: 6th

Course Outcome:

Students will be able to:

CO1	Gain knowledge about the concept of mobile and personal communication
CO2	Discuss the propagation models for wireless networks
CO3	Gain brief idea on Multiple access techniques in wireless communications
CO4	Estimate spectral efficiency of different wireless access technologies
CO5	Analyse second generation mobile networks-GSM
CO6	Study applications of different RF bands

Communication Engineering

Subject Code: REE6C001

Semester: 6th

Course Outcome:

Students will be able to:

CO1	Understand the elements of an electrical communication system
CO2	Discuss the frequency domain analysis of signals
CO3	Gain brief idea on analog signal transmission and reception
CO4	Analyse pulse modulation systems
CO5	Study pulse code modulation
CO6	Analyse delta modulation



Advanced Digital Signal Processing

Subject Code: REC7D003

Semester: 7th

Course Outcome:

Students will be able to:

CO1	Familiarise with multirate digital signal processing
CO2	Study different types sampling rate conversion
CO3	Familiarise with linear prediction and optimum linear filters
CO4	Study adaptive Filters
CO5	Familiarise with power spectrum estimation
CO6	Study the relationship between the autocorrelation and the model parameters

Radar and TV Engineering

Subject Code: REC7D006

Semester: 7th

Course Outcome:

Students will be able to:

CO1	Get Introduced to different radar system
CO2	Discuss about radar transmitters and receivers
CO3	Gain brief idea on Television: scanning, blanking and synchronization
CO4	Analyse video detectors, sound signal separation
CO5	Study Digital TV: Digitized video, source coding of digitized video
CO6	Analyse display technologies