



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Basic Electronics Engineering Lab

Subject Code: RBL1B201/ RBL2B202

Semester: 1st/2nd

Course Outcome:

Students will be able to

CO1	Familiarize with electronic components
CO2	Study the V-I characteristics of P-N junction diode
CO3	Examine half-wave rectifier and full wave rectifier circuits
CO4	Demonstrate output waveforms of clipper and clamper circuits by CRO
CO5	Determine output of inverting and non-inverting amplifiers using Op-Amp
CO6	Realization of logic gates and verification by truth table

Analog Electronic Circuits Lab

Subject Code: REC3C201

Semester: 3rd

Course Outcome:

Students will be able to

CO1	Understand operation of BJT bias circuit
CO2	Design JFET/MOSFET bias circuit
CO3	Study BJT common-emitter circuit
CO4	Analyse OP-Amp frequency response
CO5	Study Op-Amp as differentiator and integrator
CO6	Understand operation of RC phase shift oscillator

Electronic Device Laboratory

Subject Code: REC4C201

Semester: 4th

Course Outcome:

Students will be able to

CO1	Illustrate uniform plane wave propagation
CO2	Design transverse electric waves
CO3	Calculate dispersion and group velocity
CO4	Design rectangular waveguide
CO5	Design cavity resonator
CO6	Perform SWR measurements of rectangular waveguide



Digital System Design Laboratory

Subject Code: REC4C202

Semester: 4th

Course Outcome:

Students will be able to

CO1	Study behavior of Digital Logic Gates
CO2	Illustrate Boolean functions
CO3	Design and study adders and subtractors
CO4	Demonstration NAND Gates and NOR Gates
CO5	Design multiplexers and de-multiplexers
CO6	Investigate operation of flip-flops

Analog and Digital Communication Laboratory

Subject Code: REC5C201

Semester: 5th

Course Outcome:

Students will be able to

CO1	Study spectrum of different signals using spectrum analyzer
CO2	Analyze the process of frequency division multiplexing and demultiplexing
CO3	Study and understand operation of Amplitude and Frequency Modulation
CO4	Analyse PCM and Delta modulator
CO5	Study operation of TDM
CO6	Evaluate and compare ASK, PSK, FSK, BPSK, QPSK, and OQPSK



Digital Signal Processing Laboratory

Subject Code: REC5C202

Semester: 5th

Course Outcome:

Students will be able to

CO1	Determine various types of waveforms
CO2	Demonstrate convolution of two sequences
CO3	Examine correlation of a sequence
CO4	Estimate output of DFT and IDFT
CO5	Implement FFT algorithm
CO6	Study of digital filters

Microprocessors & Microcontrollers Laboratory

Subject Code: REC5C203

Semester: 5th

Course Outcome:

Students will be able to

CO1	Perform programs for arithmetic operations using 8086
CO2	Perform programs for sorting and searching using 8086
CO3	Perform programs for string manipulation operations using 8086
CO4	Perform programs for digital clock and stop watch using 8086
CO5	Learn interfacing of ADC and DAC, 8279, 8259, and 8253 MP Kits using 8251
CO6	Learn interfacing and communication between MP Kits using 8251, stepper motor and DC Motor

Microwave Engineering Laboratory

Subject Code: RCS6C201

Semester: 6th

Course Outcome:

Students will be able to

CO1	Study characteristics of reflex klystron, gun diode and directional coupler
CO2	Estimate voltage standing wave ratio
CO3	Study and measurement of Radiation pattern and polarization of horn antenna
CO4	Demonstrate scattering parameters
CO5	Analyse H-plane, E-Plane and Magic Tee junctions
CO6	Study and measurement of dielectric constant



Wireless Communication Laboratory

Subject Code: RCS6C202

Semester: 6th

Course Outcome:

Students will be able to

CO1	Measure the path loss in mobile cellular communication
CO2	Determine coverage probability in a cellular system
CO3	Demonstrate received power levels for hand-off
CO4	Study and analysis of sectoring and co-channel interference
CO5	Study ALOHA for WLAN System
CO6	Study on RFID system

Signals and Systems Lab using Software

Subject Code: REC3C202

Semester: 3rd

Course Outcome:

Students will be able to

CO1	Understanding Plotting of different discrete sequences
CO2	Study and analysis on Fourier transform
CO3	Understanding on convolution of two discrete time sequences
CO4	Analysis and study on Fourier series
CO5	Evaluate sampling of a continuous time signal
CO6	Analysis correlation and power spectrum

Communication Engineering Laboratory

Subject Code: REL5C201

Semester: 6th

Course Outcome:

Students will be able to

CO1	Study and analyse different signals with aid of spectrum analyser
CO2	Analyse the process of frequency division multiplexing and demultiplexing
CO3	Study and design of AM modulator and demodulator
CO4	Study and design of FM modulator and demodulator
CO5	Analyse and observe the process of PAM
CO6	Generate a carrier and a modulating signal and Modulate the carrier using AM and FM



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Digital Logic Design Laboratory

Subject Code: RCS3C001

Semester: 3rd

Course Outcome:

Students will be able to

CO1	Study behavior of Digital Logic Gates
CO2	Illustrate Boolean functions
CO3	Design and study adders and subtractors
CO4	Demonstration and implement different types code converters
CO5	Design multiplexers and de-multiplexers
CO6	Investigate operation of flip-flops