



"Education for Knowledge, Science, and Culture"

- Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur
(Autonomous)



KOLHAPUR (AUTONOMOUS)

Department of Electronics


Course Outcomes (Cos): Electronics Department

B.Sc. I Electronics (Implemented from JUNE 2018)	
Semester I	
Paper-I: DSC -1005 A	
CO No.	After completion of the courses, students will be able to:
Section-I: Network Analysis	
CO1:	Able to analyze and solve complex electrical circuits by applying fundamental laws
CO2:	Able to analyze and understand the behaviour of linear electrical circuits with two ports
CO3:	Understand diode operation, characteristics, and applications, enabling them to analyze and design basic electronic circuits involving diodes.
CO4:	Understanding principles of power supply design, calculating voltage and current requirements, and practical knowledge of rectification and voltage regulation techniques.
Section-II: Analog Electronics	
CO1:	Able to understand BJT structure, operation, biasing, and applications in amplification and switching circuits in electronic systems."
CO2:	Principles of operation, characteristics, and practical applications of unipolar devices, such as JFETs, for electronic circuit design and analysis.
CO3:	Understanding transistor structure, operation, different transistor amplifier configurations, and designing circuits for amplification.
CO4:	Understand the principles of feedback in amplifiers, different feedback circuits, and comprehend the operation of oscillators.



Semester: II	
Paper- II: DSC -1005 B	
CO No.	After completion of the courses, students will be able to:
Section-I: Linear Integrated Circuits	
CO1:	Fundamental principles, characteristics, and applications of operational amplifiers (op-amps).
CO2:	Understanding of the 555 timer IC, its internal block diagram, and operation as an astable, monostable and bistable multivibrator.
CO3:	Analyze, design, and optimize these circuits for various combinational circuits like, multiplexers, DE multiplexer, encoder and decoders for digital system design application.
CO4:	Understand the principles, types, and importance of resolution of digital to-analog and analog to digital conversion.
Section-II: Digital Integrated Circuits	
CO1:	Fundamental understanding of how numbers are represented and manipulated in different bases, as well as how to perform arithmetic operations using binary, octal, and hexadecimal numbering systems
CO2:	Fundamental principles of logic gates and their applications in circuit design, demonstrate proficiency in Boolean algebra operations, simplifying and optimizing logical expressions
CO3:	Fundamental principles of sequential logic, including the concepts of flip-flops, types of flip-flop, latches, clocking, and state machines.
CO4:	Design and analyse of shift registers and counters, including various types such as parallel load operation and ring counter.




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