



"Dissemination of Education for Knowledge, Science & Culture"  
-Shikshanmaharshi Dr. Bapuji Salunkhe

## Vivekanand College, Kolhapur (Empowered Autonomous)



### Department of Electronics

#### Course Outcomes (Cos): Electronics Department

B.Sc. I Electronics (Implemented from JUNE 2024) as per NEP-II	
Semester I	
DSC-I: 2DSC03ELE11: ANALOG ELECTRONICS-I	
<b>CO No.</b>	<b>After completion of the courses, students will be able to:</b>
<b>CO1:</b>	Identify and explain electrical components and determine the value of resistor, inductor and capacitor using color code method.
<b>CO2:</b>	Understand the basic properties of electrical elements, and solve DC circuit analysis problems, DC network theorems.
<b>CO3:</b>	Acquire the knowledge about the characteristics and working principles of PN junction diode, Zener diode, photo diode, LED and different diode applications.
<b>CO4:</b>	Understanding and study of rectifier, filter and voltage regulator circuits.
DSC-II: 2DSC03ELE12: DIGITAL ELECTRONICS-I	
<b>CO1:</b>	Understanding the basics of Digital Electronics, different number systems, Binary Codes and signed representation of binary number. Also understand the conversion between different number systems and solve the binary arithmetic problems.
<b>CO2:</b>	Design and construction of the basic and universal logic gates and studying the Boolean algebra and simplification of Boolean expression using different methods.
<b>CO3:</b>	Understanding and comparing different logic families according IC specifications and their circuit configurations.
<b>CO4:</b>	Understand, analyze and design various combinational circuits.





<b>Semester: II</b>	
<b>DSC-III: 2DSC03ELE21: ANALOG ELECTRONICS-II</b>	
<b>CO No.</b>	<b>After completion of the courses, students will be able to:</b>
<b>CO1:</b>	Analyze output in different operating modes of Bipolar Junction Transistor and Demonstrate the operating principle and output characteristics of Bipolar Junction Transistor
<b>CO2:</b>	Explain construction and characteristics of JFETs, MOSFETs and UJT.
<b>CO3:</b>	Design biasing circuits for BJT and study different coupling methods used in multistage amplifiers
<b>CO4:</b>	Analyze the importance of feedback in amplifiers. Apply the knowledge gained in the design of transistorized circuits and Oscillators.
<b>DSC-IV: 2DSC03ELE22: DIGITAL ELECTRONICS -II</b>	
<b>CO1:</b>	Understand, analyze and design various sequential circuits.
<b>CO2:</b>	Understanding the working of different shift registers and counters.
<b>CO3:</b>	Became able to know various types of analog to digital converters and digital to analog converters.
<b>CO4:</b>	Explain and compare the working of multivibrators using special application IC 555. Understanding and designing of multivibrator circuits.



  
(Dr. C. B. Patil)

**HEAD**  
**DEPARTMENT OF ELECTRONICS**  
**WIVEKANAND COLLEGE, KOLHAPUR**  
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