

G.E. Society's
RNC ARTS, JDB COMMERCE & NSC SCIENCE COLLEGE, NASHIK-ROAD

DEPARTMENT OF ELECTRONIC SCIENCE

Programme Outcomes of B.Sc (ELECTRONIC SCIENCE)	<p>PO-1: The goal of the three-year course is to instill in students a Confidence that they can get a grip of the subject and apply it for designing, testing and analyzing systems.</p> <p>PO-2: The course will also make use of problem-solving approach wherein the students will be trained to apply the acquired knowledge to design and analyze circuits for specific applications.</p> <p>PO-3: The students will be familiarized with programming Languages, various development tools, modeling and simulation tools through lab sessions.</p>
Course Outcomes (Electronic Science)-Semester-III (2020-21)	
Course Outcomes	
EL-231: Paper – I: Communication Electronics	<p>This course provides basic knowledge of analog (continuous wave) and digital communication systems . After study through lectures and assignment, student will be able to</p> <p>CO1 Understand different blocks in communication systems, types of noise in communication systems and its different parameters</p> <p>CO2 Understand need of modulation, modulation process and amplitude modulation and demodulation methods</p> <p>CO3 Analyse generation of FM Modulation and demodulation methods and comparison between amplitude and frequency modulation</p> <p>CO4 Identify different radio receivers and their performance parameters.</p> <p>CO5 Solve problems based on AM and FM performance parameters</p> <p>CO6 Compare pulse modulation techniques such as PAM, PPM, PWM and compare TDM and FDM techniques used in communication</p> <p>CO7 Understand need of sampling and sampling theorem as well as know about performance parameters of digital communication</p> <p>CO8 Analyze difference between ASK, FSK , PSK as well as PCM and its applications</p>

EL-232: Paper- II: Digital Circuit Design	<p>This course provides basic knowledge about systematic methodology of designing digital systems. After study through lectures and assignment, student will be able to</p> <ul style="list-style-type: none"> CO1 Distinguish between different logic families based on their performance parameters CO2 Analyze basic combinational logic circuits for simple applications CO3 Design combinational logic circuits using K maps for identified applications CO4 Design Sequential logic circuits using state diagram, excitation table for identified applications CO5 Understand and compare different types of ADC and their performance parameters using data sheets/manuals CO6 Understand and compare different types of DAC and their performance parameters using data sheets/manuals
Course Outcomes (Electronic Science)-Semester-IV (2020-21)	
Course Outcomes	
EL-241: Paper - I: Analog Circuit Design	<p>This course provides basic knowledge about systematic methodology of designing analog systems. After study through lectures and assignment, student will be able to</p> <ul style="list-style-type: none"> CO1 Design single/multistage amplifier using transistor and analyze their frequency response base on gain-bandwidth product due to coupling /bypass capacitors CO2 Classify and compare different power amplifiers CO3 Understand and design push pull amplifier and need of heat sinks CO4 Distinguish between Opamp Feedback circuits based on their configurations CO5 Analyze the effect of negative and positive feedback on characteristics of Opamp CO6 Understand and analyze the need of positive feedback in oscillator circuits CO7 Design , develop and build circuits for identified applications
EL-242: Paper II: Microcontroller and Python Programming	<p>This course introduces students with microcontroller using Arduino as well as develops programming ability using python language . After study through lectures and assignment, student will be able to</p> <ul style="list-style-type: none"> CO1 Identify the features and architectural details of microcontroller(arduino) CO2 Write code/program using open source programming

	language(arduino) for basic identified applications
CO3	Understand programming basics of python programming language
CO4	Understand special features of python programming language such as importing modules, directory, tupules
CO5	Design , build and implement applications using arduino and python