



## SESHADRIPURAM FIRST GRADE COLLEGE

Permanently Affiliated to Bengaluru Central University,

Recognised by Government of Karnataka & Recognised under Section 2f & 12B of the UGC Act, 1956,

NAAC Accredited 'A' Grade Yelahanka New Town, Bengaluru – 560064

### COURSE OUTCOMES OF B.Sc ELECTRONICS

Paper Code	Course Title	Semester	CO	Course Outcome
EL - 101T	Basic Electronics	I Sem	CO1	<b>DC and AC response of Electronic passive components</b> 1. Review of Passive Components, Transient Analysis of RL & RC circuits, AC, Resonance, Transformers, Switches
			CO2	<b>Network Theorems</b> 2. Students are able to apply the knowledge of basic circuit laws and simplify the network using reduction techniques and are able to solve the numerical problems by using network theorems
			CO3	<b>Semiconductor Diode and its applications</b> 3. Students will be able to understand Semiconductors Circuits, Zener Diode as Regulator & solve related problems
			CO4	<b>BJT and FET</b> 4. Students are able to observe the characteristics of BJT
			CO5	<b>Number Systems and Codes</b> 5. Students are able to do the conversion from one radix to another and utilize it in digital electronic circuits
EL- 201T	Electronic Circuits & Special Purpose devices	II Sem	CO1	<b>Small Signal Amplifiers</b> 1. Students will be able to construct, design and study the frequency response of small signal amplifiers.
			CO2	<b>Power and Tuned Amplifiers</b> 2. Students will be able to design and study frequency response of power and tuned amplifiers.
			CO3	<b>Differential Amplifiers</b> 3. Understanding the basic components of Differential Amplifier and Application of Current Mirror.
			CO4	<b>Feedback and Oscillators</b> 4. Student will be able to connect feedback circuits for applications and build oscillators and multivibrators.
			CO5	<b>Special Purpose Devices</b>



## SESHADRIPURAM FIRST GRADE COLLEGE

Permanently Affiliated to Bengaluru Central University,

Recognised by Government of Karnataka & Recognised under Section 2f & 12B of the UGC Act, 1956,

NAAC Accredited 'A' Grade Yelahanka New Town, Bengaluru – 560064

				5. , UJT, SCR,LED,LCD, Tunnel Diode, Varactor Diode, Solar Cell, PhotoDiodeetc..
EL-301T	Linear Integrated Circuits & C Programming	III Sem	CO1	<b>Integrated Circuit and Operational Amplifier</b> 1. To study the basic principles, configurations and practical limitations of op-amp.
			CO2	<b>Applications of OPamp and IC 555</b> 2. To understand the various linear and non linear applications of op-amp.
			CO3	<b>C programming</b> 3. To analyze and design filters oscillators and waveform generator.
			CO4	<b>Decision making branching and looping</b> 4. Introduction to C Language, Operators, structure of C program
			CO5	<b>Structure and unions</b> 5. Decision making, arrays, Functions Structures and Unions
EL-401T	Digital Electronics & Verilog	IV Sem	CO1	<b>Boolean algebra and logic gates</b> 1. To study the basic postulates of Boolean algebra and shows the relation between Boolean expressions
			CO2	<b>Combinational Logic circuits</b> 2. Combinational Logic Circuits Sequential Logic Circuits
			CO3	<b>Sequential logic circuits</b> 3. To design digital circuits, behavioral and RTL modeling of digital circuits using verilog HDL.
			CO4	<b>Introduction to verilog</b> 4. To understand different technologies related to HDL and execute VHDL program using provided software tools.
			CO5	<b>Data flow modeling and behavioral modeling</b> 5. To design digital circuits that is testable and synthesizable
EL-501T	Communication I	V Sem	CO1	<b>Noise and transmission lines</b> 1. To study the strong foundation on the theory of transmission line .Mechanism and models for propagation of radio waves.
			CO2	<b>Analog modulations techniques</b> 2. To introduce the concepts of analog communication systems, and to equip students with various issues related to analogue communication such as modulation, transmitters.
				<b>Radio receivers</b>



## SESHADRIPURAM FIRST GRADE COLLEGE

Permanently Affiliated to Bengaluru Central University,

Recognised by Government of Karnataka & Recognised under Section 2f & 12B of the UGC Act, 1956,

NAAC Accredited 'A' Grade Yelahanka New Town, Bengaluru – 560064

			CO3	3. To study the concepts on various techniques related to demodulation in AM receiver and FM receiver and also to study the characteristics of radio receivers.
			CO4	<b>Antennas</b> 4. To introduce the radiation mechanism propagating through various types of antenna along with antenna parameters. To study the analysis and synthesis of TV Pictures, Composite Video Signal, Receiver Picture tubes and Television Camera Tubes.
			CO5	<b>Televisions</b> 5. To study the various Color Television systems with a greater emphasis on television standards. To study the advanced topics in digital television and High definition television
EL-502T	Microprocessors & Instrumentation	V Sem	CO1	<b>Introduction to microprocessor</b> 1. Microprocessor Introduction , Features and Introduction
			CO2	<b>Stack operation and microprocessor programming</b> 2. Stack operation, Call and ret, Dealy Subroutines, Assembly language Programs
			CO3	<b>I/O instructions and interfacing</b> 3. I/O Instructions, Memory & I/O interfacing, 8255 PPI
			CO4	<b>Measurement systems, transducers and electronic instrumentation</b> 4. Measurement System, Types of Transducers, Instrumentation Amplifiers
			CO5	<b>Introduction to bio medical instruments</b> 5. Understanding the Biomedical Instruments, ECG, EEG and EMG Block diagrams.
EL-601T	Communication II	VI Sem	CO1	<b>Digital communication</b> 1. To study the basics of digital communication systems including the analysis and synthesis of such systems.
			CO2	<b>Radar systems</b> 2. The emphasis is on physical principles and working of modern radar systems processing techniques for both civilian and defense applications <b>Satellite communication</b>



## SESHADRIPURAM FIRST GRADE COLLEGE

Permanently Affiliated to Bengaluru Central University,

Recognised by Government of Karnataka & Recognised under Section 2f & 12B of the UGC Act, 1956,

NAAC Accredited 'A' Grade Yelahanka New Town, Bengaluru – 560064

			CO3	3. To provide in depth knowledge to understand how the satellite communication system successfully transfers information between two points.
			CO4	<b>Optical fiber communication</b> 4. The OFC aims to expose the newcomers to exciting area of optical communication with various types of optical fiber cables and requirements of light sources.
			CO5	<b>Cellular communication and wireless LANs</b> 5. To understand the basics of wireless voice and data communication technologies. To study the working principles of wireless LAN and its standards
EL-602T	Microcontrollers	VI Sem	CO1	<b>Introduction to microcontroller</b> 1. Introduction, types, features, counters and Timers
			CO2	<b>8051-Interrupts, addressing modes and instruction set</b> 2. Interrupts, addressing modes and Instruction Set
			CO3	<b>8051 programming in c</b> 2. 8051 Microcontroller programming in C
			CO4	<b>Interfacing with 8051</b> 3. I/O Interfacing , ADC and DAC Interfacing
			CO5	<b>PIC Microcontroller</b> 4. PIC Microcontrollers and its features