College Code : 7631

ಎಸ್.ಈ.ವಿ. ವಿಜ್ಞಾನ ವಾಣಿಜ್ಯ ಮತ್ತು ಕಲಾ ಕಾಲೇಜು

(ಬೆಂಗಳೂರು ಉತ್ತರ ವಿಶ್ವವಿದ್ಯಾಲಯದಿಂದ ಸಂಯೋಜನೆಗೊಂಡಿದೆ ಹಾಗೂ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಮಾನ್ಯತೆ ಪಡೆದಿದೆ)

S.E.A COLLEGE OF SCIENCE, COMMERCE & ARTS

(Affiliated to Bengaluru North University, and Recognized by Govt. of Karnataka)

NAAC Accredited with 'B' Grade

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DEPARTMENT OF ELECTRONICS

Program outcomes, Program Specific outcomes and course outcomes(NEP)

PROGRAMME OUTCOME (PO)	**PO1:** Provide students with learning experiences that develop broad knowledge and understanding of key concepts of electronics and equip students with advanced scientific / technological capabilities for analysing and tackling the issues and problems in the field of electronics. **PO2:** Ability to Identify, formulate and solve complex problems and interpret Data. **PO3:** Provide students with skills that enable them to get employment in industries or pursue higher studies or research assignments or turn as entrepreneurs. **PO4:** Train the candidate to communicate technically effective in solving technical research and development issues. **PO5:** Ability to work effectively as an individual, and as a member or leader in diverse teams, or in multidisciplinary domain. **PO6:** Provide students with learning experiences that develop broad knowledge and understanding of key concepts of electronics and equip students with advanced scientific / technological capabilities for analysing and tackling the issues and problems in the field of electronics.
PROGRAMME SPECIFIC OUTCOME(PSO)	**PSO1:** To implant the capacity to apply the concepts of Electronics in the design, development and implementation of application oriented real time systems. **PSO2:** An ability to solve complex problems in the domain of Electronics using updated hardware and software tools, along with analytical and managerial skills to arrive at cost effective and optimum solutions, either independently or as a team. **PSO3:** Ability to acquire social and environmental awareness with ethical responsibilities to have a successful career in real-world applications.

COURSE OUTCOMES(CO)	
EL-CT1 and EL-CP1 ELECTRONIC DEVICES AND CIRCUITS	CO1: Aptitude to apply Logic thinking and Basic Science knowledge for problem solving in various fields of electronics both in industries and research. CO2: To acquire experimental skills, analysing the results and interpret data. CO3: Ability to design / develop / manage / operation and maintenance of sophisticated electronic gadgets / systems / processes that conforms to a given specification within ethical and economic constraints. CO4: Capacity to identify and implementation of the formulate to solve the electronic related issues and analyse the problems in various sub disciplines of electronics. CO5: Capability to understand the working principles of the electronic devices and their applications.
EL-CT2 and EL-CP2 ANALOG AND DIGITAL ELECTRONICS	CO1: Understand and study the behaviour of the semiconductor devices ie., I-V characteristics of various MOSFET devices the knowledge can be extended for understanding the behaviour/characteristics/ response of unknown / novel devices. CO2: Applying the standard device models to explain/calculate critical internal parameters of semiconductor devices. CO3: Understanding and characterizing the behaviour of known/unknown/novel power electronic devices such as UJT, SCR, Diac, Triac etc. CO4: Acquainting and familiarization of the experimental skills to determine the behaviour of semiconductor devices. CO5: Capable of analysing the device characteristics and responses. CO6: Understanding the working of basic logic gates, concepts of Boolean algebra and techniques to reduce/simplify Boolean expressions and their applications. CO7: Synthesizing and Analysing combinatorial and sequential circuits and their applications in Electronics.
EL-CT3 and EL-CP3 PROGRAMMING IN C AND DIGITAL DESIGN USING VERILOG	CO1: Write and execute and debug C codes for solving problems. CO2: Apply the acquired knowledge of digital circuits in different levels of modeling using Verilog HDL. CO3: Apply the acquired knowledge of digital circuits in different levels of modeling using Verilog HDL.

	CO4: Design and verify the functionality of digital circuit/system using test benches. CO5: Develop the programs more effectively using directives, Verilog tasks and constructs. CO6: Design and analyze algorithms for solving simple problems.
EL-401T and EL401P Electronic Communication-I	CO1. Know the basic concept of Analog Communication, means and medium of communication. CO2. Understand the principle of Analog and digital modulation. CO3. Familiar with "AM" and "FM "techniques. CO4. Understand the basic concept of Pulse Modulation, Carrier Modulation for d transmission andable to construct simple pulse modulation. CO5. Understand the basic concept of Satellite Communication CO6. Understand the basic concept of Optical Fiber Communication