



Shri Shivaji Education Society, Amravati's
SCIENCE COLLEGE

Congress Nagar, Nagpur- 440 012 (M.S.) INDIA

- Tel : +91-712 - 2423432 (O) • Telefax : +91-712 - 2440955
- E-mail : shivajiscience_ngp@yahoo.com
- Web : www.sscnagpur.ac.in

Shri Harshvardhan P. Deshmukh
President

Prof. M. P. Dhore
Principal

- 'A+' Grade with 3.51 CGPA (3rd Cycle) Reassessment College by NAAC, Bangalore
- A College with Potential for Excellence identified by UGC, New Delhi
- Member, APQN (Asia Pacific Quality Network)
- Recognized Centre for Higher Learning & Research
- Mentor College under 'Paramarsh Scheme' UGC, New Delhi



Dr. Panjabrao alias Bhausaheb Deshmukh
Founder President

Program Outcomes, Program Specific Outcomes and Course Outcomes

Program Outcomes: Bachelor of Science (B. Sc.)

- ❖ PO1: To introduce the fundamentals of Science Education
- ❖ PO2: To enrich students' knowledge in all basic sciences
- ❖ PO3: To develop interdisciplinary approach amongst students
- ❖ PO4: To inculcate sense of scientific responsibilities and social & environment awareness
- ❖ PO5: To help student to build-up a progressive and successful career in academics and industry
- ❖ PO6: To motivate the students to contribute in the development of Nation

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DEPARTMENT OF ELECTRONICS

PROGRAMME OUTCOMES: B.SC. ELECTRONICS

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Department of Electronics	After successful completion of three years degree program in the subject Electronics, the students are able to:
Program Outcomes	<p>PO1: Ability to design and conduct electronics experiments, as well as to analyze and interpret data.</p> <p>PO2: Utilize the basic knowledge of science Electronics and Communication.</p> <p>PO3: To provide opportunity to students to learn the latest trends in Electronics.</p> <p>PO4: To satisfy the needs of the core Electronics Industry useful for the society in all walks of life.</p> <p>PO5: To provide opportunities to the students to formulate, analyze and resolve the problems in Electronics Industry.</p>
Program Specific Outcomes	PSO1: After completing the program, interested students can pursue in research field or in development field.

	PSO2: Students can become entrepreneur and can work on multidisciplinary projects.
Course Outcomes for B. Sc. ELECTRONICS	
Course Outcome for Semester-I	
PAPER-I: BASIC CIRCUIT COMPONENTS & NETWORK ANALYSIS	CO1: To enrich the students with the basic requirement of electronic circuits. CO2: To describe the theorems useful for circuit operation. CO3: To explore the use of energy sources for circuit operations. CO4: To familiarize about the use of transducers in instrumentation systems
PAPER-II: FUNDAMENTALS OF DIGITAL ELECTRONICS	CO1: To enrich the students with the basic requirement of digital electronics. CO2: To describe the use of Boolean Algebra for circuit operations. CO3: To elaborate the use of flip flops as memory in data processing system. CO4: To explore the use of binary circuits in digital system. CO5: To familiarize about the basic building blocks required for digital system.
Course Outcome for Semester-II	
PAPER-I: SEMICONDUCTOR DEVICES	CO1: To explain about semiconductors used for the fabrication of semiconductor devices. CO2: To acquire the knowledge of transistor used in many electronic circuits. CO3: To familiarize about the field effect transistor and its operation. CO4: To explore the use of power devices required in electronics circuits. CO5: To familiarize about the applications of diode, transistor and power devices.
PAPER-II: ADVANCED DIGITAL ELECTRONICS	CO1: To enrich the students with the digital ICS used in electronics circuits. CO2: To enhance the use of Flip-Flops in the construction of counters. CO3: To familiarize the use of Counters & Registers in data processing system. CO4: To explore the use of binary memory in digital system. CO5: To disseminate about the building blocks required for digital system.
Course Outcome for Semester-III	
PAPER-I: ANALOG CIRCUITS	CO1: To illustrate applications of diode as clippers, clamper and rectifier. CO2: To describe the role of transistor in amplification, signal analysis and two port hybrid circuit for testing amplifier parameters. CO3: To elaborate the concept of feedback and construction of feedback amplifier and oscillators. CO4: To explore the use of power amplifier in electronics circuits. CO5: To familiarize about the applications of diode and transistor.

PAPER-II: LINEAR INTEGRATED CIRCUITS	<p>CO1: To study DC & AC characteristics of operational amplifier.</p> <p>CO2: To elucidate and design linear and nonlinear circuits of OP-AMP. To study timer IC and its applications.</p> <p>CO3: To elaborate the role of filters in electronics circuits.</p> <p>CO4: To explore the knowledge of linear integrated circuits and its uses.</p>
Course Outcome for Semester-IV	
PAPER-I: BASIC COMMUNICATION ELECTRONICS	<p>CO1: To understand functioning of basic processes in communication systems.</p> <p>CO2: To understand analogue modulation & demodulation techniques.</p> <p>CO3: To Understand transmission and reception systems.</p> <p>CO4: To understand propagation of radio waves in communication systems.</p> <p>CO5: To understand the process of analogue signal communication system.</p>
PAPER-II: ANALOGUE AND DIGITAL CIRCUITS	<p>CO1: To study DAC and ADC used for data conversions in electronics system.</p> <p>CO2: To elucidate and design regulated DC power supply for operating electronic devices.</p> <p>CO3: To study PLL IC 565 and its applications.</p> <p>CO4: To elaborate the role of transducers in Bioelectronics circuits.</p> <p>CO5: To explore the knowledge of Analogue and Digital circuits and its uses.</p>
Course Outcome for Semester-V	
PAPER-I: Modern Communication Systems	<p>CO1: To understand the concept optical communication and its operation</p> <p>CO2: To understand various digital modulation and demodulation techniques.</p> <p>CO3: To analyse the performance of digital communication system in terms of error rate and spectral efficiency.</p> <p>CO4: To understand the telecommunication traffic, channel and cellular capacity</p> <p>CO5: To understand various application of cellular technology.</p>
PAPER-II: INTRODUCTION TO MICROPROCESSOR	<p>CO1: To understand importance of Microprocessors as a programmable digital system element in computer system.</p> <p>CO2: To understand architecture and features of 8085 Microprocessor.</p> <p>CO3: To explore some basic concepts of microprocessors through assembly language programming.</p> <p>CO4: To augmented the knowledge of interfacing the peripheral to increase the flexibility of microprocessor.</p> <p>CO5: To grown-up the in-depth understanding of the operation of microprocessors and machine language programming & interfacing techniques.</p>
Course Outcome for Semester-VI	
Paper-I: Programming in "C"	<p>CO1: After completion of course, Students are able to Develop their programming skills</p>

	<p>CO2: Familiar with elements of C language</p> <p>CO3: Understand operators, Expression and Preprocessors</p> <p>CO4: Understand different decision making and concept of looping in C</p> <p>CO5: Understand Array, Structure, Function and Pointers, their declaration and use</p>
<p>Paper-II: MICROCONTROLLER 8051 AND ITS APPLICATIONS</p>	<p>CO1: To understand architecture and features of 8051 Microcontroller.</p> <p>CO2: To learn Programming of 8051 microcontroller.</p> <p>CO3: To learn interfacing of 8051 Microcontroller with real world input and output devices.</p> <p>CO4: To understand the coding and interfacing of 8051 with various IO devices.</p> <p>CO5: To understand importance of Microcontrollers in atomization and control system</p>



Dr. A. A. Halder
 Internal Quality Assurance Cell
 (IQAC)
 S. S. E. S. A. Science College
 Congress Nagar, Nagpur.




Prof. M. P. Dhore
 Principal
 SSESA's Science College,
 Congress Nagar, Nagpur