



SRI VANI DEGREE & PG COLLEGE

(Affiliated to S.K.University)

Kakkalapalli Cross, Near Sakshi Office,
Ananthapuramu, Andhra Pradesh, India, 515002



Department of Electronics :

The department was established in 2004 with B.sc programmed in electronics as M.E.Cs. All the courses are offered as full time from 2004 to 2014 the department has yearly pattern exam but from 2015 to till S.K University introduce semester pattern .

Overview :

Since Electronics plays such a key role in the physical, biological, and social sciences, the Calculus courses are useful to students who plan careers in these areas. The Department of Electronics has been participating in teaching at undergraduate and postgraduate level in a diverse range of electronics topics for BSc & MSc students. The Department of Electronics currently offers 3 year Bachelors in Electronics program & followed CBCS system.

The core courses taught during three years of BSc program in first five semesters are: 1. Electronic Devices and Circuits, 2. Semiconductors, 3. Digital Electronics 4. Analog and Digital IC Applications, 5. Microprocessor 8085 and PPI interfacing, 6 Electronic Communication. For 6th semester Open Electives:

Cluster- A: Microcontroler 8051(comon) : VLSI Design, Data Comunication and Networking and Project work.

Cluster-B: Optical Fiber Comunication(comon) : Satelite Comunication, wireless communication and project work.

Cluster-C : Mathematical Methods and Analysis using MATLAB(comon): Digital Signal Processing ,Control Systems and Project work.

From this, we select the Cluster-A i.e., Microcontroller 8051 because of it is simply to understand students and embedded systems is introduced to students and implementation of programming skills in Project work.

MISSION :

- Our mission is to welcome all students into the study of Electronics, support them through their classes, and show them how Electronics is not only beautiful but also useful and powerful.

- To provide excellence in education, practical and science.
- To provide quality education and to make student entrepreneur and employable.
- Continues upgration of techniques for reaching heights of excellent global.

Vison :

- The vision of electronics department is to become higher learning and research and to produce creative to solution to societal needs.
- We envision a world in which all people embrace the beauty of Electronics, utilize their ability to help us understand the world, and harness their power to promote human flourishing.

Courses/Program offered :

Level	Course
UG	B.Sc (M.E.Cs) – Maths, Electronics, Computerscience B.Sc (M.P.E) – Maths, Physics, Electronics

Course Structure under CBCS :

Year	Sem	Course	Title of the Course	Internal Marks	External Marks	Total Marks
I	I	I	Basic Circuit Theory	25	75	100
			Practical Course- I	-	50	50
	II	II	Electronic Devices and Circuits	25	75	100
			Practical Course- II	-	50	50
II	II	III	Digital Electronics	25	75	100
			Practical Course- III	-	50	50
	I	IV	Analog and Digital IC- Applications	25	75	100
			Practical Course- IV	-	50	50
III	V	V	MicroProcessor 8085 and its Applications	25	75	100
			Practical Course- V	-	50	50
		VI	Electronic Communications	25	75	100
			Practical Course- VI	-	50	50
	VI	VII-C	MicroControler 8051 and Applications	25	75	100
			Practical Course- VII	-	50	50
		VIII-C1	VLSI Design	25	75	100

					0
			Practical Course- VIII	-	50
	VIII-C2		Data Communication and Networking	25	75
			Practical Course- IX	-	50
	VIII-C3		Project Work	25	75
			Practical Course- X	-	50

Number of Teaching Posts :

	Sanctioned Post	Filled Post
Teaching Post	01	01

PROGRAM OBJECTIVES :

The Department of Electronics seeks to provide quality education aimed at preparing high caliber professionals capable of achieving success and contributing to the development of the country in line with an ever-changing world.

- ❖ Graduates apply their knowledge of mathematics and science to identify analyzes and solve problems in the field of electronics and develops sophisticated communication systems
- ❖ Graduate exhibit their innovative ideas and management skills to meet the day to day technical challenges.
- ❖ Graduates embody a commitment to professional ethics, diversity and professional career.
- ❖ Graduates exhibit a desire for lifelong learning through technical training & professional archives.
- ❖ An ability to function effectively as an individual and as a team leader in reverse as multi discipline settings to accomplish a common goal.
- ❖ An ability to communicate effectively through presentations and clear instructions with the electronics community and society.
- ❖ An ability to develop lifelong learning for the changing technological environment.
- ❖ An ability to apply the electronics principles to manage project as an employee and as an employer.
- ❖ Provide students with definitions of fundamental concepts and the major theorems of the core areas of undergraduate Electronics.
- ❖ Develop students' ability to construct Electronic Circuits.
- ❖ Train the students to analyze and interpret statistical data related to real-life problems.
- ❖ Train students to formulate and evaluate the feasibility of a problem solving strategy.
- ❖ Develop students' ability to communicate Electronic Circuit results in written and

oral forms.

- ❖ Train students to design and implement algorithms for solving technical and real-life problems.

PROGRAM OUTCOMES :

- Apply a broad range of core Electronics knowledge and techniques, including advanced Digital Electronics, Digital Circuit and Applications, Microprocessor, Microcontroller, VLSI Design, Electronic Communication, Data Networking.
- Apply scientific experiments and research methods to continuously build on existing knowledge with modern and innovative ideas.
- Utilize electronic knowledge and IT skills to design, implement and enhance computer programs.
- Function on multidisciplinary teams.
- Analyze statistical data to identify and solve applied scientific problems
- Understand professional and ethical responsibility
- Communicate Electronic knowledge directly and indirectly with precision, clarity and organization.
- Formulate mathematical models to solve real-life problems in a contemporary global and societal context.
- Utilize modern techniques and skills obtained to achieve pre-determined goals and improve overall performance in a professional set up.
- An ability to apply knowledge of mathematics, science and electronics fundamental concepts appropriate to the discipline of electronics.
- An ability to analyze the complex problems, identify and formulate the solutions appropriate to it.
- An ability to design, implement and evaluate electronics for public health and society, cultural, societal and environment considerations.
- An ability to design electronic circuits and conduct investigations, as well as to analyze and interpret data.
- An ability to use current techniques, skills and modern tools necessary for practice.
- An ability to apply the professional practice to the local & global issue in the society.
- An ability to apply the knowledge of professional solutions for the justifiable development in changing environments.
- An ability to apply knowledge of learnt professional ethics to social issues responsibilities.

Course Objectives and Outcomes

Course Objectives
Students will try to learn
SEM -1 : Electronic Devices and Circuits
<ul style="list-style-type: none">• To understand operation of semiconductor devices.

- To understand DC analysis and AC models of semiconductor devices.
- To explain the basic concepts and laws of DC and AC electrical networks and solve them using mesh and nodal analysis techniques.
- To introduce students with the fundamental concepts in graph theory.
- To analyze circuits in time and frequency domain.
- To explain concepts of driving point and transfer functions, poles and zeroes of network functions and their stability.
- To synthesize the network using passive elements.
- To implement mini projects based on concept of electronics circuit concepts.
- To analyze the different RC and LC oscillator circuits to determine the frequency of oscillation

SEM -2 : Electronic Devices and Circuits

- To understand operation of semiconductor devices.
- To understand the operation of the various bias circuits of MOSFET and Analyze and design MOSFET bias circuits.
- To understand the operation and design of multistage amplifier for a given specification.
- To understand the operation and design of transformer coupled various types of power amplifier circuits.
- To understand the effects of negative feedback on amplifier circuits.
- To analyze the different RC and LC oscillator circuits to determine the frequency of oscillation
- To understand DC analysis and AC models of semiconductor devices.
- To explain the basic concepts and laws of DC and AC electrical networks and solve them using mesh and nodal analysis techniques.
- To introduce students with the fundamental concepts in graph theory.
- To analyze circuits in time and frequency domain.
- To explain concepts of driving point and transfer functions, poles and zeroes of network functions and their stability.
- To synthesize the network using passive elements.
- To implement mini projects based on concept of electronics circuit concepts.
- To analyze the different RC and LC oscillator circuits to determine the frequency of oscillation

SEM -3 : Digital Electronics

- To understand number representation and conversion between different representation in digital electronic circuits.
- To analyze logic processes and implement logical operations using combinational logic circuits.
- To understand characteristics of memory and their classification.
- To understand concepts of sequential circuits and to analyze sequential systems in terms of state machines.
- To understand concept of Programmable Devices, PLA, PAL.
- To implement combinational and sequential circuits .

SEM -4 : Analog and Digital IC Applications

- Fundamentals of analog and digital integrated circuits.
- Operational Amplifier IC 741 features and Applications.
- Different types of Counters and Shift Registers.
- Design methodologies using practical integrated circuits.
- To understand the concepts, working principles and key applications of linear integrated circuits.
- To perform analysis of circuits based on linear integrated circuits.
- To design circuits and systems for particular applications using linear integrated circuits.
- The application areas of integrated circuits.

SEM -5 : Paper(5) MicroProcessor 8085 and its Applications

- To develop background knowledge and core expertise of microcontroller.
- To know the importance of different peripheral devices and their interfacing to microcontrollers.
- To know the design aspects of microcontrollers.

To write assembly language programs of microcontrollers for various applications.

SEM -5 : Paper(6) Electronic Communications

- The fundamentals of basic communication system, types of noise affecting communication system and noise parameters.
- To introduce students to various modulation and demodulation techniques of analog communication.
- To analyze different parameters of analog communication techniques.
- It also focuses on pulse modulation and demodulation
- Need of modulation, modulation processes and different amplitude modulation schemes
- Different angle modulation schemes with different generation and detection methods.
- Various radio receivers with their parameters.
- Need of sampling and different sampling techniques.

Generation and detection of pulse modulation techniques and multiplexing.

SEM -6 : Paper(7) MicroController 8051 and its Applications

- To develop background knowledge and core expertise of microcontroller.
- To know the importance of different peripheral devices and their interfacing to microcontrollers.
- To know the design aspects of microcontrollers.
- To write assembly language programs of microcontrollers for various applications.

SEM -6 : Paper(8-A1) - VLSI Design

- To understand the concepts, working principles and key applications of linear integrated circuits.
- To perform analysis of circuits based on linear integrated circuits.
- To design circuits and systems for particular applications using

linear integrated circuits.

- To understand the fabrication process of CMOS technology To teach fundamentals of VLSI circuit design and implementation using circuit simulators and layout editors.
 - To study various problems due to VLSI technology advancement.
 - To study digital circuits using various logic methods and their limitations.
- To highlight the circuit design issues in the context of VLSI technology.

SEM -6 : Paper(8-A2) - Data Communication and Networking

- The fundamentals of basic communication system, types of noise affecting communication system and noise parameters.
- To introduce students to various modulation and demodulation techniques of analog communication.
- To analyze different parameters of analog communication techniques.
- It also focuses on pulse modulation and demodulation
- Need of modulation, modulation processes and different amplitude modulation schemes
- Different angle modulation schemes with different generation and detection methods.
- Various radio receivers with their parameters.
- Need of sampling and different sampling techniques.
- Generation and detection of pulse modulation techniques and multiplexing.

Course Outcomes

After successful completion of the course student will be able to

SEM -1 : Basic Circuit Theory

1. Understand & Analyze the AC characteristics.
2. Synthesize the network using passive elements.
3. Evaluate the network implementing theorems.
4. Evaluate frequency response & time variant to understand behavior of electronic circuits.
5. Synthesize the Resonance circuits.

SEM -2 : Electronic Devices and Circuits

1. Design and analyze the characteristics of different types of Diodes.
2. Design and analyze the characteristics & configurations of B.J.T.
3. Design and analyze the characteristics and different modes of FET & Basing UJT , SCR and applications.
4. Know about the photo electric Devices and applications.
5. Design and evaluate different types of Rectifiers Regulators.

SEM -3 : Digital Electronics

1. Evaluate conversions of from one number system to another system & subtraction using

different complements.

2. Synthesize and implementation of logic gates and design circuit using K - map.
3. Synthesize the combinational Digital circuits & Design Ic- logic families.
4. Synthesize the sequential logic circuits.
5. Analyze the different memory devices.

SEM -4 : Analog and Digital IC Applications

1. Evaluate and analyze the characteristics and mathematical applications of op-amp.
2. Synthesize the op-amp circuits to generate different wave forms and know about IC -555 and its applications.
3. Design and analyze combinational & sequential logic circuits.
4. Design and analyze data converters.
5. Synthesize the Digital system interfacing and Applications.

SEM -5 : Paper(5) MicroProcessor 8085 and its Applications

1. Draw and Describe pin diagram and Architecture of 8085 Microprocessor.
2. Timing diagram for Instructions machine cycle.
3. Write Assembly language program for Microprocessor.
4. Interface various peripheral devices to the Microprocessor.
5. Interfacing and Application of Microprocessor.

SEM -5 : Paper(6) Electronic Communications

- The fundamentals of basic communication system, types of noise affecting communication system and noise parameters.
- To introduce students to various modulation and demodulation techniques of analog communication.
- To analyze different parameters of analog communication techniques.
- It also focuses on pulse modulation and demodulation
- Need of modulation, modulation processes and different amplitude modulation schemes
- Different angle modulation schemes with different generation and detection methods.
- Various radio receivers with their parameters.
- Need of sampling and different sampling techniques.

Generation and detection of pulse modulation techniques and multiplexing.

SEM -6 : Paper(7) MicroController 8051 and its Applications

1. Draw & Describe pin diagram and Architecture of 8051 Microcontroller. Analyze Instruction set & Addressing modes of 8051 Microcontroller.
2. Evaluate & Synthesize writing Assembly language program for Microcontroller.
3. Interface various peripheral to the Microcontroller.
4. Synthesize application of Microcontroller.

SEM -6 : Paper(8-A1) - VLSI Design

Classification of IC.
MOSFET Application.
Design flow of IC.
VHDL and verilog datatypes and operators.
Program using verilog .

SEM -6 : Paper(8-A2) - Data Communication and Networking

- Different types of Network.
- Different types of topology.
- Different types of Media.
- Analog to digital signal conversion and digital to analog signal conversion.
- TDM,FDM and Types of MODEM.

Head of the Department



Name : Dr.G.Prathyusha

Qualification :M.Sc,Ph.D

Designation : Assistant Professor

Experience. : 11 years

Other Position : • NSS Program Officer

- Vocational Education Coordinator
- Swatchtha Action plan Coordinator

Faculty Profile :

Name	Qualification	Designation	Specialization	Teaching Experience
Dr.G.Prathyusha	M.Sc,Ph.D	Assistant Professor	Embedded systems, IOT	11

Qualification of Teaching Faculty

P.D.F	Ph.D	M.Phil	PG with NET/SLET	PG
-	01	-	-	01

Percentage of Lecture delivered and Practical Classes handled for a week :

Name of faculty	Total work load	Classes handled	Practical Classes handled
Dr.G.Prathyusha	30	22	8

Student Teacher Ratio :

Year	Class	No.of.Teachers	Student Teacher ratio
Final year	Electronics III	01	15:1
Second Year	Electronics II	01	24:1
First Year	Electronics I	01	44:1

Number of Academic. Staff and Technical Staff :

Name of the staff	Sanctioned	Filled
Lab Assistant	01	01
Lab Attender	01	01

Details of Infrastructural Facilities :

- Departmental Library consists of number of Books
- Internet facilities for Staff & Students

Library:

There is a central library to cater to the need of the students. Department does not have a library. But the complimentary copies provided by different publisher are provided in the department for the use of the student.

Internet facility for staff and students:

Yes (only for staff)

Classroom with ICT facility:

Yes

Laboratories:

Yes. Department has one single lab

Diversity of Students:

Name of Course	% of students from the same state	% of students from other state	% of students from abroad
UG	100	Nil	Nil

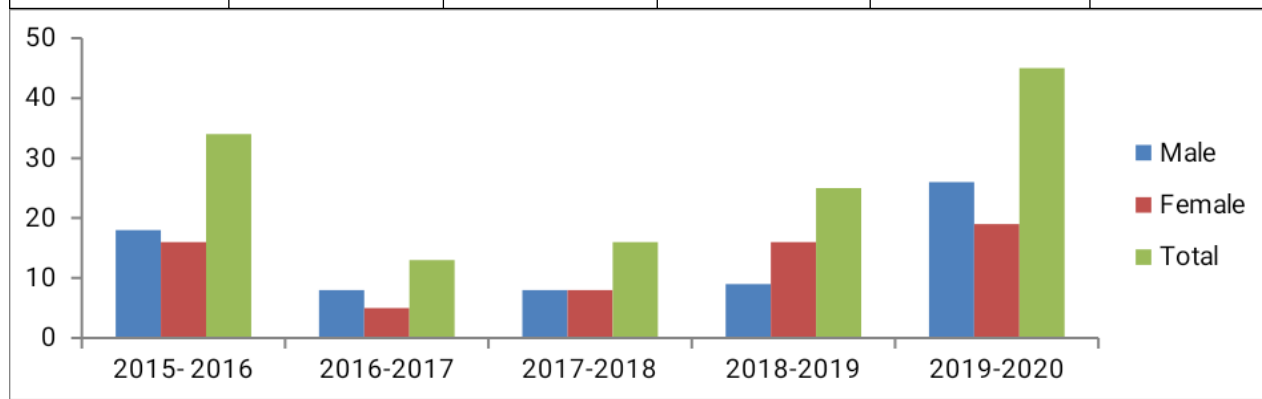


List of Visiting Faculty :

Name	Designation	Experience
Dr.B.Ashraf Ahamed	Assistant Professor	10
Dr.N.Nagamma	Assistant Professor	06
Dr.B.Bilvika	Assistant Professor	05
Dr.V.Ramnath	Assistant Professor	10

Program wise Student Strength

Name of the course	Year	Total Seats	Enrolled		Total
			Male	Female	
B.Sc (M.E.CS)	2015-2016	50	18	18	34
	2016-2017	50	08	05	13
	2017-2018	50	12	08	20
	2018-2019	50	09	16	25
	2019-2020	50	26	19	45

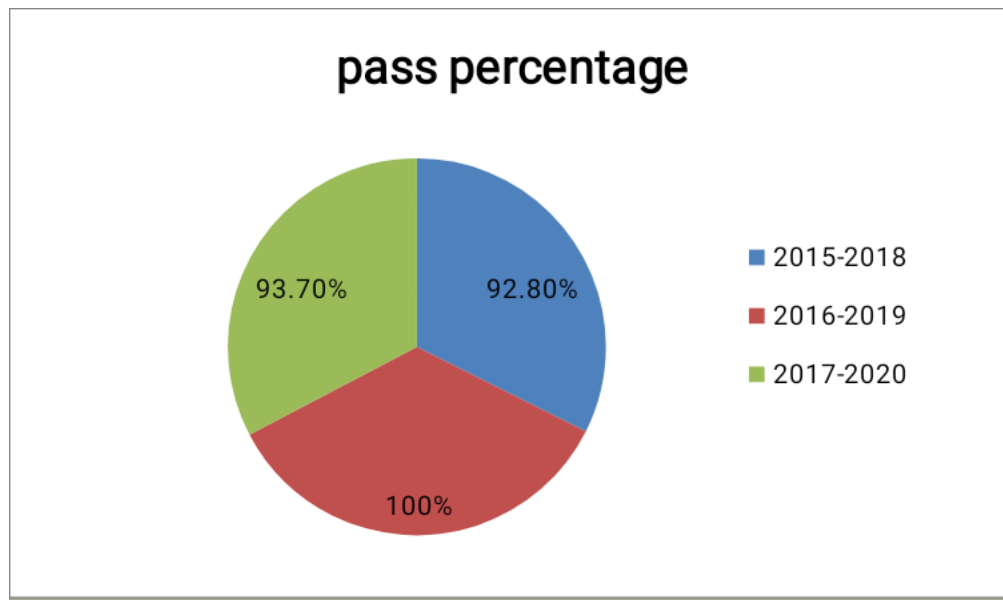


Result Analysis :

Year	Month	Sem	Appeared		Passed		Pass Percentage
			M	F	M	F	
2015-16	Nov/Dec	I	18	16	18	16	100%
	Mar/Apr	II	16	16	12	16	87.5%
2016-17	Nov/Dec	I	8	5	5	4	69.2%
		III	15	16	14	16	96.7%
	Mar/Apr	II	8	4	5	3	66.6%
		IV	15	16	14	16	96.7%
2017-18	Nov/Dec	I	11	7	7	8	78.9%
		III	7	4	7	4	100%
		V (P-5)	14	16	12	16	90.3%
		V (P-6)	13	16	12	16	96.5%
	Mar/Apr	II	9	7	7	7	87.5%
		IV	7	4	6	4	90.9%
		VI(ELE)	12	16	10	12	92.8%
		C-1	12	16	10	12	92.8%
		C-2	12	16	10	12	92.8%
		C-3	12	16	10	12	92.8%
2018-19	Nov/Dec	I	9	15	6	15	87.5%
		III	8	6	7	6	92.8%
		V (P-5)	6	4	6	4	100%
		V (P-6)	6	4	8	4	100%
	Mar/Apr	II	8	15	8	15	100%
		IV	7	7	6	7	92.8%
		VI (ELE)	6	4	6	4	100%
		C-1	6	4	6	4	100%
		C-2	6	4	6	4	100%
		C-3	6	4	6	4	100%
2019-20	Nov/Dec	I	26	18	18	19	84.09%
		III	8	15	8	15	100%
		V (P-5)	7	8	7	7	93.3%
		V (P-6)	7	8	7	8	100%
	Sep	VI (ELE)	7	8	7	7	93.3%
		C-1	4	7	4	7	100%
		C-2	4	7	4	7	100%
		C-3	4	7	4	7	100%

Passed out Percentage :

Batch	Appeared		Passed		Pass Percentage
	M	F	M	F	
2015-2018	12	16	10	16	92.8%
2016-2019	09	04	06	04	100%
2017-2020	09	06	09	05	93.7%



Values :

We value hard work and determination to overcome challenges, inquisitiveness to foster learning, creativity to consider new ideas, cooperation to work with others and to help them excel, diversity to respect the opinions and backgrounds of others, and community to support one another.

Outside the classroom :

In addition to regular coursework, students can enhance their Electronics experience in many other ways. Students may also participate in seminars, independent study, or problem-solving groups. The department also employs/encourages students as tutors, lab assistants, teaching assistants, and research assistants.

Teaching methods adopted to improve student learning :

- Study projects
- Class room teaching
- Power point presentations
- Class Seminars
- Assignments
- Group Discussions
- Quiz programmes
- Guest lectures

Best Practice in Campus

Rain Water Harvesting :

Water is an important natural resource and is the very basis of our life. We use water for drinking, irrigation, industry, transport and for the production of hydro-electricity. Water is a cyclic resource which can be used again and again after cleaning. The best way to conserve water is its judicious use. Rain water harvesting is a technique of collection and storage of rainwater into natural reservoirs or tanks, or the infiltration of surface water into subsurface aquifers. Rain water harvesting is one of the most effective methods of water management and water conservation. It is the term used to indicate the collection and storage of rain water used for human, animals and plant needs. It involves collection and storage of rain water at surface or in sub-surface aquifer, before it is lost as surface run off. The augmented resource can be harvested in the time of need. Artificial recharge to ground water is a process by which the ground water reservoir is augmented at a rate exceeding that under natural conditions of replenishment. The collected water is stored and pumped in a separate pipe distribution. This is a very useful method for a developing country like India in reducing the cost and the demand of treated water and also economizing the treatment plants operation, maintenance and distribution costs.

Need :

- ★ To overcome the inadequacy of surface water to meet our demands.
- ★ To arrest decline in ground water levels.
- ★ To enhance availability of ground water at specific place and time and utilize rain water for sustainable development.
- ★ To increase infiltration of rain water in the subsoil this has decreased drastically in urban areas due to paving of open area.
- ★ To improve ground water quality by dilution.
- ★ To increase agriculture production.
- ★ To improve ecology of the area by increase in vegetation cover etc.



Best Practice in outside the campus :

- Adoption of orphanizers

Regular Activities

- ★ Maintain cleanliness at the Orphan homes.
- ★ Spending time with residence and students actively participated in recreation activities.
- ★ Collection of articles and funds for maintenance in orphan homes..
- ★ Collect their information and motivate them and also provide necessities like clothes, nutrition etc to them.



Details of student enrichment programme (Special lectures/ workshops/ seminar) with external experts:

- Webinar on "SWOT ANALYSIS".
- Two Day Workshop on "Personal Safety and Protection of Children from Sexual abuse and child online safety for children and Adults".

Skill Development Program

- Webinar on "Mastering Virtual Classes and Assessments" .
- Five Day online workshop on "Web Site Designing" to final year students.
- Two Day online workshop on "Sensors and Transducers" to final year students.

Vocational Education

- Two Day online classes on "Tailoring".

Number of students receiving financial assistance from college, university, government or other agencies:

Batch	Enroled students	Fees Reimbursement	% of Receiving FR
2015-2016	36	36	100%
2016-2017	13	13	100%
2017-2018	20	20	100%
2018-2019	25	25	100%
2019-2020	45	45	100%

Participation Institutional Social Responsibility (ISR)

Our students participated in NSS activities, seminars and quizzes conducted by college.

- 60 number of NSS volunteers are participated in 5th International Yoga Day Celebrations on June 21th 2019
- 55 number of NSS volunteers are attended the awareness program on Solid Waste Management.
- 45 number of students marched through the streets of adopted village (kakkalapalli village) to spread awareness on solid waste management.
- 20 number of NSS volunteers participated in tree plantation programme to create social awareness about the importance of tree as well as planted trees in college campus.
- 30 number of NSS volunteers are participated in clean campus programme.
- On occasion of Jal Shakti Abhiyan (JSA) focused on water conservation, our students are take a part in digging percolation tank and vermicompost.
- On the glorious occasion of our mighty country's 73rd independence day, our college hosted a simple and elegant flag hoisting ceremony.
- 60 number of NSS volunteers are participated lecture series on the focus of poshan maah (Nutrition Month) on the occasion of Poshan Abhiyan Jan Andolan Dashboard.
- 40 number of students are participated in blood grouping camp conducted in college.
- On the occasion of Foundation Day of NSS, Unit-I conducting awareness program about NSS, Essay writing & poster presentation on NSS activities, in this event 20 number of students are participated.
- On the occasion of Mahatma Gandhi 150th Birth Anniversary (Gandhiji's Nai Talim), 50 number of NSS Unit-I volunteers participated in tree plantation and cleanliness drive in the college campus.
- On the occasion of Constitution day, NSS Unit-I conducting classroom lecture.
- 20 number of NSS volunteers are participated in activities (Quiz, Elocution, Poster presentation & Painting) carried out in college on the occasion of 150th Birth Anniversary of Mahatma Gandhi.
- 20 number of NSS volunteers are participated University level Youth festival will be conducted 22nd Jan at Bhuvanavujayam, Sri Krishnadevaraya University, Anantapuramu.
- 20 number of NSS volunteers are participated in Awareness of Corona in Adopted Village.
- 15 students are actively participated in plantation, distribute mask and Sanitizers and awareness program of COVID 19 in their villages.
- 30 number of students are attended in online celebrations on the occasion of Sports day.

- 45 number of students are attended in online celebrations on the occasion of Independence day.
- 35 members are actively participated in Skill Development Program on Tailoring.



Facilities

- Laboratory with equipments and full fledged space
- Internet and ICT

Library books:

- ❖ Electricity, Magnetism & Electronics
- ❖ Fundamentals of Electronics
- ❖ Intel microprocessors
- ❖ 8051 microcontrollers
- ❖ Introduction to Electrodynamics
- ❖ Electromagnetic with applications
- ❖ Solid state electronic devices
- ❖ Opto electronics
- ❖ Linear integrated
- ❖ Telugu Academy Books
- ❖ Digital Electronics
- ❖ VLSI Design
- ❖ Data Communication and Networking

Lab Experiments

- CRO
- Kirchhoff's laws
- Thevenin's Theorem
- Norton's Theorem
- Maximum Power Transfer Theorem
- RC circuit- (low and High pass)
- RL circuit- (low and High pass)
- LCR series resonance circuits
- LCR parallel resonance circuits
- junction diode
- zener diode
- Regulated power supply using zener diode
- Bipolar junction transistor
- Field effect transistor
- Uni junction transistor
- LDR
- IC regulated power supply(IC-7805)
- SCR
- logic gates
- Discrete components (resistor, diodes & transistor)
- Universal gates (NAND & NOR gates)
- Half adder and full adder using gates
- Half subtractor and full subtractor using gates
- RS , JK, T-F/F using NAND gates
- 4-bit binary parallel adder and subtractor using IC 7483
- BCD to Seven Segment Decoder using IC -7447/7448
- Op-Amp as inverting and non-inverting

- Op-Amp as integrator and differentiator
- Op-Amp as adder & subtractor
- Op-Amp as voltage to current converter
- Op-Amp as sine wave generator (Wien bridge oscillator)
- Op-Amp as sine wave generator
- Astable multivibrator determination of frequency (using IC-555)
- Schmitt trigger using IC-555
- Stepper motor
- PulseAmplitude Modulation
- Pulse width Modulation
- Pulse posotion Modulation
- stepper motor
- LCD
- DAC
- Binary counter

Student achievements

Sports

Name	Batch	Game	Achievement	Year
C.Kusuma	2017-2020	Kabadi	University level SouthZone	2019
T.Nirmala	2018-2021	Voley Ball	University level SouthZone	2019
T.Prathyusha	2018-2021	khokho	University level SouthZone	2019
P.Sreeja	2018-2021	Kabadi	University level SouthZone	2019

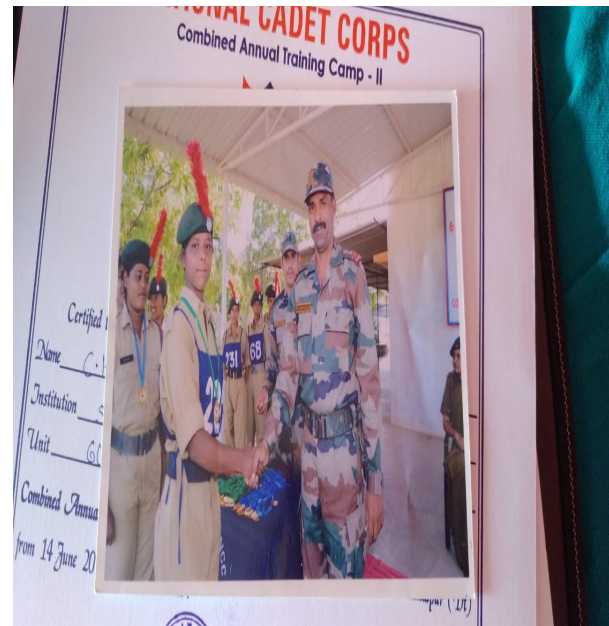




D.A.Sushma participate in Elequation competition in NSS youth festival 2019.



C.Kusuma won two gold medals in NCC camp.



G.Geetha Rani participated in National Integration Camp - 2020 in Bangalore.



Two students participated in seminar on "Latest Trends in Sensors and Signal Conditioning", Department of Electronics & Instrumentation, S.K.University.

Two students got Admission in Department of Electronics & Instrumentation, S.K.University in 2019.

T.SreeRamulu and K.Thasleem

SWOC analysis of the department and Future plans :

Strengths <ul style="list-style-type: none">❖ Efficient & Experienced Faculty with doctoral degree❖ Good infrastructure and well established dept. Library .❖ Consistent good pass percentage.	Opportunities <ul style="list-style-type: none">❖ Improving enrolment❖ Improving the optimum usage of ICT in teaching learning❖ Exploring the starting of new Job-oriented courses
Weaknesses <ul style="list-style-type: none">❖ The socio-economic background of many of the students❖ Most of the students are of first generation	Challenges : <ul style="list-style-type: none">❖ Sustaining quality along with access❖ More placements❖ Generation of resources for research facilities in the department

Future Plans :

- To start multidisciplinary job oriented courses
- To a conduct a national seminar
- To establish Research Centre in the department

