



## **Editorial**

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#### ***Inside the Issue***

- *Programs organized in the dept.*
- *Faculty achievements*
- *Faculty participations in FDPs/Workshops/seminars*
- *Student achievements*
- *Placement details*

*.....and many more*

## **Vision**

To produce globally competitive and socially sensitised engineering graduates and to bring out quality research in the frontier areas of Electronics & Communication Engineering.

## **Mission**

To provide quality and contemporary education in the domain of Electronics & Communication Engineering through periodically updated curriculum, best of breed laboratory facilities, collaborative ventures with the industries and effective teaching learning process.

To pursue research and new technologies in Electronics & Communication Engineering and related disciplines in order to serve the needs of the society, industry, government and scientific community.

## **Program Educational Objectives (PEOs)**

After 3 to 5 years of graduation, electronics & Communication Engineering graduates will

PEO1: Excel in their professional career and higher education in Electronics & Communication Engineering and related fields.

PEO2: Exhibit leadership through technological ability and contemporary knowledge.

PEO 3: Adapt to emerging technologies for sustenance in their relevant areas of interest.

## About the Department

Accreditation of B. Tech and MTech programmes by NBA, New Delhi to turn out globally recognized graduates.

40% of the faculty with Ph.D. qualification from premier institutions encompassing IITs, NITs, BITS and government universities to institute strong foundation and impart necessary skills

Establishment of TIFAC CORE in Telematics by DST, New Delhi and industries with outlay of 10 Crores, first of its kind in the state of AP, for producing industry ready students in the focused core areas. Conduct of research and guidance in the focused areas of Antennas, Image Processing, RF&MW, VLSI & ES, Telematics.

More than 75% of the students are being absorbed by reputed MNCs'.

The Teaching-Learning process adopts different methods such as experiential learning, participative learning and problem-solving methodologies utilizing ICT facilities, LMS and e-resources. All the academic activities are carried out strictly following the academic and activity calendar. Proctor dairy system is in place for counselling and to monitor academic and personal issues of students. Necessary efforts are being made in identifying the learning levels (slow and fast) of the students through various assessments and additional training is imparted to slow learners.

Department encourages academic discussions between faculties and students using black board and faculties shares academic study material using it.

Use of modern teaching aids like LCD projectors, Wi-Fi enabled laptops are usually employed in classrooms and other student learning environments

Department has introduced EPICS (Engineering Projects for Community Services) in the curriculum along with mini and major projects. In EPICS students will go to the society (villages/ hospitals/ towns etc.) to identify the problem and survey the literature for a feasible solution.

Expert video subject lectures delivered by the various eminent resource persons are available in the digital library and it facilitates the faculty and students to utilize E-Tutorials of NPTEL, MOOCs access E-Journals, Video Conference, etc.

Faculty members use department library, digital library and other Open-Source platforms to enhance their teaching skills. The faculty members are encouraged to participate in short term courses, staff development programs and workshops on advanced topics to keep pace with the advanced level of knowledge and skills.

## Program Specific Outcomes (PSOs)

After completion of electronics & Communication engineering Program, the students will be able to have ability to:

**PSO 1:** Demonstrate proficiency in the use of IOT required in real -life applications

**PSO 2:** Implement functional blocks of hardware/software designs for signal processing and communication applications.

## HOD'S MESSAGE

### Editorial Board

**Chief Editor**  
Dr.P V Subbaiah  
Head of DEPT  
ECE

**Editor**  
Sri.Y.Sarada Devi  
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ECE

**Student Editors**  
G Ramakrishna  
S P Sriram

It is a pleasure to share the excitement about the activities of Department through this newsletter. This news digest would highlight the research activities, achievements of faculty, students and project staff, carried out in the Department and the new initiative Programmes under TEQIP are envisaged with large hypes and hopes so as to improve our classrooms, labs, library, amenities it has been carried out with great spirits and it is still in its course on high note with experienced hands from esteemed organizations, senior faculty from reputed institutions, people from industry and consultancy services turning up to share their knowledge and experience. The diverse knowledge acquired from the conferences coordinated is a new learning experience for the faculty, with a view regarding the student's placement. This newsletter is one small step in that direction. We hope you will join in celebrating our journey towards excellence.

### Projects Obtained & Ongoing:

- Design and Analysis of Multi octave band EW Phased array using a printed Radiator covering 6-18GHz; the sponsoring agent being DLRL, DRDO, Delhi with a grant of 65.05 lakhs was obtained and Ongoing for the duration 2017-2020.
- Optimization of low-cost lab-on-chip platforms for the development of Biomedical Applications: DST the sponsoring agent being SERB (SRG) with a grant of 23.91 lakhs was Obtained and Ongoing for the duration 2020-2022

### *Expenditure on Purchase of Equipment:*

- Cortex-M3 based evaluation board with on board, 7 segment, ADC, keypad and JTAG debugger of 15 in number are purchased with an amount of 3,00,000/- with GST @5%, Total amount 3,15,000/-.
- Raspberry Pi-3, Nodemcu and Arduino boards of each 5 number are purchased with a total amount of 27,216 /-
- 11 KVA online UPS system with 3 phase input and 1 phase output with SMF batteries to provide 30 min. backup along with batteries is purchased with a total amount of 1,40,593/-
- Fiber optic trainer kits is purchased with an amount of 31,860/-
- 100MHz Digital Oscilloscope of 5 number are purchased with a total amount of 1,32,300/-
- ALMICRO Trinocular metallurgical microscope is purchased with a total amount of 23,100/-
- Source meter-dual channel: 200V, TRIAX adapter for 2600 series, License Kickstart FL-Base apps of KickStart 2.0 is purchased with a total cost of 7,54,718/-
- HP 18.5” Monitors of 17 number and mouse and key boards of 20 in number are purchased with an amount of 1,08,150/-.
- Intel i5-7500, 3.40GHz Processor and HP 21.5” monitor are purchased with an amount of 47,200/-.
- UV chamber is purchased with an amount of 13650/-

### *Patents applied & awarded*

Ch Lakshmi Prasanna, JRF, ECE, Bhagya Lakshmi Assistant Professor, Dr. N. N Sastry, ECER&D Dean “Small Aperture All Metal Vivaldi Antenna for Direction Finding and Phased Array Applications” Application No :201941026038, Publication Date: 29.06.2020

### *Qualification improvement of the faculty: Ph. D awarded:*



Mr. T Venkata Sai Nadh Gupta, was awarded PhD degree from, VNIT, Nagpur



Mr.T. Raja Sekhar was awarded PhD degree from ANU, Guntur.

### *Seminars, Workshops, Conferences, FDPs etc. organized*

One Week Online Short-Term Training Program STTP-I on “Trends and challenges in Design and Implementation of Reconfigurable Antennas for Increased Spectrum Access in Cognitive Radio Communication” Organized by Department of Electronics & Communication Engineering, Velagapudi Ramakrishna Siddhartha Engineering College during 20<sup>th</sup> - 25<sup>th</sup> July 2020

Sponsoring agency: AICTE

Resource Persons:

- Dr. M. Lakshmi Narayana, Scientist-H (Retd.), DLRL/DRDO, Director R&D, Unistring Tech Solutions Pvt. Ltd
- Dr. D Vakula, Assoc. Prof., NITW, Warangal
- Dr.M.Padmaja, Prof. of ECE, V. R. Siddhartha Engineering College, Vijayawada
- Dr .Radhakrishna Ganti, Associate Professor, IIT Madras,
- Er.P.Mahalakshmi, Sr. Researchist (Radar Optimizations) Wilma Communications Groups (WCG)
- Er. M.Vinoth, Co-Founder & Head, WCG (Asia | US | Europe)
- Dr. G. Rama Murthy, Professor, Dept. of CSE, Mahindra University, Hyderabad
- Dr. P. Sri Hari, Assoc. Prof, NITW, Warangal
- Dr. Abhinav Kumar, Associate Professor, Department of Electrical Engg., IIT Hyderabad,
- Er. Shashikumar R, Application Engineer, Entuple Technologies, Bangalore
- Er. Rajesh kulalar (Application Engineer), Jyoti Electronics, Bangalore



Dr.V. Praveen Naidu, Associate Professor, ECE Dept attended two weeks advanced skill development programme on patent drafting, patent filling, design registration, trademark, and copyright at Rajiv Gandhi National Institute of Intellectual Property Management (RGNIIPM) from 24<sup>th</sup> February to 6<sup>th</sup> March 2020, at Nagpur, Maharashtra. Registration fee for start-up benefit has been availed for attending this event.

Dr.A.B. Yadav, ECE received DST Travel Grant worth Rs 1,20,000/-



**Faculty Special recognitions including editorships, reviewer etc....,**

**Reviewers:**



**Dr. M. Durga Prakash**

IEEE, Sensors Journal

Springer, Transactions on Electrical and Electronic Materials

**Dr. V Praveen Naidu**

International Journal of RF and Microwave Computer-Aided Engineering

Progress in Electromagnetic Research C

Microsystem Technologies

Progress in Electromagnetic Research Symposium - Fall (PIERS - FALL)

Wireless Personal Communications

Journal of Microwaves, Optoelectronics and Electromagnetic Applications

Microsystem Technologies-micro-and Nano systems-information

Storage and Processing

Systems

Advanced Electromagnetics

Analog Integrated Circuits and Signal Processing Journal of Optics

Progress in Electromagnetics Research Symposium (PIERS)





**Dr. Sara Suhasini**

Journal of Intelligent & Fuzzy systems

### Placement activity (TeLP)

Among the IV/IV B. Tech 166 Students are placed in the following companies:

Name of the company	No of students placed	Package
TCS DIGITAL	4	7.2 LPA
SDS	2	7 LPA
INFOSYS	2	5 LPA
ARETEANS	3	4 LPA
COGNIZANT	46	4 LPA
TCS NINJA	79	3.8 LPA
AASEYA	3	3.8 LPA
CAPGEMINI	18	3.8 LPA
INFOSYS	5	3.8 LPA
HEXA WARE	4	3.6 LPA



**65 Students were trained at NPFSAT systems**

**Pvt.Limited,Vijayawada.**

### **Student Paper presentation and Participation in Seminars/ Conferences/ workshops:**

Following students presented their models on INNOVATION DAY AT VRSEC ON 15-10-2020.

- 1.Kothamasu Amarnath, Kantamaneni HarshaVardhan, Khambhampati Sai Bhargav, Veeravalli Raviteja (IV/IV B. TECH) presented their model with title “Epilepsy seizure detection using SVM algorithm.”
2. Vatti Janaki ram II/IV B. TECH presented his model with title “Smart school bus monitoring System”.
- 3.Sadam Lokesh, Ganganath, Achyutha V S Prasanna, Mani Ram Kumar, Shaik Mohammad Yasin III/IV B. TECH presented their model with title “Smart Wheel” (A Wheel That Converts Mechanical Enegy To Electrical Energy).
- 4.Korada Kusuma Kumari., Neralla Jaya Naga Venkata Durga Tanuja, Vishnubhatla Sai Lakshmi Manonmai II/IV B. TECH presented their model with “Airway fire extinguisher”
- 5.Sudharani Maddala III/IV B. TECH presented her model with title “Rotating solar panels”.
- 6.Nuvvula Naga Sai Prasanna, Revathi Haveela, Evangeline katikala II /IV B. TECH presented their model with title “Rescuing the child fell borewell.”
- 7.Arepalli.Dhana Lakshmi, Devarapalli Sindhu II/IV B. TECH presented their model with title “Automatic On/Off Street Light.”
- 8.A. Naga Sri Manasa.A. Vyshnavi, Ch. Sessa Sai Hamsika, P. Shalini IV/IV B. TECH presented their model with title UV Disinfection Robot with “Automatic Switching on Human Detection”

### **Skill Development initiatives(T&P)**

- One Month TCS NQT Placement Training Classes for B. Tech, ECE, IV Year students are scheduled every day from 29.06.2020 to 06.08.2020.
- Two Months Edyst Placement Training Classes for B. Tech, ECE, IV Year students are scheduled every day from 29.06.2020 to 06.08.2020.
- Three Months PEGA CSSA Certification Training for B. Tech, ECE, IV Year students are scheduled every day from 16.09.2020 to 30.11.2020
- Campus Recruitment Training Classes for B. Tech, ECE, III Year students are scheduled every day from Monday, 5<sup>th</sup> October 2020 to till the end of VI Semester.

*GRE, TOEFL, IELTS, GATE rankers & students qualified:*

Following 22 students qualified the GATE in 2020:



168W1A04H0  
S CHANDRA MAHESH  
Rank 11328



168W1A04F1  
M PREM CHAND  
Rank 22861



168W1A04G9  
R BALAJI DURGA RAM  
Rank 13224



168W1A04E5  
K V N S SIVANI  
Rank 7935



168W1A04D4  
G NAGUR BEE  
Rank 10763



168W1A04A2  
MITHUN PALAGANI  
Rank 2850



168W1A04A0  
SRAVYA NARAGAM  
Rank 12236



168W1A0493  
AKHILA MANNAM  
Rank 8341



168W1A04A4  
SOLOMON PARASU  
Rank 17765



168W1A04A5  
SUNNY PENUMAKA  
Rank 18286



168W1A04A3  
SHYAM KIRAN P  
Rank 9222



178W5A0421  
SALI PRATIGNA  
Rank 25579



168W1A04B8  
PRAGATHI V  
Rank 5619



168W1A0438  
P SWATHI  
Rank 5162



168W1A0454  
U ARPANA  
Rank 9707



168W1A0412  
D MAHESH BABU  
Rank 5619



168W1A0445  
S VIVEK  
Rank 4859



168W1A0437  
P AKHIL  
Rank 3108



168W1A0453  
U HIMA BINDU  
Rank 2193



168W1A0446  
SK FARHEEN  
Rank 8135



168W1A04M0  
M SUSMITHA SONIA  
Rank 10763



168W1A04J0  
CH S SAI ABHIJITH  
Rank 9950

### Following 9 students qualified GRE, IELTS



168W1A04C0  
B YOGI CHANDAR  
GRE Score 317



168W1A0472  
ABHISHIKTH D  
GRE Score 318



168W1A0475  
CHANDRA TEJA G  
GRE Score 316



168W1A04A8  
NAVEEN KRISHNA P  
IELTS Score 7



168W1A0467  
B SAMPATH  
IELTS score 6



168W1A0474  
G ROHITHA  
IELTS Score 6.5



168W1A0443  
S V VARSHITH REDDY  
IELTS Score 7



168W1A0449  
S SAI KAMAL TEJA  
IELTS score 7



178W5A0402  
A HARI PRIYA  
IELTS score 7

## Core values of the institute

V R Siddhartha Engineering college engages itself in a process of self and community reflection that leads the institution to recognize and heighten awareness of the core values the college is practising and to develop an institutional culture that stands accountable to those values

- 1. Commitment**
  - Responding to the changing need of our region and nation
  - Develop a shared decision-making process
- 2. Respect**
  - Include stake holders in the decisions
  - Recognise and support employee contributions
- 3. Excellence**
  - Anticipate techno-social need and respond accordingly
  - Encourage innovation and interdepartmental collaboration
- 4. Accountability**
  - Continuously evaluate and improve the academic and administrative systems
  - Demonstrate responsibility through stakeholder satisfaction
- 5. Diversity**
  - Ensure fair and equal access for all
  - Recognise, appreciate and celebrate diversity
- 6. Cultural competence**
  - Encourage ideas and participate
- 7. Learning environment**
  - Outstanding physical infrastructure, along with a culture of excellence
- 8. Community**
  - Value and respect Collegiality, Partnerships, Safe and Healthy Environment and Service
- 9. Integrity**
  - Committed to ethical and responsible behaviour

## Quality policy

VRSEC strives to impart Knowledge, Skills and Attitude through continuous improvement to meet the ever-changing needs of Industry and the Sustainable Development of Society

## PROGRAM OUTCOMES (POs)

<b>PO1</b>	<b>Engineering knowledge:</b> An ability to apply knowledge of mathematics, science, fundamentals of engineering to solve electronics and communication engineering problems.
<b>PO2</b>	<b>Problem analysis:</b> An ability to identify, formulate and analyse electronics and communication systems reaching substantiated conclusions using the first principles of mathematics and engineering sciences.
<b>PO3</b>	<b>Design/development of solutions:</b> An ability to design solutions to electronics and communication systems to meet the specified needs.
<b>PO4</b>	<b>Conduct investigations of complex problems:</b> An ability to design and perform experiments of complex electronic circuits and systems, analyse and interpret data to provide valid conclusions.
<b>PO5</b>	<b>Modern tool usage:</b> An ability to learn, select and apply appropriate techniques, resources and modern engineering tools for modelling complex engineering systems.
<b>PO6</b>	<b>The engineer and society:</b> Knowledge of contemporary issues to assess the societal responsibilities relevant to the professional practice.
<b>PO7</b>	<b>Environment and sustainability:</b> An ability to understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.
<b>PO8</b>	<b>Ethics:</b> An understanding of professional and ethical responsibilities and norms of engineering practice.
<b>PO9</b>	<b>Individual and team work:</b> An ability to function effectively as an individual, and as a member in diverse teams and in multidisciplinary settings.
<b>PO10</b>	<b>Communication:</b> An ability to communicate effectively with engineering community and with society at large.
<b>PO11</b>	<b>Project management and finance:</b> An ability to demonstrate knowledge and understanding of engineering and management principles and apply these to manage projects.
<b>PO12</b>	<b>Life-long learning:</b> An ability to recognize the need for, and engage in independent and life-long learning in the broadest context of technological change.