Inside the Issue

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- *Student achievements*
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        ……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.

Events organized in the department

YUVA NARI'S HEALTH CARE - A Webinar

Women and girls encounter unique health issues across their lifetime. The healthiness of women and girls should be of a specific alarm. The concern for women health has improved multifold these days. There has been an increase in the diseases which are being credited to the recent lifestyle changes of today's woman. The need of the hour is to accept the calmest approach of prevention which means an early analysis and a timely and effective treatment. In view of this context, Mrs. M Sunitha, Assistant Professor, organized a webinar "**YUVA NARI'S HEALTH CARE**" on 5th July from 2PM through Google meet. Dr. Shama Sultana, MBBS, DGO, Gynecologist, Hope Win Hospitals, Guntur, was the key note speaker of the session. She enlightened the participants on Women's Reproductive System, Vaginal Infection-causes its treatment, PCOD symptoms and treatment, intake of nutritional food. She patiently replied to the questions by faculty and students regarding hygiene & effect of Covid on periods. Around 170 including staff and students participated in the webinar.

AICTE Training and Learning (ATAL) Academy Sponsored Five-days Online Faculty Development Programme (FDP) on "Cyber Security and Digital Forensics".

With increase in usage of the Internet, there has been an exponential increase in cyber-attacks. Cyber criminals use new and clever tricks to bypass security solutions. Cyber Security and Digital Forensics are integral part of the organization's security services. Dr R Mariappan, Professor Dept of ECE, organized AICTE Training and Learning (ATAL) Academy sponsored 5 days online Faculty Development Programme (FDP) on "Cyber Security and Digital Forensics (CSDF-2021)" from   26th to 30th July 2021.The aim of this FDP was to promote research in Cyber Security and Digital Forensics which included topics like data collection tools, data scanning techniques for threat intelligence, data analytics, forensics tools for memory, mobile phones, network, Internet of Things (IoT), social engineering, etc. Dr Sateesh Kumar, Dept of CSE, IIT Roorkee, Dr G Rama Murthy Dept of CSE, Mahindra University, Hyderabad, Ch A. S. Murthy, CDAC, Hyderabad, Dr. MJ Shankar Raman. IITM Pravartak Tech Foundation, Chennai, Dr. Adarsh Kumar, Dept of CSE, UPES, Dehradun, Er. Amrendra Sharan, Dept of CSE, NITTTR Chandigarh, Dr VM. Manikandan, Dept of CSE, SRM University-AP, Dr. Bhupendra Singh, Dept of CSE, IIIT Pune, Mr Ashok Kumar, TIFACore in Cybersec, Amrita Vishwa Vidya Peetham, Coimbatore, Mr. Ajinkya Lohakare, Certified Ethical Hacker, Mumbai, Prof R Mariappan, Dept of ECE, VRSEC, Vijayawada, Dr. Sarath Bodepudi, Psychiatrist, PSIMS, Vijayawada were the resource persons who delivered lectures in the area of their expertise. Inaugural Session was held on 26th July 2021 at 11:00 am. Jaswinder S. Ahuja, Corporate Vice President, and Managing Director of Cadence Design Systems India was the chief guest for the Inaugural Session on 26th July, 2021. At present he is working on the Governing Council of Software Technology Parks of India (STPI) and is on the board of Electropreneur Park, the first ESDM (Electronic System Design and Manufacturing) incubator in India. Hon'ble Chairman, Prof. Anil D Sahasrabudhe AICTE was Guest of Honor and Dr. Mamta Rani Agarwal, Adviser-I ATAL also graced the occasion on 26th July 2021. Being an industry leader, Jaswinder.S Ahuja shared his views on evolving trends, disruptive technologies, changing job scenarios, academia-industry linkage and translating research into impactful applications

Guest lectures delivered by faculty of ECE

Few contributions by our faculty as guests sharing their knowledge in respective domains of expertise…….

- The Internet of Things, or IoT is turning to be more significant which refers to the billions of physical devices around the world that are now connected to the internet, all collecting and sharing data. Pride to the department that Dr D Venkata Rao, Professor & HOD ECE was invited for guest lecture to share his expertise on "Internet of Things and its Applications" at Narasaraopeta Institute of Technology on 17th July 2021. The motive of this program is to help the participants understand the key concepts behind IoT.
- Dr Praveen Naidu Vummadisetty, Associate Professor, participated in a Panel discussion on "Innovation and Start-Ups" conducted by the Dept of EEE Department, IIC, VRSEC on 21/08/2021
- Dr Aniruddh Bahadur Yadav, Senior Assistant Professor delivered a talk on 16th June 2021 at International Arena in "3rd Webinar on Material Science and Nanotechnology".

Faculty recognitions

- Electronics & ICT Academies at NIT Patna placed on record the excellent contributions made by Dr. Anitha.A for acting as Proctor Coordinator in the two-week online faculty development programme on "System Design Methodologies for Embedded, IOT, AI & HPC using Intel FPGA" jointly organized by Electronics and ICT Academies held from 19th – 30th April 2021 under the "Scheme of financial assistance for setting up of Electronics and ICT Academies" by the Ministry of Electronics and Information Technology (MeitY), Government of India. This programme is endorsed by AICTE / UGC / NBA.

- Dr. Anitha.A was recognized for the contribution as REVIEWER for IEEE MYSURUCON 2021-The First Edition of the Flagship International Conference Series of IEEE Mysore Sub Section in association with IEEE Bangalore Section at NAVKIS College of Engineering, Hassan on 24th & 25th October 2021.

Faculty Participation in FDP/ Workshops/Seminars.......

➢ K. Shri Ramtej participated in FDP on Python Programming organized by Electronics and ICT Academies July 26th July to 6th Aug, 2021.

➢ V.Saritha has partaken in Faculty Development Programme on "Recent Advances in Antennas for Wireless Communications", conducted by Bapatla Engineering College, Bapatla during 27th July to 31st July, 2021

➢ V B K L Aruna attended STTP on "Trends and Challenges in Medical Image Analysis Through Deep Learning Algorithms" Phase-III conducted by Department of Electronics and Instrumentation Engineering, V R Siddhartha Engineering College, Vijayawada 23rd August to 28th August, 2021.

➢ V.Saritha participated in FDP on "Modern Antenna Technologies for Futuristic Wireless Communication Systems" conducted by ATAL Academy, Guru Jambheshwar University of Science and Technology, Hisar, Haryana during 20 to 24/08/2021

➢ V B K L Aruna participated in One Week International Faculty Development Programme on "Advanced technologies in Wireless Communication Networks (ATWCN)-2021" organized by Department of Electronics and Communication Engineering, GMR Institute of Technology, Rajam, from 2nd - 6th August 2021

➢ Dr A Jhansi Rani attended AICTE sponsored Short Term Training Program on "Trends and Challenges in Medical Image Analysis Through Deep Learning Algorithms" Phase-III Conducted by Department of Electronics and Instrumentation Engineering, VRSEC from 23rd to 28th August, 2021.

➢ M.Bhagya Lakshmi participated in a Three-day Faculty Development Program on "Essentials of 5G Communications organized by Department of Electronics and Communication Engineering Prasad V Potluri Siddhartha Institute of Technology, Vijayawada from 26/08/2021 to 28/08/2021

➢ Dr M Padmaja attended AICTE sponsored Short Term Training Program on "Trends and Challenges in Medical Image Analysis Through Deep Learning Algorithms" Phase-III Conducted by Department of Electronics and Instrumentation Engineering, VRSEC from 23rd to 28th August, 2021.

➢ Dr A Jhansi Rani attended Two-day Awareness Workshop on Improving Research & Performance Outcomes, an Elsevier's Zoom Webinar from 31st August to 1st September 2021

➢ Dr M Padmaja joined a Two-day Awareness Workshop on Improving Research & performance Outcomes, an Elsevier's Zoom Webinar from 31st August to 1st September 2021

➢ M.Bhagya Lakshmi attended 2021 IEEE International Workshop on Optimization and Intelligence in Electronics Engineering Applications (IEEE OIEEA-2021) conducted by Department of Electronics and Communication Engineering National Institute of Technology Silchar, India during 26-30th July 2021

➢ Dr M Padmaja participated in 2021 IEEE International Workshop on Optimization and Intelligence in Electronics Engineering Applications (IEEE OIEEA-2021) conducted by Department of Electronics and Communication Engineering National Institute of Technology Silchar, India during 26-30th July 2021

- Anitha A., Triveni B., Kishore P., Madhavi Latha M a Modified Novel Signal Flow Graph and Memory-Based Radix-8 FFT Processor Design.Smart Computing Techniques and Applications. Smart Innovation, Systems and Technologies, vol 224. Springer, Singapore, pp545-553 published Online: 14 July 2021

- Aniruddh Bahadur Yadav and BS Sannakashappanavar Investigation of Schottky barrier height using area as parameter: Effect of hydrogen peroxide treatment on electrical optical properties of Schottky diodeOptical Materials 119, 111341   Impact factor 3.08 H index 103 Received 15 March 2021, Revised 4 June 2021, Accepted 30 June 2021, Available online 15 July 2021

- Padmaja M., Yogichandar B., Karishma M. High Resolution Spatial Data Analysis and Haze Removal for Remote Sensing Images.Smart and Intelligent Systems. Algorithms for Intelligent Systems. Pp 237-248, Springer, Singapore. https://doi.org/10.1007/978-981-16-2109-3_22

- Padmaja, M., Shitharth, S., Prasuna, K. et al.Grow of Artificial Intelligence to Challenge Security in IoT Application Wireless Personal Communications July 2021. https://doi.org/10.1007/s11277-021-08725-4 (Springer)

- Ramya Sri G., Srujana P., Jhansi Rani A., Saritha V., Tanmayi SA Miniaturized Multi-Band Antenna Operating in C, X, and Ku Bands Smart and Intelligent Systems. Algorithms for Intelligent Systems. pp 513-522 , Springer, Singapore. https://doi.org/10.1007/978-981-16-2109-3_47

- Rani, A.J., Padmaja, M., et al. Brain tumour image classification using improved convolution neural networks Applied Nanoscience July 2021. https://doi.org/10.1007/s13204-021-01906-4. (Springer)

- Naidu, Praveen Vummadisetty, et al. Design and performance analysis of MAZE shaped quad port ACS fed tri band MIMO antenna for V2V and multi band applicationsAEU - International Journal of Electronics and Communications, Volume 134, 2021, 153676 https://doi.org/10.1016/j.aeue.2021.153676

- Naidu, Praveen Vummadisetty, et al."A Compact Four-Port High Isolation Hook Shaped ACS Fed MIMO Antenna for Dual Frequency Band Applications," Progress In Electromagnetics Research C, Vol. 113, 69-82, 2021.doi:10.2528/PIERC21042701

- Naidu, Praveen Vummadisetty, et al."Design and Performance Analysis of g -Shaped Compact ACS Fed 4-Port MIMO Antenna for Triple Frequency Band Applications," Progress In Electromagnetics Research C, Vol. 112, 55-68, 2021.doi:10.2528/PIERC21021501

- M. Tejasree Naidu, Praveen Vummadisetty, et al. "A Novel Compact Circular Hybrid Plasmonic Nano-Antenna for Optical Applications," IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering, pp. 56-59, doi: 10.1109/WIECON-ECE52138.2020.9397955.

Its glad to announce that Dr Praveen Naidu Vummadisetty, Associate professor,

completed a 2 Weeks course on "Capacity Building Program" conducted by IIM, Lucknow

PhD guidance being offered by faculty of ECE, VRSEC

SNo.	Name of the Faculty	Name of Scholar	University of Registration	Area of Research
1	Dr A Jhansi Rani	Mr K Prem Chand	JNTUK	Antennas
2	Dr M Padmaja	Ms K Prasanna	JNTUK	Communications & Signal Processing
3	Dr A Vijaya Sankar	Mr B Ravi	JNTUK	Signal Processing

Faculty registered for PhD registered during July and Aug

SNo.	Name of the Faculty	University of Registration	Area of Research
1	K.Sneha	K L University	Antennas
2	M Bhagya Lakshmi	NIT Warangal	Antennas
3.	M Bindu Priya	SRM University	Image Processing

Best paper award to student

Mr Sai Haranadh Akkapanthula under the guidance of Dr Praveen Naidu Vummadisetty received

"Best paper award" for the paper titled "Design, Simulation and Analysis of Swastika Shape Uniplan

ACS Fed Antenna for Multiple Frequency Band Operation" at IEEE International Women in

Engineering (WIE) Conference on Electrical and Computer Engineering

Details of the paper: doi: 10.1109/WIECON-ECE52138.2020.9397948.

Student's Corner

An article by student ....

FINDING SERENDIPITY DURING THE CORONAVIRUS PANDEMIC

Suraksha.K, III B TECH, 188W1A04A4

The coronavirus pandemic has definitely changed the way we approach our daily lives.

From social distancing to the need to wear a mask, to the inability to hug our family and friends as we once did, life has changed. This is perhaps the first time when we can save human race by doing nothing. This time made us realize the importance of time, respect, gratitude and many other such virtues, which constituently make us humans. Businesses have learned how to think differently. From this pandemic, many businesses have come up with new business models. Restaurants that never offered takeout have figured out how to do so. Technology has been embraced in new ways. Another positive has been the impacts of lockdown on air pollution, sound pollution and greenhouse gas emissions. The satellite images and data are striking. Of course, these effects are temporary but it is possible that people who have a glimpse of a better quality of life, might become converts to the cause, helping to create impetus. It made us realize the value of health over money. Nothing really matters when health is lacking, has been a driving force towards a healthy lifestyle. There has been an increase in the public health awareness and people have become more receptive to what is being broadcasted and following them too. To keep mind healthy various online yoga, meditation courses have been offered. It is hoped that the world would now pay attention towards the improvement of healthcare system. Above all, we have learned who and what matters to us the most. We have reconnected with people we haven't talked in a longtime. Aside from that many of us have had a chance to sit back and reflect on what is essential. Whatever it is you discovered about yourself, you may be able to thank these weird times for those epiphanies. To summarize a further potential impact of the lockdown gave enough time for consciously developing our purpose in life. After lockdown is over, having less time to communicate with family, a tighter schedule with less flexibility for exercise and fewer hours for reflection, re exposure to greater levels of pollution would be key reasons why some people might think back on lockdown as being the most discipline days.

To put on pen .... In her words of gratitude and motivation......

The 4 years of journey with VRSEC has been a transformational process for me from being an introvert to a successfully placed student in a globally reputed company like PEGASYSTEMS. Right from the second year of BTech, the T&P department conducted aptitude classes and group discussions that helped me to face the interviews. I have no doubt in saying that PEGA CSA and CSSA certifications have opened the door for a great career path. I'm grateful for my department, faculty members and my parents who supported me for the certification training. Good hands-on practice and developing some real time applications using PEGA helped me to crack the interview.

P Kondalamma
(178W1A04G1)
11.5 LPA
PEGA

Remember that when you are trying to achieve, there will be roadblocks but obstacles don't have to stop you. Consistent preparation, hard work and learning from failures leads to success.

Placement

Perseverance and skill have rewarded her with package of

11.5 LPA

Department of ECE proudly introduces
P Kondalamma *and congratulates her for getting placed in*
PEGA SYSTEMS

Few more pearls of the department…….

B G K Reddy 178W1A04D0	
P K Prasad 188W5A0448	
G Jaswanth Sai 178W1A0417	
A Kartheek 188W5A0406	
Mani Kumar 178W1A0451	
D Prabhu Kumar 178W1A0471	
Yeshwanth 178W1A04B0	
B Jahnavi 178W1A0469	
K V K K Sandeep 178W1A0487	

Wipro (3.5 LPA)

Mindtree (4 LPA)

ATAI Veda-IIT (5LPA)

Emphasis (3.25LPA)

Brane Services Private Limited (5 LPA)

Tata Elxsi (3.5 LPA)

M S Harshitha
178W1A0492

I Lokesh
178W1A0420

Ch Snigdha
178W1A0412

B R Harshini
178W1A04C8

P Ravi Teja
188W5A0413

N Saimounika
188W5A0445

T Akshitha
178W1A0453

S V S Charishma
(178W1A0446)

K N Tarani
(188W5A0404

K J Kishore
(178W1A04I5)

K D S S N Manikanta
(188W5A0410)

**Capgemini
(3.8 LPA)**

Dept of ECE heartfully congratulate these 15 students for getting placed in Accenture with a package of 4.5LPA

K Shalini
(178W1A04I2)

G Praveen Kumar
(178W1A0418)

M R Kiran Reddy
(178W1A0433)

S M M Kumar
(178W1A0451)

K Sravani
(178W1A0485)

K V K K Sandeep
(178W1A0487)

T S Yeshwanth
(178W1A04B0)

B G K Reddy
(178W1A04D0)

B E Reddy
(178W1A04D1)

M Guna Teja
(178W1A04F1)

V V D Subramanyam
(178W1A04H8)

V V S Narayana
178W1A04J4)

Anirudh
78W1A04N0)

P K Khan
(188W5A0420)

T S Prasad K
(188W5A0434)

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)

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