# **DEPARTMENT OF**

# **ELECTRONICS AND COMMUNICATION ENGINEERING**



# TIRUMALA ENGINEERING COLLEGE

(Approved by AICTE, New Delhi, Affiliated to JNTUK Kakinada)

(An ISO 9001:2015 Certified Institution)

Accredited by NAAC & NBA,

Jonnalagadda (V), Narasaraopet (M), Guntur(Dt)-522601 Ph : 92487 52999, 96668 04272

Chief Co-ordinator

Dr. Y.V. NARAYANA

B.Tech.,M.E.,Ph.D.,FIETE

Principal

Editorial Board

Mr. T. Jagadeesh, Assoc. Professor

Dr. M. Manoj Kumar, Professor, Dept. EEE

Chief Editor

Dr.SK.Mohimood, Assoc. Professor

## INDEX

**About the Department** VISION MISSION PEO'S PO'S PSO'S

- Message from the secretary
- Message from the Principal
- Message from Editor
- Message from Chief Editor
- Message from tudent Co-Ordinator

#### Student Corner

- Academic Achievement
- Curricular Activities
- Workshops
- Guest Lecture
- IETE Events
- NPTEL Online Course
- Parent Teacher Meet
- Capacity Building
- Recuritment At a Glance
- Major Recuiters & Our Best **Places Students**
- Best Final Year Projects

### **Faculty Corner**

- Faculty Achievements
- Paper Publications
- FDP's & STTP at our College
- Teachers Day

**National Service Scheme Unit Activity Alumni Meet Alumni Message** 

## **ABOUT the Department**

The ECE department started in the Year 2008 with the intake of 60 students and intake increased from 60 to 120 in 2009. later expanded 120 to 180 in 2012. Right from inception principal Dr.Y.V.Narayana him self lead the team. The goal of the department is to make the students fundamentally strong in the field of Electronics & Communication Engineering. The department has good infrastructure and excellent placement records. thirty eight students of the recently passed out batch (2016) were placed in reputed companies like TCS, NTTDATA, MIND TREE, Capgemini etc.

The department focuses on quality teaching, training and research activity among staff and students. Student development activities like National level workshops, National level student symposia and seminars are conducted regularly to inculcate research activity and expose the student community to external world.

The department has experienced faculty members with quality teaching. All staff members work with great enthusiasm and commitment towards all round brilliance of students. The department is encouraging students to participate in various co-curricular events, sports and motivates the students in helping poor and needy.

## VISION:

To become a centre for academic excellence by pro- To ducing high quality engineers in Electronics & Communication Engineering with global competence neurial skills along with socio-ethical eco-friendly values for the rural development

## **MISSION:**

the high quality Electronics develop Communication Engineers with the fundamental engineering principles, intellectually adept, professionally deft, innovative research capabilities, exemempowered by technical expertise, innovation, plary skills, technological progress of mankind, research and the knowledge of cutting edge tech- tracking technological environment by providing the nologies, employability, higher education, entrepre- high quality instruction, infra, faculty, modern and teaching and learning methods, training with socioethical and entrepreneurial values as the inner strength for the rural development.



- **1. Preparation:** To strengthen the learners with fundamental knowledge in the concepts of Engineering Mathematics, Applied Science and Basic Electronics Engineering subjects for problem analysis, comprehend to develop solutions for new hardware, software and other tools in Electronics & Communication Engineering field.
- **2. Core competence:** To enable the learners with core curriculum knowledge in theory and practical of Electronics & Communication Engineering to develop the innovative skills, critical analysis, design, simulation, investigation of complex problems, reasoning, development & testing knowledge for offering solutions to real time problems related to globally evolving techno-corridor developments of Electronics & Communication Engineering.
- **3. Breadth Knowledge:** To enable the learners with breadth knowledge to build the Electronics & Communication Engineering professionals to have the team work and skills for developing communicative abilities, lifelong learning and aptitude of project management & finance with entrepreneurial values for rural development.
- **4. Advanced Professional knowledge:** Implementation of multi-disciplinary approach, development of the R&D skills by MOUs with premier industries and institutions, interacting with training sessions and industrial visits to the learners to have awareness in latest trends of Communication, Networks, Signal processing etc... with the modern tools and modules compatible to escalating needs of the society.
- **5. Career Development and ethics:** To enable the learners with the aptitude of competitive knowledge of real time requirement of cutting edge technologies for promoting employability, higher education by imbibing ethical, social and eco-friendly values.



### **Engineering Graduates will be able to:**

- **1. Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- **5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- **6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- **7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- **8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

- **9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **11. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



**PSPO1:** Should have the capability to comprehend the technological advancements in the usage of modern design tools to analyze and design subsystems/processes for a variety of applications in Electronics & Communication Engineering.

**PSPO2:** An understanding of social-awareness & environmental-wisdom along with successful career and to sustain passion and zeal for real-world applications using optimal resources as an Entrepreneur.

Message From the Director: It is a great pleasure for me to know that Department of Electronics & Communication Engineering Of TIRUMALA ENGINEERING COLLEGE Instituteof Technology is going to publish their departmental Newsletterdepartment. I do hope this will cultivate and inspire all the faculty, staffs and students and education lovers curious about this It will also create a platform for curious persons. I wish its successful propagation.



**Message From Principal:** I have a great pleasure in expressing my thoughts as the Principal of Tirumala Engineering College. Our institute holds the manifold distinction of being amongst the best when one considers the present status of technical education today. Our teachers are invited as resource personnel at national and international seminars, conferences and symposia in India and abroad. I wish the best for all our staff and



students who reiterate their aims at providing the best in academic and extra-curricular fields. It is my pleasure in congratulating the editorial board on this pleasant occasion of releasing the newsletter. It is great to find a considerable number of winners and participants in co-curricular and extracurricular activities which certainly prove that our staff and students are adequately equipped and possess necessary skill-sets to bring such laurels to the institution. I wish that this number may grow in the years to come. I am sure that publishing a newsletter of this sort containing the achievements of the wards will be recognition to them and I wish them all the very best for future endeavors.

Message From Editor: It is a matter of great pleasure that I was given the opportunity to work on the different activities of student and faculties, events,newsletter will encourage students to use it as a platform toof Technology is going to publish their departmental Newsletter I do hope newsletter will encourage students to use it as a platform to convey their creativities.



**Message From Chief Editor:** It is a matter of great pleasure that I was given the opportunity to work on the different activities of student and faculties, events, newsletter will encourage students to use it as a platform to of Technology is going to publish their departmental Newsletter I do hope newsletter will encourage students to use it as a platform to convey their creativities.



Message From Student Co-Ordinator: Hello Readers! It is with immense pleasure that we, on behalf of the ECE department, present magazine! The Magazine is a repository of intriguing articles by students, faculty and alumni alike on their achievements and experiences in co-curricular and extra-curricular activities collected in one place for the readers to revel in. We hope you enjoy the contents of this edition as much as we enjoyed putting it together! This edition, compiled in the midst of an unforgiving pandemic would not have been possible without the support of our faculty in-charge, who guided and mentored us during the entire duration, and the Impulse Content & Design team, who worked against impossible deadlines to make this magazine a reality. This edition, unlike any other, has been crafted with love by the editorial team of 2019 and 2020. We're extremely grateful to our seniors for their guidance, valuable insights and contributions. We would like to extend our heartfelt gratitude to each and every one of them for all the hard work they put in, making this edition a grand success. This last year has been extremely challenging for all of us. However this pandemic has time and again demonstrated the human tendency to fight back and emerge stronger. Here's to hoping that the situation eases soon, so we can meet in person at our beautiful vibrant campus very soon!



## **Academic Achievement:**



129 members Successfully graduated
SK.SHAHENAZ BEGUM,
got 82.3%
in the Academic performance

## **INTERNSHIP PROGRAM**

★ 38 members are selected for internship program from our college in smart bridge during 25/05/2021 to 30/05/2021



## **WORKSHOPS**

\*Organized National Level Workshop on "Smart Antennas for Wireless communication using HFSS and CST" by Dr. Dattatreya Gopi, Associate Professor, Dept of ECE, Raghu Engineering College, Visakhapatnam for 3rd Year B.TechStudents.during 07/06/2021 to 09/06/2021



★ Organized A Webinar on Cybersecurity and Future evaluation by Mrs. Anuradha, ISB alumnus, CEO, and founder Blackbucks for 2nd Year B.Tech Students.

## **GUEST LECTURES**

- ★ Organized Guest Lecturer on Demystifying Robotics for final year B.Tech Students on 28th June 2020.
- \* Organized Guest Lecturer on Compression image for 3rd B.tech Students on 11th July 2020.
- ★ Organized Guest Lecturer on Wireless communication on advanced technology and GPS. For 3rd and final year B.tech students on 24th May 2021.



IETE student forum was inaugurated on 6-2-2013. Dr. M Kamaraju, Professor and HOD of ECE department, Gudlavalleru Engineering College was the chief guest. He expressed his happiness encouraged our faculty members and students to join IETE. Our faculty members and students got enrolled in IETE. IETE membership provides support for continuing research work, attending work shops.

The Association comprises of President from final year, Vice-President from pre-final year, Secretary from second or first year and Treasurer from third year. The association conducts the a faculty representatives.

This year 102 member are joined inprofessional body memberships



## **IETE EVENTS**

- ★Organized a HANDS ON EXPERIENCE ON HARDWARE DESIGN by Mr.K..SRINIVASARAO through codetantra.on 25/07/2020.
- \*Organized a guest lecture on CAREER EXCELLENCE by Mr.VALIVETI SATISH through codetantra online platform on 08/07/2020.
- ★Organized aMaking of ECO -FRIENDLY Ganesh Idols by Mrs.R.lakshmi kavya through codetantra online platform on 21/08/2020. On the Ocation of Ganesh Chaturthi .
- ★Organized a TECHNICL EVENT SPEECH ON YOUR INTERESTED TOPIC by Ms.SK.RIZWANA on 15/05/2020. On the ocation of engineer's day through codetantra.

## **NPTEL ONLINE COURSE**

- **☀**K. Srilatha successfully completed NPTEL online certification course on digital electronic circuits
- ★T. Maheswari successfully completed NPTEL online certification course on A brief introduction of micro sensors.
- ☀J. Jayakrishna successfully completed NPTEL online certification course on digital electronic circuits

## PARENT -TEACHER MEET

- \* Department used to organize a parent teacher meeting in each semester to make the guardians aware about the regular activities of their wards. After participating in this meeting the parents get informed about the updated class and training attendance of ward during current semester.
- ★ The meeting aimed at reducing the gap between teacher and students.



## CAPACITY BUILDING

- ★ To enhance the skills of the students
- \* Organized a training program on soft skills(group discussions& personal interviews) in our college by B.Yaswanth.



\* Organized a program on "vocabulary building" byp.Thomasaiah. which is required to communicate effectively at the work place in their career. around 120 students are participated in the session enthusiastically .from 27/01/20201 to 29/01/2021.



★ Organized a program on interviews skills by in our college by B.Yaswanth.



## RECRUITMENT AT A GLANCE

- ★ Jonnalagadda Jaya Krishna has got IVY Comptech with a package of 10LPA
- \* Total 110 members got placed in different companies.



## **GATE QUQLIFIED STUDENTS**

MOUNISH SAITEJ PARANDHAMMA was qualified with a Gate score 259



## MAJOR RECRUITERS&OUR BEST PLACED STUDENTS





## **BEST FINAL YEAR PROJECTS**

PRIZE	TITLE OF THE PROJECT	STUDENTS	GUIDE
1	Border Security soldier ROBOT using Night Vision Technology	BodlapatisaiSwetha Dondetipujitha Boggaramsivapriya Bandi gopi	Dr.Y.Murali Mohan babu
П	Design And Development Of Accident Alert and Vehicle Tracking Using IOT	Desu Koteswara Rao Maddula Harish Babu Kommuridha Rani Kancharla Chandra Lekha	K.Ravi Babu
Ш	Gas Booking Remainder , Leakage Detection System using Wireless Sensor Networks	Vattem manikanta Vuricharlachidwilasa Vallepusneh Ambika Mandapalli Haneesha	Dr. Y.V.Narayana

## **FACULTY CORNER**

## **FACULTY ACHIEVEMENTS**

### **BOOK CHAPTERS**

Author Name	Title	ISBN Number
Dr.YV.Narayana	An Automated Diagnosis system for Cardiac Arrythmia Classification	978100316810
Mr.T.Jagadeesh	Extraction of glacial lakes in the Himalayanregion using Landset imagery	B978-0-12-822133
Dr Krishna Dharavathu	Secure Image Parameters Comparison for DES, AES, and Rubik's Cube Encryption Algorithms	978-03-67821555

## PAPER PUBLICATIONS

- ★ Ravi babu Kancherla Modified PCA –Daugmanmethod : An Efficient Technique for Face and Iris Recognition International journal of Advance Research in Science and Engineering ISSN 2005-4238 in 2020.
- ★ N. V. N. K Suresh Kumar Modified PCA –Daugmanmethod: An Efficient Technique for Face and Iris Recognition International journal of Advance Research in Science and Engineering ISSN 2005-4238 in 2020.
- ★ SK. Rizwana Design of dual band implanted PIFA antenna WATS band applications online international on recent innovations in science, Engineering, Humanities and Management ISSN 978-93-90103-08-9 in 2020.
- ★ G. Sambasiva Rao Design of dual band implanted PIFA antenna WATS band applications online international on recent innovations in science, Engineering, Humanities and Management ISSN 978-93-90103-08-9 in 2020.
- ★ T L K Prasanna monochrome stereo image compression scheme using JPEG2000 online international on recent innovations in science, Engineering, Humanities and Management ISSN 978-93-90103-08-9 in 2020.
- ★ R Anil Kumar monochrome stereo image compression scheme using JPEG2000 online international on recent innovations in science, Engineering, Humanities and Management ISSN 978-93-90103-08-9 in 2020.
- ★ RavibabuKancherlaModified PCA –Daugman method: An Efficient Technique for Face and Iris Recognition International journal of Advance Research in Science and Engineering ISSN 978-93-90103-08-9 in 2020.

## FDD'S AT OUR COLLEGE

\* Organised an online FDP program on "Artifical Intelligence and its applications" during 28-5-2021 TO 1-6-2021 at our college



## STTP'S AT OUR COLLEGE

★ Organised an online STC program on "Research trends and Practical applications on signal pro-

cessing & VLSI"



## WORKSHOP

★ Organized online workshop on Patents and its importance in research on 16/06/2021



### **FACULTY A HENDED FDD'S OUTIDE**

- \* Dr.S.Srinivasareddy attended a online Orientation program on emerging trend on IOT at Gurunanak institution technical campus rangareddy district –telangana.
- ★ Mr.K.Ravibabu attended online a fdp on research trends&practical applications on machine learning at chadalawadaramanamma engineering college
- ★ Mr.K.Prakash attended online a fdp on research trends&practical applications on machine learning atchadalawadaramanamma engineering college
- ★ Ms.T.L.K.Prasanna attended online a fdp on researchtrends & practical applications on machine learning at chadalawada ramanamma engineering college

## **TEACHERS DAY**

- \* The Management and Principal of TEC encourages the faculty with best Teacher awards and incentives on this occasion
- \* Mr.T.Jagadeesh, Assoc. Prof. achieved best teacher award
- ★ Mrs.B.Thriveni,Asst. Prof. achieved best Teacher award

## FRESHER'S DAY CELEBRATIONS

★ Welcome Fresher's was conducted for the students of 1st year ECE, organized by the students of 2nd year on at the department 27/03/2021in Maxwell seminar hall



## NATIONAL SERVICE SCHEME UNIT ACTIVITY

### **CLEAN HOSTEL DAY BY GIRL STUDENTS:**

Conducted clean hostel day by girl students on 28-04-2021, number of students: 57 Tirumala Engineering College insists for maintaining hygiene in and around. NSS UNIT TEC focuses on maintenance of hygiene in hostel also. It instructs all the students to follow the self cleanliness and hostel cleanliness. As a part of the above NSS UNIT TEC conducted a program called "CLEAN HOSTEL DAY" for girl students who are staying in girl's hostel of the institution in the campus. This program involves in cleaning of the surroundings of the hostel, maintenance of the rooms, usage of dustbins, Dusting of the rooms etc.

All the students in the hostel are actively participated in the program with commitment and dedication. They have cleaned the hostel surroundings along with the faculty and hostel warden Principal, NSS Coordinators and hostel warden along with students participating in the program



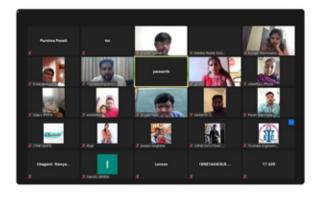
SWACCHA ROLE OF YOUTH IN CONSERVING THE BIODIVERSITY: LOCATION: online – google meet number of students: 56 date: 22-05-2021

Information Received as: ENVIS – EPTRI in association with Lee Shreyus Foundation, TSNGC, NYK – Ranga Reddy has organizing a webinar on role of youth in conserving the biodiversity as part of International Biological Diversity Day Celebrations on 22nd May, 2021 from 12:00 Pm kindly join the event using the link meet.google.com/wro-rrih-kzz



## **ALUMNI MEET**







Hope all are well.

I had completed my degree of Electronics & Communication Engineering from Tirumala engineering college in the year of 2019. It was a very grateful journey over there with lots of memories. My teachers and all the faculty members had supported me for every individual subjects and other extra curriculum like cyber security, IoT etc. Had organized some event in our department and as well as whole college called 'prayaga 2018' which took a great success and that time got proper support from everyone. Got placed in Infosys. -A.P.L.R. Sravya.

