



Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY
(Estd. 1986) Dorgaum, Kolar Gold Fields, Karnataka - 563120
(Affiliated to VTU, Belgaum, Approved by AICTE - New Delhi)
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

AUTRONICS 2017-18

President's Message

From three decades, Dr.TTIT has been serving many young engineering aspirants of our country. Today, I am extremely happy to announce the release of the ECE department news letter. I am confident that the editorial team has covered all the recent happenings in the department . We endeavor to inspire and empower our students to be life long learners, critical thinkers and productive members of the changing global society, never compromising with our national values. We have an excellent combination of infrastructure, staff and conducive college ambience for a joyful learning experience. I invite all the current and prospective students to become responsible engineers and make their parents, Institutions and nation proud.

From the Editor's Desk

I Congratulate the editorial team for release of third edition of newsletter. This newsletter brings out all the important achievements of faculty and students and other development activities under taken in the department. On behalf of the editorial committee, I thank our management for the support and encouragement rendered to keep up the standards of this edition of the newsletter.

Patrons

DR.T. VENKAT VARDHAN
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Sri.RAOUL KENGAL VARDHAN
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Principal

Editorial Committee

Chief Editor: Prof. Ruckmani Divakaran

HOD Dept of ECE , Dean (Administration)
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Editor :

1. Mrs. Vijayalakshmi .G.V, Associate Professor
2. Mrs. Jenitha A, Associate Professor
3. Ms. Devika S, Assistant Professor

About the Department

The Department of Electronics and Communication Engineering was started in the year 1993 with the idea of equipping young people with the necessary technical knowledge and professional skills needed to address the challenges in the rapidly growing field of Electronics and Communication Engineering and promoting research in this area headed by Prof. Ruckmani Divakaran.

ECE department is a dynamic and vibrant department with 17 highly qualified, experienced and dedicated faculty members. The department meets the growing requirement of practical design engineers in the country and abroad. The curriculum in Electronics and Communication Engineering lays greater emphasis on design principles and development of Communication models, Signal Processing, Image processing, Embedded Systems and VLSI.

The young, dynamic and dedicated Staff members have succeeded in establishing the highest standards of coaching the students and to equip them to face the future with confidence. The Department is also successful in achieving VTU ranks.

The major areas of faculty expertise of the department include Communication Systems, Computer Networks, Signal Processing, Image Processing, RF and Microwaves, and VLSI Systems . The department offers B.E in Electronics and Communication Engineering. The state-of-the-art laboratories, such as VLSI Design lab, Digital Signal Processing Lab, Circuits and Simulation Lab, Advanced Communication Lab, Computer Networks Lab, Microprocessor Lab, HDL Lab and Embedded Systems Lab complement the high standards set by the competitive syllabus.

The department also nurtures the inclination of the students towards Research and Development, besides giving them the necessary and sufficient backing of practical knowledge that they need. The Department provides access to high end softwares like Xilinx, Multisim, Code Composer Studio, Network Simulator, Cadence and MATLAB. Technical co-curricular and extra-curricular activities of the students include participation in Paper Presentation, Workshops, Seminars, Quiz, Technical competitions, Project Demonstration and participation in cultural activities channelized through the forum (EC GOLDEN ANWESHA) and events in the institution.

Those candidates desiring to pursue further studies are doing immensely well in their respective fields. The qualities inculcated in students make them not only good engineers but also good human beings.

Vision

To produce creative and competent technocrats with social responsibilities to face the challenges by incorporating academic excellence and latest trends to make a significant contribution to the society in the frontier areas of Electronics and Communication Engineering.

Mission

To achieve the vision, the department will

- Provide Quality Education to achieve excellence in technical education.
- Develop innovative and simple instructional materials to drive the concepts into the minds of students.
- Empower students with the state of art hardware and software technologies to meet the growing challenges of the industry.
- To expose the students to behavioral training programs and to develop their overall personality and social consciousness.

PEO1:

Graduates shall have successful career in Electronics and Communication Engineering with sound fundamental knowledge in mathematics, science and engineering practice.

PEO2:

Graduates shall be professional in applying the principles of Electronics and Communication with a focus on innovation, research and having awareness of societal impact.

PEO3:

Graduates shall have ability to work in a team with professional ethics, good communication skills to achieve lifelong learning.

PSO 1: Demonstrate engineering knowledge in the various core streams of electronics engineering, namely embedded systems, VLSI design, Communication, Networking and signal processing.

PSO 2: Identify the root cause of a problem and solve it by applying modern tools such as Cadence, MATLAB, Xilinx, Network Simulator, LabVIEW using research based approach and innovation.

PSO3: Function competently as an individual/part of multidisciplinary teams, of industry/educational/research organization demonstrating extraordinary communication skills and leadership qualities with social and ethical commitment to achieve environmental sustainability.

Papers published/Presented

1. Prof. Ruckmani Divakaran, HOD & Dean(Administartion), Suganthi S. K, Shyla Kumari I, Sindhuja R, Sushma V, presented a paper on “An Area Efficient Implementation of Feedforward FFT Architecture” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
2. Mrs. Vijaya Bharathi M, Associate professor , Prof. Kaustab Ghosh, Prof. Priyankar Paira published a paper on “Water-mediated green synthesis of PbS quantum dot and its glutathione and biotin conjugates for non-invasive live cell imaging” Royal Society open science journal, Volume 5, issue 3, January 3rd 2018 .
3. Mrs. Vijaya Bharathi M, Associate professor , Prof. Kaustab Ghosh, Prof. Priyankar Paira published a paper on “Surface immobilization of Biotin-DNA conjugates on polystyrene beads via SPAAC for biological interaction and cancer theranostic application”, New Journal of Chemistry, Volume 42, issue 11, 17th April 2018, DOI:10.1039/C8NJ00814K .

4. Mrs.Vijaya Bharathi M, Associate Professor,Ms. Devika S, Asst. Professor , Sneha.H, Mahesh.M, Shwetha.N, Sowmya.S, presented a paper on “Forward Error Correcting Implementation using Convolution Encoder and Viterbi Decoding” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
5. Mrs.Vijayalakshmi G V , Associate professor, Neha ,Jhansilakshmi ,Jabeen firdous, Priyanka U presented a paper on “Design and implementation of security system for ship intervention.”at 2nd national conference NC-EVEN 2018 in Brindavan college of engineering, Bangalore.
6. Mrs.Vijayalakshmi G V ,Associate professor, presented a paper on “HOG based Gesture recognition for human computer interaction “ , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
7. Mrs.Vijayalakshmi G V ,Associate professor ,Manusha S, Monisha K ,Rakshana V , Resha R presented a paper on “Brain Cancer Detection Using Image Fusion“, in RAEST 2018 ,Dr.TTIT,KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
8. Mrs. Jenitha A , Associate professor ,Dhana Lakshmi P, Jagannathan B , Niranjanaiah M G , Priyanka R , presented a paper on “ A Personal Assistive System for Monitoring Calorie and Nutrition from Food Image” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
9. Mrs. Inbalatha K , Asst. Professor , Asha D, Manasa V , Kavya M T , Pavithra R , presented a paper on “LV Segmentation using Deep Convolution Neural Network and Extraction of Different Region from Segmented LV Region”, in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
10. Mrs. Inbalatha K, Assistant Professor, published a paper on ‘ Inevitable dissection of left ventricle aimed at discovery of cardiac blood flow appraisal ‘ , IJET, Volume 7 (1.5)-January 2018 152-157 ,Special issue 5 scopus indexed journal.
11. Mrs. Inbalatha K, Assistant Professor, published a paper on ‘ Premature cardiac virdict plus classification of Arrhythmias and myocardial ischemia with K-NN Classifier ‘in springer .volume 28 , Febraury 2018 ,306-314.
12. Mrs.Mamatha V, Asst. Professor, Aishwarya M, Nikhitha Ramachandran, Nisha N, Preethi R presented a paper on “Multi-Modal Interface Aid for Blind, Deaf and Dumb People” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
13. Mrs.Mamatha V, Asst. Professor, Anika A, Jenifer Shruthi J, Priyanka P, Priyanka R, presented a paper on “Automated Attendance System using Face Recognition with Audio Output and Gender Classification” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
14. Mr. Rajesh Kumar Kaushal, Asst Professor, Surekha N., Yamuna N Akhil Kumar A. J, Naveen Kumar K. G. presented a paper on “E-Health Patient Monitoring System using IoT” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
15. Mr. Rajesh Kumar Kaushal, Asst Professor, Ramya.R,Sowmya.MN,Sumiya Sulthana, Vinitha.M, presented a paper on “Car Surveilence and Driver Assistance using Black Box with the Help of GSM And GPS Technology” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.

16. Mrs. Deepthi Chamkur V, Asst. Professor ,Bakyalakshmi P, Dinesh M, Sandhya N presented a paper on “Reliable and Less Overhead Path Selection with Security for Vanets using Reliability Metrics and Connectivity Metrics.” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
17. Mrs. Supriya K V, Asst. Professor ,Ms. Kanimozhi S, Asst. Professor , Abhishek M, Janani D, Pradeep Raja P, Raghavendra Murthy K, presented a paper on” Enhancing the Underwater Image by using Linear image interpolation and Limited image enhancer techniques” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
18. Mrs. Supriya K V, Asst. Professor , Pheeba Rani M P, Prasanna Kumar J, Varsha S., Rashmi A, presented a paper on “Power Efficient XOR Gate Design and its Applications” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
19. Mr.Prasanna Balasubramanyam S, Asst. Professor , Aishwarya R,Maria Swetha J, VinodhPrabhakaran V, presented a paper on “IOT Based LPG GAS Leakage Detection and Emergency response system using AVR Microcontroller and GSM module” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
20. Ms. Divya K R , Asst. Professor , Mithun S, Ravi Kumar R, Ruthvik K L, Kavya Roshini S, , presented a paper on “Design and Implementation of Smart Biometric Vehicle Security with Accident Detection and Location Tracking System Using IoT” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
21. Ms. Asha Kiran M U, Asst. Professor, Gowthami K, Neema V,Nittishia Michael, Sowmya G presented a paper on “Unusual Event Recognition In Low Resolution Video for Enhancing ATM Security” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
22. Mrs. Nandini G.N, Asst. Professor Sheba. C, Sandya.K, Siddi vinayaka, presented a paper on “IoT based Electronic Voting System” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
23. Mr.Shashi Kiran S, Asst. Professor , Monisha S, Preethi M, Suresh,Vikram K, presented a paper on “Dynamic Decision Based Spectrum Sharing Framework for Next Generation (5G) System” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
24. Mr. Shashi Kiran S, Asst. Professor, Deepa.V, Priya N K, Sunil kumar D C , Santhosh kumar V, presented a paper on “User Association and Resource Allocation Optimization in LTE Cellular Network.” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
25. Mr. Srinivas Babu N , Asst. Professor , Divyashree V, presented a paper on “Dynamic access protocol based spectrum sharing for Ad-hoc device to device user.” , in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
26. Manjushree K C , Asst. Professor, Bhavya G Vennela V Manohara S P Nagaraja B M, presented a paper on “Heartbeat Sensor using Arduino with IoT” in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.

27. Ms. Mohana C, Asst. Professor, Ganesh k, Sayeed Saifuddin Saheer, “ LI-FI Based Indoor Navigation System for Blind and Illiterate People” in RAEST 2018 ,Dr.TTIT, KGF on 9th May and published in IJEECS- UGC Approved ISSN:2347 – 2820.
28. Mrs.Vijaygeetha, Associate professor published a paper on “ A Multiscale Fusion Approach for Changed Deduction in SAR Images “International Journal of Engineering & Technology (UAE), 7(4.10)(2018)104-111-July 2018.

Faculty Development Programme

- Dr.K M Palaniswamy, Professor attended 5 days FDP on “Reference Management and Knowledge Organisation for Journal Writing “ organised by Dept. of Civil Engg. & Research and development cell , Aalim Muhammed Salegh College of Engineering ,Muthapudupet from 10th December to 14th December 2018.
- Mrs.Manjushree K Chavan ,Assistant Professor , attended 5 days FDP on “Recent advances in machine learning “ organised by department of CSE, GSSSIETW, Mysuru from 17th to 21st July 2018.

Best paper awarded to 8th semester students

The best paper award for the paper titled “ Design and implementation of security system for ship intervention “ at 2nd national conference NC-EVEN 2018 in Brindavan college of engineering ,Bangalore by Neha, Jhansilakshmi, Jabeen Firdous , Priyanka U ,8th sem students under the guidance of Mrs.Vijayalakshmi G V ,Associate Professor.

Faculty achievements

1. Mrs.Vijayalakshmi G V , Associate professor reviewer for FSDM 2018: 4th international conference on Fuzzy systems and data mining Nov 16-19, 2018 ,Thailand.
2. Mrs.Vijayalakshmi G V, Associate professor reviewer for Australian physical and engineering science in medicine.” Springer nature.

Students achievements

1. Navasanthanalakshmi.A, Savitha, Kanchana.K, Jayasudha.J, Varalakshmi.V,6th sem presented a paper on “IoT Based Real Time Temperature & Air Quality Monitoring Robot with Live Video Streaming” in RAEST 2018 ,Dr.TTIT, KGF and published in IJEECS- UGC Approved ISSN:2347 – 2820.
2. Dharshini.R,Sowmya.C, Sushmitha Ganig.M,Yeshwitha.J, 6th sem presented a paper on” Advanced Smart Sensor Interface in Internet of Things for Water Quality Monitoring” in RAEST 2018 ,Dr.TTIT, KGF and published in IJEECS- UGC Approved ISSN:2347 – 2820.
3. Tejashwini.H, Shreemathi.N, Supriya.G, Radhika , Shwetha.D, 6th sem presented a paper on “Automatic Smart Watering System using Arduino and its Applications” in RAEST 2018 ,Dr.TTIT, KGF and published in IJEECS- UGC Approved ISSN:2347 – 2820.
4. Chetan S., Harini T, Joyseelin Priyanka, Kishore R, 6th sem presented a paper on “Control of Light with Clap using Arduino and its Application” in RAEST 2018 ,Dr.TTIT, KGF and published in IJEECS- UGC Approved ISSN:2347 – 2820.

5. Ashwini S, Bharath Reddy S, Dinesh Kumar R, Sahana R, 6th sem presented a paper on “Foot Step Power Generation using Piezoelectric Elements and its Application” in RAEST 2018 ,Dr.TTIT, KGF and published in IJEECS- UGC Approved ISSN:2347 – 2820.
6. Asma kouser ,Rohith s,Sandhya.M , Mireshreddy.S, presented a paper on “Arduino Based Laser Security System” ” in RAEST 2018 ,Dr.TTIT, KGF and published in IJEECS- UGC Approved ISSN:2347 – 2820.
7. The project ,” IOT Based LPG GAS Leakage Detection and Emergency response system using AVR Microcontroller and GSM module” carried out at Dr.TTIT by Aishwarya R.,Maria Swetha J.Vinodh Prabhakaran V, 8th sem got the grant from KSCST under the guidance of Mr. Prasanna Balasubramanyam S, Assistant Professor and published in IJEECS- UGC Approved ISSN:2347 – 2820.
8. Ms. Asma Kousar and Ms. Sneha. S, 6th Semester participated in the All India Essay Writing Event 2017 organized by Sri Ramachandra Mission in collaboration with United Nations Information Centre for India and Bhutan and won State Level Third Prize and Eighth Prize respectively.
9. Bhavya Shree, 6th sem and Team won 1st prize, Monisha , 6th sem and Team won 2nd prize Priyanka , 6th sem and Team won 3rd prize in IoT worked conducted in Dr.TTIT,KGF from 19th to 21st March 2018.

Students forum

- The Department of Electronics & Communication Engineering inaugurated its Students Forum “EC – Golden Anvesha” on 11th May 2018. The Principal Dr. Syed Ariff inaugurated and congratulated the department . He addressed the students and said that this will set a platform to organize various activities and help the students to effectively learn and grow. As a first activity of this Forum, A Mini Project Expo was organized, around 50 Students took part and exhibited their project ideas, which was visited by the students of other departments. The best projects were awarded and the certificates were distributed by vice principal Dr. H G Shenoy.



Inauguration of EC Golden Anvesha



Students with Vice principal , Dean (Administration)-EC Golden Anwasha

Workshops attended

1. Mr. Prasanna Balasubramanyam S, Asst. Professor, Mrs. Ramya J , Asst. Professor attended 2 days workshop on “ÄRM CORTEX –M3” held during 4th to 6th January at Cambridge institute of technology , Bangalore.
2. Mr. Shashi Kiran , Asst. Professor attended workshop on “A VIEW LAB” at BIT, Bangalore held on 9th February 2018.
3. Mr.Srinivas Babu , Asst. Professor attended workshop on “Computer networks lab “at Don Bosco Institute of Technology, Bangalore, held during 8th to 10th January 2018.

Workshops Conducted

IoT(a trending technology that the world is focusing on):

- A Three-day workshop was conducted on “Internet of Things” from 19th to 21st March 2018. With theory followed by Hands – on sessions. The workshop concluded with a competition.



Valedictory function of IoT Workshop

Industrial Visit

An Industrial Visit was organized to ISRO – ISAC, Bangalore for the 6th Semester students on 9th April 2018. The visit was coordinated by Mrs. Jenitha A, Associate Prof. The students were accompanied by Mrs. Vijayalakshmi G V, Associate Prof. ECE, Mrs. Mamtha V, Mr. Shashi Kumar, Mrs. Manjushree, Assistant Professors, ECE.



Students and faculty members during the visit to ISRO B'lore

Placements



Ms. Suganthi K
1GVEC065
TCS



Priyanka P
1GVEC045
Hinduja Global Solutions



Ms. Priyanka R
1GVEC046
TinkerMaster

TOPPERS FOR THE ACADEMIC YEAR 2017-18

YEAR	USN	NAME	PERCENTAGE(%)
I	1GV17EC041	SNEHA M	85.8
II	1GV16EC037	PRIYA D	79.0
III	1GV15EC041	R SAHANA	77.9

ECE Department Topper

- The Management, Principal and Staff Congratulates Ms. Nagamani (1GV13EC042) of 2013-2017 batch for securing 78.61% .