# Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY

## DEPARTMENT OF
## ELECTRONICS & COMMUNICATION ENGINEERING

# NEWSLETTER

# ECE-AUTRONICS

## 2020-2021

### Volume-6, Issue-1

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

# AUTRONICS 2020-21

## President's Message

Dr.T. Thimmaiah Institute of Technology has been serving many young engineering aspirants for more than three decades. The evolution of the institution for the past three decades has witnessed strong blend of state of the art infrastructure and human resources committed to provide professional education with thrust on creativity and innovation. Special emphasis is given to outcome based education. Our institution provides ample opportunities for the students to acquire both technical and life coping skills which would enable them to empower themselves as useful citizens.

We encourage our faculty members to take up research activities, to acquire knowledge, innovation and newer insights that makes teaching more vibrant and scientific.

I congratulate all the students who have been placed in various companies through our Placement and training cell. My appreciation to all the staff for their team work in getting good results.

I am extremely happy to release the newsletter and also confident that the editorial team has covered all the recent happenings in the campus.

I wish all the students to excel in all fields and make their parents, institution and nation proud.

-**Dr.T. Venkat Vardhan**,
President, GVET

## Principal's Message

*I congratulate the Department of Electronics & Communication Engineering faculty for their achievements in the current academic year. I also congratulate the editorial team for their constant effort for the outcome of the newsletter.*

Dr. Syed Ariff

Principal

Dr. T. Thimmaiah Institute of Technology, KGF

## HOD's Message

*The newsletter provides an overview of current activities that took place on our campus. The newsletter includes noteworthy accomplishments by the Department of Electronics & Communication Engineering, Dr. T. Thimmaiah Institute of Technology, KGF. I am delighted to publish the achievements of the Department of Electronics & Communication Engineering.*

Prof. Vijaya Bharathi M,

Associate Professor (HoD ECE)

## From the Editor's Desk

I congratulate the editorial team for release 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
President ,GVET

Sri.RAOUL KENGAL VARDHAN
Vice President ,GVET

Dr.SYED ARIFF
Principal

## Editorial Committee

*Chief Editors*: 1. Prof.Vijaya Bharathi M, Associate Professor (HoD ECE)
              2. Prof. Jenitha A, Associate Professor

*Editor* : Ms. Devika S, Assistant Professor

*Students Editors:* 1.1GV17EC051-Venkatesh A

              2.1GV17EC009-Divya K.K.

## About the Department

The Department of Electronics & 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 & Communication Engineering and promoting research in this area headed by Prof. Vijaya Bharathi M.

ECE department is a dynamic and vibrant department with highly qualified, experienced and dedicated faculty members. The curriculum in Electronics & Communication Engineering lays greater emphasis on design principles and development of Communication models, Signal Processing, Image processing, Embedded Systems VLSI etc.,

The young, dynamic and dedicated Staff members have succeeded in coaching the students and to equip themselves to face the future with confidence.

The department has various 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 to implement the required curriculum and skills.

The department also nurtures 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 software 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 and events in the institution.

## DR. T. THIMMAIAH INSTITUTE OF

### VISION

To produce technically competent engineers having innovative skills positive attitude, leadership and professional ethics, with a focus on developing sustainable and new technology.

### MISSION

• Create a conducive environment for teaching, learning and innovation by providing state of the art infrastructure.

• Learn sustainable and new technologies through industry institute collaborations.

• Produce technically competent engineers with ethics, discipline and social consciousness through holistic education.

## DEPARTMENT OF ELECTRONICS & COMMUNICATION

### VISION

"Graduates to be recognized in the field of Electronics & Communication Engineering ensuring academic excellence with innovative technical skills and professional ethics."

### MISSION

- Imparting quality technical education through innovative teaching learning process.
- Active association with industry to meet the growing challenges in the society.
- Develop overall competency with professional ethics by providing training programs.

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## FDP/WEBINARS/ONLINE COURSE/WORKSHOPS

| Sl. No. | Faculty Name | FDP Attended | Webinar Attended | Online Course Attended | Short Term Training | Workshop |
|---|---|---|---|---|---|---|
| 1 | Prof.Ruckmani Divakaran | 1 | 4 | | | |
| 2 | Prof. Vijaya Bharathi M | | 2 | 1 | | |
| 3 | Dr.K.M.Palaniswamy | 1 | 6 | | | |
| 4 | Mrs. Jenitha A | 20 | 24 | 16 | 3 | |
| 5 | Mrs. Inbalatha K | 21 | 138 | | 5 | 7 |
| 6 | Mrs. R. Vijaya Geetha | 1 | 4 | | | |
| 7 | Dr.T.Bhuvanendhiran | 6 | 4 | 2 | | 1 |
| 8 | Mr. Rajesh Kumar Kaushal | 3 | 7 | | | 1 |
| 9 | Mrs. Kanimozhi S | 7 | 7 | | | |
| 10 | Mr. Srinivas Babu N | 4 | 6 | 1 | | 1 |
| 11 | Mr. Shashikiran S | 4 | 6 | | | 1 |
| 12 | Mrs.Manjushree K Chavan | 5 | 3 | | | |
| 13 | Ms. Tamilvani R | 14 | 30 | 3 | | 5 |
| 14 | Ms. Mohana C | 14 | 22 | 3 | | 2 |
| 15 | Mrs. Nandini G N | 11 | 7 | 2 | | |
| 16 | Mr. Jesudas J | 8 | 10 | | | 1 |

## FACULTY ACHIVEMENTS

1. Dr K M Palaniswamy Professor, has presented a webinar on "Evolution of 5G" at Dr. TTIT Lecture Series webinar on 12th June 2021.

2. Dr K M Palaniswamy Professor, has attended a Webinar on "How To Identify Appropriate Research Problem For SCI Journal Article" On 12th September 2020.

3. Dr K M Palaniswamy, Professor acted as resource person of program on 26th May 2021 on Design of Statistical Wireless Fading Channel for LTE/4G Wireless Communication System.

4. Dr K M Palaniswamy, Professor has organized a seminar on IPR and IP management on 26.02.2021 by S.V.Giri, AGM, IPR, BEML at 11.00AM-1.00PM under IIC.

## PHD ACTIVITIES

1. Dr. Jenitha A, Associate Professor, Department of Electronics & Communication Engineering, Dr.TTIT, on successfully completed Ph.D in Embedded Systems under Visvesvaraya Technological University.



## GUEST LECTURE

1. Industry readiness on the title "Impact of Industrial Electronics in Renewable Energy Sources" was organized by Dr.R.Sagayaraj, Professor, Department of Electrical and Electronics Engineering Muthayammal Engineering College, RasiPuram, Namakkal (Dt), Tamilnadu on 22.10.2020.



**Impact of Industrial Electronics in Renewable Energy Sources**

2. Industry Readiness on Career Guidance and Placement Activities was delivered by Mr. Balu & Prof. Syed) on 09-11-2020.

3. Human Value Programme to inculcate ethics and Environment sustainability was delivered by Prof Ruckmani Diwakaran Dean, & Prof Vijayabharathi, on Universal Human Values 1 How to

overcome peer pressure and build good relationship with colleagues & students ( Class Room & Hostels) on 17-11-2020 .

4. Skill Development-1 was conducted by Dr Palaniswamy ,Dr S.Sreedhar kumar & Prof .Vijayageetha, on 23-11-2020.

5. Industry readiness on the title "Seminar on CNC Machines and Control Systems" was delivered by Nehru Babu A General Manager, Plant Maintenance BEML Ltd., K G F on 19.12.2020.

6. Guest lecture on the title "Idea Pitching" was delivered by Nehru Babu A Gen Manager, Plant Maintenance BEML Ltd., K G F for Final Year Students on 19.12.2020.



**Guest lecture on the title "Idea Pitching"**

7. Two Days- Online Skill Development Programme On "Applications of MATLAB in Low Power & High Power Circuits" was delivered by Dr. K Venkatesha, Professor, EEE Dept, BNMIT, Bangalore on 29.01.2021 & 30.01.2021.

8. Industry readiness on "TCS IT Employability Training" Group:1: 1.Mr.Rajendra Kumar, 2. Mr.Nangappa B , 3.Narisima Rao (IT Analyst) and 4.Mr.Nithin K M, TCS Team, Bangalore, Group 2: 1. Sreenivasa, (IT Analyst), 2.Mr.Rajendra Kumar, 3.Mr.Benjin Samuel,(Global Recruitment) 4. Mr.Srikanth TCS Team, Bangalore.

9. Industry readiness on "How to write a Quality Paper & publish it in Index Journal" was delivered by Dr.S.Karthikumar, Professor and Head, Department of EEE, Mangalam college of Engineering, Kottayam, Kerala on 29.05.2021

10. Industry Readiness on the title "How to find logic for programming Questions" was delivered by Mr.Yuvaraj, Cofounder, on 08.06.2021.

## WEBINARS

1. Online Webinar on "Career Options and Opportunities for Electronics Graduates" was organized on 09.10.2020. The Resource Person for the event is Mr.Renjith.C.V, Electrical Architect/Product Designer, Philips India LTD.

2. Webinar was conducted on the title "5G Protocol Stack Design and Implementation" from 24.08.2020 to 28.08.2020, by Mr.Sreeram,B.Tech (ECE), M.Tech(CSE) Designation: Founder, 5G/6G Research, iSignal Research Labs.

3. One Day online Webinar was conducted on "FPGA Based Array Controller for Active Phased Array Radar" by Mr. Amit Goel, Scientist E, LRDE, Bengaluru On 10.04.2021

4. Online Skill Development Programme was conducted by ICT Academy in the month of March 2021.

## FACULTY DEVELOPMENT PROGRAM CONDUCTED

1. The department organized Three Days FDP on the title on "Applications of SCILAB in DSP and Digital Communication" from 16.8.2020 & 18.08.2020.Resource Person: Mr. Senthil Kumar, Asst Professor, Institute of Road & Transport Technology, and Erode.



**Inauguration of the FDP**

2. The department organized FDP on the title "How To Identify Appropriate Research Problem For SCI Journal Article" was hosted virtually on 12.09.2020 by  N.R. Shankar M.Tech., Ph.D., Academic Writer and Patent Drafter, Chase Research and Development Solutions, Avadi,Chennai.



**Photo taken during the session**

## Program Educational Objectives (PEOs)

Graduates shall have the ability to

**PEO 1 :** Develop the engineering design, problem–solving skills and aptitude for innovations in multi-disciplinary areas.

**PEO 2 :** Manage resources skillfully as members and leaders to solve complicated real world problems.

**PEO 3 :** Be receptive to new technologies and attain professional competence through lifelong learning with Advanced degrees, innovation and other Professional Activities.

## Program Specific Outcomes (PSOs)

Graduates will have the ability to

**PSO 1:** Apply the principles of Electronics in the field of VLSI and Embedded systems.

**PSO 2:** Apply the domain knowledge to design, analyze and develop optimal solutions in the field of Signal Processing and Communication with social concern.

**PSO 3:** Utilize acquired technical knowledge in Applied electronics and multidisciplinary domains.

# Program Outcomes (POs)

At the end of the B.E program, students are expected to have developed the following outcomes:

Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialisation to the solution of complex engineering problems.

1. Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialisation to the solution of complex engineering problems.

2. Problem analysis: Identify, formulate, research literature, and analyse 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 modelling 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 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