RAJEEV INSTITUTE OF TECHNOLOGY, HASSAN
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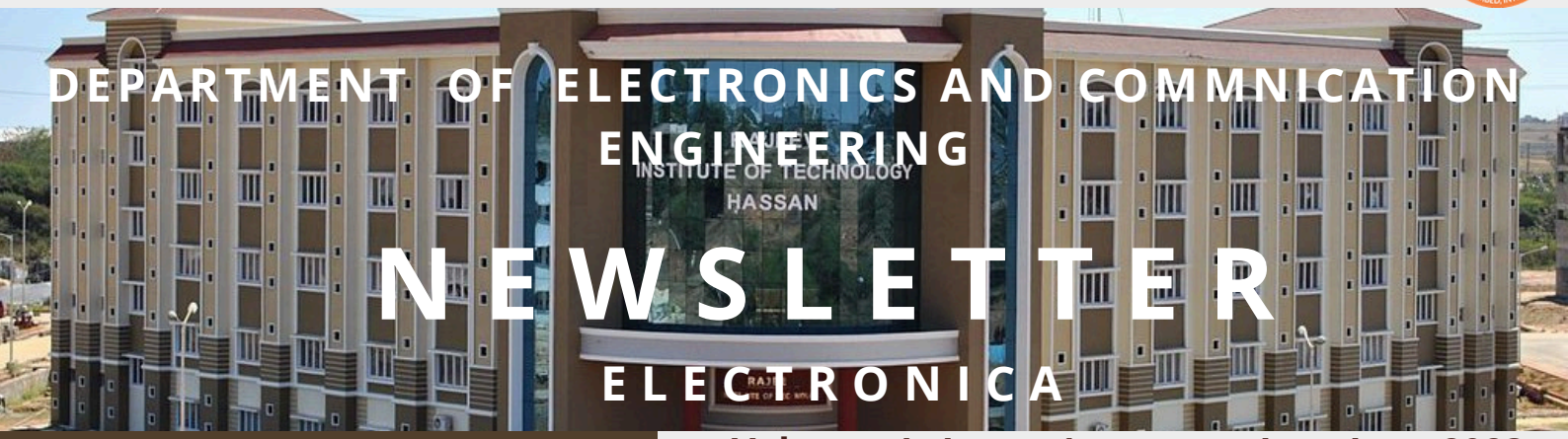

DEPARTMENT OF ELECTRONICS AND COMMNICATION ENGINEERING

NEWSLETTER

ELECTRONICA

Volume: 4 Issue: 1 Jan - June 2023

Vision

To create professionally competent and ethically behavioural Electronics and Communication Engineers capable of working across the globe.

Mission

- To impart quality education relevant to electronics and Communication Engineering.
- To ensure the learning of latest technologies for career advancements in the relevant field.
- To instigate professional ethics, leadership qualities and societal service.

PEOs

- To provide students with fundamentals and in-depth knowledge in electronics and communication engineering including theoretical knowledge, practical skills and problem-solving abilities.
- To train students in multidisciplinary areas to analyse, design and innovate solutions to real world problems leading to socio economic development.
- To inculcate individual, team work and leadership qualities by upholding professional and ethical values.

PSOs

- Graduates will have strong foundation in communication, embedded systems, VLSI and electronic circuits.
- Graduates will be able to apply the knowledge of electronics and communication engineering to identify, formulate and solve engineering and societal problems with the aid of modern tools and techniques.
- Graduates will be able to work effectively in challenging environments by upholding ethical values in their profession leading them to become potential entrepreneurs.

Editorial Team:

Dr. Aravind B N, Chief Editor
Mrs. Ambika K, Issue Editor
Mr. Bharath R Student Editor

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ABOUT THE DEPARTMENT

The department offers an excellent academic environment with a team of highly qualified and dedicated faculties. Many faculty members have registered for Ph.D degree and doing their research work on various topics.

The department provides motivation to the students to become globally competent. Innovative and continuous teaching learning process has been adopted which enhances the capabilities of both student and the faculty members. The department is facilitated with well-equipped classrooms and laboratories and provides ambient environment for learning process.

HOD's Message



I am happy to announce that the Department of Electronics and Communication Engineering is releasing the Newsletter "ELECTRONICA" for the first half of the Year 2023.

It details about the various activities and achievements of our faculty members and students. I wish that, this will help in generating innovative and research ideas among faculties and students.

The department provides a good learning environment with a team of qualified faculty members to inspire the students to develop their technical skills and inculcate the spirit of team work. My best wishes to the editorial board and team for their excellent work of bringing six months of achievements at one place. I congratulate all the faculty members and students for their achievements.

Dr. Aravind B N

DEPARTMENT ACTIVITIES

The department in association with Institute of Electronics and Telecommunication engineers (IETE), Mysuru Centre has jointly organized the following events:

- A Workshop on "Virtual Instruments using LabVIEW" was organized in association with TechFLUENT Pvt. Ltd, Hyderabad on 2nd - 6th May 2023. The resource persons were Dr. N Bala Dastagiri and Mr. P Rohith Goud.





- A Technical Talk on "Job Opportunities in VLSI and Embedded Systems" on 7th June 2023. The resource person was Mr. Madhusdhan H, Co founder, Pentagon Space.

- A 3 day workshop on "Workshop on "Simulation of Circuit using ORCAD PSpice" on 22 nd to 24th June 2023. The resource person was Mr. Sathish Kumar K S, Assistant Professor, NIT, Raichur





- A Seminar on "Application of AI & ML in various fields" on 25th April 2023. The resource person was Dr. Pradeep K G M, Associate Professor, Dept. of E&C, SIET, Tumakuru

Student's Achievements

- Mr. Swagath B J, 6th sem participated and won First place in State level Techno cultural Fest SAVISHKAR-2023 held at Jain College of Engineering, Belagavi.
- The project "Solar Organic Waste Composter" carried out by Ms. Spoorthi D N, Ms. Tejaswini A, Ms. Harshitha C R and Ms. Anusha B U, 8th sem under the guidance of Manasa A has been funded by KSCST.

Faculty/Student Publications

- Mr. Praveen Sindagi and Dr. Mahesh P. K **"A Review Paper on Brainwave Sensor for Identification and Control of Hypertension"** Grenze International Journal of Engineering and Technology (GIJET), Volume 9 Issue 2 June 2023.
- Mr. Ravi L S, Dr. Deepak H A, Deepak R, Farzana Parveen B A, Tanuja T**" Analysis of Value Stream Mapping Framework with Machine Learning Techniques"** Grenze International Journal of Engineering and Technology(GIJET), Volume 9 Issue 2 June 2023.
- Sinchana G S, Ambika K, Arpitha G A and Choodarathanakara A L, **"Supervised Maximum Likelihood Approach for Land use Land Cover Dynamics of Semi-Urban Region"**, Grenze International Journal of Engineering and Technology (GIJET), Volume 9 Issue 2 June 2023.
- Lokeshwari H S, Halappa R Gajera, **"Cross Polarized Radiations Suppression in Modified Sphere Dielectic Resonator Antenna Using Perturbation Technique"**, Grenze International Journal of Engineering and Technology, Issue 2 June 2023.
- Arpitha G A, Manasa A, Sinchana G S and Choodarathanakara A L **"Estimation of landslide damage areas in Madenaadu Kodagu District using minimum Distance classifier"** Grenze International Journal of Engineering and Technology, Issue 2 June 2023.
- Ankitha S and Roopesh A R **" MVR: A Mobile Edge Computing Framework for Performance Offloading "** Grenze International Journal of Engineering and Technology(GIJET), Volume 9 Issue 2 June 2023.
- Vishwanath B R, Samrudh sujai M, Vikas K Y, Shri Rohith Challagulla "Crop Yield Prediction using Machine Learning Analysis", Grenze International Journal of Engineering and Technology (GIJET), Volume 9 Issue 2 June 2023.
- Ravi L.S, Vikas R, Bharath R, Varun M.S, Hemanth M L, "**Design and Implementation of n bit Sequence Detector using FSM Model**", Grenze International Journal of Engineering and Technology (GIJET), Volume 9 Issue 2 June 2023.
- Swagath B J, Ravi L.S, Dr. Naveen K B**" Anti-Theft Vehicle Protection"** Proceeding of National Conference on Emerging Technologies in Engineering- NCETE-2023, 12 May 2023, NCE-Hassan.
- Manoj Prasath .T, M.Hari Hara Suthan, Dr Diksha Srivastava, Rohith P, Dr. Harpreet Kaur, Dr. Allam Balaram, "Novel Approach Of "**Breast Cancer Detection Based On Wireless Communication System"**, Journal of Pharmaceutical Negative Results , Volume 14 , Special Issue 2, 2023.

Faculty Achievements

- Mr. Rohith P was granted the patent on **”Remote Aquatic Environmental Monitoring using IoT ”** by the Indian Patent office.
- Dr. Aravind B N has published a book chapter **“ A novel Algorithm for Reconfigurable Architecture for Software Defined Radio Receiver on Baseband Processor for Demodulation”** in a book titled **“Sustainable Computing”, Springer Online, Jan 2023.**

STTPs/FDPs

- Mr. Ravi L S and Mrs. Lokeshwari H S has successfully completed the Training of Trainers Program on Blockchain Technology under **"Future skills Prime"** Program held from 09th March 2023 to 24th March 2023 by CDAC, Hyderabad.
- Dr. Aravind B N, Mrs. Ambika K, Mr. Vishwanath B R, Mr. Rohith P, and Mrs. Manasa A has successfully completed the Training of Trainers Program on Cyber Security Essentials under **"Future skills Prime”** Program held from 15th February 2023 to 28th February 2023 by CDAC, Hyderabad.
- Mrs. Ambika K, Mrs. Rekha M G, Mrs. Manasa A and Mrs. Lokeshwari H S has successfully completed the Certificate course on **"Digital teaching techniques"** under R systems women educators empowerment program from 02.02.2023 to 17.02.2023 by ICT Academy.
- Mrs. Rekha M G has attended Six days online workshop from 19.06.2023 to 24.06.2023 on **"Design thinking and Entrepreneurship"** organized by Alliance university Bengaluru.
- Dr. Aravind B N, Mrs. Radhika K A, Mr. Rohith P have attended One Week AICTE–VTU Joint Teachers Training Programme on **“Introduction to Python Programming & its Applications”** Organized by Visvesvaraya Technological University, Centre for PG Studies, VIAT, Muddenahalli, Chikkaballapur (Dist.) - 562101 from 19.06.2023 to 23.06.2023.
- Mr. Ravi L.S., Mrs. Ambika K, Mrs. Manasa A, Mrs. Radhika K A have attended One Week AICTE–VTU Joint Teachers Training Programme **“Electronics Circuit design using LabVIEW”** Organized by Visvesvaraya Technological University, Centre for PG Studies, VIAT, Muddenahalli, Chikkaballapur (Dist.) - 562101 from 12th to 16th June 2023

- Mrs. Ambika K, Mr. Vishwanath B R, Mr. Ravi L S, Mr. Rohith P, Mrs. Manasa A, and Mrs. Lokeshwari H S have attended 6 days **AICTE-VTU joint online training** program on **"Analog VLSI design using EDA tools"** organised Visvesvaraya Technological University, Centre for PG Studies, VIAT, Muddenahalli, Chikkaballapur (Dist.) - 562101 from 20.03.2023 to 25.03.2023.
- Mrs. Lokeshwari H. S has attended **5 days Faculty Development Program** on Design Of High-Frequency Antennas For Real-Time Applications, Organized by Department of ECE GMR Institute of Technology Rajam, Andra Pradesh from 14.03.2023 to 18.03.2023.
- Mr. Ravi L S, Mrs. Lokeshwari H S and Mr. Rohith P have attended **5 days Faculty Development Program** AICTE-VTU joint online training program on "Introduction to Python Programming & Its Applications" organized Visvesvaraya Technological University, Centre for PG Studies, VIAT, Muddenahalli, Chikkaballapur (Dist.) - 562101 from 13.03.2023 to 17.03.2023.
- Mr. Vishwanath B R and Mrs. Manasa A have attended **5 days Faculty Development Program** on "Advances in VLSI technology", BMSCE, Bengaluru from 13.03.2023 to 17.03.2023 .
- Mr. Rohith P and Mr. Roopesh A R have attended Five Days Faculty Development Program on **"Biology for Engineers**", Organized by Department of Mechanical Engineering, Jain college of Engineering, Belagavi, in collaboration with VTU Belagavi from 30.05.2023 to 03.06.2023.
- Rohith P has attended 5 days Faculty Development Program AICTE-VTU joint online training program on "Fundamentals of Data-Science & Analytics" organized by Visvesvaraya Technological University, Centre for PG Studies, VIAT, Muddenahalli, Chikkaballapur (Dist.) - 562101 from 05.06.2023 to 09.06.2023
- Mrs. Ambika K, Mrs. Rekha M G, Mrs. Manasa A, Mrs. Lokeshwari H S and Mrs. Radhika K A have attended Five Days Faculty Development Program on **"Virtual Instruments using LabVIEW"**, Organized by Department of Electronics and Communication Engineering, Rajeev Institute of Technology, Hassan from 02.05.2023 to 06.05.2023.

Program Outcomes (POs)

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an Engineering specialization to the solution of complex engineering problems

PO2: 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.

PO3: 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.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research method including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: 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.

PO6: 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.

PO7: 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.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: 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.

PO11: 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

PO12: Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning.