

JUNE 2021 | ISSUE 01



ECE



Reach Beyond the Future EDITOR
Shifana Begum K (IV-ECE)
Member of Editorial Board
Gopinath.M (IV-ECE)

VISION AND MISSION

VISION OF THE INSTITUTION

Transform lives through Education and Research

MISSION OF THE INSTITUTION

To impart quality education to students through critical thinking, creativity, leadership and the spirit of entrepreneurship

VALUES OF THE INSTITUTION

We develop in each member the ability and passion to work effectively for the betterment of humanity with cultural awareness, high ethical and moral values and a sense of social responsibility

DEPARTMENT VISION

To produce globally competent Electronics and Communication Engineers.

DEPARTMENT MISSION

M1: To Impart Value-based Technical Education with a state of art technologies to meet industry standards.

M2: To foster critical thinking and creativity through research and experimentation.

M3: To prepare our students to be a lifetime professional with Creativity and Leadership.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- **PEO 1 -** Shall pursue higher education and research, or have a successful career in industries or as entrepreneurs.
- **PEO 2 -** Shall have the ability and attitude to adapt to emerging technological changes.
- **PEO 3 -** Shall exhibit leadership abilities, professional ethics, communication skills, interpersonal skills and life-long learning.

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 reaching literature, and analyze complex engineering problems 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 appropriate that meet the specified needs with 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 methods 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 modeling 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 in the broadest context of technological change.

PROGRAM SPECIFIC OBJECTIVE (PSOs)

Students of the Electronics and Communication Engineering Program

- **PSO 1 -** Shall have Potential to analyze, design, synthesize and provide technical solutions in the field of VLSI, Embedded Systems, Communication, Networking and Real Time Processing.
- **PSO 2 -** Shall exhibit leadership skills and pursue entrepreneurship and contribute in the field of Electronics and Communication Engineering.

CEO'S MESSAGE

SHRI.B. PRATIVE CHEND

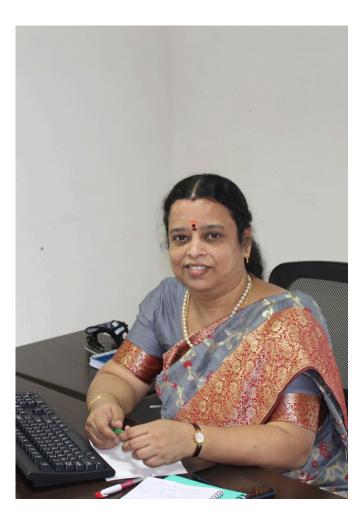
I am thrilled to acknowledge the vibrant partnership Electrical and between our Communication Engineering department and the Electronics and Communication Students (ECSA). Association collaboration is instrumental in providing our students with exceptional opportunities hands-on learning, industry engagement, and professional growth. ECSA's initiatives, from workshops and talks mentorship and networking events, enrich our community and prepare our students for successful careers. I encourage everyone to actively participate in and support ECSA's activities as we continue to push the boundaries of innovation and excellence together.

Best wishes



PRINCIPAL'S MESSAGE

DR.S.SHANTHI



I am delighted to welcome you to another exciting term at CARE College of Engineering. Our Electronics and Communication Engineering department is poised for a dynamic semester filled with new opportunities and advancements.

This term, we're focusing on integrating the latest technologies into our curriculum and expanding our industry collaborations. These initiatives aim to enhance your learning experience and better prepare you for the evolving landscape of electronics and communication.

Thank you for your continued dedication and enthusiasm.

"ALL OUR DREAMS CAN COME TRUE, IF WE HAVE THE COURAGE TO PURSUE THEM."
- WALT DISNEY.

HOD'S Message

As we welcome a new academic term at the Electronics and Communication Engineering (ECE) department, I am filled with optimism and excitement for the journey ahead. This period is not just a continuation of our academic calendar but a fresh opportunity to innovate, excel, and make a meaningful impact in the world of technology.

We are introducing several exciting initiatives designed to enhance both your academic and practical experiences. Our curriculum has been updated to include the latest advancements in technology. and we are proud to announce new collaborations with industry leaders that will provide you with invaluable insights and hands-on experiences. These updates are aimed at bridging the gap between theoretical knowledge and real-world applications, preparing you to tackle the challenges of the ever-evolving field of electronics and communication.



Dr.J.JEYARANI

"Unleash your creativity!"

I want to emphasize the importance of engagement and collaboration within our department. Your active participation in classes, seminars, and projects not only enriches your learning experience but also contributes to the collective success of our community. Our faculty is here to support and guide you every step of the way, and I encourage you to take full advantage of the resources and opportunities available to you.



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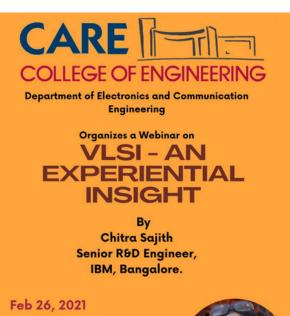
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FEBRUARY 2021

WEBINAR ON VLSI - AN EXPERIENTIAL INSIGHT

Very Large Scale Integration (VLSI) is one of the best option for Electronics engineers who are seeking for a core job. VLSI offers diverse job profiles with excellent career growth and pay high packages in India and abroad. To give exposure about the VLSI field,

Electronics Department of Communication Engineering organized an Online Webinar on "VLSI-An Experiential Insight" on 26/2/2021 by our Resource person Ms.Chitra Sajith, Senior R&D IBM. Engineer, Bangalore. Ms.Chitra Sajith holding US Patent in Circuit Timing methodology. She gave industry exposure and current trending research aspects in VLSI in a short span of time



Feb 26, 2021 3 P.M. Online meeting via Google Meet

Meeting URL

https://meet.google.com/ywt-sphm-nox

E-Certificate will be provided for all participants





VIRTURAL SYMPOSIUM

MARCH 2021

Department of ECE and Student Association (ECSA) organized National Level Virtual Symposium on 25th March, 2021 for the academic year of 2020-21 through online. The chief guest for the event was Mr.T. Jayanandan, CEO, Tesla minds, Chennai. Ms.Rehana Farzana from IV year ECE and Secretary of ECE has delivered the cordial welcome address. Ms. B. Janani from IV year ECE gave brief about ECSA events for the past one year.

The honorable principal of our institution Dr. S.Shanthi M.E., Ph.D., has given the presidential address. Dr.G.Ramadoss, Dean - Academics and Dr. Ramakrishnan, Dean - Students Affairs delivered the felicitation address and briefs the importance of symposia. Mr.S.Suriya of III ECE introduced our chief guest.

We got 296 registrations, and also we received more than 150 technical papers. We got papers from the people who published patents and many awards. This online platform enabled the participations from Rourkela, Trivandrum and best projects from Maharashtra. We can cherish these memories in future.

Students were participated in various technical events like paper presentation, technical quiz, technical connection and Non- technical events like meme creation, photography and musica were conducted on the same day and in order to encourage their student's skills.



MARCH 2021

ECE BUZZ

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MOU WITH M/S TESLA MINDS - A GATEWAY FOR RESEARCH, PATENT, PROJECTS

CARE COLLEGE OF ENGINEERING CARE COLLEGE OF ENGINEERING TESLA MINDS cordially invites you to the MOU SIGNING CEREMONY Via Google meet Time: 10 am Mr. T. JAYANANDAN FOUNDER, TESLA MINDS Dr. S. SHANTHI PRINCIPAL, CARE COLLEGE OF ENGINEERING Coordinator Dr. J. JEYARANI Mrs.M.SHIVA SHANKARI Head of Department / ECE Assistant Professor / ECE

The MoU signing ceremony between CARE & M/S Tesla Minds, Chennai has been signed on 10.a.m 29.3.2021 by through Google meet platform in mutual agreed by Principal Dr. S.Shanthi, & Shri. T.Jayanandan, Founder, Tesla in presence of various people headed by Dr. J.Jneyarani. The ceremony started welcome note aiven bv Dr. J.Jeyarani, HOD/ECE, followed by keynote address which is the Dr. delivered by S.Shanthi. Principal. The MoU benefits were described by Shri. T.Jayanandan wherein both the parties between the mutually agreed policies and ceremony ended with a grand success in hope with bright future and growth towards the technology aspects which will be cherished in near future



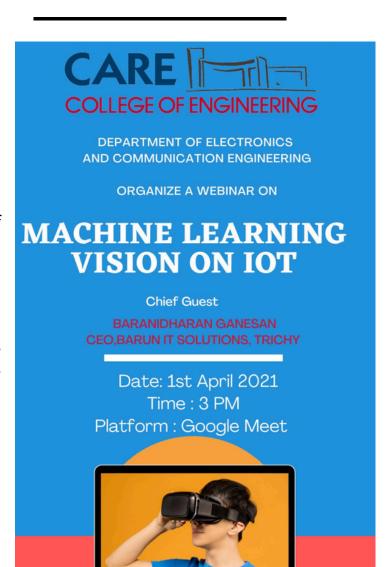
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"MACHINE LEARNING VISION ON IOT" - A WEBINAR THAT'S TRENDING

APRIL 2021

Internet of Things generates volumes of data from massive millions of devices. Machine learning is powered by data and generates insight from it. Machine behavior to learning uses past identify builds patterns and models that help predict future behavior and events. On view of this Department of Electronics and Communication Engineering organized a webinar on "Machine learning vision on IOT" invites a busy and buddy entrepreneur Mr.Baranidaran, CEO, Barun solutions, has a strong knowledge on this topic. He gave fantastic speech and give more projects idea to our students and also explained the trending project in this field. Students were very much impressed and asked more queries regarding ML and IOT.





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APRIL 2021

What you can do to improve productivityEmbedded systems are one of the most highly paid jobs. Embedded engineers currently in high demand. To give exposure about the embedded systems. Department Electronics and Communication Engineering organized an Online Webinar on "WHY EMBEDDED SYSTEMS" on 5/4/2021 and expert Yogeshwari.T, Firmware Engineer, Digitectura technologies Bangalore. She gave wonderful from talk basic to current technologies in which thev working on. And also motivated the student to work in it. At last she concluded with that "There is no doubt that once you obtain experience of 3-4 years, you will get attractive packages and also experienced Embedded System developers have extremely high demand in India. It was a very fruitful session for the students.

WHY EMBEDDED
SYSTEMS? - A CAPTION
THAT EYE OPENS
THROUGH WEBINAR



DEPARTMENT OF ELECTRONICS

AND COMMUNICATION

ENGINEERING



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STUDENT ACHIEVEMENTS IN "CHHATRA VISHWAKARMA AWARD 2020"



Students from ECE department were selected to the finals of **Vishwakarma Award 2020** in the project entitled as "AGRI CARE".

The students who bring the proud moment are as follows, **B.Janani**, **IV-ECE**, **K.Shifana Begum**, **III-ECE**. With the proper guidance and tireless efforts the students have achieved this remarkable milestone.



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ONLINE TEACHING TOOLS - LEARN, SHARE, HERE WE ARE

MAY 2021

Teachers



Department of Electronics and Communication Engineering



The Department of Electronics and Communication Engineering organized "A Two days online outreach program on Online Teaching Tools" during 17-5-2021 to 18-5-2021 for the school teachers to provoke a sparkle to the beginners towards the digital learning tool with an ambitious goal. department faculty delivered the tools through session wise interaction and the reach of the programme was a grand success with more than 80 participants registration in and around The feedback the city. received from this outreach makes us to move on further stronger for the upliftment of contribution our bringing beneficiary towards the society



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MAY 2021

Department of Electronics and PATHWAY Communication Engineering and Department of Computer Science engineering, inaugurated IEEE Student Branch. on 11.A.M through 24.05.2021 at Google Meet.

DR. A.Pasumpon Pandian, Dean R&D delivered the Presidential address, followed by a provoking speech given by Shri. B.Prative CEO. CARE Chend. Group Institutions and Dr. S.Shanthi. CARE College Principal, of delivered Engineering the Felicitation address. The chief quest Dr. D.Nirmal, Executive Committee Member, IEEE Madras Section inaugurated the **IEEE** student Branch with his speech tremendous which created more interest to involve students in upcoming student branch activities. The members of faculty and students were selected in prior in both the department for coordinating the upcoming events.

IEEE STUDENT BRANCH-INAUGURATION- A PLATFORM FOR TECHNICAL





DEPARTMENT OF ELECTRONICS & COMMUNICATION **ENGINEERING**

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

INAUGURATION **IEEE STUDENT BRANC**

Chief Guest



24 May 2021 @ 11 AM



via Google Meet



Executive Committee Member IEEE Madras Section

Welcome you All...

Shri.B.Prative Chend CEO CARE Group of Institutions

Dr.S.Shanthi Principal CARE College of Engineering



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GUEST SPEAKERS

r.D.Sriram Kumar Professor NIT,Trichy



Mr.V.Sanjay Kumar MS in Electrical Engineering Arizona State University,US



Dr.T.Gunasekaran Program Director University of Technology and Applied Sciences Muscat, Oman



Dr.Immaculate Rosline Assistant Professor, Ramaiah Institute of Technology, Bangalore



4r.T.Jayanandan CEO,Tesla Minds



Dr.V.Rajesh Kumar Associate Professor VIT ,Vellore



r.G.Gandhimathi Professor richy Engineering College



Ms.P.Geetha Associate Professor P.R.Engineering College, Thanjavur





In Association with www.care.ac.in



STTP ON RECENT TRENDS IN ANTENNA AND MICROWAVE TECHNOLOGY

Department of ECE of CARE College of Engineering organized four days short term training program on "Recent in Antenna and Microwave Technology" during June 06, 2021 to June 10, 2021 in online mode using Google meet. The seminar focused on the recent research issues challenges in 5/6G antenna design and beyond technologies. The dignitaries during the session were Dr.D. Sriram Kumar, Professor, NIT, Trichirappalli who delivered the key note address for inauguration and delivered an enlightening lecture on smart antennas for 5G & beyond applications, Dr.S.Shanthi, Principal CARE College of

Four days of our FDP brochure launched in websites and social media. We restricted the participants so as to accommodate our students and faculty in google meet. We are conducting the program in two links in parallel.

The efforts of all the participants from all over india who made this event a grand success is appreciated.

Special mention to Dr.Ragavan, who supported the event and delivered a keynote in valediction and to Dr.D.Sriram kumar who attended all the sessions to support the entire FDP which places a remarkable milestone in the department history.



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MOU WITH SIEMENS CENTRE OF EXCELLENCE IN MANUFACTURING, FUNCTIONING IN NATIONAL INSTITUTE OF TECHNOLOGY, TRICHY

JUNE 2021

To provide industrial exposure to the students and faculty the Memorandum of Understanding (MoU) digital signing ceremony was held on 25th Friday of June month, 2021 between Siemens Centre of Excellence in Manufacturing, functioning in National Institute of Technology, Tiruchirappalli and CARE College of Engineering, Tiruchirappalli.

The meeting started by 2.00 pm with an welcome address of opening remarks given by Dr.D.Sriram Kumar, Head, Siemens Centre, NIT. He stated the needs of industry collaboration with developing colleges which helps the students and faculty to update the platform through emerging technologies.



Next the presidential address was given by Dr.M.Duraiselvan, Dean, Siemens Centre, NIT who strongly clarifies the opportunity in industry 4.0 revolution which represents a new stage in the organization and control of the industrial value chain which reaches the budding engineers. Then Dr.S.Shanthi, Principal, CARE, delivered her address regarding the MoU benefits between the two parties and emerging trends that leads the industry collaboration with our institution to build the engineers to the next level. Then Dr.A.Pasumpon Pandian, Dean R & D , CARE delivered the special address regarding MoU requirements and beneficiaries between the institutions which plays a vital role in moulding the institution to the next higher level.

Finally the MoU signing agreement was accepted by both the parties and ended with vote of thanks delivered by Dr.M.Duraiselvan and CARE faculty members in the meeting.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



JUNE 2021

2017-2021 BATCH

AWARDED-"THE BEST DEPARTMENT OF 2020-2021"

<u>List of Significant Achievements of the department in the current Academic year</u>

- MoU with TESLA Minds, Chennai
- 3 Students shortlisted for the Grand finale of Smart India Hackathon 2020
- 2 Students shortlisted for the Grand finale of AICTE Vishwakarma Awards 2021
- 2 Students secured second prize in Zonal Level Sports meet conducted at Anna university Trichy
- MOU with Internshala
- CSIR PROPOSAL SUBMITTED on the titel "Future trends in noninvasive methods of sensing
- CSIR PROPOSAL Submitted on the title :Applications of machine learning in
- 5g/6g communications
- Anna university summer FDP: EC 8751 Optical communication
- Proposal Women Enterprenuership development programme



JULY 2021

















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