News Letter …..

ECE BUZZ

AUGUST 2023

ISSUE 01

Department of Electronics and Communication Engineering

VISION & MISSION

VISION OF THE INSTITUTION

Transform lives through Education and Research

MISSION OF THE INSTITUTION

- CARE is dedicated to impart quality education to students through critical thinking, creativity, leadership and the spirit of entrepreneurship.
- The organization is committed to foster research and development in a conducive learning environment.
- At CARE, 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 MISSION

- To become a centre of excellence in training, research, consultancy and innovation in the field of Electronics and Communication Engineering.
- To impart value-based technical education with a strong foundation on analytical thinking, design, application and soft skills oriented curriculum to meet national and global challenges.
- To foster critical thinking and creativity through research and experimentation
- 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 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 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 delighted that ECE department has started this initiative to publish a newsletter.

I am looking forward to seeing this run fully by the ECSA student body. This will be a great platform for students to showcase their skills.

Hope the newsletter will include Alumni Voices and their journey through the corporate world.

To the students, believe in yourself, you can achieve your dreams.

PRINCIPAL'S MESSAGE

Dr.S.Shanthi M.E, Ph.D

- The Newsletter is a way of connecting students and other stakeholders. I am excited to give a note for the newsletter of Electronics and Communication Engineering department.

- . This newsletter exhibits the talents and research interests of our students and faculty.

- This newsletter brings out the achievements of students and faculty in all spheres of their learning and upgradation. And also becomes a knowledge repository and act as a platform form for sharing information.

- I congratulate the ECE team for their achievements and bringing out this newsletter. And I wish all the success to the department of ECE all their future endeavors.

" ALL OUR DREAMS CAN COMPETRUE IF WE HAVE THE COURAGE TO PURSUE THEM

HOD'S MESSAGE

Dr.J.Jeyarani M.E,ph.D

- The Department of Electronics and Communication Engineering, established in 2010, is one of the most dynamic departments of CARE College of Engineering. I am really elated to tell that the department stands on the strength of experienced and well qualified faculty who are very dedicated to teaching and also involved in up-gradation of knowledge. Their research experience will help to cultivate the future of our students.

- I am very happy that our department is releasing first issue of "ECE BUZZ"as a forerunner of department activities. It is a technical platform to bring out the hidden talents of students and faculty. I believe that my team consisting of ECE students, staff and faculty is capable of doing wonders. ECE@CARE has become a symbol for excellent placements

which showcases our academic and extracurricular strengths. Let us work together for the achievement of our college's goal. I take this opportunity to congratulate our staff editors Mrs.R. Vanitha and Mrs.M.Shivashankari for their great effort to make this news letter as a reality. Also I invite the readers of '' for their contribution and suggestions for the forthcoming issues.

VLSI SOC DESIGN USING VERILOG HDL
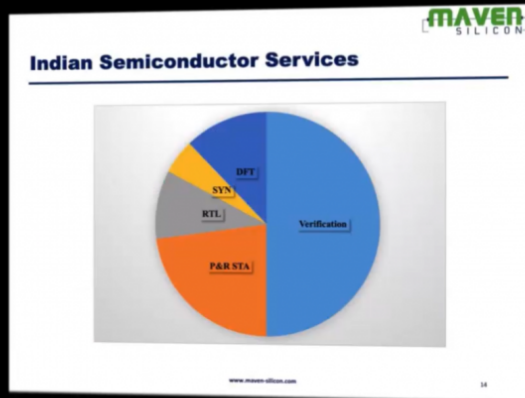
- The Department of Electronics & Communication Engineering, CARE college of engineering , Trichy organized a workshop on **"VLSI SoC Design using Verilog HDL "**, on 27.02.2023. The speaker of this event was Mr. P R Sivakumar – Founder & CEO, Maven Silicon who has 20+ years of experience in Semiconductor Industry. It was attended by all the faculty members and students of ECE, Department.

- During the session Mr. P R Sivakumar motivated and inspired the students towards the role and importance of VLSI design and application in Industry. He briefed about the Overview of VLSI Design, Chips and SoCs , SoC Design, RTL Design using Verilog HDL, Data Types, Data type concepts, Verilog Operators . Students found the session useful.

NAAC ACCREDITATION

- We are happy to share with you all that CARE College of Engineering has been accredited with "A" grade by the National Assessment and Accreditation Council (NAAC). Thank You Staff, Students and Stakeholders.

PLACEMENT TRAINING PROGRAM

- The Department of ECE conducted a placement training program for second year and third year ECE students on 03.03.2023.
- Mr. T. Vijayakumar, Aptitude trainer from CARE College of Engineering taught an analytical problem (Time & Work) and logical reasoning (Coding & Decoding) in an effective manner. Students learnt how to solve problems and shortcuts. This session was very helpful for students to solve the problem in a short duration of time.
- Ms. Amba Bharti S Desai, Communication trainer from CARE College of Engineering taught how to introduce yourself. Also, What is Group Discussion and how to talk in group discussion. The topic of GD is Technology: A boon or a bane for society? Students were very much interested to talk in GD. This session is very interactive and very useful for placement.

GUEST LECTURE ON CHANNEL CODING THEOREM

Department of ECE organized a guest lecture for the Second year ECE Students to understand the topic Channel coding Theorem in EC 3491- Communication Systems. In the unit-3 the above topic was planned to handle through guest lecture to make the students for better understanding. The guest lecture was conducted on 18.03.2023 at 10.30 a.m in II ECE Classroom with invited speaker Dr.B.Karthiga, Associate Professor, Department of ECE, from Dhanalakshmi Srinivasan Engineering College (Autonomous), Perambalur. The lecture was conducted successfully presided by Dr.J.Jeyarani\HOD,ECE and ended with a thanks note by Mrs.M.Shiva Shankari, AP\EC.
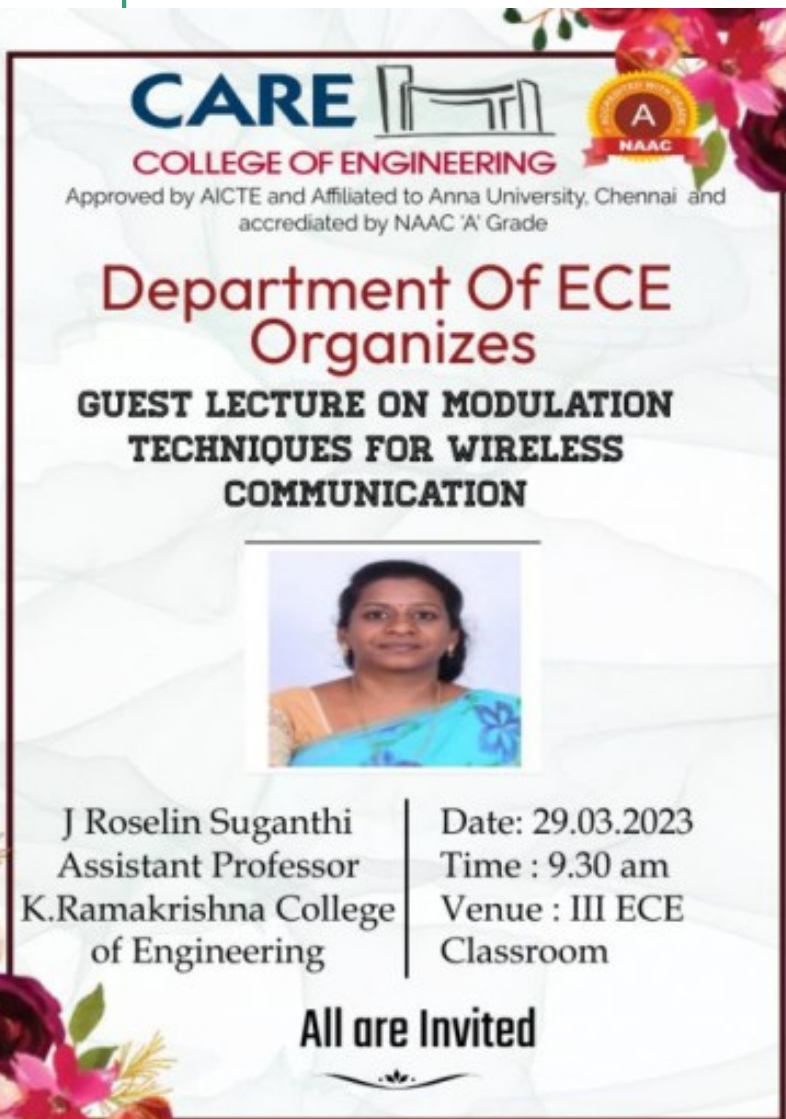
LECTURE ON "MODULATION TECHNIQUES FOR WIRELESS COMMUNICATION"

- The program commences with a warm welcome address delivered by R. Elavarasi AP/ECE, followed by an informative and thought-provoking lecture on "Modulation Techniques for Wireless Communication" held on March 29th, 2023. The presentation was splendid and exposed students to field practices, with all students appreciating and benefiting from your views on the subject. This guest lecture is an integral part of the students' course curriculum, allowing them to explore various ideas about Modulation Techniques for Wireless Communication and enrich their knowledge about Wireless Communication. The program concludes with a vote of thanks given by Afrose Jamila III ECE.
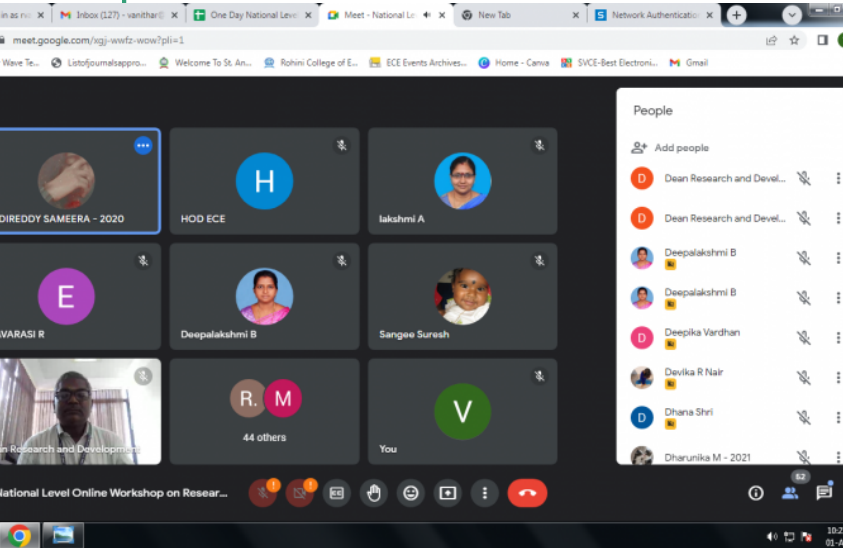
ONE DAY NATIONAL LEVEL ONLINE WORKSHOP ON RESEARCH PAPER WRITING

- The Department of ECE organized Workshop on "One Day National Level Online Workshop on Research Paper Writing". The aim of this workshop was to enable the participants in characterizing research issues, building up a way to deal with research issues and choosing appropriate research design. It would also include insights to statistical tools for analyzing research data and comprehending research paper writing.

- The workshop was attended by many participants from various academic institutions. The key speakers are Dr.Paumpon pandian, Professor, Dean Research & Development from Care College Of Engineering at Trichy, Dr.J.Jeyarani

HERTZ 23

The Department of ECE and Student Association (ECSA) organized a National Level Hybrid Symposium Hertz 23 on 23rd March 2023 for the academic year 2022-23. The chief guest for the event was Shri. Balakrishnan Islavath, MIEEE & AP-S and SEMCEI, Deputy Director/Scientist, Senate Member (UoM) Executive Member, Center for IOT (Anna University) Center for Electromagnetics, Chennai, R&D Lab Ministry of Electronics and Information Technology (MeitY).

Totally 54 registrations, with 40 papers, were done for this event from various colleges. Papers were received from the people who published patents and many awards.

SEMINAR ON 5G AND ITS APPLICATIONS

- Department of Electronics & Communication engineering of CARE College of Engineering in association with IEEE CARE student branch organized "A Seminar on 5G and its applications with invited guest of Shri.Balakrishna Islavath, Scientist, Sameer, Bangalore.

- The seminar focused on the recent research issues, challenges, research trends and emerging applications in 5G Technology. The programme started with the inaugural ceremony on 23, March, 2022 by 10.30 am, co-ordinated by Mrs.R.Vanitha Assistant Professor, ECE. The presidential address was delivered by Dr.J.Jeyarani, HOD\ECE.

GUEST LECTURE ON TRANSMISSION LINES AND RF SYSTEMS

- The Department of ECE organized a Guest lecture on "Transmission Lines and RF Systems" on 18.04.2023 @ 3.30 PM , and it was coordinated by Mrs.J.S.Jenin,AP/ECE. Mrs. J.S.Jenin AP/ECE gave the welcome address and introduced the guest Ms. V.Roja, PMRFScholar, Department of ECE,NIT,Trichy.

- The guest lecture is planned to provide the knowledge towards the application oriented TLRF. This is the content beyond the syllabus which will support self-learning and motivate for life-long learning for the student participants.

- The important takeaway of the session was the students learnt about the practical aspects about TLRF –RF system design concepts . The vote of thanks to the speaker was given by Dr. J.Jeyarani, Professor and Head of ECE.

14TH ANNUAL DAY

CARE
COLLEGE OF ENGINEERING

We Cordially Invite you for

14th Annual Day

29th April 2023 | 4 pm | CARE Campus

Chief Guest

MAHESH
Anchor · Educator · Motivational Speaker

Presided by

SHRI. B. PRATIVE CHEND
CEO, CARE Group of Institutions

GUEST LECTURE ON "VLSI – DESIGN FOR TESTABILITY"

CARE COLLEGE OF ENGINEERING
Affiliated to Anna University & Approved by AICTE
Accredited by NAAC with 'A' Grade

Department of ECE

Guest Lecture on

VLSI Design for Testability

Date : 19th April 2023
Venue : VLSI Laboratory

Resource Person
Dr. Nithish Kumar V
Associate Professor Grade 1
Department of Nano & Micro Electronics
Vellore Institute of Technology, Vellore

#27, Trichy Dindigul Road, Thayanur, Trichy-09 | www.care.ac.in

"Design-for-Testability (DFT) is a critical element in the design of modern, high-performance digital systems." – Jacob A. Abramovici, electrical engineer and computer scientist, and author of the book Digital Systems Testing and Testable Design.

Design for testability is not just a nice-to-have feature anymore. It is essential for ensuring that chips can be tested efficiently and effectively, without compromising on quality or reliability – **Dr. V.Nithish Kumar, Associate Professor Grade I, Vellore Institute of Technology, Vellore.**

Department of Electronics and Communication Engineering organized a guest lecture "VLSI – Design for Testability" on 19th April, 2023. The guest lecture was given by a well-known expert in the field Dr.V.Nithishkumar, Associate Professor Grade I, Vellore Institute of Technology, Vellore.

The lecture covered various topics related to designing chips for easy testing, including Design for Test (DFT), Scan chains, Built-In Self-Test (BIST), and other related techniques.

The speaker then discussed various DFT techniques, starting with scan chains. Scan chains are a way of connecting the flip-flops in a chip to a test controller, allowing for easy testing of the chip's functionality.The students learned a lot about different DFT techniques and the challenges associated with designing chips for testability.

The lecture was coordinated by **Mr. Sriram Sundar S, Assistant Professor I,** CARE College of Engineering.

INTERNATIONAL CONFERENCE ON INFORMATION AND COMMUNICATION ENGINEERING (ICICE'23)

Our Department of ECE at CARE College of Engineering, Trichy successfully hosted the International Conference on Information and Communication Engineering (ICICE'23) online. The event commenced on 26/04/23 and 27/04/23. The conference started by 10:00 AM with an inauguration ceremony felicitated by the Principal Dr.S.Shanthi and Dean R&D Dr.A.Pasumpon Pandian. Our esteemed chief guest, Dr. Saravanan, Principal Scientist at Intel Corporation, USA, delivered an exceptional lecture on the Future of Computing, sharing his experiences and educating students on the latest trends.

ICICE'23 provided a multidisciplinary platform for scientists, researchers, and academicians to present and exchange ideas on the latest research works and results related to a wide range of topics. These included Artificial Intelligence and Robotics, Cryptography and Network Security, Wireless Sensor Networks, and Renewable Energy Resources, among others.
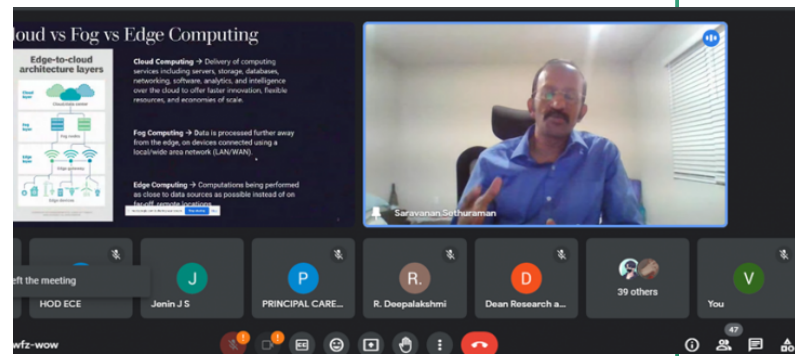
Key experts provided an opportunity for bringing up innovative ideas.

The conference received a total of 93 papers from across India, with submissions from various states such as Kerala, Karnataka, Gujarat, and Maharashtra, among others. Out of these, only 40 papers were accepted and registered for both track 1 and track 2 of our conference, with an acceptance rate of less than 50%. The papers underwent a rigorous review process by subject experts from various reputed institutions and industries, as well as plagiarism and technical English correction tools. We followed the standards and regulations of reputable journal and conference publications.

We express our heartfelt appreciation and gratitude to the Management of CARE College of Engineering for their initiative in organizing this event.

GUEST LECTURE ON WAVEFORM GENERATOR AND SPECIAL FUNCTION ICS

It sounds like the Department of ECE organized a very informative guest lecture on Waveform Generator and Special Function ICs on April 27th, 2023. The lecture covered various topics related to waveform generation, different types of ICs and their applications in real-time scenarios. The lecture also gave importance to different types of amplifiers, filters and fiber optics.

The lecture seems to have been very useful for the students, as it provided them with a lot of valuable information and insights that they can use for their experiments and projects. It's great to hear that the students had the opportunity to have real-time conversations with the guest lecturer, as this would have given them a chance to clarify any doubts they had and gain a deeper understanding of the subject matter.

Overall, it sounds like the guest lecture was a great success and provided the students with a lot of motivation and inspiration to pursue their interests in this field.

DEPARTMENT OF ECE

"Beautiful Moment with our final year ECE outing students"

CARE
COLLEGE OF ENGINEERING
Accredited by NAAC with 'A' Grade
ELECTRONICS & COMMUNICATION ENGINEERING
Batch : 2019 - 2023

Ms. H. Asra Jabeen | Ms. R. Elavarasi | Ms. S. Dhivya | S. Raja Rajeswari | P. Adithya | K. Ajay Kumar | S. Gunasekaran | K. Nishanth | S. Dhinakaran | M. Citybabu | R. Vijei | S. Gopinathan | Mr. G. Thavaselvan
Mrs. S. Amba Bharati | Mrs. A. Shirley Mary Vanitha | Mrs. M. Shiva Shankari | Mrs. R. Vanitha | Mrs. R. Deepalakshmi | Dr. A. Pasumpon Pandian | Dr. S. Shanthi | Mr. B. Prative Chend | Dr. J. Jeyarani | Mr. P. Selvakumar | Mr. S. Sriram Sundar | Mr. R. Saravanan

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