News Letter

Presented by

ELECTRONICS AND COMMUNICATION ENGINEERING

ECE BUZZ

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ISSUE 02

EDITOR MEGANATH V (3rd year)

SUDHARSAN R (3rd year)

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 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.
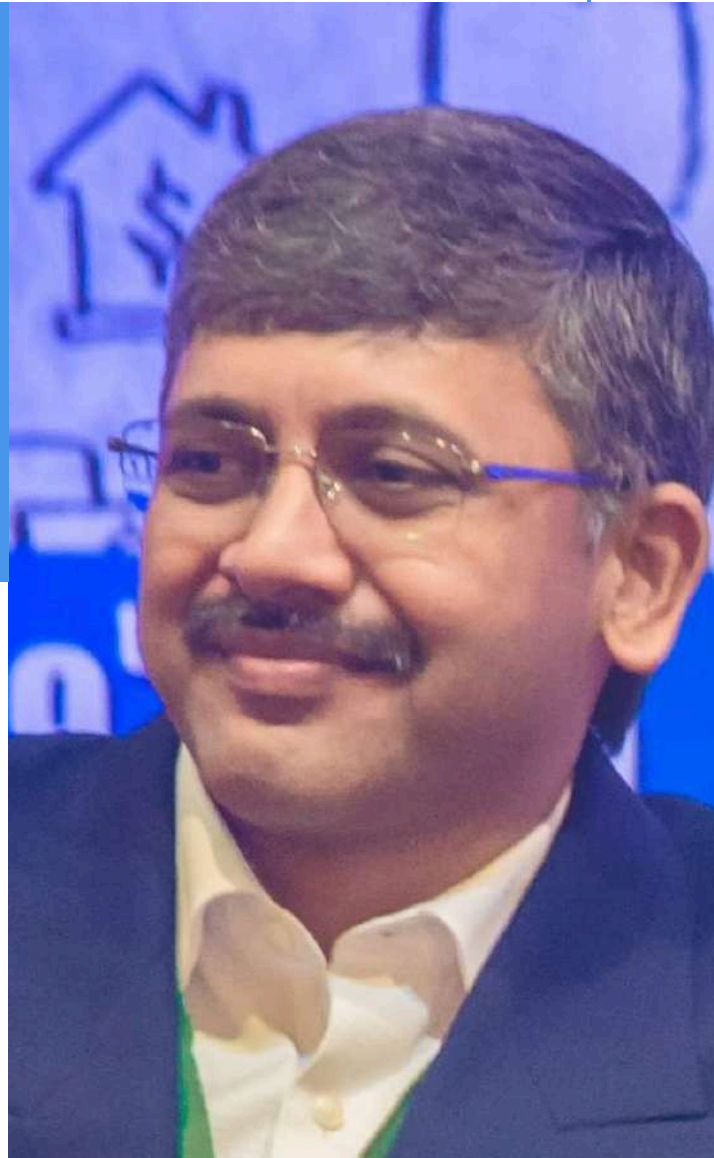
CEO'S MESSAGE

SHRI.B.PRATIVE CHEND

Greetings! As the CEO of our esteemed institution, I am delighted to welcome you to a new academic year filled with promise and growth. At CARE COLLEGE OF ENGINNERING our commitment to excellence, innovation, and a transformative educational experience remains unwavering.

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 COMES TRUE 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 an 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.

Industry-Ready Curriculum: Empowering Tomorrow's Innovators !!!

Industry-Ready Curriculum: Empowering Tomorrow's Innovators !!!

In a fast-paced and competitive job market, the demand for industry-ready professionals has become paramount. Employers are seeking candidates who possess the right mix of technical skills, practical experience, and soft skills necessary to thrive in real-world work environments. So that we believe in industry-ready curriculum to bridge the gap between traditional education and the ever-evolving demands of industries, equipping students with the tools they need to excel in their chosen careers.

Problem Solving using Python and IoT

The **"Problem Solving using Python and IoT"** workshop was conducted by the Department of Electronics and Communication Engineering at CARE College of Engineering. The workshop aimed to empower participants with practical skills in Python programming and Internet of Things (IoT) using Raspberry Pi. The five-day workshop, held from July 31 to August 4, 2023, encompassed lectures, hands-on sessions, and a final project, all focused on enhancing problem-solving abilities through innovative IoT solutions.

Participants: Third and Final Year Students from the Department of Electronics and Communication Engineering, CARE College of Engineering

Day 1: Introduction to Python Programming: The workshop commenced with an introduction to Python programming language. Basic concepts such as variables, data types, loops, and functions were covered through interactive sessions. Participants were guided through coding exercises to grasp Python's fundamentals.

Day 2: Python for Problem Solving: Day two delved into leveraging Python for effective problem-solving. Topics included algorithms, data structures, and file handling. Participants were presented with coding challenges and encouraged to apply Python concepts learned in practical scenarios.

Day 3: Introduction to IoT and Raspberry Pi: The third day was dedicated to IoT and Raspberry Pi. Participants were introduced to IoT's core components, communication protocols, and its real-world applications. An in-depth tutorial on Raspberry Pi's setup and configuration was conducted, preparing participants for hands-on projects.

Day 4: IoT Implementation using Raspberry Pi: Participants engaged in hands-on sessions involving Raspberry Pi and IoT. They learned to connect sensors and actuators to the Raspberry Pi and programmed them using Python. Practical exercises included temperature and humidity monitoring using DHT11 sensor and LED control.

Day 5: Raspberry Pi IoT Project and Presentations: The final day centered around group projects. Participants collaborated in teams and conceived unique IoT solutions using Raspberry Pi and Python. Each team worked on designing, coding, and implementing their projects. In the afternoon, teams presented their projects, demonstrating their problem-solving skills and technical prowess.

Group Project:

Smart Home Automation System using Raspberry Pi: One of the standout projects involved creating a Smart Home Automation System using Raspberry Pi and Python. The system enabled remote control of lights, fans, and home appliances through a mobile app. It incorporated motion sensors for automatic lighting and temperature sensors for climate control. The team successfully demonstrated the system's functionalities, highlighting its potential for energy efficiency and convenience.

Day 5: Raspberry Pi IoT Project and Presentations: The final day centered around group projects. Participants collaborated in teams and conceived unique IoT solutions using Raspberry Pi and Python. Each team worked on designing, coding, and implementing their projects. In the afternoon, teams presented their projects, demonstrating their problem-solving skills and technical prowess.

Outcomes and Achievements:

- Participants gained proficiency in Python programming and its application in problem-solving.
- A comprehensive understanding of IoT concepts and hands-on experience with Raspberry Pi was achieved.
- Participants successfully developed a Smart Home Automation System, showcasing their ability to integrate hardware and software to solve real-world challenges.
- Improved teamwork, communication, and project management skills were observed among participants

ECE Alumni Interaction

Department of ECE conducted an Alumni Interaction with ECE students which is scheduled on **14th Aug 2023** between **11.00 AM – 12.30 PM**. **Mr.G.Kannan**, Junior Engineer, L & T ship building(2013-2017 Batch) , **Mr.L.Arafath Khan**, Entrepreneur (2013-2017 Batch) and **Mr.K.Kalaiselvan**, Assistant Engineer, Wind Care India Pvt. Ltd.(2013-2017 Batch) delivered a lecture on overview Engineering Education, Students how to crab the opportunities which is given inside the campus, how to utilize the Faculty for their self improvement and opportunities available inside college campus. Totally 35 students (III ECE & IV ECE) actively participated and interacted with resource person. The event was coordinated by **Mrs.R.Deepalakshmi**, AP/ECE under the guidance of **Dr.J.Jeyarani**, Prof. & Head/ECE and **Dr.S.Shanthi**, Principal/CARE COE.

A Message from the Aluminis

They highlighted the importance of working in a company and the knowledge contribution by the seniors for the juniors. The event had a wonderful interaction with the alumni students. They addressed their usefulness about the courses and topics taught in the college during their study period. They also gs.

ave good feedback regarding the placement trainings, aptitude and communication classes. They assured that they will guide their juniors in a right path by giving important tips for attending interviews and competitive examination. They also shared their contact details to students, they will help the juniors in their placements and Industrial Expectation

Guest Lecture

Department of ECE Organized an online guest lecture for III ECE Students for the course CEC352 Satellite Communication on the topic "**Security Challenges in Space and Ground Segments**" on 21.8.2023 during 2.00 to 3.30 p.m. The expert member Dr. K.Prabu, Assistant Professor, Department of Electronics and Communication Engineering, National Institute of Technology (NIT), Surathkal, Karnataka delivered his lecture. The space industry is rapidly evolving, with an increasing number of satellites, spacecraft, and ground-based systems being developed and deployed for various purposes such as communication, navigation, Earth observation, scientific research, and national security. However, this growing reliance on space-based technologies also brings about several security challenges. The Presentation enriched the students with real time insights into the challenges and research issues in space applications.

Guest Lecture on AI-Enhanced Embedded Systems

Department of Electronics & Communication engineering of CARE College of Engineering, Trichy organized a Guest Lecture on the topic of **"AI-Enhanced Embedded Systems: Pioneering the Future of IOT"** on 22.08.2023 @ 03.30 pm through Online mode for the Subject EC8791 – Embedded and Real Time Systems. Dr. GAURAV BAJPAI, Director of Partnerships and Grants, Kampala International University, Uganda graced the occasion as the distinguished Resource Person.

The session commenced with an introduction by Mrs.R.Deepalakshmi, Assistant Professor in the Department of ECE, expressing their gratitude to Dr. GAURAV BAJPAI for gracing the event and sharing his insights. Dr. BAJPAI commenced his presentation by introducing the concept of AI-enhanced embedded systems and their pivotal role in shaping the future of the Internet of Things (IoT).

real-world examples to demonstrate how AI-enhanced embedded systems are already contributing to significant advancements in these domains. Additionally, he highlighted the challenges associated with implementing such systems, including power efficiency, security, and scalability.

The session sparked a lively interactive session during which students had the opportunity to pose questions to Dr. BAJPAI. The questions ranged from technical queries about implementation to inquiries about the ethical considerations surrounding AI in embedded systems

Throughout the session, Dr. BAJPAI eloquently elaborated on the synergies between artificial intelligence and embedded systems, illustrating how the integration of AI technologies is revolutionizing the capabilities of IoT devices. He emphasized how AI-enhanced embedded systems are not only enhancing efficiency but also enabling devices to adapt, learn, and make intelligent decisions. He shared
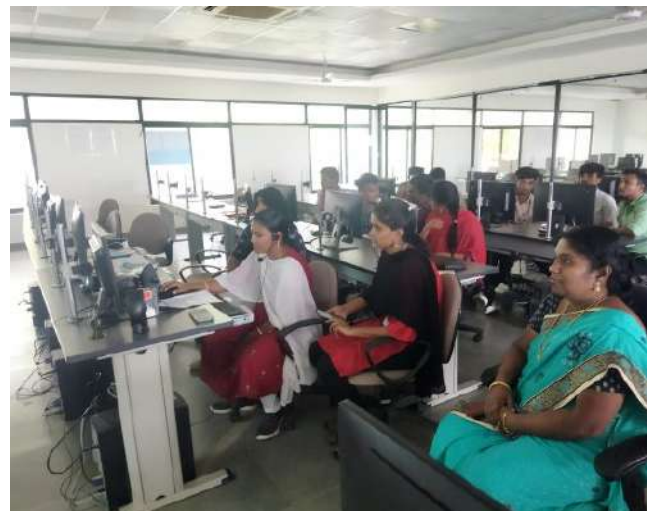
Conclusion

InThe Guest Lecture on "AI-Enhanced Embedded Systems: Pioneering the Future of IoT" provided a comprehensive view of the pivotal role AI plays in advancing embedded systems within the context of IoT. Dr. GAURAV B AJPAI's expertise and illustrative

examples made the event not only educative but also inspirational for all attendees. The session effectively emphasized the transformative potential of AI in shaping the trajectory of IoT and its multifaceted applications in the modern world.

Guest Lecture on Deploying 5G

Department of ECE Organizes

A Guest Lecture on

Deploying 5G: Balancing Technological Ambitions with Real-world Challenges

on 25.08.2023 @ 03.30 PM

Subject: CEC331 – 4G/5G Communication Networks
Audience: III ECE Students
Mode: Online
Link: meet.google.com/uzb-mbdr-stk

Resource Person
Dr.S.RADHAKRISHNAN
Technical Lead, Nokia Solution Networks
Manyata Tech Park, Bangalore

Newsletter Highlights

Balancing Technological Ambitions with Real-world Challenges

Department of Electronics & Communication engineering of CARE College of Engineering, Trichy organized a Guest Lecture on the topic of **"Deploying 5G: Balancing Technological Ambitions with Real-world Challenges"** on 25.08.2023 @ 03.30 pm through Online mode for the Subject **CEC331 – 4G/5G Communication Networks** for III ECE Students. Dr. S. RADHAKRISHNAN, the Technical Lead at Nokia Solution Networks located in Manyata Tech Park, Bangalore, graced the occasion as the distinguished Resource Person.

The session commenced with an introduction by Mrs.R.Deepalakshmi, Assistant Professor in the Department of ECE, expressing their gratitude to Dr. RADHAKRISHNAN for gracing the event and sharing his insights. Dr. RADHAKRISHNAN began his presentation by providing an overview of the evolution of wireless communication technologies, highlighting the significant advancements that led to the development of 5G. He discussed the technological breakthroughs that 5G brings to the table, including ultra-fast data speeds, low l
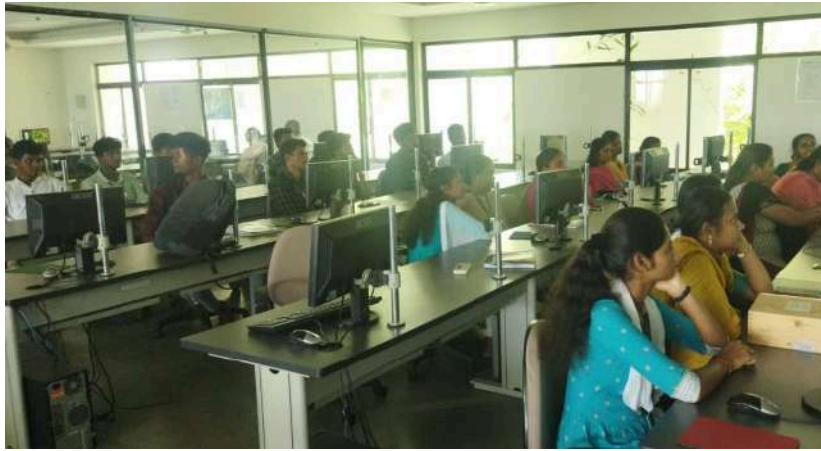
atency, and the potential to revolutionize various industries such as healthcare, transportation, and manufacturing. However, he emphasized that alongside these ambitions, there exist real-world challenges that need to be carefully addressed to ensure the successful implementation of 5G networks.

The challenges discussed included spectrum allocation, infrastructure deployment, security concerns, and the need for regulatory frameworks that adapt to the unique requirements of 5G. Dr. RADHAKRISHNAN drew from his experience at Nokia Solution Networks to provide real-world examples of how these challenges have been tackled and how collaboration between industry stakeholders, governments, and academia is crucial for overcoming them.

The lecture was followed by an engaging Q&A session, during which participants had the opportunity to ask Dr. RADHAKRISHNAN questions about specific technical aspects, deployment strategies, and the future implications of 5G technology. The event concluded with a vote of thanks from the college, expressing appreciation to Dr. RADHAKRISHNAN for his enlightening session.

conclusion

In conclusion, the guest lecture on "Deploying 5G: Balancing Technological Ambitions with Real-world Challenges" provided a comprehensive insight into the world of 5G technology. Dr. S. RADHAKRISHNAN's expertise and practical examples added a practical dimension to the theoretical discussions, making the event both informative and thought-provoking. The event successfully highlighted the need to find equilibrium between the immense potential of 5G and the challenges that must be overcome to realize its benefits fully.

Breaking Boundaries in Healthcare
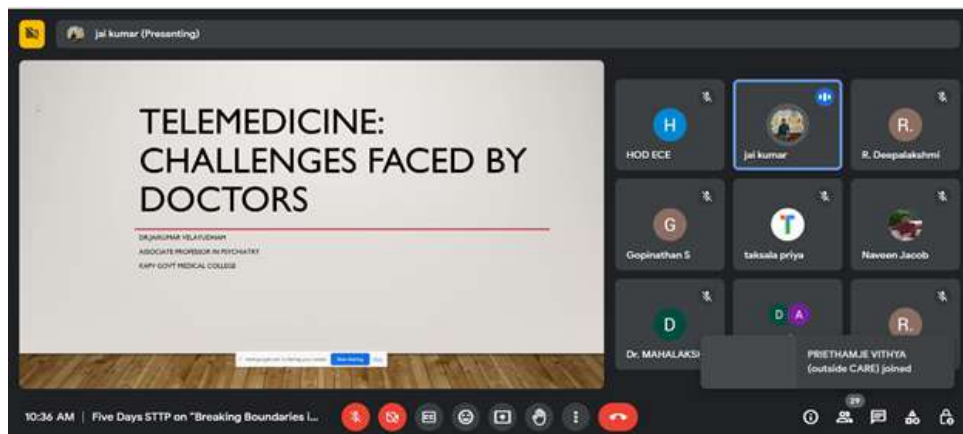
Department of Electronics & Communication engineering of CARE College of Engineering in association with IETE and IEEE CARE student branch organized A Five day STTP on **"Breaking Boundaries on Healthcare: Futuristic Antenna Design for Telemedicine and Biomedical Applications using Artificial Intelligence"** in online mode from 21.08.2023 to 25.08.2023.

We are proud to share that this STTP has garnered interest from **74 participants across 14 states of India**. Our participants include researchers, academicians, industry professionals and Students who are keen to explore the synergy between antenna design and AI for healthcare applications.

The Programme started 21.08.2023 at 10.15 am with the welcome address by Dr.J.Jeyarani, Professor, Department of ECE and inaugurated by Dr.D.Sriram Kumar, Professor, Department of ECE, NIT, Trichy on. He outlines the Objectives, Methodologies, Results and Potential Impact of the Research at the intersection of Antenna Design, Telemedicine and Artificial Intelligence with a focus on revolutionizing healthcare delivery and diagnostics.

Newsletter Highlights

Futuristic Antenna Technology and AI for Telemedicine and Biomedical Applications
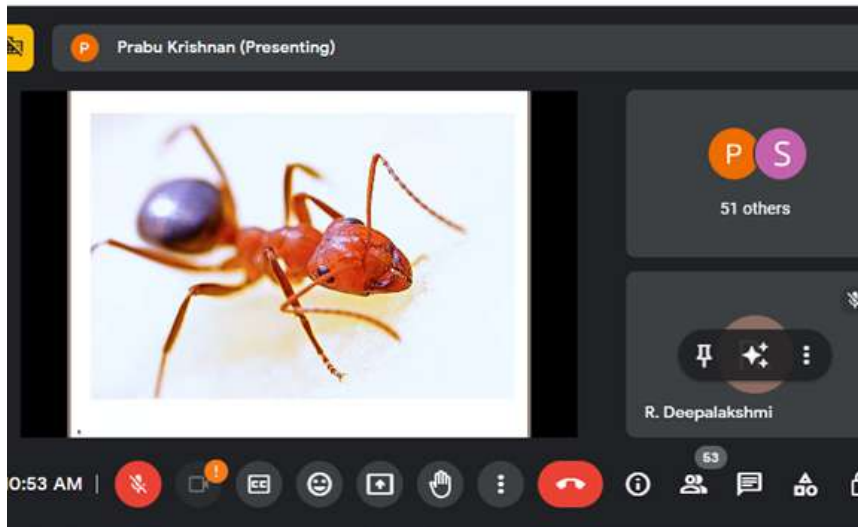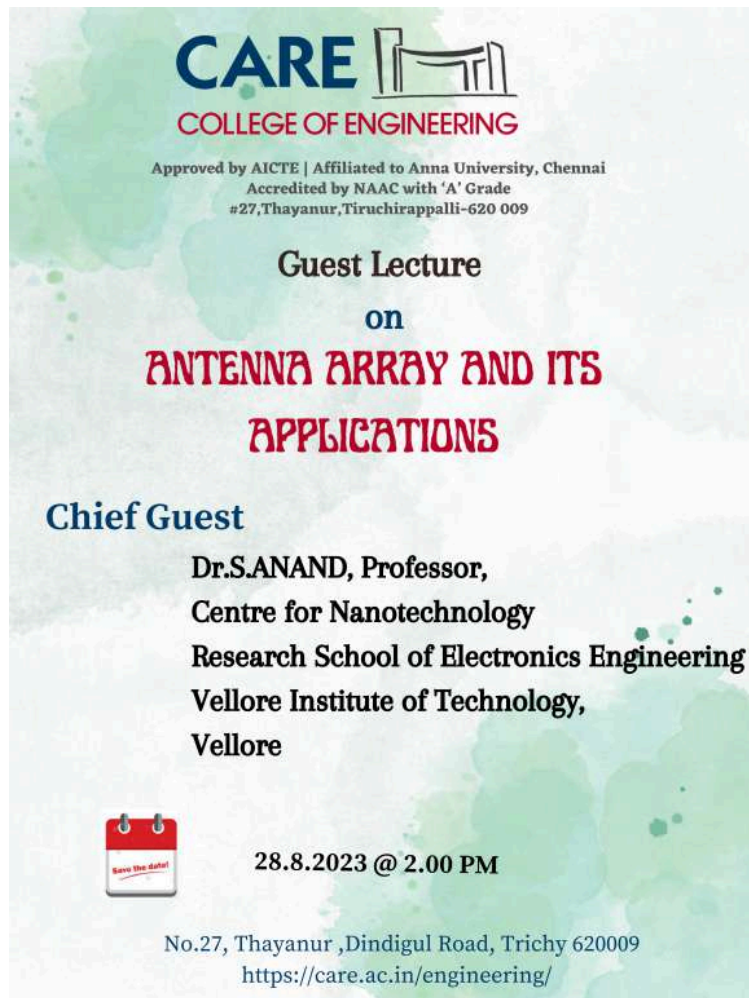
aThe Morning session of the event held on 21.08.2023 at 10.30 am was expertly conducted by Dr. K. Prabu, Assistant Professor at the Department of Electronics and Communication Engineering, National Institute of Technology (NIT), Surathkal, Karnataka. Dr. Prabu's session revolved around the intriguing topic of "Smart Antenna Systems for Wireless Telemedicine and Biomedical Applications". The Presentation provided a comprehensive insight into the challenges and research issues inherent in this cutting-edge field. Dr. Prabu emphasized the growing importance of Wireless Telemedicine in Modern Healthcare.

The second day of the event held on 22nd August 2023, featured an engaging and enlightening session on "Unlocking the Potential of Biomedical Engineering with Machine Learning: Innovations and Applications". The session was conducted by Dr. Gaurav Bajpai, Director of Partnerships and Grants at Kampala International University, Uganda. Dr. Bajpai's presentation delved into the intricate fusion of Biomedical Engineering and Machine Learning, highlighting its concept, innovations and wide-ranging applications. The session wasn't just a monologue, it transformed into an interactive dialogue. Dr. Bajpai actively engaged the audience by encouraging questions and discussions. This facilitated an exchange of ideas, experiences, and queries, elevating the learning experience and making the session more enriching.

The Third day of the event held on 23rd August 2023, featured an insightful session by Dr. S. Anand, Professor at the Centre for Nanotechnology Research, School of Electronics Engineering, Vellore Institute of Technology (VIT), Vellore. The session revolved around the captivating topic of "Miniaturized Antenna Arrays for Wearable Biomedical Devices and Remote Patient Monitoring in Telemedicine". Dr. Anand adeptly navigated through the complexities of antenna design and its significance in wearable healthcare technology, providing valuable insights into research trends. Dr. Anand delved into the pivotal role of wearable biomedical devices in Modern Healthcare.
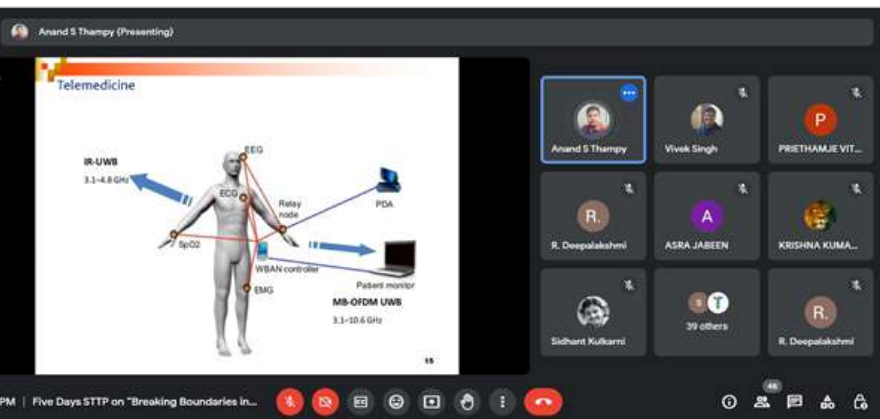
Guest lecture

Department of ECE Organized a online guest lecture for IV ECE Students for the course EC8701 Antennas and Microwave Engineering on the topic "Antenna Arrays and its Applications" on 23.8.2023 during 2.00 to 3.30 p.m.

The fourth day of the event commenced on 24th August 2023 with an immersive hands-on training session led by **Mr. Pankaj Chawla, Senior Application Engineer at Jyothi Electronics, Ahmedabad**. The focus of the session was **"Advanced CST Training",** offering participants a unique opportunity to engage in CST Tool Practical Exercises. This interactive session left a significant impact on the research scholars in attendance, leading many to express their gratitude for the valuable experience. He highlighted the role of CST tools in simulation, analysis, and practical problem-solving.

The final day of the session, held on August 25, 2023, commenced its forenoon session with an enlightening presentation by **Dr. Jaikumar, an esteemed Associate Professor at K.A.P. Viswanatham Government Medical College, Trichy**. The Session focused on the pertinent topic of **"Navigating Telemedicine: Challenges Faced by Doctors in Virtual Healthcare".** The presentation aimed to shed light on the real-time challenges encountered by healthcare practitioners while navigating the realm of telemedicine. Dr. Jaikumar began by providing a succinct overview of telemedicine, elucidating its role in bridging the gap between doctors and patients, especially in remote or inaccessible areas.

Conclusion

Dr. Radhakrishnan's presentation aimed to provide a forward-looking perspective on the evolution of wireless communication and the hurdles encountered in the deployment of 5G and the upcoming 6G networks. Dr. Radhakrishnan provided a clear introduction to the concepts of 5G and the anticipated 6G networks higher capacity laid the groundwork for 6G's potential to enable futuristic applications like holographic communications, advanced AI, and extended reality experiences. He also discussed the issues related to infrastructure development, spectrum allocation, regulatory frameworks, and the need for international collaboration to ensure a seamless rollout of 5G and, in the future, 6G. His Session left a lasting impact on the participants.

Induction Programme for First Year Students
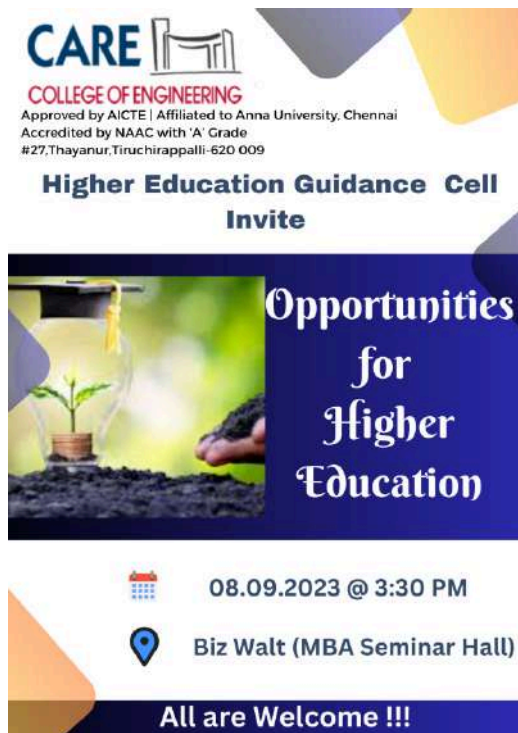
The Induction Programme of the 2023-2027 Batch UG Students will held on 03.09.2023 Sunday, at 10:00 AM at CIS Auditorium

Opportunities for Higher Education

The Higher Education Guidance Cell organized an informative and engaging event titled "Opportunities for Higher Education" on September 8, 2023, at 3:30 PM. The event was held at the Biz Walt (MBA Seminar Hall) and was specifically designed for final year students. The aim of the program was to provide valuable insights and guidance to students seeking further education prospects beyond their undergraduate studies.

The event commenced with a warm welcome given by Higher Education Guidance cell In charge Ms. R. Vanitha, AP/ ECE and the Introduction talk was given by Dr. Jeyarani, HoD/ECE. She underscored the paramount importance of pursuing higher education in today's fast-paced and competitive world. She highlighted that higher education not only equips individuals with

advanced knowledge and skills but also fosters critical thinking, problem-solving, and leadership qualities. Furthermore, she emphasized that higher education opens doors to a wide array of career opportunities and personal growth.

Engineers' Day

On the occasion of Engineers' Day, an insightful and interactive expert talk was organized on September 15, 2023, featuring Shri. Senthamarai Kannan, the esteemed Founder of Kannanware. The event was conducted via Google Meet and aimed to provide valuable guidance to engineering students. The event commenced at 2:00 PM and continued for approximately an hour.

The event began with a warm welcome given by Ms. M. Sasikala AP/ECE, Shri. Senthamarai Kannan initiated an interactive session, encouraging students to ask questions related to their career aspirations and the engineering field in general. This session facilitated open communication and set the tone for an engaging event. He shared valuable insights on interview preparation, drawing from his extensive experience in the industry. He discussed the importance of soft skills, technical knowledge, and how to make a lasting impression during job interviews. He summarized the key takeaways for the students. He emphasized the importance of continuous learning, adaptability, and perseverance in the ever-evolving field of engineering.

And the program came to end and the vote of thanks was given by Ms. Afrose Jamila of Final year ECE.

Inaugural function

Department of Electronics and Communication Engineering of CARE College of Engineering in association with IETE and IEEE CARE student branch organized the inaugural function of " Electronics and Communication Students Association " and the launch of newly formed "RETROBOTS" IoT and Robotics Club.

The Programme started 10.15 AM with the welcome address by Ms.Afrose Jamila, IV ECE Student followed with the symbolic lighting of a lamp to signify the illumination of knowledge and the spirit of collaboration. Dean (Research & Development) Dr. A. Pasumpon Pandian felicitated the gathering. He spoke about the latest innovations in the Electronics Industry. The inaugural address was delivered by Dr.S.Md.MansoorRoomi, Professor, Thiagarajar College of Engineering, Madurai. Chief guest on his address insisted "Invention is the act of creating something entirely new, often driven by ground-breaking ideas and pioneering discoveries. Innovation, on the other hand, involves the

practical application and improvement of existing inventions, leading to the development of new products, services, or processes. Together, invention and innovation propel society forward by continuously pushing the boundaries of human knowledge and capabilities." He also asked the students to name few inventions and innovations and ignited them with the spirit of innovation. Office bearers of the association and the Club were introduced by Dr.J.Jeyarani, Hod/ECE

Venue: Engineering Seminar Hall

Time: 10.00 AM

Organizers: Dr.J.Jeyarani, HoD/ECE ,

 Mrs. R.Vanitha, Assistant Professor/ECE , IV year ECE Students

ECSA

President- Mr.Kanchu Lokesh/ IV ECE

Vice president- Arasu /III ECE

Secretary – Aanandha chandru /IV ECE

Joint secretary- Arokiya Jeyaraj/III ECE

Treasurer- Vigneshwaran/IV ECE

Joint treasurer- Amizlthan/II ECE

Executive members- GadiReddy Sameera/IV ECE

Afrose Jamila/IV ECE

Sudharsan/III ECE

SUBHIKSHA S/III ECE

Amal J/II ECE

Shifana Parveen R/II ECE

RETROBOTS

President- Mr.Balamurugan/IV ECE

Secretary-Mr.Gokul/ IV ECE

Executive members- Sakthivel and Megnath/III ECE

Raguram and Yuvaraj/II ECE

Presidents announced their plans for the year and released the poster of Hertz'23- version 2.O.

The event came to an end by delivering the Vote of Thanks.

# Pursuing Excellence in Public Service Commission Exams
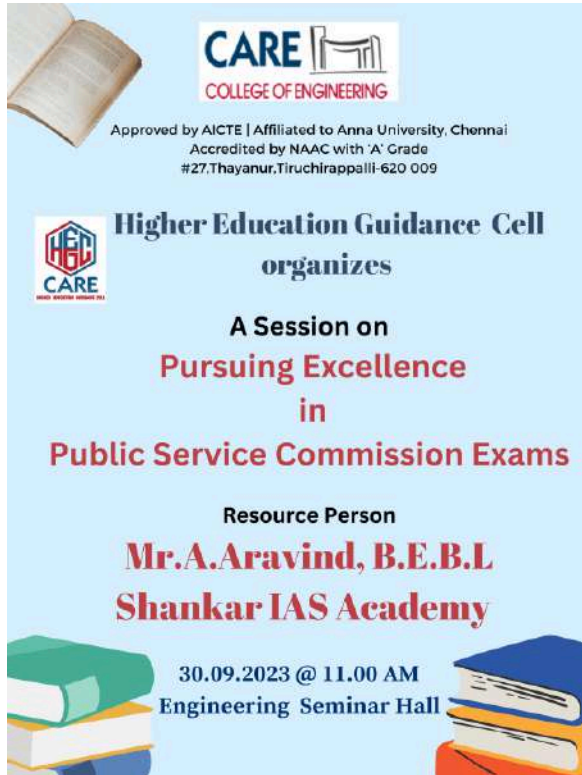
The event, "Pursuing Excellence in Public Service Commission Exams," held on September 30th, 2023, was a resounding success. Organized in the Engineering Seminar Hall, the seminar aimed to provide valuable insights and guidance to students aspiring to excel in various competitive exams, including UPSC, TNPSC, SSC, and Banking.Mr. Aravind BE.BL, a distinguished speaker from Shankar IAS Academy, served as the resource person. His expertise in the field added immense value to the event, as he delved into the intricacies of UPSC, TNPSC, SSC, and Banking exams. Participants were privileged to gain insights from a seasoned professional in the realm of competitive exams.The "Pursuing Excellence in Public Service Commission Exams" event proved to be a valuable platform for students aiming to excel in competitive exams. The combination of expert guidance, interactive sessions, and diverse participant engagement contributed to its success. The organizers are commended for orchestrating an event that not only informed but also inspired the aspiring candidates. Participants left with enhanced knowledge, motivation, and a clearer roadmap for their exam preparation journey.

Guest Lecture on Wireless for Image Processing
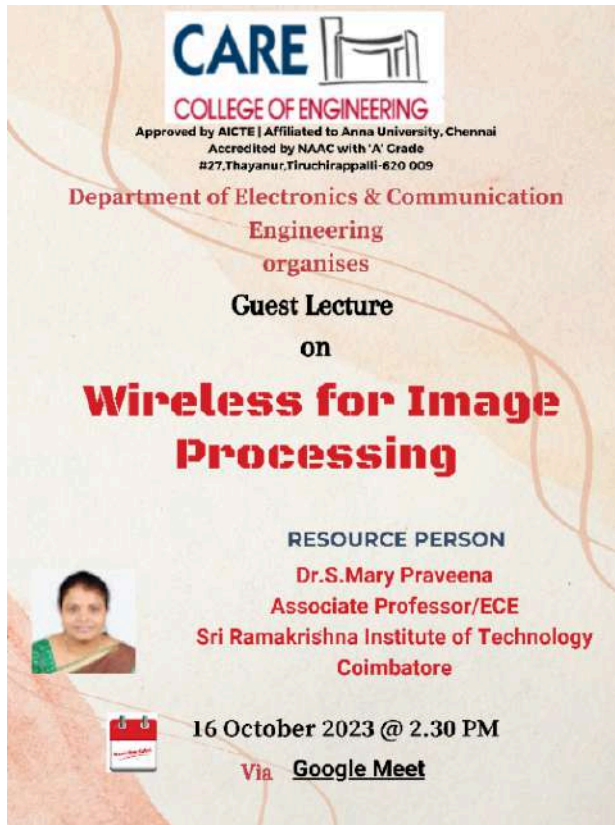
Department of ECE Organized an online guest lecture for III ECE Students for the course EC3501 Wireless Communication on the topic "Wireless for Image Processing" on 16.10.2023 during 2.30 to 4.30 p.m.
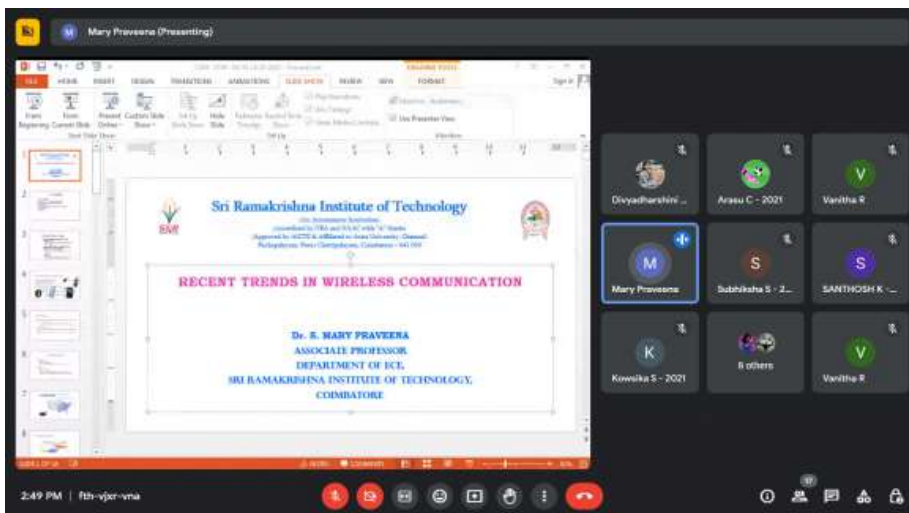
Hertz 23 – (2.0)

The Hertz'23 2.0 symposium, hosted by the Department of Electronics and Communication Engineering (ECE) on October 20, 2023, at the Engineering Seminar Hall, CARE College of Engineering, was an exhilarating event. It featured a range of technical presentations, discussions, and activities that allowed participants to explore the latest advancements in electronics, communications, and engineering. The day was brimming with excitement and provided valuable insights.

The event kicked off with an inauguration at 10:20 AM, graced by the distinguished presence of Principal Dr. S. Shanthi and Dean of Research & Development Dr. A. Pasumpon Pandian. Kanchu Lokesh, IV ECE, delivered the welcome address. The Principal emphasized the importance of skill development in cutting-edge technologies for career opportunities in the field of ECE. Dean Dr. Pasumpon Pandian shared valuable insights into the future of ECE during his felicitation. The Principal also released the second edition of the magazine "The Elekron" during the event. The inaugural session concluded with a formal vote of thanks delivered by Kayalvizhi, III ECE.

Hertz'23 2.0 attracted 67 participants from various Engineering Colleges.

Guest Lecture "ASIC Design & Design for Testability"

"**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.

"**The cheapest, fastest, and most reliable components are those that aren't there**" – Dr. V.Nithish Kumar, Associate Professor Grade I, Vellore Institute of Technology, Vellore.

Department of Electronics and Communication Engineering organized a guest lecture "ASIC Design & Design for Testability" on 04th November, 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 ASIC Design Flow and to
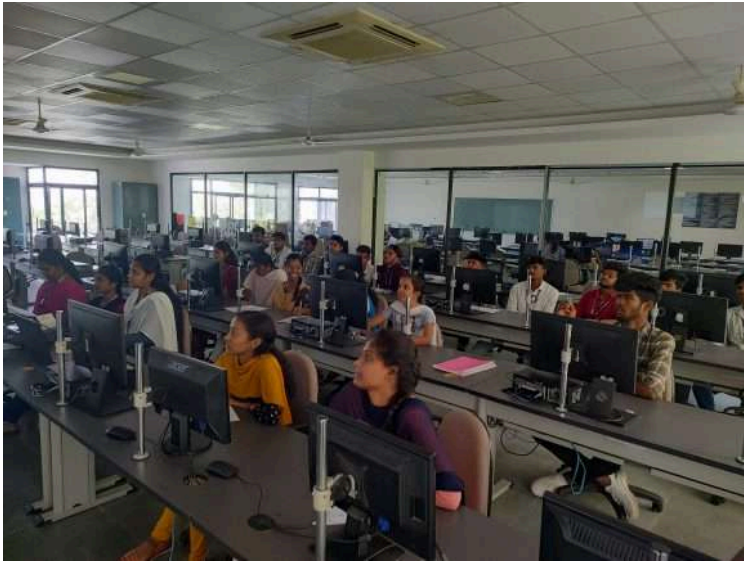
ASICs, their applications, and the advantages they offer over other integrated circuit solutions. The guest speaker delved into the ASIC design flow, outlining the key steps involved in taking a concept to a fully functional ASIC. This included specification, design entry, simulation, synthesis, and layout. The resource person provided real-world examples to illustrate each stage of the process, making it more relatable for the students. Dr.V.Nithishkumar discussed the challenges encountered in ASIC design, such as power consumption, area constraints, and performance optimization. The speaker shared insights into how these challenges are addressed in the industry, drawing from their own experiences. designing chips for easy testing, including Design for Test (DFT), Scan chains, Built-In Self-Test (BIST), and other related techniques.
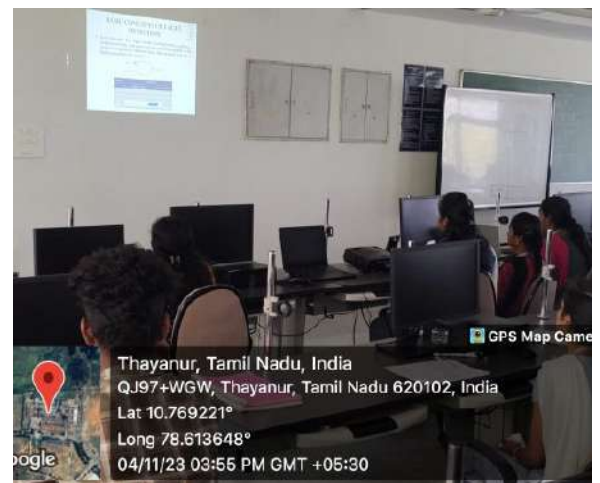
The lecture began with a comprehensive overview of ASIC design, emphasizing its significance in modern electronics. Dr.V.Nithishkumar explained the fundamental concepts behind A significant portion of the lecture was dedicated to Design for Testability. The resource person explained the importance of DFT in ensuring the manufacturability and reliability of ASICs. Topics covered included scan chains, test points, and other DFT techniques aimed at simplifying the testing process. To provide a practical understanding of the concepts discussed, The resource person presented case studies of actual ASIC design projects. These case studies allowed students to see how theoretical concepts are applied in real-world scenarios, reinforcing the relevance of the lecture content.

CARE
COLLEGE OF ENGINEERING
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Department of ECE

Guest Lecture on

**ASIC Design &
Design for Testability**

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

Date : 04 November 2023
Venue : VLSI Laboratory

#27, Thayanur, Dindigul Road, Trichy-620009 | care.ac.in

This session not only enhanced our understanding of ASIC technology but also inspired us to explore further in this dynamic field. We extend our sincere gratitude to Dr.V.Nithishkumar for sharing their expertise and making this guest lecture a truly enriching experience

The guest lecture featured an interactive Q&A session, allowing students to pose questions and seek clarification on various aspects of ASIC design and testability. The resource person addressed each query with patience, offering valuable insights and sharing anecdotes from their professional journey.

The guest lecture on ASIC Design and Design for Testability proved to be a valuable addition to our curriculum. Dr.V.Nithishkumar provided a comprehensive overview of ASIC design, shared practical insights, and emphasized the importance of considering testability throughout the design process.

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Workshop on Antenna Design Techniques for various Applications

CARE College of Engineering organizes a **Five Days Workshop on "Antenna Design Techniques for various Applications" (Online Mode).** This workshop promises to be informative and gaining knowledge about antenna design for budding researchers.

Workshop Details:

Date: 12.12.2023-16.12.2023

Registration Details

Research Scholars/Faculty: Rs.500

UG students/ PG students/Industry :Rs.500

Google form Registration link:

https://forms.gle/gLhCp1drFQj5xuaFA

PaymentLink:

https://www.onlinesbi.sbi/sbicollect/icollecthome.htmc orpID=363293

Last date of Registration: 30.11.2023

Department of ECE

"Beautiful Moment with our final year ECE outing students"