NEWSLETTER

Electroblitz
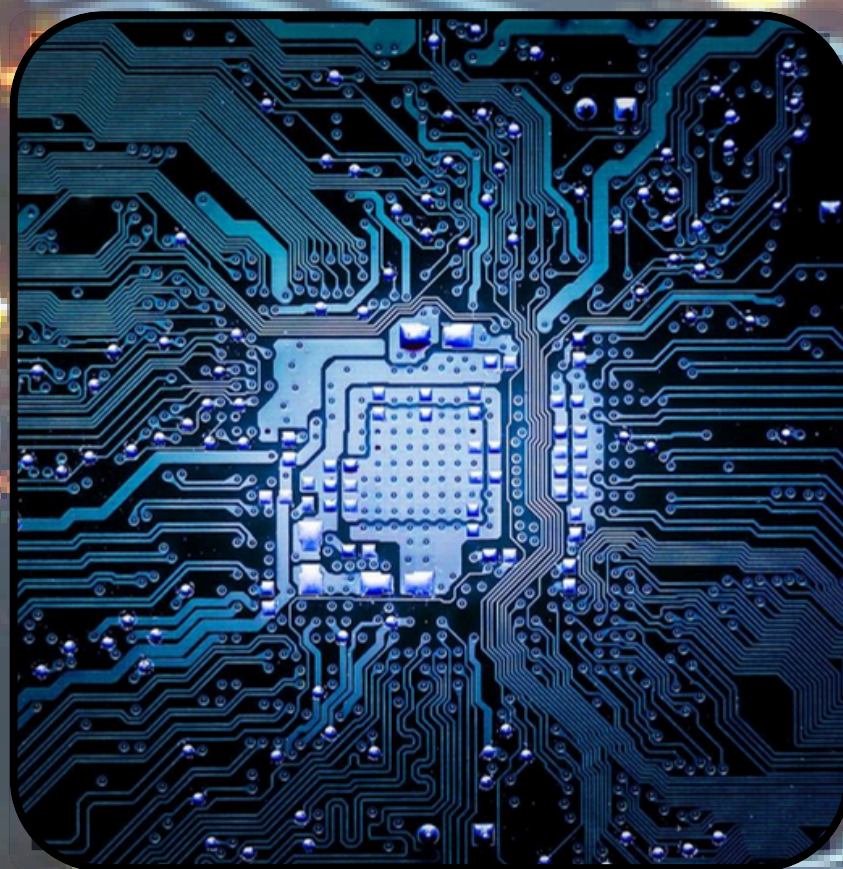
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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ABOUT THE DEPARTMENT

The Department Of Electronics and Communication Engineering came into existence at the faculty of Engineering in 2009 at JCT. Rapidly changing needs of telecommunication industry coupled with indispensible need for Electronics has fabricated this specific branch of recent times .

Apart from the prescribed curriculum, students at JCT are kept in close contact with the industry to make them capable of taking their professional challenges with ease. The Department Of Electronics and Communication Engineering, imparts knowledge to students and nourishes them to capable engineer with high level of talent, professional ethics and creativity.

The major goal of the Department of Electronics and Communication Engineering is to produce highly knowledgeable, competent and resourceful young engineers who can perform well in a wide variety of job profiles. To achieve this, curriculum provides a strong foundation in both the analytic and technological aspects of E&C Engineering. It also provides ample opportunities to students to work on mini-projects, develop communication skills, explore internship opportunities in industry and world-class universities and take part in national and international design contests.

JCT COLLEGE OF ENGINEERING AND TECHNOLOGY

VISION

To emerge as a Premier Institute for developing industry ready Engineers with competency, initiative and character to meet the challenges in global environment.

MISSION

- To impart state-of-the-art engineering and professional education through strong theoretical basics and hands on training to students in their choice of field.
- To serve our students by teaching them leadership, entrepreneurship, teamwork, values, quality, ethics and respect for others.
- To provide opportunities for long-term interaction with academia and industry.
- To create new knowledge through innovation and research.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

VISION

Electronics and Communication Engineering department aims to empower the budding engineers with technological excellence to meet current and imminent challenges in creative research and employment.

MISSION

- To cater all necessary inputs to excel in electronics knowledge both in theory and practical.
- To develop leadership and entrepreneurship qualities with social and ethical values.
- To provide the opportunities for innovation & collaborative research with industry

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

PEO1: Graduates will develop the skills and knowledge necessary to become globally competent team players and leaders in the allied fields of electronics and communication engineering.

PEO2: Graduates will develop the core technical skills and knowledge that will empower them to pursue lifelong learning and research.

PEO3: Graduates will develop and deliver innovative solutions and services that address industrial and societal challenges, while upholding ethical principles and social responsibility.

PROGRAM OUTCOMES (POS)

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

2. 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.

3. Design / Development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

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

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

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

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

10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the engineering management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. Analyze, Design, Simulate and Integrate Electronic Circuits and Systems for given specifications.

2. Apply the technical knowledge to solve complex problems in the areas like signal processing, Communication, VLSI design and Embedded Systems.

HOD'S MESSAGE

Dr.V.J.ARULKARTHICK

It is a great pleasure to see the creative expressions of students who had contributed to "ELECTROBLITZ". The Department Of Electronics and Communication Engineering came into existence at the faculty of Engineering in 2023 at JCT. Rapidly changing needs of telecommunication industry coupled with indispensible need for Electronics has fabricated this specific branch of recent times . Apart from the prescribed curriculum, students at JCT are kept in close contact with the industry to make them capable of talking their professional challenges with else.

The Department Of Electronics and Communication Engineering, imparts maximum knowledge to students and nourishes them to capable engineer with high level of talent, professional ethics and creativity.The major goal of the Department of Electronics and Communication Engineering is to produce highly knowledgeable, competent and resourceful young engineers who can perform well in a wide variety of job profiles. To achieve this, curriculum provides a strong foundation in both the analytic and technological aspects of E&C Engineering.

Graduate will be successful in Professional career by acquiring the knowledge in the fundamentals of Electronics and Communication Engineering and Professional Skills. The students are encouraged to engage in life-long learning and professional development by pursuing higher studies and participating in Professional organizations.

"Learning gives creativity, creativity leads to thinking, thinking provides knowledge, and knowledge makes you great."

-APJ Abdul Kalam

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WEBINAR

The Department of Electronics and Communication Engineering of JCT College of Engineering and Technology organized a special webinar on "SOFTWARE DEFINED RADIO" on 05.08.2023 at 11.00.am.The key speaker of the event was Dr.K.C.Sriharipriya M.E.,Ph.D.,PDF., (Assosiate Professor,School of Electronics Engineering Vellore Institute of Technology,Vellore).The session started with the welcome address and introduction to the Chief guest was given by Dr.V.J.Arulkarthick HoD/ECE .

Chief Guest delivered his lecture on the topic "Software Defined Radio". The webinar aimed to shed light on the revolutionary technology of "Software Defined Radio" and its impact on modern communication systems. She gave the introduction to SDR by explaining the concept of radio system where hardware components are replaced or enhanced by software.

Participants learned how SDRs offer flexibility, reconfigurability and interoperability across wireless communication protocols. She explained about the numerous advantages of SDR over traditional hardware centric radio system. she also explained about several use cases of SDR in different sectors, including defense, telecommunications, public safety and satellite Communication.
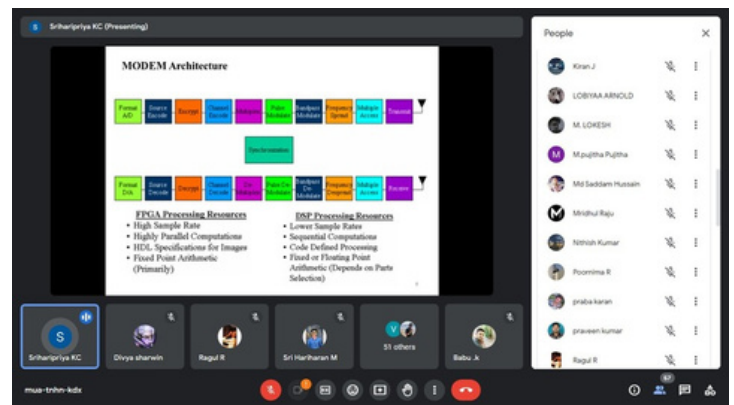
The webinar also highlighted the potential future developments and advancements in SDR Technology.Overall, the webinar was informative and engaging and provided attendees with a deeper understanding of this transformative technology. Around 50 students and faculty members from various colleges were benefitted through this program.

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FACULTY DEVELOPMENT PROGRAM

Department of Electronics and communication Engineering organized a FACULTY DEVELOPMENT PROGRAM on "5G NETWORKS & BEYOND" on 22 TO 26th AUGUEST 2023 Through Google Meet. The guest speakers from Various field.

Day-1:

Dr.Gunasekaran, Professor, Department of ECE, University of Technology and Applied Sciences, Muscat.He discussed on Channel capacity theorem using MIMO.

He focused mainly on multimode channel capacity and discussed about how to reduce the spacing in conventional Antenna.

Day-2:

Dr.S.Ravi Chand, Professor & Head, Department of ECE, Nalla Narasimha Reddy Education Society's Group of Institutions, Hyderabad discussed on the topic 5 G Core. He also discussed the challenges and sustainability issues beyond 5G. The lecture was very beneficial and provided an insight on the various challenges associated which technology has to overcome.

Day-3:

Dr.Vijayalakshmi Chinthamaneni, Associate Professor, Department of ECE, St Peter's Engineering College, Hyderabad has explained the topic on 5G Network and Security. She explained about the Advantages and Disadvantages of 5G, Business Model Evaluation and also Specific 5G use cases in Industry.

Day-4:

Dr.V.J.Arulkarthick Director IQAC & HoD/ ECE, JCT College of Engineering and Technology, Coimbatore has given his insights on the topic 5G and Future Trends in mm Wave Antenna. He discussed about the new developments in 5G,Network based sensing, Network slicing ,5G bands that are supported in India, five major challenges in mm wave Antenna in phones and also mentioned about the application and usage of mm waves.

Day-5:

Dr.Simranjit Singh,Associate Professor,Department of ECE,Punjab Engineering College,Chandigarh, has given his talk on the topic Optical Network in 5G and Research Challenges. He discussed about Quantum communication, Optical Antennas with the participants. He signified the importance of how to discover the solutions for field related issues in today's industries and also discussed about the new development trends in optical networks.

SEMINAR

Department of Electronics and Communication Engineering and Entrepreneurship Development Cell jointly organized a Pitching Event for PoCs Developed & Linkage with Innovation Ambassadors for Mentorship Support Seminar on "Design Thinking & Innovation" dated 22.11. 2023 from 3.00P.M onwards at JCT College of Engineering and Technology, Coimbatore.The key speaker of the event was Dr.M.Siva Ramkumar, IIC Innovation Ambassador,Assistant Professor-EEE,Karpagam college of Higher Education, Coimbatore.

The session started with Thamizh Thaai Vazhthu and Welcome Address was given by Dr.V.J.Arulkarthick.,Director IQAC & HOD-ECE.In his address he welcomed the Chief guest and the gathering. He mentioned about how Innovation plays a major role and also it is a Eye opening for Problem solving.

In his speech, he discussed about Indian Education system, 5 steps of Design thinking. He also mentioned that the product we use must be user friendly, cost effective and it must have long life. He encouraged students to do NPTEL,and other courses. It was a very informative program and around 165 students and faculties got benefited through this program.

SEMINAR

Department of Electronics and communication Engineering and IETE organized a seminar on "INTRODUCTION TO EMBEDDED SYSTEM" on 11.09.2023 at 2.00 pm at Seminar Hall. The key speaker of the event was Ms.MYTHILI.A , EMBEDDED ENGINEER, IPCS GLOBAL SOLUTION Coimbatore. The session started with the welcome address by our principal Dr.S.Manoharan and introduction to the Chief guest was given by Ms.Reddygari Chethana of III B.E ECE. The key speaker given brief introduction about Embedded system and its application and she suggested some of the platform is used to learn embedded.

WORKSHOP

Department of Electronics and communication Engineering and ISTE organized a WORKSHOP on "INDUSTRIAL AUTOMATION AND EMBEDDED SYSTEM" on 25.10.2023 at 10.00 am at Seminar Hall. The key speaker of the event was Mr.ARUL NELSON, AUTOMOTIVE EMBEDDED SOFTWARE DEVELOPER, BENGALURU. The key speaker started session about embedded system and given lastest embeeded tool to how to do application oriented project how to make programming. He interact with all the students and session was very useful.

SEMINAR

Department of Electronics and communication Engineering organized a seminar on "How to Improve our Soft Skills" on 03.11.2023 at 11.30 am at Seminar Hall. The key speaker of the event was Ms.Amritha Karunakaran, Training Manager, Xylem Coaching Institution, Kolikode, Kerala. The session started with the welcome address by our principal Dr.S.Manoharan and introduction to the Chief guest was given by Mrs.Thahseen Thahir, Assistant Professor, ECE. The Chief guest given tips to improve self confidence and importance of soft skills in our life to survey and lead best role in our respective fields.

FACULTY ACHIEVEMENTS

NPTEL

1	MOHANA PRIYA.S	➤	INTRODUCTION to IOT	➤ ELITE
2	VEDHA VINODHA	➤	ETHICS IN ENGINEERING	➤ ELITE

FACULTY DEVELOPMENT PROGRAMME

S.NO	FACULTY NAME		PARTICIPATED
1	MOHANA PRIYA.S	➡	NPTEL
2	VEDHAVINODHA .D	➡	MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
3	THAHASEEN THAHIR	➡	HINDUSTHAN COLLEGE OF ENGINEERING & TECH
4	VEDHAVINODHA .D	➡	HINDUSTHAN COLLEGE OF ENGINEERING & TECH
5	BABU.K	➡	HINDUSTHANCOLLEGE OF ENGINEERING & TECH
6	VEDHAVINODHA .D	➡	BHARATHIYAR INSTITUTE OF ENGINEERING FOR WOMEN
7	VEDHAVINODHA .D	➡	KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCE
8	M.CHANDRA SEKAR	➡	HINDUSTHAN COLLEGE OF ENGINEERING & TECH

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9	R.POORNIMA	→	TANSAM
10	A.SINDHU	→	MICROSOFT
11	VEDHAVINODHA .D	→	KARPAGAM ACADEMY OF HIGHER EDUCATION
12	THAHASEEN THAHIR	→	BHARATHIYAR INSTITUTE OF ENGINEERING FOR WOMEN
13	RENSWICK	→	KARPAGAM ACADEMY OF HIGHER EDUCATION
14	MOHANA PRIYA.S	→	BHARATHIYAR INSTITUTE OF ENGINEERING FOR WOMEN

VEDHA VINODHA .D

→ EFFICIENT EV CHARGING SCHEDULING THROUGH ARTIFICIAL INTELLIGENCE

→ 202341072580A

→ INTELLECTUAL OF PROPERTY INDIA

VEDHA VINODHA .D
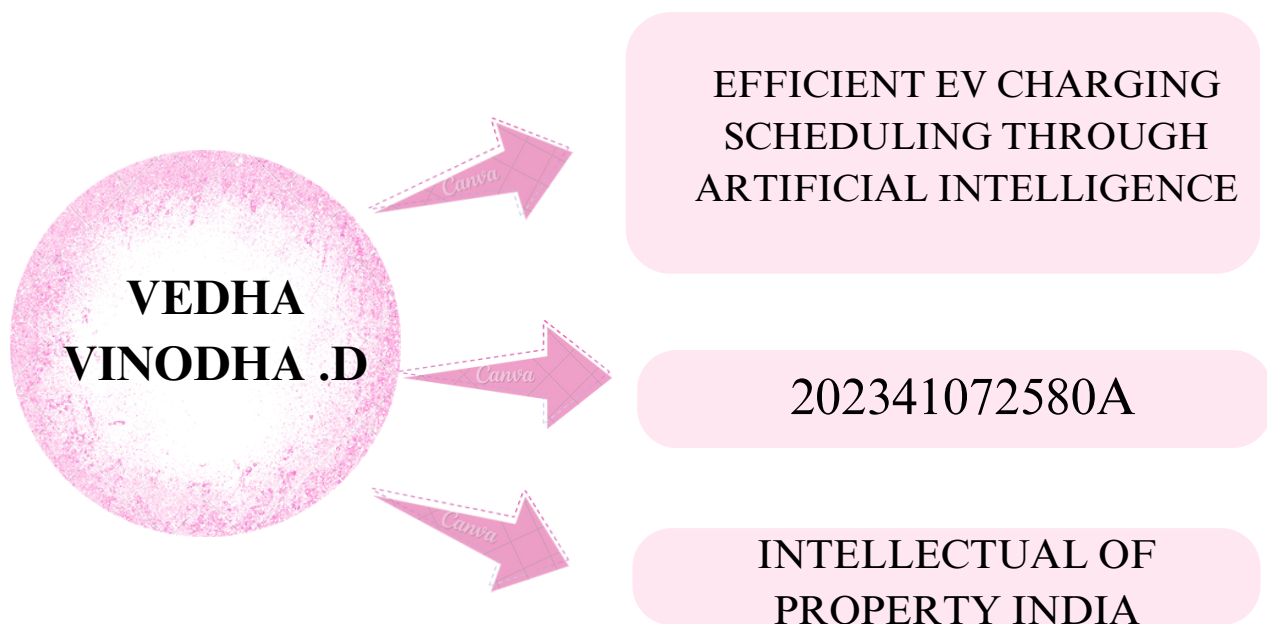
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RIVER PUBLISHERS

978-87-7004-039-6

CONFERENCE

VEDHA VINODHA .D

ML AND IOT BASED ADAPTIVE TRAFFIC MANAGEMENT SYSTEM FOR SMART CITIES

ICTASEM23

SPONSERED ISTE

Paper Publication

Name of the faculty	Title of the Paper	Indexed in
Vedha vinodha D	A competent approach for detecting malicious attack by intrusion detection system IDS	SCOPUS
Vedha vinodha D	Chronological golden search optimization based Deep learning for classification of heartbeat using ECG signals	SCOPUS
Vedha vinodha D	Implementation of secure and verifiable access control procedure using the NTRU cryptosystem to store big data in the cloud environment	SCOPUS
Vedha vinodha D	An enhanced trust scheduling algorithm for medical application in a heterogeneous cloud computing environment	SCOPUS

STUDENTS ACHIEVEMENTS

PROJECT

SMART INDIA HACKATHON

1	STEPHEN ROY	
2	YARRA BHANU PRAKASH	
3	ALLUGARI BHANU PRAKASH	ASSESSING OF SIGN TO SPEECH USING RASPERRY PI
4	AATHAVAN.P	
5	ADARSH K.S	
6	DADDAM MANISHA	

Value Added Course

S,NO	COURSE NAME	COLLABRATIVE PARTNER
1	INDUSTRY IOT 4.0	SIEMENS
2	ARTIFICIAL INTELLIGENCE	ORACLE

Internship

1.	GOLLA SUMANTH	EMBEDDED SYSTEM
2.	NARE JAGADEESH	WEB DEVELOPMENT
3.	JISHNU.S	BPL
4	N.KOTESWAR RAO	WEB DEVELOPMENT
5	NAGA TEJESWAR REDDY	WEB DEVELOPMENT
6	A.BHANU PRAKASH	ROBOTICS & IoT
7	A.MALLA REDDY	WEB DEVELOPMENT
8	G.MANISHA	WEB DEVELOPMENT
9	NAFIYA TABASUM	WEB DEVELOPMENT
10	DUDEKULA SIDDIQ	WEB DEVELOPMENT
11	SANJAY.K	EMBEDDED SYSTEM
12	AATHAVAN.P	WEB DEVELOPMENT
13	ARAVIND GANEASH	WEB DEVELOPMENT
14	SUDHARSAN	WEB DEVELOPMENT
15	KARTHIKAYAN	WEB DEVELOPMENT
16	MOHANSETHUPATHI	WEB DEVELOPMENT
17	R.CHETHANNA	REN NISSAN MIT
18	STEPHEN ROY	EMBEDDED SYSTEM
19	SATHISH KUMAR	EMBEDDED SYSTEM
20	BHARATH	EMBEDDED SYSTEM
21	SIDDARATH	EMBEDDED SYSTEM
22	DHANUJNAI	EMBEDDED SYSTEM
23	BHANU PRAKASH	EMBEDDED SYSTEM
24	NANTHA KUMAR	EMBEDDED SYSTEM

SPORTS

1	HARI RAM KRISHNA		
2	MUKESH		
3	GIRIVASAN		
4	IJAS SHAHADH		PARTICIPATED IN VOLLEY BALL
5	SATHISH KUMAR		
6	ABISHEIK REDDY		
7	SIVA PRAVEEN		
8	NANDEESWAR		

9	R.CHETHANNA	--------------	BADMINTON (AUSB)
10	R.CHETHANNA	--------------	THROWBALL WINNER
11	R.CHETHANNA	--------------	CHESS WINNER
12	JISHNU.S	--------------	BADMINTON
13	G MANISHA	--------------	THROWBALL WINNER

WORKSHOP

1	MUKESH		DESIGN & WORKING OF PCB IN ORCAD
2	BEFARIN		

OUTSIDE COURSE ATTENDED BY STUDENTS

1	R.CHETHANNA	>>>	1.WEB DEVELOPMENT 2.DATA SCIENCE 3.SPANNING

EVENTS

1	R.CHETHANNA	
2	DINESH	PAPER PRESENTATION AT RATHINAM COLLEGE
3	G.MANISHA	
4	R.CHETHANNA	CIRCUIT DEBUGGING AT RATHINAM COLLEGE
5	SANJAY.K	
6	R.CHETHANNA	
7	SANJAY.K	TECHNICAL QUIZ AT RATHINAM COLLEGE
8	PORULCHELVAN .S	
9	D.SIDDIQ	TECHNICAL QUIZ AT RATHINAM COLLEGE

JCT COLLEGE OF ENGINEERING AND TECHNOLOGY

Department of Electronics and Communication Engineering