

Electroblitz Jan-June, 2022 **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**



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 Electronics Of 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 highly knowledgeable, is to produce 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 mini-projects, work on develop to communication skills, explore internship opportunities in industry and world-class universities and take part in national and international design contests.

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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 SPECIFIC OUTCOMES (PSO)

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.



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. Lifelong 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.



ASSOCIATION OFFICE BEARERS

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PRINCIPAL'S WORDS

I am happy to congratulate faculty & students for their enthusiasm in bringing out the next edition of their newsletter. I extend my warm wishes to faculty members and students of ECE department, to continue this journey on the road of excellence.

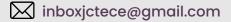
> DR.S.MANOHARAN Principal



HOD'S WORDS

I feel privileged in presenting this issue of our department newsletter. I would like to place on record my gratitude and heartfelt thanks to all those who have contributed to make this success.

> Dr..ARULKARTHICK HOD







The Department of Electronics and Communication Engineering conducted a Webinar on 29.01.2022 at 11.00am on the topic " Implementation of of IoT in Industry" through Google meet link.the talk commenced with a welcoming address by Thahseen Thahir, Assistant Professor and delivered the introduction about the chief guest and important of the webinar.

The chief guest spoken about IoT technologies exist all around us – all those interconnected devices we use like wearable technologies and virtual assistants are made possible by IoT. Industrial IoT, then, is taking the digital inter connectivity we've come to depend on and applying it to massive manufacturing operations, where the risks are higher, but the payoff is greater. He suggest to learn iot to every students and he told some of the sources to learn IoT like

- Collect data in private channels
- Share data with public channels
- RESTful and MQTT APIs
- MATLAB analytics and visualizations
- Alerts
- Event scheduling
- App integrations
- Worldwide community and gave various method to learn easily.



Department of Electronics and Engineering Communication Cell jointly organized а Seminar on "Embedded System Design" dated 31.03.2022 from onwards 3.00P.M at JCT College of Engineering and Technology, Coimbatore. The key speaker of the event was Dr.T.ANBALAGAN, Project manager, Robert Bosch, Coimbatore. The session started with Thamizh Thaai Vazhthu and Welcome Address given by was Dr.V.J.Arulkarthick.,Director IQAC & HOD-ECE.



In his address he welcomed the Chief guest and the gathering. He given speech about what are the embedded benefits typically refer to additional, often hidden, advantages or perks that come with a product, service, or system. These benefits are not always immediately obvious but provide significant value to the user or organization over time.

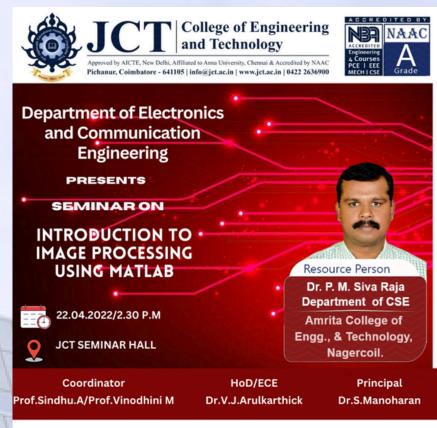
The concept is applied across various domains, including finance, technology, healthcare, and employee benefits programs and across different areas Financial Products, Employee Benefits Programs, security features, integration capabilities with other systems, or automated updates that reduce the need for manual intervention including what are the scope like Technology and Software Development, Project Management and Product Development in embedded system everything suggested to students. At the end of webinar students had an interaction with the chief guest about the session .Finally the session was end with vote of thanks was delivered by Ms.Rajasubhiksha,



The Department of Electronics and Communication Engineering, JCT College of Engineering and Technology organized an Entrepreneur Talk 2022 on 19-04-2022 at 7.00 PM for II ,III&IV Year ECE students.

The key speaker of the event was Mr.L.Jegadheesan B.E Chief Executive Officer, Aristats e-Solution Trichy.The session started with the welcome address by Ms.Fenisha Princess III year ECE followed by introduction of chief guest was given by Ms.Malavika III year ECE.

The primary goal of this Entrepreneur Talk was to motivate thee students to become an Entrepreneur. He taught about how to start the new business and what are all the procedures everyone should do to start a new business. He explained about how to manage and run business with risks. He also explained about what are all the areas, a new business man is facing and how he has to manage those risks efficiently. Finally he answered to the queries raised by the students and the session was as an interactive one.



The Department of Electronics and Communication Engineering conducted a Webinar on 22.04.2022 at 2.30pm to 3.30pm on the topic "Introduction to Image processing" in seminar hall.

Ms.Subiksha (Third Year ECE) welcomed the chief guest and the participants. About 45 participants participated this webinar in including faculties, students of ECE department. The Introduction of chief guest was given by Ms.Malavika (Third Year ECE)

The Chief Guest of the function was Dr. P.M. Siva Raja, Amrita of Engineering College and Technology, Nagercoil. He gave the valuable webinar on "Introduction to Image processing". The Chief Guest gave detailed introduction to processing, image pixel representation, key stages in digital image processing, image compression, color image processing and Various companies that are giving Job Opportunitie in image processing field. At the end of webinar students had an interaction with the chief guest the vote of thanks was livered by Ms.Mridula.



Engineering				
Dr.M.SIVA RAMKUMAR IIC INNOVATION AMBASSADOR	ORGANIZES SEMINAR ON			
		HINKING AND		
	INNO	OVATION		
		DATE:12.05.2022		
	•	TIMING : 3.00P.M		
AMBASSADUK				
Coordinator Prof.Thahseen Thahir	HoD/ECE Dr.V.J.Arulkarthick	Principal Dr.S.Manoharan		

Electronics Department of and Communication Engineering and Entrepreneurship Development Cell jointly organized a Pitching Event for PoCs Developed & Linkage with Innovation Ambassadors for Support Seminar Mentorship on "Design Thinking & Innovation" dated 12.05. 2022 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.

Next Presidential address was given by Dr.S Manoharan, Principal..In his address he explained about the functioning of Innovation cell along with Entrepreneurship cell and all these programs are arranged for the well being of students with an example of Three phase induction motor.Introduction of Chief guest was given by Ms Malavika and after the introduction the Chief guest addressed to the students.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.

The Department of Electronics and Communication Engineering conducted a Seminar on 04.04.2022 topic 10.00am on the at "Programming basics for Micro controller" in seminar hall.The Seminar commenced with а welcoming address by Mrs.Thahseen Thahir Assistant Professor, who highlighted the importance of the Micro controller in the core field and introduction about the chief guest.



The chief guest of the today function Mr.Thirumurugan, Embedded Hardware Head, Tech UCE Automation Coimbatore, gave detailed introduction of Micro controller and what are the scope available in core field and its benefits.



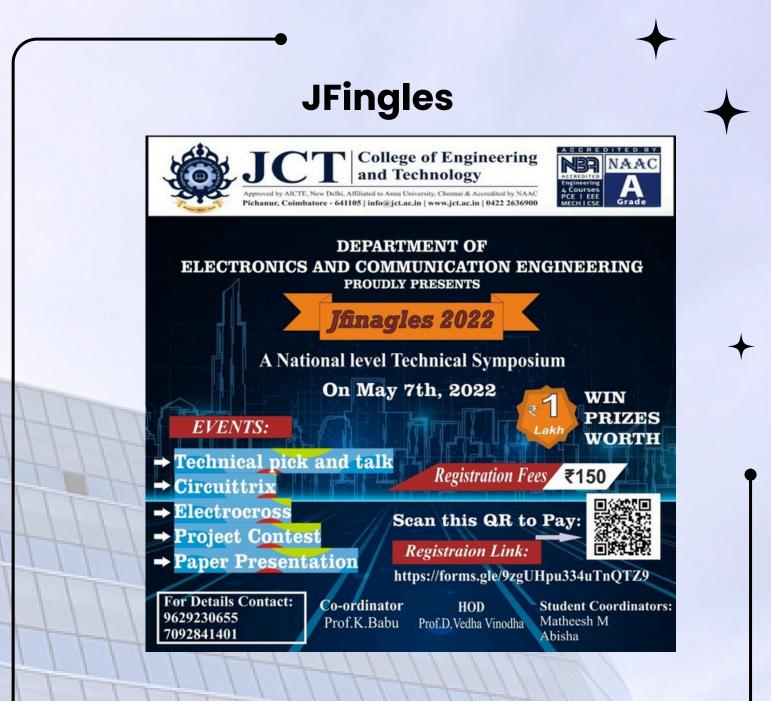
The Department of Electronics and Communication Engineering conducted an Internal Hackathan for Participation in Smart India Hackathan 2022 on 10.03.2022 at 10.00am in seminar hall.The motive and commenced with a welcoming address by Dr.V.J.ARULKARTHICK Director IQAC and HoD ECE, who highlighted the importance of the internal Hackathan participation.

Assistant Professor Mrs.Mohana Priya delivered the introduction about the Chief Guest followed by the Chief Guest of this fuction given tips to how to prepare for Hackathan and motivated to participate hackathan.



The Department of Electronics and Communication Engineering conducted a Webinar on 24.02.2022 at topic "Machine Learning & Artificial Intelligence" through Google meet link.

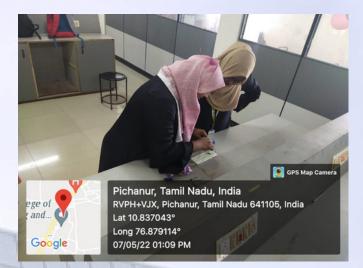
Ms.J.V.Susma (Final Year ECE) welcomed the chief guest and the participants. About 45 participants participated in this webinar including faculties, students of ECE department. The Introduction of chief guest was given by Mr.Gopinath (Final Year ECE) The Chief Guest of the function was Mr.Karthikeyan Ravindran, Oracle Developer, Assistant Consultant, TCS Hyderabad. He gave the valuable seminar on "Machine Learning & Artificial Intelligence". The Chief Guest gave detailed introduction to software Developemnt life cycle and artificial Intelligence. At the end of webinar students had an interaction with the chief guest about the session .The vote of thanks was delivered by Ms.Fenisha Princes .



On May 7th 2022 JFINAGLES a National Level Technical Symposium was conducted at JCT College of Engineering and Technology. The event Started with the Inaugural function at 10.00 a.m in JCT Seminar Hall, all the Heads of the Departments and Event Coordinators and participants from various colleges were present at seminar hall.

The Participants next participated in various events conducted by department of ECE. Many Students from various colleges participated in the various technical events. The first event was Paper presentation which started at 10.30 a.m onwards. The next event was Circuittrix followed by Electro and cross Technical Pick and Talk in Communication lab. In all the above events many students participated in Morning session.

CIRCUITRIX





Circuitrix Event is a platform designed to facilitate the management and execution of events in the field of electronics, electrical engineering, and related technologies. The problem given to the students and they how to solve that circuit . All the students eagerly participated to attended the event.followed by this event paper presentation conducted.

PAPER PRESENTATION



A paper presentation is an oral presentation reserved for completed projects for which results are reported as part of the presentation.So many teams presented their papers very well. participated various college students chosen latest project related papers in different domain.

ELECTRO CROSS





PICK AND TALK



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PROJECT CONTEST





Towards the end of the event, fun games for external students the Faculties were conducted Finally prizes were distributed to the winners and participants.





JKRUTHI



On May 14th 2022 JAKRUTHI a National Level Technical Symposium for Polytechnic students was conducted at JCT College of Engineering and Technology. The event started with the Inaugural function at 10.00 a.m in JCT Seminar Hall, all the Heads of the Departments and Event Coordinators and participants from various colleges were present at seminar hall. event started with Tamilthai Vazhthu followed by lighting of kuthuvilaku by the dignitaries. The welcome address was given by Dr.Rajiv Sureshkumar.G Vice Principal & HOD/CSE. Dr.S.Manoharan, Principal gave the presidential address.

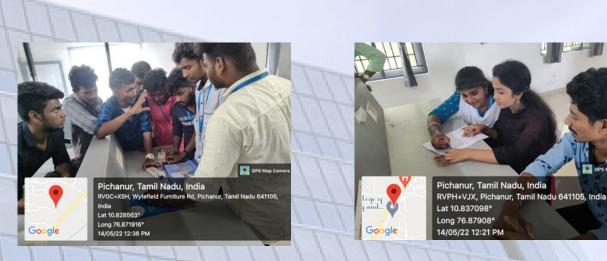
Followed by this program the Participants next participated from various colleges participated in the various technical events. The first event was Circuittrix.

CIRCUIT TRIX



ELECTRO CROSS





Students eagerly participated in all events and solved the problems. Followed by this conducted technical quiz.

TECHNICAL QUIZ



Finally prizes were distributed to the winners and participants.

PRIZE DISTRIBUTION







Finally Jkruthi technical symposium for poly technical students was conducted successfully.

INTERNSHIP

NAME OF THE STUDENT

NAME OF THE COMPANY

Enthu Technology

- 1. RejilKrishnanN.R
- 2. Ramya R 3.Dilshya
- 4.Rajeshwari
- 5. SuryaPriya
- 6. MohammedAnsid K
- 7.Gopika AnandK

1.M.Arun
2.B.Fenisha Princess
3.K.PMalavika
4.M.Mridula
5.Raja Subhisksha
6.S.Saranraj
7.N.Varun
KM.Vishnu

Herukastech

PROJECT

NAME OF THE STUDENT

Abisha F KarthikeswaranR P Malarkodi.R Susma J V

Dhilshiya M Rajalakshmi.G Siva G YuvarajM

Anoop.R GopikaAnandK RejilKrishnan.N.R

Arish S Muhammed Anshid K Priyanka K SubalakshmiR

Arun kumarS Jerby JJ KoylathAthul Premarajan Suriya PriyaM

TITLE OF THE PROJECT

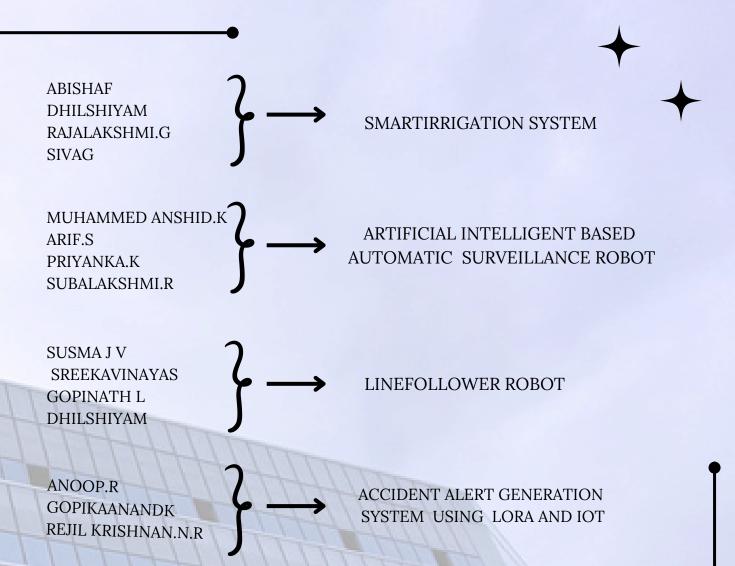
Enhancementof Multimedia Transmission andUnderwater Communication using LIFI through GPS detector

Smart Agricultural Monitoring and leaf disease identification

Multilanguage Home Automation using Google Assistant

Artificial Intelligent Based Automatic Surveillance Robot

Encrypted Data Transmission in CAN

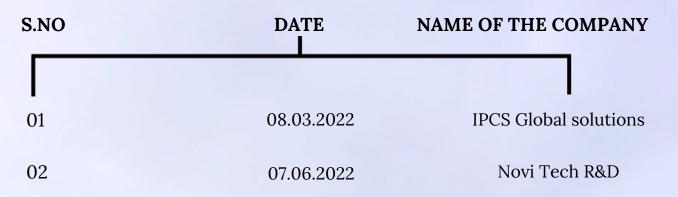


CONTEST PRESENTATION

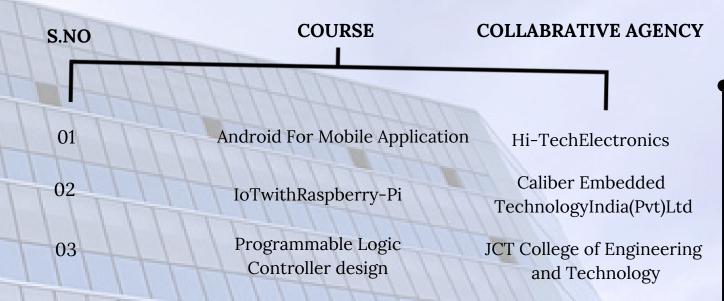
1	16.5.22	DHANUJNAI.N.A II ECE	KALARISHOW	AMRITAVISHWA VIDYAPEETHAM, COIMBATORE
2	May-2022	REJILKRISHNAN IV ECE	PAPER PRESENTATION- ELSPAZIO22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
3	May-2022	ARUNKUMAR.S IV ECE	PAPER PRESENTATION- ELSPAZIO22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
4	May-2022	ANOOP.R IV ECE	PAPER PRESENTATION- ELSPAZIO22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE

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5	May-2022	GOPIKAANAND IV ECE	PAPER PRESENTATION- ELSPAZIO22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
6	May-2022	MUHAMMED ANSHID.K IVECE	PAPER PRESENTATION- ELSPAZIO22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
7	May-2022	MRIDULAM III ECE	TECHNICALQUIZ ELSPAZIO 22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
8	May-2022	YUVARAJM IV ECE	PAPER PRESENTATION- ELSPAZIO22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
9	May-2022	VARUNN III ECE	TECHNICALQUIZ ELSPAZIO 22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
10	May-2022	RAJASUBHIKSH IIIECE	TECHNICALQUIZ ELSPAZIO 22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
11	May-2022	ABISHAF IV ECE	ABISHAF IV ECE PRESENTATION- ELSPAZIO22 C	
12	May-2022	DHILSHIYAM IV ECE	PAPER PRESENTATION- ELSPAZIO22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
13	May-2022	MUHAMMED ANSHID.K IVECE	TECHNICALQUIZ ELSPAZIO 22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
14	May-2022	SURIYAPRIYAM IV ECE	TECHNICALQUIZ ELSPAZIO 22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE
15	May-2022	SIVAG IVECE	PAPER PRESENTATION- ELSPAZIO22	EASA COLLEGE OF ENGG&TECHNOLOGY, COIMBATORE

MOU SIGNED



VALUE ADDED COURSE



INDUSTRIAL VISIT

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