We Make You Shine



St. JOSEPH'S INSTITUTE OF TECHNOLOGY (An Autonomous Institution) St. Joseph's Group of Institutions Jeppiaar Educational Trust



## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING





### St. JOSEPH'S

## **NEWSLETTER VOLUME-15, JUNE-DEC 2022**







Dr.C.Gnana KousalyaM.E.,Ph.D Professor & HOD (Staff & Student Affairs) Dr.G.Rohini M.E.,Ph.D Professor & HOD (Lab Affairs)

## VISION

To come forth as an eminent department in the field of electronics and communication engineering, research for providing ethical resource persons to serve the industry and society with technical

#### excellence.

## MISSION

- To provide the best resources in teaching, learning and other educational activities which will train the student to attain his or her fullest potential in the field of Electronics and Communication Engineering.
- To inculcate technical knowledge ,leadership qualities,team work and ethical practices in students.
- To organize exclusive courses, conferences, seminors on the technical developments for bringing out various talents .
- To sustain connectivity with industries to get on par with the technologies and research.
- To foster career improvement through placements ,higher education and enterpreneur skills by continuous training & guidance

## + SPECIAL A CHIEVEMENTS National Level Grant Challenge MSME IDEATHON HACKATHON 2022

Ms. Baby Nivetha D and Ms. Ms. Blessy Esther Selvin Jacob from the Department of Electronics and Communication Engineering have done exceptional project work on "Passageway devices of Fishing Vessels" and received the Grant Sanctioned of Rs.12,50,000/under the category of Agriculture, funded by Ministry of Micro, Small & Medium Enterprises (MSME) under the guidance of Dr. C. Gnana Kousalya, Professor, HOD, Department of Electronics and Communication Engineering.





## Smart India Hackathon 2022(SIH)



Team Members: 1. Dhanush.B 2. Bharath.S.J 3. Aravindhan.A.T 4. Hemalatha.B 5. Uvashree.R 6. Archana.A Team Name: Last Minute Doping Venue: Lovely Professional University, Phagwara, Punjab Mentors Name: 1. Dr.C.Gnana Kousalya Prof & Head-ECE 2. Mr. D.Suresh AP/ECE

# SPECIAL ACHIEVEMENTS



#### Name:

Mr. Kailashsundaram S N, IV year ECE Mr.Derrance, III year ECE Mr.Ganesh, III year ECE **Event:** SHARKTANK (IDEA PRESENTATION) Venue: Sri Sairam College of Engineering,Chennai Date: 27/9/2022 Position: First Place (Rs.2000/cash prize with merit certificate)

Name: Fenin B S, Nithin C, Dinesh kumar M Year & Dept: III & ECE Venue: Sathyabama Institute of Science and Technology, Chennai Event: Circuitronics



Date: 05/08/2022

**Position:**First place (Rs.2500/- cash awards with Merit certificates)



Name: Ms.Ramya Sri v & Ms.Elakkiya S P (II year-ECE) Event : Poster design competition Venue: St.Joseph's group of Institutions, Chennai Date: 07/09/2022 Position: First Place (Rs. 3000/- cash awards with merit certificates)

# ENTREPRENEURSHIP DEVELOPMENT CELL

A seminar on Introduction to Entrepreneurship, Business Model and Financial Support was organized in the college campus on 20-10-2022 between 1.00P.M to 3.00P.M. The speakers of the seminar are Mr.M.U. Balaji, Field Coordinator, EDII-TN HUB, MIT Campus, Anna University and Ms. Yazhini of Entdeckon Tutorials, a budding entrepreneur. The workshop was conducted for the EDC members. A total of 34 students participated and benefitted from the seminar. Mr.Balaji gave an insight about entrepreneurship, how to develop business models and to get financial support from different government agencies. Ms. Yazhini , a budding entrepreneur instigated the minds of the students by sharing her experience. She also

# shared the obstacles that she faced and also how she has overcome it.



# FDP ACTIVITIES

The Department of Electronics and Communication Engineering of St. Joseph's Institute of Technology, (St. Joseph's Group of Institutions) conducted Intel Sponsored three days online Faculty Development Program on 'SoC Design Methodology Using Intel FPGAs' from 20.07.2022 to 22.07.2022 between 9:30 AM to 01:30 PM. The Speakers of the event was Mr. Israr Sheikh – FAE Manager, South Asia Pacific, Intel, PSG and Mr. K. Padmanaban –Program Specialist, FPGA, University Out reach ,Intel, PSG, Chennai . A total of 259 Participants registered for the FDP nationally. The FDP was very informative and thought provoking with real time examples. Mr. Israr Sheikh explained about the importance of FPGA implementation of real time examples. Mr.K.Padmanaban took over the remaining session on the topics of Quartus Prime DesignTools, making assignments for various applications. The participants acknowledged with good feedback and E-certificate was provided to all the participants upon filling the feedback form.



# **Symposium**

St. Joseph's Institute Of Technology has always been the premiere in bringing out the talents of the students from various Engineering colleges to elicit their hidden skills towards excellency. Department of Electronics and Communication Engineering organised: "E-Axion" which had triggered the fire in students to showcase their talents.







Club Activities

## Q Poster Design





**Q** Coding contest

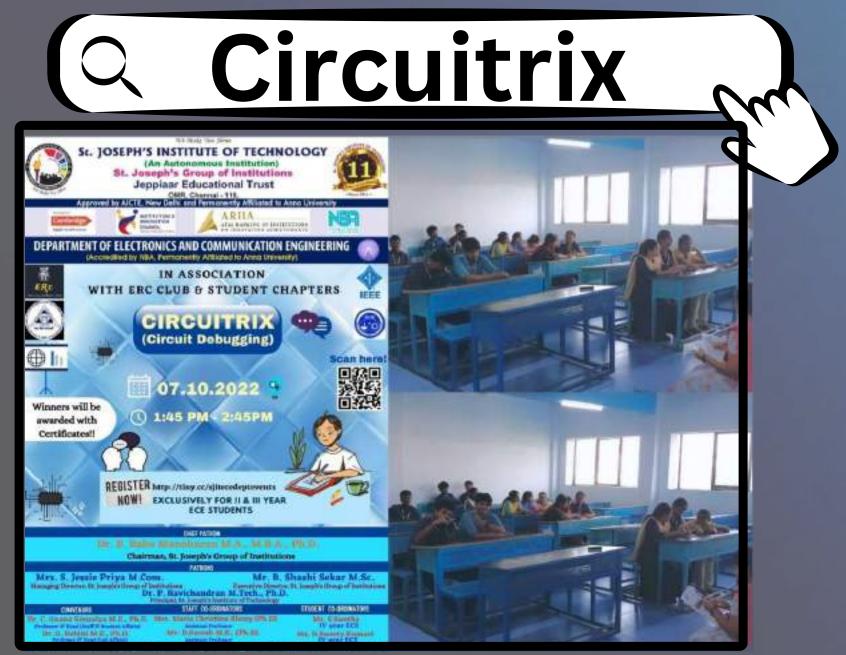
**Event NameCoding Contest** 

**Date: 07.10.2022** 

**co-ordinators:** ERC Club members

**No.of participants:64** 





**Event Name:** Circuitrix

**Date:** 07/10/2022

St. JOSEPH'S INSTITUTE OF TECHNOLOGY

Ms.S.Swetha co-ordinators: IV - YEAR ECE Ms.D.Sweety Kumari IV - YEAR ECE

**No.of Participants:84** 

## **MINI PROJECT ACTIVITY**

The Department of Electronics and communication Engineering organized the Mini Project Activity on 27.04.2022 .The students are Entrusted with several type of Mini projects each having their own unique project .







No.of Students participated: 133 No.of batches:

35











# Institute of Electrical and Electronics Engineers(IEEE)

" IEEE ADSF SIGHT'S POTENTIAL PROJECTS"

The IEEE Student Branch of department-Electronics and Communication Engineering of St. Joseph's Institute of Technology conducted IEEE ADSF Sight's Potential Project. The Guest Lecture was held up on 2/9/2022. The main objective of this program was to create a platform and give the participants an exposure to the difficulties faced by fisher man in fishing and provide solutions to solve them using advanced technology. The eminent speaker was very interactive and spontaneous in sharing their knowledge The participants were provided with various problem statements to initiate the ideas in the real life environment.



### Institute of Electrical and Electronics Engineers(IEEE)

#### " IEEE DAY EVENT SERIES"

The IEEE Student Branch of department-Electronics and Communication Engineering of St. Joseph's Group of Institutions conducted IEEE Day Event Series. The IEEE Day is celebrated from the 1 week of October 2022 to 2 nd week of October 2022. The IEEE Day Celebration of college started from 01/10/2022 to 15/10/2022. The IEEE Day event was conducted for seven days. The First day event was IEEE ADSF SIGHT Project Orientation Program was conducted in collaboration with Kongu Engineering College. The Second day event was about Harbour Event in Kanyakumari. The Third and Fourth day events were seminar about "Exploring the world and Creating Opportunities", the speakers are Ms. K.E. Sanjana and Ms. Mira Ganesh. The Fifth day event was Technical Connection. The sixth day event was Idea Presentation and finally the seventh day event was "Contrincante" which is Explicate the IEEE Research Papers. The main objective of this event series was to let the participants widen their thinking and see the opportunities around the world with a new perspective.







Guest Lecture for 2nd year ECE students on the topic **"IoT** and Healthcare" 24.08.2022 on by Dr.S.Muttan, Professor of Eminence, Medical of **Electronics**, Centre Department of ECE, Anna University, Chennai.

No.of participants:188

Guest Lecture for 2nd year ECE students on the topic "Impact of STEM Education for Electronics Engineers" on 22.09.2022 & "Importance of STEM using Electronics Applications" on 23.09.2022 by Mr.Frederick Fotsch, STEM Education Manager, Texas Instruments, USA.

#### No.of participants:188







Guest Lecture for 3nd year ECE students on the topic "Importance of RF Components in Advance Wireless Communication Applications" on 26.08.2022 by Dr. S. Rinkee Chopra Asst. Professor, Dept. of ECE IIITDM, Kanchepuram

No.of participants:133

# Workshops



Workshop on the topic "Embedded Systems for Electronics Engineers" on 15.09.2022 for 3rd ECE Students.

Number of students participated:74



Workshop on the topic "Networking" on 15.09.2022 for 3rd ECE Students

Number of Students participated:52

## Industrial Visit



**Industrial Visit by II year ECE** 

A,B, C students to "Luminogloz and Solutions Pvt.Ltd., Kilkattalai, Chennai on 23.08.2022 No. of Students: 188



Industrial Visit by III year ECE A,B,C students to TVS Motors,ISRO and NARL,NLC on 07.07.2022 No. of Students: 133



Industrial visit by IV year ECE A,B,C students to NLC,Neyveli No.of students:160

### Patents

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s.no	Name of the faculty	Title	published date	Status
1	Dr.C.Gnana Kousalya Dr.G.Rohini Mr.J.Bino	Detection of Spoofing Vulnerability in Revolutionary IOT networks to Augment Security Mechanism	12-08-22	Registered Copyright
2	Dr.C.Gnana Kousalya Dr.G.Rohini	A Machine Learning Algorithm to assess autism an its symptoms in Computer vision technique tools	26-08-22	Published
3	<ul> <li>Dr C Gnana Kousalya</li> <li>Dr. G Rohini</li> <li>Dr. S Tephillah</li> <li>Dr. M Senthil Murugan</li> <li>Dr. V Angayarkanni</li> <li>Dr. C Mohan</li> <li>Mrs. S Swetha</li> <li>Mr. J Bino</li> <li>Mrs. J Silva Deena</li> <li>Mr. V Raghul</li> </ul>	Scheduling Of Millimetre Wave (mmWave) and Terahertz (THz) Communications in Cellular- Connected UAV Networks with Integrated Sensing, Communication and Control	25-11-22	Published
4	Dr.G.S.Uthayakumar	Artificial Intelligence based Automatic Health Care system to monitor and prevent Blood pressure and body temperature for all ages of people using Deep Learning algorithms for Smart Health care Management system	16-09-22	Published
5	Dr.G.S.Uthayakumar	Artificial Intelligence and IoT based Automatic Smart Healthcare system to Prevention and Detection of Dengue, Malaria and other types of viralfevers using Datamining and Deep Learning Algorithms	19-08-22	Published
6	Dr.Jeba Johannah Samuel Dr.C.T.Kavitha Dr.M.SenthilMurugan	Improved handling of Electronic Messages with attachments in the cybersecurity system	-	Filed
7	Dr.Samayaraj Murali Kishan Lal	System forBlindPersonIntelligentWalking Stick byIntegratingMachineLearningAnd Internet OfThings	25-11-22	Published
8	Dr. Bhuvana B P Ms.A.Jemima Havila Catherine Ms.G.Sneha	An ANN for Health Monitoring System	25-11-22	Published
9	Dr.M.V.Karthikeyan	Artificial Intelligence Based Approach to Predict the Impact of Breast Cancer Using the Algorithms Of WSN and Image Processing Techniques	30-12-22	Published

### **Funded Projects**

S.no	Name of the faculty	Title	Funding Agency	Amount sanctioned
1	Dr.P.Ravichandran Dr.C.Gnana Kousalya Dr.G.Rohini Mrs.S.Tephillah Mr.K.Immanuel	IP Facilitation Centre for MSME's	MSME	Rs.65,00,000* (Under Evaluation)
2	Dr.C.Gnana Kousalya Dr.G.Rohini	Early Prediction of Forest Fire using Seetkam WSN and IoT	TNSCST- STP	Rs 3,75,000* (Under Evaluation)
3	Dr.P.G.V.Ramesh Dr.Samayaraj Murali Kishan Lal Dr.M.V.Karthikeyan	On Design and Investigations of Filt- antenna for Future 5G/6G mm-Wave Applications	TNSCST- STP	Rs.3,68,000* (Under Evaluation)
4	Dr.Jeba Johannah Samuel Dr.C.T.Kavitha	Safety Device to protect Woman in Danger	TNSCST- STP	Rs.2,50.000* (Under Evaluation)

#### IEEE-HAC (Humanitarian Activities Committee)

5	Dr.C.Gnana Kousalya Dhanush B Graham Staines Smith.J	Smart buffer stock solution for onion	IEEE-HAC/ SIGHT Project	Under Evaluation			
	INSTITUTION INNOVATION COUNCIL						

6	Dr.C.GnanaKousalya	Fishing Vessels Monitoring System	Institution	
	Dr.G.Rohini		Innovation	
	Dr.S.Tephillah Mr.K.Immanuel		Council-YUKTI	Under
	Mr.A.DineshKumar		– National	Evaluation
	Mr.J.Bino		Innovation	
			Repository	

#### Memorandum of Understanding (MOU)

S.No.	Name of the Organization	Date of MoU	Valid Till
1.	MIT SquareGroupof Companies	28-12-21	27-12-26
2.	Asimov Global Technologies	08-02-21	07-02-25
3.	CII- TITAN Model Career Centre	19-07-18	Lifelong
4.	TANSTIA	25-07-18	Lifelong
5.	INTERNSHALA	Life	long
6.	PANTECH PROLABSINDIA Pvt. Ltd, Chennai	08-12-22	07-12-27
7	RETECH Solutions Pvt Ltd.	08-12-22	07-12-27

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4.	TANSTIA	25-07-18	Lifelong				
5.	INTERNSHALA	Life	elong	FELLIR ALL			
6.	PANTECH PROLABSINDIA Pvt.	08-12-22	07-12-27				
7.	RETECH Solutions Pvt Ltd.	08-12-22	07-12-27				

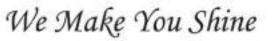
S. No	Name of the Faculty	Title of the Paper	Journal Name	Month/ Year	Indexing
	Dr. Gnana Kousalya C	Intrusion Detection System with an Ensemble Learning and Feature Selection Framework for IoT Networks	IETE Journal of Research	August 2022	SCIE
		Smart buffer stock solution for onion	Journal of Emerging Technologies and Innovative Research	June 2022	UGC LIST I
1.		Distinguishing Agro Based Impediments using DL system and outlier Integration	Computer Integrated Manufacturing Systems	December 2022	Scopus
		Autonomous Forecasting of Traffic in Cellular Networks Based on Long-Short Term Memory Recurrent Neural Network	Cybernetics and Systems	Accepted	SCIE
	ar         Fee         Io         Dr. Rohini G         Ar         Pr         Ar         Tr         Br         M	Intrusion Detection System with an Ensemble Learning and Feature Selection Framework for IoT Networks	IETE Journal of Research	August 2022	SCIE
2.		Anti-Drone system using Image Processing	International Journal of Innovative Research in Computer and Communication Engineering	June 2022	-
		Autonomous Forecasting of Traffic in Cellular Networks Based on Long-Short Term Memory Recurrent Neural Network	Cybernetics and Systems	Accepted	SCIE
3.	Dr. Ramesh P G V	Design of miniaturized dual-band filtering antenna with improved selectivity utilizing square	International Journal of RF and Microwave	August 2022	SCIE

S.n o	Name of the faculty	Title of paper	Journal Name	Month/Year	Indexing
		complementary split ring resonator for 5G MM-wave automobile applications	Computer and Aided Engineering		
		On-demand DWDM design using machine learning	Data analytics and machine learning	June 2022	SCIE
		Green channel DWDM design using optimized CFBG	Optoelectronics and advanced materials – rapid communications	June 2022	SCIE
		Curriculum Learning for Brain Tumor Segmentation	Juni-Khyat	June 2022	UGC LIST I
	Dr.	Hybrid Deep Learning model for the performance enhancement of super solar charging batteries	International Journal of Photoenergy	September 2022	SCIE
4.	Uthayakumar G S	Gloud Computing architecture for Linear Thermal Effects of Photovoltaic Energy System	International Journal of Photoenergy	September 2022	SCIE
		Systematically efficiency enabled energy usage method for an IOT based WSN environment	Measurement of Sensors	November 2022	Scopus
5.	Dr. Kavitha C T	A Smart Multisensor Approach to Assist Blind People using OCR Technology	International Journal of Innovative Research in Computer and Communication Engineering	June 2022	-
		Thermal flap barrier system for covid-19 prevention	Journal of Emerging Technologies and Innovative Research	June 2022	UGC LIST I
		Smart sign language by using image processing technique	Juni-Khyat	July 2022	UGC LIST I
	Dr. Samayaraj	Smart system-based security alerting system for vehicles	Juni-Khyat	July 2022	UGC LIST I
6.	Murali Kishanlal M	Live video streaming for boarder security	Juni-Khyat	July 2022	UGC LIST I
		Automated Paralysis and Coma patient Health care monitoring system for the future using IOT	Dogo Rangsang Research Journal	July 2022	UGC LIST I
7.	Mr. Bino J	Intrusion Detection System with an Ensemble Learning and Feature Selection Framework for IoT Networks	IETE Journal of Research	August 2022	SCIE
8.	Ms. Sneha G	IoT based two way safely enabled intelligent stove with age verification using Machine Learning	International Journal of Scientific Research in Science, Engineering and Technology	June 2022	-

### Conference

S.n	Name of the faculty	Title of the paper	Organizer Details	Date
0	lacuity			
	Dr. Gnana Kousalya C	Design of IoT Based Indoor Air Purifier	International conference on	11.08.2022 &
1	Rousaiya C	All Fuillei	intelligent computing, instrumentation and control technologies	12.08.2022
		Post – Accident Alert System using Client server based synchronous communication mechanism	AIP Conference Proceedings	10.10.2022
		Electronic Logbook in Big Data Collection	International Conference on "Digital Archiving and Presentation on Cultural Heritage of India"	08.12.2022 & 09.12.2022
		Intelligent Border Surveillance Using Deep Learning Algorithms	International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering(ICECONF '23)	05.01.2023 to 07.01.2023
2	Dr. G. Rohini	Post – Accident Alert System using Client server based synchronous communication mechanism	AIP Conference Proceedings	10.10.2022
		Intellectual Spyrobot for Military Operation	12th International conference on science and innovative engineering	05.06.22
		Agricultural Field monitoring and methane detection using IoT and ML	Emerging Trends in Engineering Design and Manufacturing (ETEDM-22)	15.6.2022 & 16.6.2022
		Intelligent Border Surveillance Using Deep Learning Algorithms	International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF '23)	05.01.2023 to 07.01.2023
3	Dr. Uthayakumar G S	Block Chain Based Identity Authentication System for a Wireless Sensor Networks	International conference on Edge Computing and Applications (ICECAA 2022)	13.10.2022 to 15.10.2022
		Energy Conservation for Environment Monitoring System in an IoT based WSN	International conference on Smart Technologies, Communication and Robotics (IEEE-STCR 2022)	10.12.2022 to 11.12.2022
4	Dr. Kavitha C T	Vehicle speed limiter for accident avoidance based on LIFI	Emerging Trends in Engineering Design and Manufacturing (ETEDM-22)	15.6.2022 & 16.6.2022
5	Dr. Samayaraj Murali Kishanlal M	Performance Comparison of AFZ converter with PI and FOPID controller	International conference on Edge Computing and Applications (ICECAA 2022)	13.10.2022 to 15.10.2022
6	Dr. Karthikeyan M V	Digital Filter Design on High-speed communication with Low power criteria	International conference on Edge Computing and Applications (ICECAA 2022)	13.10.2022 to 15.10.2022
7	Dr.Senthil Murugan M	Performance Improvement	International conference on	13.12.2022
7	Dr.Senthil Murugan M	Performance Improvement of 16 Bus system using	International conference on Automation, Computing and	13.12.20 to

S.no	Name of the faculty	Title of the paper	Organizer Details	Date
	Dr.Senthil Murugan M	Hybrid Power Flow Controller	Renewable System (ICACRS-2022)	15.12.2022
8	Dr. Tephillah S	Detection of wildlife and flora ailment in farm field using IoT	12th International conference on science and innovative engineering	05.06.2022
		Intelligent Border Surveillance Using Deep Learning Algorithms	International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF '23)	05.01.2023 to 07.01.2023
	Mr. Bino J	Product Reviewer	International Conference on Computational Science & Technology	09.11.2022 to 10.11.2022
		Hybrid Gender and Age Classification Using Deep Learning	International Conference on Intelligent Healthcare and Computational Neural Modelling	31.11.2022 to 01.12.2022
9		Intelligent Border Surveillance Using Deep Learning Algorithms	International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF '23)	05.01.2023 to 07.01.2023
10	Dr. Bhuvana B P	Handwritting Text Recognition Using Neural Network	International Conference on Computing, Circuits, Energy and Materials	15.12.2022 to 16.12.2022
11	Ms. Sneha G	Handwritting Text Recognition Using Neural Network	International Conference on Computing, Circuits, Energy and Materials	15.12.2022 to 16.12.2022
12	Ms. Jemima Havila Catherine	Handwritting Text Recognition Using Neural Network	International Conference on Computing, Circuits, Energy and Materials	15.12.2022 to 16.12.2022
		A virtual Aid for visually impaired	12th International conference on science and innovative engineering	05.06.2022
13	Ms. Silva Deena J	Real time violence detection from CCTV Camera	International Conference on Industry 4.0 Technology	22.09.2022 to 24.09.2022
14	Ms. Swetha	Real time power monitoring system based on Raspberry pi4	International Conference on "Digital Archiving and Presentation on Cultural Heritage of India"	08.12.2022 to 09.12.2022
15	Ms. Sreedevi B	Real time power monitoring system based on Raspberry pi4	International Conference on "Digital Archiving and Presentation on Cultural Heritage of India"	08.12.2022 to 09.12.2022
16	Mr. Rahul	Real time power monitoring system based on Raspberry pi4	International Conference on "Digital Archiving and Presentation on Cultural Heritage of India"	08.12.2022 to 09.12.2022





### St. JOSEPH'S INSTITUTE OF TECHNOLOGY

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**Jeppiaar Educational Trust** OMR, Chennai - 119

#### Approved by AICTE, New Delhi and Affiliated to Anna University



English Qualifications

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### **Department of Electronics and Communication** Engineering







**Staff Editors** Mr.D.Suresh M.E(Ph.D) (Assistant professor) Mr.K.Immanuel M.E(Ph.D) **Assistant professor**) Ms.A.Jemima Halvia Catherine M.E (Assistant professor)

**Student Editors** Ms.Ramya Sri V Ms.Elakkiya S P<sup>(II YEAR)</sup> (II YEAR)