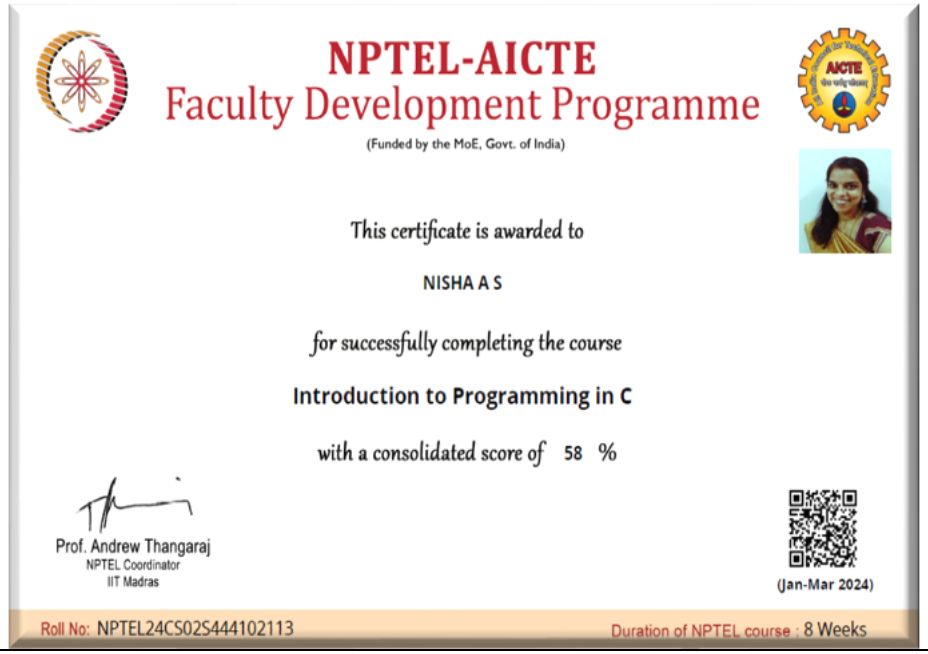
APRIL 2024

DEPARTMENT OF ADS

S.No.	Title of the Events and Photographs	Details of the Event
1.	**FDP/WORKSHOP/CONFERENCE/HACKATHON**  NPTEL-AICTE Faculty Development Programme (Funded by the MoE, Govt. of India) This certificate is awarded to NISHA A S for successfully completing the course Introduction to Programming in C with a consolidated score of 58 % Prof. Andrew Thangaraj NPTEL Coordinator IIT Madras (Jan-Mar 2024) Roll No: NPTEL24CS02S444102113 Duration of NPTEL course : 8 Weeks	Department Staffs 1. Mrs. Nisha A S, Assistant professor 2. Mr. Senthil Kumar D, Assistant professor Has successfully completed their Online NPTEL Course on"INTRODUCTION TO PROGRAMMING IN C"And their 8 Weeks Faculty Development Programme for the same.

	Copy of certificate Mrs. Nisha A S	
2.	**COMPETITIONS ATTENDED BY STUDENTS**  	We are really proud to announce that 1. Ms. Latchiya Raman 2. Ms. Kaviya Velmurugan From Second Year ADS are AWS Certified Cloud Practitioner.

		
3.	**AWARDS/PRIZE WON BY STUDENTS**	Second Year Students from the Department of Artificial Intelligence and Data Science have been awarded as the BEST SOCIALITY AWARD in the Gesture Speaks (Converting Sign Language into Sound) conducted by ENTHIRATHON – 2024 at, RAJALAKSHMI ENGINEERING COLLEGE, CHENNAI.


RAJALAKSHMI
ENGINEERING COLLEGE
An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai
25 years OF ACADEMIC EXCELLENCE
A++
NAAC
BEST SOCIALITY PROJECT AWARD
PAY TO MIND MATRIX OF
ST.JOSEPH's COLLEGE OF ENGINEERING
RUPEES TEN THOUSAND ONLY
ENTHIRATHON
TRANSFORMING IDEAS INTO REALITY
Prize amount : ₹ 10,000/-
Rajalakshmi Institutions
13.4.2024

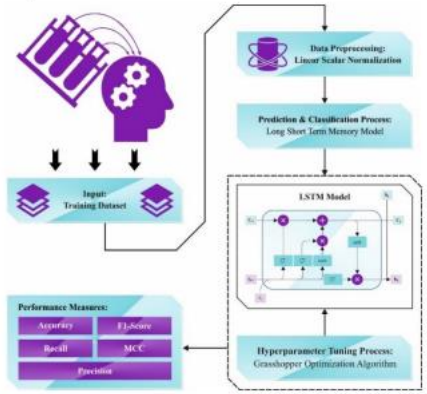
		
4.	**PUBLICATIONS(ONLY PUBLISHED) DETAILS**	Dr. Pugalenthi R , The Head of the Department has published a paper on “Water Quality Index Prediction and Classification using Hyperparameter Tuned DeepLearning Approach” in the Global NEST Journal. DOI: https://doi.org/10.30955/gnj.005821 Abstract :

Global NEST Journal, Vol 26, No 5, 05821

Water quality index prediction and classification using hyperparameter tuned deep learning approach

Sathya Preiya V. M.[1], Subramanian P.[2], Soniya M.[3]and Pugalenthi R.[4]
[1]Department of Computer Science and Engineering, Panimalar Engineering College, Chennai, 600123, India
[2]Department of Computer Science and Engineering, Saveetha School of Engineering, Saveetha Institute of Medical and Technical Sciences, Chennai, 602105, India
[3]Department of Information Tecnology, Vel Tech Multi Tech Dr Rangarajan Dr Sakunthala Engineering College, Chennai, India
[4]Department of Artificial Intelligence and Data Science, St. Joseph's College of Engineering Chennai, 600119, India
Received: 13/02/2024, Accepted: 11/04/2024, Available online: 21/04/2024
*to whom all correspondence should be addressed: e-mail: vsathyapreiya@panimalar.ac.in
https://doi.org/10.30955/gnj.005821

Graphical abstract



Abstract

Water quality (WQ) is hugely important for animals, humans, plants, industries, and the environment. In the past few years, the WQ has been compressed by pollution and contamination. Usually, WQ is assessed utilizing costly laboratory and arithmetical processes, making real observation ineffective. Whereas, the poor WQ wants a more real and cost-effective resolution. Water pollution is a critical problem, so, it is vital to generate a method that estimates WQ in order to manage water pollution and notify users on the occasion of the recognition of poor water superiority. For effectual WQ management, it is vital to precisely estimate the WQ type. We use the advantage of machine learning (ML) models to build a model proficient in forecasting the WQ index and class. Therefore, this paper presents an automated Water Quality Index Prediction and Classification using Hyperparameter Tuned Deep Learning (WQIPC-HTDL) Approach. The purpose of the WQIPC-HTDL technique is to estimate WQI and classify the WQ into multiple levels. In the WQIPC-HTDL technique, the linear scaling normalization (LSN) approach is used. Besides, the long short-term memory (LSTM) technique is employed for the prediction and classification process. To enhance the efficacy of the LSTM model, the grasshopper optimizer algorithm (GOA) can be used. To point out the enhanced performance of the WQIPC-HTDL technique, a detailed simulation analysis was made. The obtained values inferred the rule of the WQIPC-HTDL technique when equated to other models.

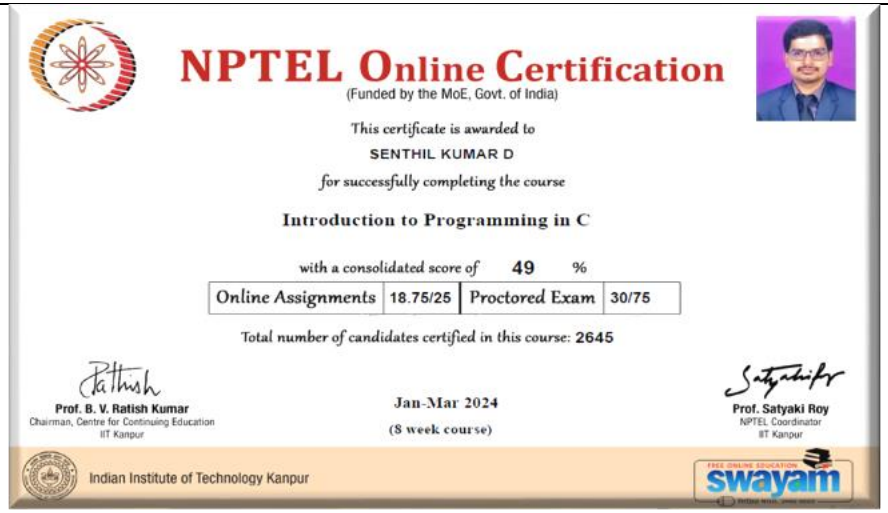
Keywords: Water quality index; deep learning; grasshopper optimization algorithm; linear scaling normalization; machine learning

1. Introduction

Water is a major source of life, essential for helping the life of most present creatures and human beings. To continue their lives, living organisms require water with sufficient quality (Wang *et al.* 2024). There are specific restrictions on pollution that aquatic types are tolerated. These restrictions affect the presence of such living beings and threaten their survival. The majority of the environment's water bodies like streams, lakes, and rivers have particular quality values that show their quality (Prasad *et al.* 2022). Additionally, water conditions for other utilization retain their standards. For example, irrigation water should be neither too salt water nor comprise poisonous materials, which will be transported

Water quality (WQ) is hugely important for animals, humans, plants, industries, and the environment. In the past few years, the WQ has been compressed by pollution and contamination. Usually, WQ is assessed utilizing costly laboratory and arithmetical processes, making real observation ineffective. Whereas, the poor WQ wants a more real and cost-effective resolution. Water pollution is a critical problem, so, it is vital to generate a method that estimates WQ in order to manage water pollution and notify users on the occasion of the recognition of poor water superiority. For effectual WQ management, it is vital to precisely estimate the WQ type. We use the advantage of machine learning (ML) models to build a model proficient in forecasting the WQ index and class. Therefore, this paper presents an automated Water Quality Index Prediction and Classification using Hyperparameter Tuned Deep Learning (WQIPC-HTDL) Approach. The purpose of the WQIPC-HTDL technique is to estimate WQI and classify the WQ into multiple levels. In the WQIPC-HTDL technique, the linear scaling normalization (LSN) approach is used. Besides, the long short-term memory (LSTM) technique is employed for the prediction and classification process. To enhance the efficacy of the LSTM model, the grasshopper optimizer algorithm (GOA) can be used. To point out the enhanced performance of the WQIPC-HTDL technique, a detailed simulation analysis was made. The obtained values inferred the rule of the WQIPC-HTDL technique when equated to other models. Keywords: Water quality index; deep learning; grasshopper optimization algorithm; linear scaling normalization; machine learning.

	Copy of certificate **Dr. R. Pugalenthi**	
5.	**STAFF CONFERENCE PRESENTATION / PATENT PUBLISHED /STAFF NPTEL ONLINE CERTIFICATION**  NPTEL Online Certification (Funded by the MoE, Govt. of India) This certificate is awarded to NISHA A S for successfully completing the course Introduction to Programming in C with a consolidated score of 58 % Online Assignments 21.54/25 | Proctored Exam 36.75/75 Total number of candidates certified in this course: 2645 Prof. B. V. Ratish Kumar, Chairman, Centre for Continuing Education, IIT Kanpur Jan-Mar 2024 (8 week course) Prof. Satyaki Roy, NPTEL Coordinator, IIT Kanpur Indian Institute of Technology Kanpur swayam Roll No: NPTEL24CS02S444102113 To verify the certificate No. of credits recommended: 2 or 3 *Copy of certificate Mrs. Nisha A S*	Our Department Staffs 1. Mrs. Nisha A S, Assistant professor 2. Mr. Senthil Kumar D, Assistant professor Has successfully completed their Online NPTEL Course on "INTRODUCTION TO PROGRAMMING IN C"And their 8 Weeks Faculty Development Programme for the same.



NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

SENTHIL KUMAR D

for successfully completing the course

Introduction to Programming in C

with a consolidated score of 49 %

Online Assignments	18.75/25	Proctored Exam	30/75

Total number of candidates certified in this course: 2645

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Jan-Mar 2024
(8 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

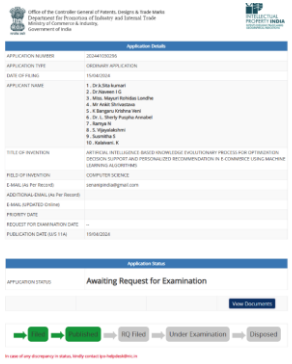
Indian Institute of Technology Kanpur

swayam

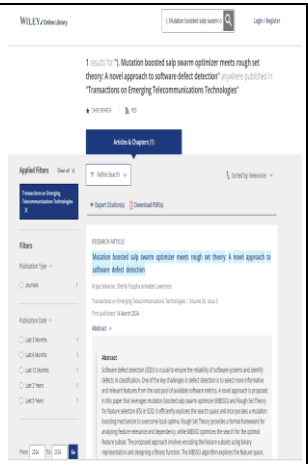
Copy of certificate Mr. Senthil Kumar D

DEPARTMENT OF ARTIFICAL INTELLIGENCE AND MACHINE LEARNING

Sl. No.	Photographs Captured During Event	Corresponding remarks in regarding the status of activity execution
1	 **Dr. Lilly Raamesh** Published a design patent	**<u>Patent Published</u>** **Title of the invention :** Autonomous Traffic Control System Utilizing Generative AI for Real-Time Optimization in Smart Cities **Name Of the Inventors :** Dr. S. S. Darly Mrs. Shanthi N **Dr. Lilly Raamesh** Dr. M. Vijayaragavan **Patent Application Number:** 202441029714 **Date of filing of Application :** 12/04/2024 **Date of Issue:** 19/04/2024
2	 **Dr. G. Manikandan** Published a design patent	**Title of the invention :** AI Based Automatic weather prediction system to predict rainfall using machine learning algorithms systems using cloud and machine learning algorithm **Name Of the Inventors :** Dr. Anjali Soni Dr. T. Anuradha Dr. Deepika K C Mrs. Bhuvaneshwri Jolad Suragali, Chanti **Dr. G. Manikandan** A. Arun Ujjwal kmar kamila

		Jayadeven N M Mr. K. Karthikeyan **Patent Application Number:** 202421020719 **Date of filing of Application :** 19/3/2024 **Date of Issue:** 19/04/2024
3	 **Dr. L. Sherly Puspha Annabel** Published a design patent	**Title of the invention :** IoT and Artificial Intelligence based detection and prevention of Plant disease with smart drip irrigation system using block chain technology and deep learning **Name Of the Inventors :** 1 . Dr.k.Sita kumari 2 . Dr.Naveen I G 3 . Miss. Mayuri Rohidas Londhe 4 . Mr Ankit Shrivastava 5 . K Bangaru Krishna Veni **6 . Dr. L. Sherly Puspha Annabel** 7 . Ramya N 8 . S. Vijayalakshmi 9 . Susmitha S 10 . Kalaivani. K **Patent Application Number:** 202441030296 **Date of filing of Application :** 15/04/2024 **Date of Issue:** 19/04/2024

4	 EAI Endorsed Transactions on Internet of Things An Accurate Plant Disease Detection Technique Using Machine Learning Sai Sharvesh. R[1,*], Suresh Kumar. K[2] and C.J. Raman[2] [1]Department of Information Technology, St. Joseph's College of Engineering, Chennai, India [2]Department of Artificial Intelligence and Machine Learning, St. Joseph's College of Engineering, Chennai, India Abstract **Co-Author:** **Dr. C.J. Raman** Published a paper in Scopus Indexed Journal Paper	**Staff Paper Publication** Sai Sharvesh, R., Suresh Kumar, K., **Raman, C.J.** (2024). An Accurate Plant Disease Detection Technique Using Machine Learning. EAI Endorsed Transactions on Internet of Things, 10. INTRODUCTION: Plant diseases pose a significant threat to agriculture, causing substantial crop and financial losses. Modern technologies enable precise monitoring of plant health and early disease identification. Employing image processing, particularly Convolutional Neural Network (CNN) techniques, allows accurate prediction of plant diseases. The aim is to provide an automated, reliable disease detection system, aiding professionals and farmers in timely action to prevent infections and reduce crop losses. Integrating cutting-edge technologies in agriculture holds vast potential to enhance profitability and production. OBJECTIVES: The primary focus lies in developing an automated system proficient in analysing plant images to detect disease symptoms and classify plants as healthy or disease affected. The system aims to simplify plant disease diagnostics for farmers, providing essential information about leaf name, integrity, and life span. METHODS: The method aims to empower farmers by enabling easy identification of plant diseases, providing essential details like disease name, accuracy level, and life span. The CNN model accurately gauges the system's accuracy level. It further streamlines the process by offering a unified solution through a user-friendly web application, eliminating the need for separate interventions for affected leaves. the system saves farmers time by delivering crucial information directly. RESULTS: The Proposed web application proves to be a comprehensive solution, eliminating the need for farmers to search for separate interventions for affected leaves. The machine learning model exhibits a noteworthy accuracy of 96.67%, emphasizing its proficiency in making correct predictions for the given task. CONCLUSION: In conclusion, the paper successfully employed a CNN algorithm for precise plant disease prediction. With the proposed model deployment, farmers can easily access information about plant diseases, their life span, and preventive measures through the web application. By detecting illnesses early, farmers can promptly take remedial actions to mitigate sicknesses and minimize crop losses. The integrated approach holds promise for advancing agricultural practices and ensuring sustainable crop management.

5	 **Co-Author:** Dr. **L. Sherly Puspha Annabel** Published a paper in Scopus and SCIE Indexed Journal Paper	Sekaran, K., & **Lawrence, S. P. A.** (2024). Mutation boosted salp swarm optimizer meets rough set theory: A novel approach to software defect detection. Transactions on Emerging Telecommunications Technologies, 35(3), e4953. Software defect detection (SDD) is crucial to ensure the reliability of software systems and identify defects in classification. One of the key challenges in defect detection is to select more informative and relevant features from the vast pool of available software metrics. A novel approach is proposed in this paper that leverages mutation boosted salp swarm optimizer (MBSSO) and Rough Set Theory for feature selection (FS) in SDD. It efficiently explores the search space and incorporates a mutation boosting mechanism to overcome local optima. Rough Set Theory provides a formal framework for analyzing feature relevance and dependency, while MBSSO optimizes the search for the optimal feature subset. The proposed approach involves encoding the feature subsets using binary representation and designing a fitness function. The MBSSO algorithm explores the feature space, iteratively improving the feature subset based on the fitness function. The selected feature subset is then used to train a defect detection model using the Kernel Extreme Learning Machine (KELM) algorithm. The experimental validation is performed by Project Repository for Software Engineering (PROMISE) dataset and compared the performance of proposed approach against other FS methods and baselines. The experimental validation demonstrates that the proposed approach achieves superior performance and selected feature subset improves the accuracy and efficiency. This research contributes to the advancement of SDD by providing an effective and efficient FS technique using MBSSO and Rough Set Theory.

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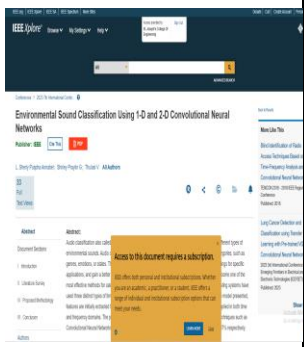
<td> 

Co-Author:
Dr. L. Sherly Puspha Annabel Published a paper in Scopus Indexed Conference Paper.</td>
<td>Annabel, L. S. P., & Thulasi, V. (2023, November). Environmental Sound Classification Using 1-D and 2-D Convolutional Neural Networks. In 2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA) (pp. 1242-1247). IEEE.
Audio classification also called as sound classification is used to recognize and distinguish between the different types of environmental sounds. Audio classification tasks can involve classifying audio recordings into different categories, such as genres, emotions, or states. This can be used to identify a particular song or speech, classify audio recordings for specific applications, and gain a better understanding of the structure of audio data. Deep learning has recently become one of the most effective methods for categorizing audio, and numerous promising methods have been put forth. Existing systems have used three distinct types of time-frequency representation and various algorithms to classify sounds. In the model presented, features are initially extracted from audio signals through Mel-Frequency Cepstral Coefficients methods applied in both time and frequency domains. The proposed environmental sound classification system utilizes deep-learning techniques such as Convolutional Neural Networks with 1D and 2D convolutions, yielding accuracy values of 93.02% and 92.87% respectively.</td>
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Certificates received by the Faculty</td>
<td><u>FDP / Workshop Attended by the faculty</u>
<table>
<tr><th>S.No.</th><th>Name of the FDP</th><th>Name of the Staff</th><th>Conducted By</th><th>Duration</th></tr>
<tr><td>1</td><td>Ethical Hacking and Cyber Security Tools</td><td>Dr.C.J.Raman</td><td>SRM Institute of Science and Technology, Tiruchirapalli</td><td>24.04.2024 to 28.04.2024(5 Days)</td></tr>
<tr><td>2</td><td>Ethical Hacking and Cyber Security Tools</td><td>Dr.Manikandan G</td><td>SRM Institute of Science and Technology, Tiruchirapalli</td><td>24.04.2024 to 28.04.2024(5 Days)</td></tr>
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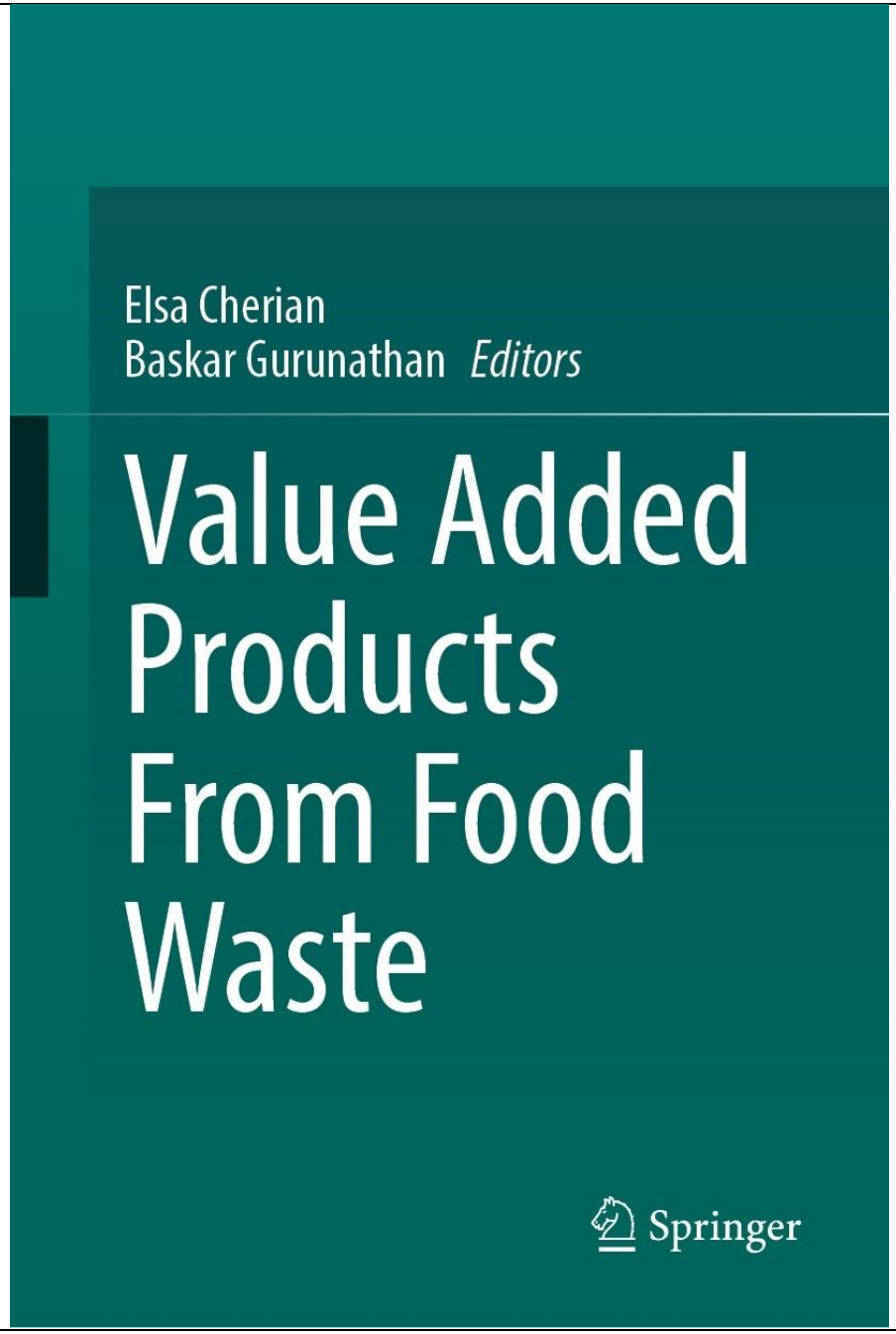
DEPARTMENT OF BIOTECHNOLOGY

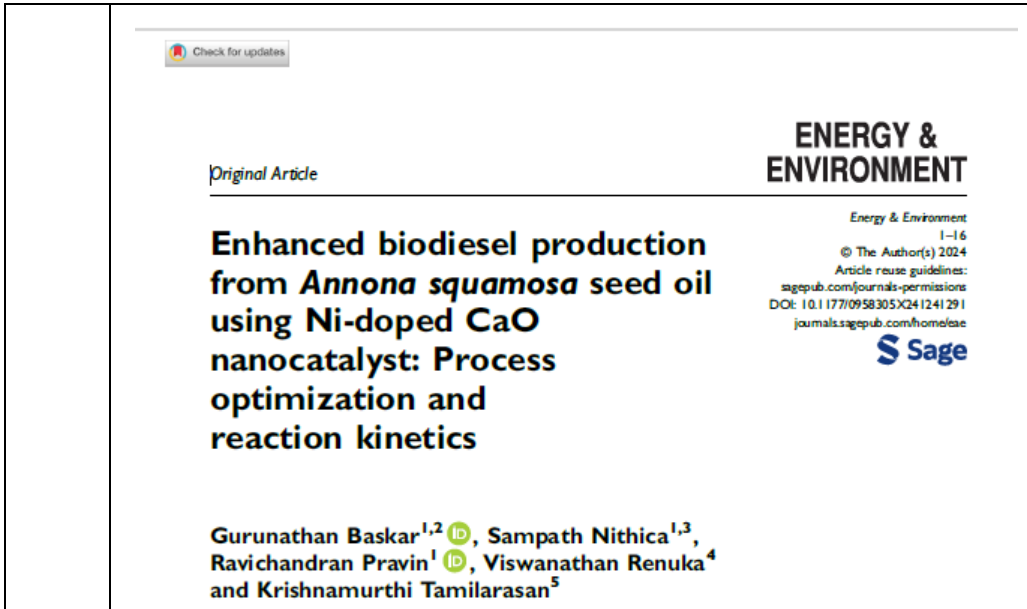
S.No.	Title of the Events and Photographs	Details of the Event
1.	**PUBLICATIONS(ONLY PUBLISHED) DETAILS**	1. Dr. G. Baskar, Edited a Book on "Value Added Products from Food Waste". Published by Springer Nature Switzerland AG in April 2024. ISBN: 978-3-031-48142-0. eISBN: 978-3-031-48143-7. https://doi.org/10.1007/978-3-031-48143-7 2. **Dr. G. Baskar,** published a book chapter, Chapter 13 - Valorization of Agro-Waste Biomass into Biofuel: A Step Towards Effective Agro-Waste Management**,** in a book "Value Added Products from Food Waste" edited by Elsa Cherian and **G. Baskar,** Published by Springer Nature Switzerland AG, 2024. ISBN: 978-3-031-48142-0. eISBN: 978-3-031-48143-7. https://doi.org/10.1007/978-3-031-48143-7 3. Dr. **G. Baskar published a book chapter,** Chapter 6 - Valorization of Fruit Processing Industry Waste into Value-Added Chemicals, in a book "Value Added Products from Food Waste" edited by Elsa Cherian and **G. Baskar,** Published by Springer Nature Switzerland AG, 2024. ISBN: 978-3-031-48142-0. eISBN: 978-3-031-48143-7. https://doi.org/10.1007/978-3-031-48143-7 4. **Dr.G. Baskar,**published a paper titled, Enhanced Biodiesel Production from Annona



squamosa Seed oil using Ni doped CaO Nanocatalyst: Process Optimization and Reaction Kinetics, **Energy and Environment**, published online March 28, 2024 **(IF: 4.2)** https://doi.org/10.1177/0958305X241241291

5. Ms.Yuwvaranni.S has published a paper Titled, ʻGreen synthesis and Optimization of Iron oxide Nanoparticles using Central Composite Design as MRI contrast agent', Green Materials pp. 1–12. https://doi.org/10.1680/jgrma.23.00089. **Impact Factor : 3.72.**

	Published copy of book by Dr. G. Baskar **Chapter 13** **Valorization of Agro-Waste Biomass into Biofuel: A Step Towards Effective Agro-Waste Management** **Pratyush Kumar Das, Bidyut Prava Das, Patitapaban Dash, Bikash Kumar Das, and Baskar Gurunathan** *Published copy of book chapter by Dr. G. Baskar* **Chapter 6** **Valorization of Fruit Processing Industry Waste into Value-Added Chemicals** **Abas Siraj Hamda, Melkiyas Diriba Muleta, Mani Jayakumar, Selvakumar Periyasamy, and Baskar Gurunathan** *Published copy of book chapter by Dr. G. Baskar*	



Check for updates

Original Article

ENERGY & ENVIRONMENT

Energy & Environment
1–16

DOI: 10.1177/0958305X241241291
journals.sagepub.com/home/eae
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Enhanced biodiesel production from *Annona squamosa* seed oil using Ni-doped CaO nanocatalyst: Process optimization and reaction kinetics

Gurunathan Baskar[1,2], Sampath Nithica[1,3], Ravichandran Pravin[1], Viswanathan Renuka[4] and Krishnamurthi Tamilarasan[5]

Published copy of paper by Dr. G. Baskar

Copy of paper published by Ms. S. Yuwvaranni

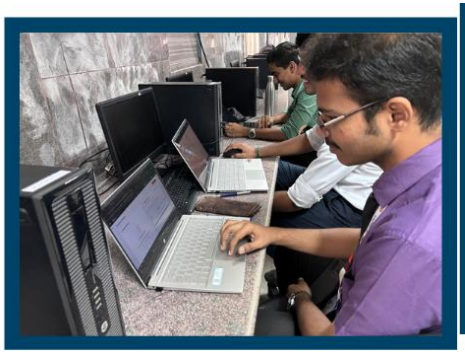
DEPARTMENT OF CHEMICAL ENGINEERING

S.No.	Title of the Events and Photographs	Details of the Event
2.	**COLLABARATIVE QUALITY INITIATIVES WITH OTHER INSTITUTIONS**	A MOU was Signed with Bioneemtec Pvt Ltd, arranged by Dr.S.Vinod Kumar on 03rd April.
3.	**INDUSTRIAL VISIT**	
4.	**NGO**	On April 6th IInd Year Students visited IGM children Home
5.	**GUEST LECTURE**	Dr. Menaga Magendran and Dr. Magendran Balachari delivered a guest lecture on April 5, 2024, for second and third-year Chemical Engineering students. The lecture, titled "Transitioning From Laboratory to Industry in Pharma and Drug Development," provided insights into the pharmaceutical industry's dynamics and the path for chemical engineers to succeed.
6.	**FDP/WORKSHOP/CONFERENCE**	IInd and IIIrd Year students from the Department of chemical Engineering attended a two-day workshop on Air purification and its impact on health and well-being was organized by IIT Madras on April 1st and 2. On April 3rd, 2024, a hands-on workshop on MATLAB was held by Mr. A. Sadeesh Kumar, a seasoned expert in MATLAB and its applications. BIONEEMTEC conducted a two-day training program on High-Performance Liquid Chromatography (HPLC) and Gas Chromatography (GC) for third-year students on 25th April
7.	**SYMPOSIUM**	

8.	**NPTEL**	Department staffs has been awarded the Elite Gold and Silver Medals in the NPTEL (National Programme on Technology Enhanced Learning) Exam, marking a significant achievement. The awards, announced in April 2024, highlight the university's commitment to excellence and continuous learning across disciplines. Dr.N.Venkatesh – Teaching and Learning in Engineering Dr.P.Renuka- Waste to energy conversion Dr.S.Sujatha- Waste to energy conversion Dr.N.Magesh- Waste to energy conversion  Elite NPTEL Online Certification This certificate is awarded to VENKATESH N for successfully completing the course Teaching And Learning in Engineering (TALE) with a consolidated score of 90 % Online Assignments 25/25 Proctored Exam 64.5/75 Total number of candidates certified in this course: 577 Jan-Feb 2024 (4 week course) Indian Institute of Science Bangalore swayam  Elite NPTEL Online Certification This certificate is awarded to RENUKA VISWANATHAN for successfully completing the course Waste to Energy Conversion with a consolidated score of 67 % Online Assignments 21.25/25 Proctored Exam 45.5/75 Total number of candidates certified in this course: 924 Jan-Mar 2024 (8 week course) swayam  Elite NPTEL Online Certification This certificate is awarded to DR SUJATHA S for successfully completing the course Waste to Energy Conversion with a consolidated score of 75 % Online Assignments 23.33/25 Proctored Exam 51.51/75 Total number of candidates certified in this course: 924 Jan-Mar 2024 (8 week course) Indian Institute of Technology Roorkee swayam  Elite NPTEL Online Certification This certificate is awarded to MAGESH for successfully completing the course Waste to Energy Conversion with a consolidated score of 62 % Online Assignments 19.5/25 Proctored Exam 42.46/75 Total number of candidates certified in this course: 924 Jan-Mar 2024 (8 week course) swayam

9.	**COMPETITIONS ATTENDED BY STUDENTS**	On April 4th two teams from IIIrd Year Chemical has Participated in Student Project Expo Organised by Mechanical Department showcasing Biogas Production and Bio film for Packing. Students of the Department of Chemical Engineering's II and III years attended the Agni College of Technology-organized National Level Technical Symposium "Chemblaze 24."
10.	**AWARDS/PRIZE WON BY STUDENTS**	**Mr.Suriyaprakash , Mr.Sriraam Sridhar & Mr.Kuperan G** has particapted and won prize in Pop & Talk and secured I Prize in Chemblaze- 24 organised by Agni College of Engineering on 13th April. **Mr.Narendran & Mr.Kishan Vinod** has presented a poster in Chemblaze- 24 organised by Agni College of Engineering13th April. **Mr.Kavinraj chakravarthy, Mr.Kuperan G & Mr.Tejashwin** Present a paper and won best paper award in Chemblaze-24 oragnised by Agni college of Engineering on 13th April.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Sl. No.	Event with Photo	Description
1	Placement training for 3rd year studetns- Data Structures in Java	**Date** : March 25 to April 2, 2024 **Venue** : **Placement block** **Nature of Event :** Workshop Participants : III year Students Organized by : Department of CSE Objective : • This initiative aimed to enhance their skills in data structures within the Java programming language. It provided comprehensive insights and practical knowledge. Such initiatives play a vital role in preparing students for the competitive job market, equipping them for successful careers. Outcome : • To increase your chances of getting a job and a lucrative career. • Along with improving your professional skills and knowledge, your confidence gets boosted and it reflects in your personality.
	  	

2	Placement Training for Second year students - Java Programming	
	 	**Date** **:** April 1st to April 6th, 2024 **Venue** **: II year class Rooms** **Nature of Event :** Placement Training- Java Programming Participants :II year Students Organized by : Department of CSE Objective : • Participants gained practical exercises and real-world case studies. To equip students with essential skills for future career opportunities in technology and software development. Outcome : • To increase your chances of getting a job and a lucrative career. • Along with improving your professional skills and knowledge, your confidence gets boosted and it reflects in your personality.

3	**Guest Lecture**	
		**Date** : 22.04.2024 **Venue** : **Placement Block** **Nature of Event : Guest Lecture** Participants : II year Students Organized by : Department of CSE Objective : • To protect data, applications, and infrastructure hosted on cloud computing platforms from unauthorized access, data breaches, and other security threats. • To enable organizations to leverage the benefits of cloud computing while mitigating the associated security risks and ensuring the protection of sensitive data and resources. **Outcome :** • To enable organizations to harness the benefits of cloud computing while maintaining a robust security posture, thereby supporting their strategic objectives, protecting their assets, and preserving their reputation and trustworthiness

4	**Alumni Talk**	
		**Date** : 23-4-24 **Venue** : CSE Lab **Nature of Event** : **Alumni Talk –** Quality asurance in Agile frameworks. **Participants** : II year Students **Organized by** : Department of CSE **Objective:** • To ensure the delivery of high-quality software products that meet customer expectations and business needs. **Outcome:** • Quality Assurance in Agile frameworks are geared towards ensuring that the delivered product meets or exceeds customer expectations while maintaining high standards of quality throughout the development process.

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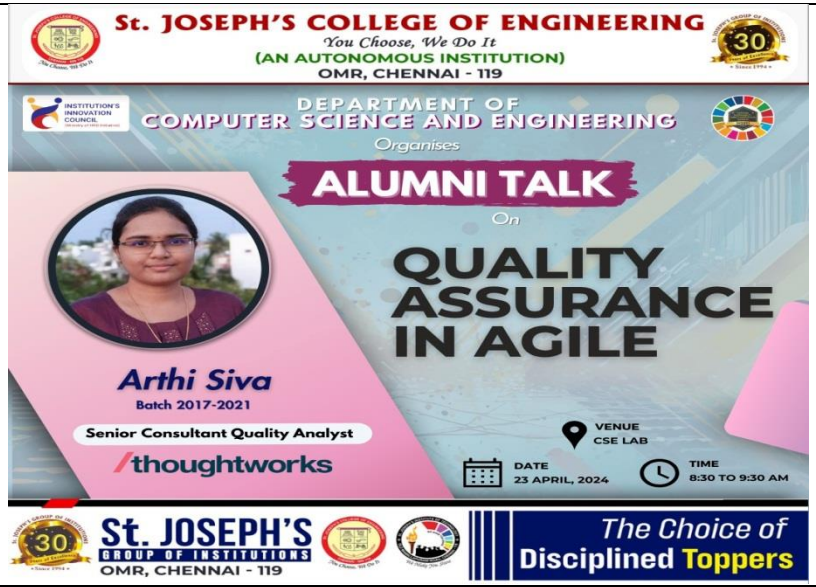
<tr><td></td><td> 
</td><td></td></tr>
<tr><td>5</td><td colspan="2">Crafting tomorrow's solutions</td></tr>
<tr><td></td><td>  </td><td>Date : 25-4-24
Venue : Placement Block
Nature of Event : Ideathon competition
Participants : I & II year Students
Organized by : Department of CSE
Objective:
• To foster innovation by encouraging participants to generate creative and original ideas to address specific challenges or opportunities.
• Provide a platform for identifying and showcasing talented individuals or teams with innovative ideas and problem-solving skills. This can be valuable for organizations looking to recruit or collaborate with innovative thinkers.
Outcome:</td></tr>
</table>

	 	• Diverse and impactful, reflecting the achievement of the **Innovative Solutions, Talent Identification, Entrepreneurial Ventures, Skill Development**

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. Events conducted:

The following events have been conducted during April 2024 at College Level

1. IEEE Event	Report
	TITLE : Electroblitz'24 – Technical Quiz DATE : 17th April, 2024 The outcome of Electroblits' 24 was highly successful, with participants demonstrating exceptional knowledge and skills in electronic circuits. The competition provided a platform for participants to enhance their understanding of theoretical concepts and apply them to practical scenarios. Participants actively engaged in discussions, teamwork, and knowledge-sharing, fostering a collaborative learning environment. Overall, the competition celebrated participants' achievements and contributions to the field of electronics, inspiring continued growth and innovation within the IEEE community.

	 Number of Students Benefitted: 35 IEEE members	
2. Alumni Activity	**Report**	
	TITLE : MOCK INTERVIEW DATE:6 th April 2024	

The Department of ECE organized a mock interview event titled "Pathfinder Panel: Navigating Futures Mock Interview Exchange with Alumni" on April 6, 2024. Students gained valuable interview experience and insights from industry professionals. The mock interviews helped students identify areas for improvement in their interview skills. The feedback provided by the alumni panelists will be instrumental in helping students prepare for future job interviews. The event fostered a connection between current students and ECE alumni.

Number of Students Benefitted: 191

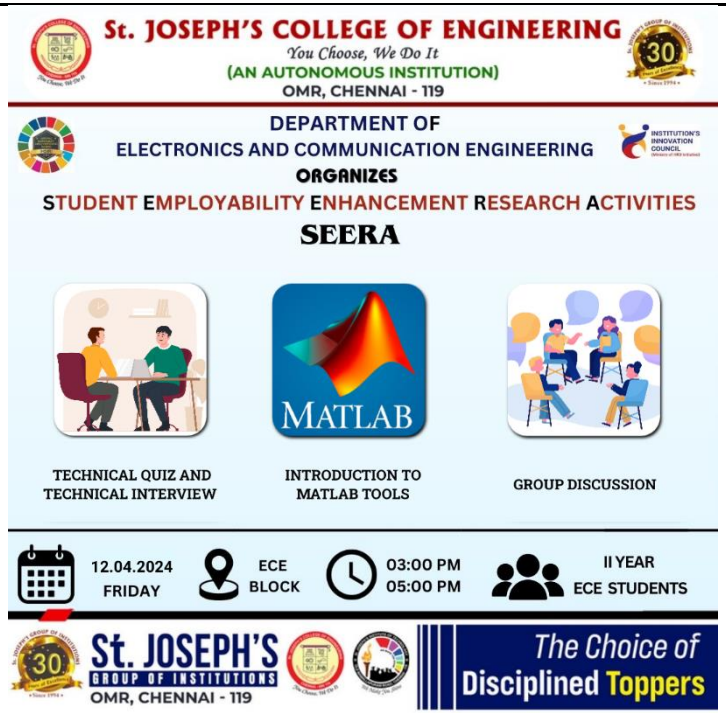
3. School Event	**Report**	
	Expertise Sharing Session: Embedded Systems **Date:** April 13, 2024 **Target Audience:** Students of XI and XII from: Sri Bala Vidyalaya, Perambur, Chennai Maharishi International Residential School, S.V. Chatram, Kanchipuram  **Event Highlights:** Project demonstrations by second and third-year ECE students showcased the capabilities of embedded systems. Two key projects were presented: • RADAR using Arduino Uno: This project used Arduino, an ultrasonic sensor, and a servo motor to create a radar system. The system scans its surroundings, detects object distances using ultrasonic waves, and displays the results.	

	• Home Automation using Raspberry Pi: This project demonstrated home automation using Raspberry Pi and relays. Coding on the Node-RED platform facilitated control of electronic devices via the internet. Relays were used to handle the difference in voltage between Raspberry Pi's output (5V) and household appliances (240V). Number of Students Participated: 120	
4. SEERA II YEAR -EVENT 1	**Report**	
	The department of ECE has conducted the following SEERA activities for the students of 2 year on 25 April, 2024. **Placement training:** Placement tearing programs are essential components of preparing students for successful careers. These programs encompass various activities. Ce this particular day, Vigneshwaran R. CEO & Co-Founder of EMBLOCK TECH PVT.LTD briefed a few students on artificial intelligence in a smooth manner. It is a necessity in today's world to secure employment Student participation count:101 **Group discussion**	

	Group discussions simulate real world scenario where candidates engage in constructive conversations on specific topics. These sessions help improve communication, optical thinking and interpersonal skills. Participants learn to articulate their thoughts effectively while respecting others' opinions. Additionally, GDs enhance teamwork and leadership qualities. Student participation count:28 **Special classes** The weekly SEERA classes conducted by the institution aims to enhance the employability of our fellow mates. It takes several problems bordered by the undergraduates in the process of attaining. Their goals During this week, special classes were directed by our faculty members for students with 3 or above arrears in order to provide them assistance. By filling up the gaps that students have in the necessary modules, our staff were able to guide them through the journey of knowledge and wisdom. Along with guiding them in enhancing their performance in the upcoming examinations, they have also boosted up their morals and installed self-confidence Student participation court 28 **Skillrack**	

	Examinations are a mere checkpoint of learning abilities and does not determine true potential. Students with 1 or 2 arrears are people who have missed the checkpoint by a slight margin. With the Interest of developing the expertise, sessions were conducted in which students were encouraged to solve problems in the skill rack platform. This enables the scholars to develop their programming knowledge in various programming languages. Doing so would greatly assist them in cracking job in the future. Engaging the students in the skillrack program reinforces the prominent saying “practice makes a man perfect” Student participation count: 37	

		
5. SEERA II YEAR EVENT 2	**Report**	



The department of ECE has conducted the following SEERA activities for the students of 2nd year on 12th April,2024.

Group discussion:

The students of ECE participated in group discussion where they were split into different teams. Participants of each team engaged in a lively exchange of ideas, sharing perspectives and insights on various aspects of their respective topics. Participants demonstrated active participation, contributing diverse viewpoints and fostering a collaborative atmosphere. The discussion was facilitated smoothly, with all voices given an opportunity to be heard. Overall,the group discussion proved to be informative and engaging, with participants leaving with a deeper understanding of their topics and its implications.

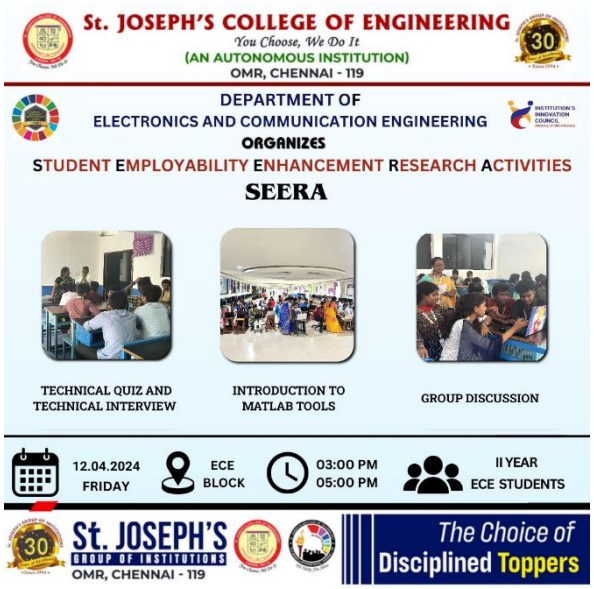
MATLAB:

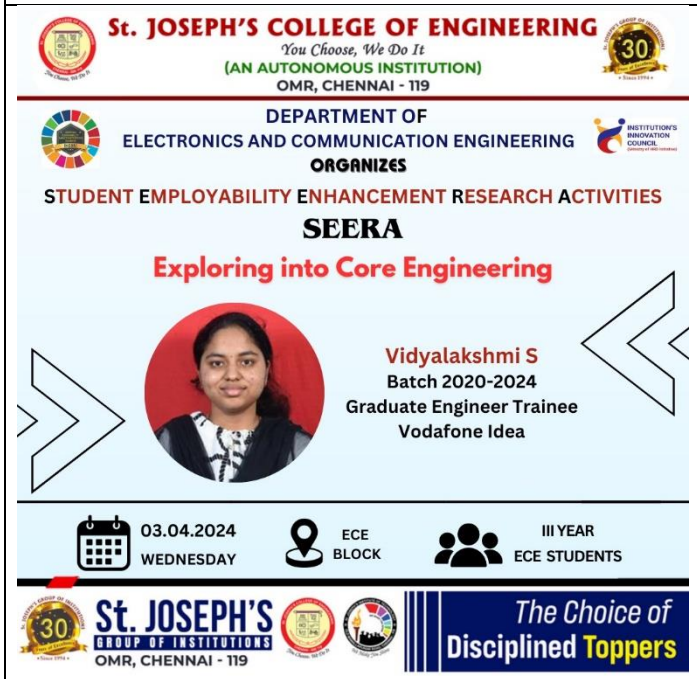
The fundamental concepts of MATLAB such as data importing, manipulation, visualization and statistical analysis were covered. Participants gained practical skills through hands-on exercise and real-world examples. Online MATLAB tools were elaborately discussed according to the understanding level of the participants. Different apps which are available to simplify the ML, DL operations were briefly introduced. The importance of MATLAB in scientific research and engineering was emphasized. Attendees gained skills that can be applied in their academic pursuits and professional careers. The session received positive feedback from participants. Students were

encouraged to start suitable MATLAB online courses according to their interests.

Mock interview:

The mock interview aimed to provide the interviewee with a simulated interview experience, allowing participants to practice and receive constructive feedback on their performance. The interview provided valuable insights into the interviewee's strengths and areas for development. With continued practice and refinement, the candidate is well-positioned to excel in future interviews.



6. SEERA III YEAR	Report	
	TITLE : Exploring into Core Engineering DATE : 25th APRIL 2024 Resource Persons: Vidyalakshmi S 2020-2024 Graduate Engineer Trainee Vodafone Idea Outcomes: Ms. S. Vidyalakshmi, a final-year Electronics and Communication Engineering student recently placed at Vodafone Idea, shared her insights on the Vodafone interview process. She also offered advice on the technical areas students should focus on to improve their chances of landing a job in a core engineering company.	

	 Number of Students Benefitted: 189

7. **FDP/Workshop:**

The following staff member have participated in various FDP/Workshop conducted by other institutions during the month of April at National/International level.

S. No.	Name of the Staff	FDP/ Workshop Program Title	Host Institution	Date	Duration
1.	Dr.J.Sivakumar	Communication Networks	NPTEL	Jan-Apr'24	12 Weeks

2.	G.D.Vignesh	Communication Networks	NPTEL	Jan-Apr'24	12 Weeks
3.	Dr.S.Rajeshkannan	Communication Networks	NPTEL	Jan-Apr'24	12 Weeks
4.	Dr.G.Sivagurunathan	Communication Networks	NPTEL	Jan-Apr'24	12 Weeks
5.	Dr.P.Ezhilarasi	Communication Networks	NPTEL	Jan-Apr'24	12 Weeks
6.	M.Angelin Ponrani	Deep Learning	NPTEL	Jan- Apr'24	12 Weeks
7.	P.Elaveni	Deep Learning	NPTEL	Jan- Apr'24	12 Weeks

8. Publications:

The following staff member have published the research papers in Journal/Conferences organized during the month of April at International/National Level.

S. No.	Name of the Author	Paper Title	Name of the Conference/Journal	Publication Details	Date of Indexing
1.	Grace, J.P.S., **Ezhilarasi, P., Rajeshkannan. S**	Unveiling the Secrets of Brain Tumors: A Fuzzy C-Means and U-Net Convolution Approach for Enhanced Segmentation	International Journal of Computers, Communications and Control	19(2), 5732	April 2024
2.	K. M. Alaaudeen, Salim Manoharadas,Vigneswaran Dhasarathan & **S. Rajeshkannan**	Design and Modelling of Surface Plasmon Resonance Biosensor Employing BaTiO3 and Graphene	Plasmonics	https://doi.org/10.1007/s1146	April 2024

		Nanostructure for Detection of SARS-CoV-2 Virus		8-024-02322-4	
3.	**Lingeshwaran Murugasamy**, Ramprabhu Sivasamy	A Single Layer Interdigitated Loop Elements-Based Miniaturized Frequency Selective Surface for WLAN Shielding	IEEE Transactions on Consumer Electronics	Volume: 70, Issue: 1	April 2024
4.	**Shirley Selvan,** Srimathi Jayaraman, Srinivedhini Varadharajan, **Madhumitha Rajendran**, Elaveni Palanivel and Jaspin Kumaresan	Smart Shoes for Fitness and Performance Analysis of Sportsmen	IEEE International Conference on Computing, Power and Communication Technology	volume 5, pp. 552-557	April 2024
5.	Venkatraman, L., Niksheetha, **S., Ezhilarasi**, P., **Rajeshkannan, S**	Cipher Care: Multi-Authentication Video Steganography Powered by CNNs	EEE International Students' Conference on Electrical, Electronics and Computer Science	pp.1-6	April 2024

9. Patent Details:

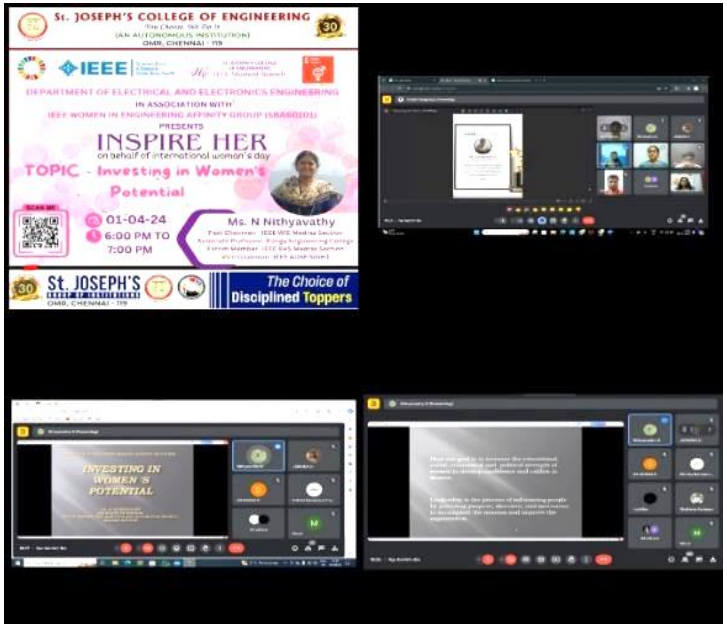
The following staff member have published the Patent during the month of April at International/National Level.

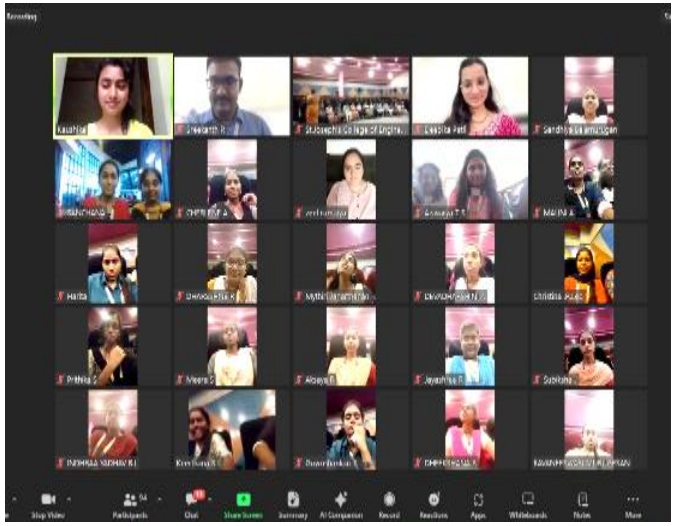
S. No.	Country and Application No.	Name of the Applicants	Name of the Patentee	Patent Title	Date of Filing	Date of Publication	Date of Grant

1.	Indian Patent 202441025836 A	Murugan Mageswari, B.Krishnakumari, D.R.Haripriya, S.P.Kaaviya, **A.M.Balamurugan**	Murugan Mageswari, B.Krishnakumari,D. R.Haripriya, S.P.Kaaviya, **A.M.Balamurugan**	Soil Stabilization Using Sawdust and Stone dust	29/03/2024	12/4/2023	-
2.	Indian Patent 202441022581	1. **Dr. S. Rajeshkannan**, 2. R.Abishek, 3. R.Abdullah, 4. R.Laxman Mahadevan 5. J.Anandha Dinesh *6. Dr.L. Jabasheela*	1. **Dr. S. Rajeshkannan**, 2. R.Abishek, 3. R.Abdullah, 4. R.Laxman Mahadevan 5. J.Anandha Dinesh 6. Dr.L. Jabasheela	Vehicure	22/03/2024	12/4/2024	-
3.	Indian Patent 202441028432	1.Dr.G.Vishnupriya, 2. Allen Jeriel K, 3.Anish RNS, 4.Gnana Ajay A, 5.Alan Giftson J, **6.Dr.J.Sivakumar**, 7.Dr.V.Samuthira Pandi 8. Ms.A Asha, 9. Mr.Kanniyappan *10.N,,Shobana D*	1.Dr.G.Vishnupriya, 2. Allen Jeriel K, 3.Anish RNS, 4.Gnana Ajay A, 5.Alan Giftson J,**6.Dr.J.Sivakumar** , 7.Dr.V.Samuthira Pandi, 8. Ms.A Asha, 9. Mr.Kanniyappan 10.N,,Shobana D	Enhancing Misinformation Detectionwith Ensemble Learning	06/04/2024	12/4/2024	-

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Sl. No.	Photographs Captured During Events	Corresponding remarks (Minimum 300 words)	Criterion
1	**Makeathon-24**  ***PIC: EVENT PHOTO***	Department of Electrical and Electronics Engineering, St.Joseph's College of Engineering organized intra-department Makeathon'24 on 5th and 6th April 2024.Our mission at the Makeathon is to foster a vibrant community of hardware enthusiasts, makers, and innovators, providing them with a collaborative platform to unleash their creativity and technical expertise. We had 4 Hardware domains with 3 problem statements enlisted for the hackathon. our Alumni mentors Mr.S.Ram Kumar & Mr.G.Swathish provided guidance for innovation hackathon challenge. Inauguration of the Makeathon started on 05.06.2024 with 30 teams and student strength of 240 including volunteers. Our jury member Dr. Parthepan Rudrapati CEO – Knowledge Xchange Community & Academic2IT Entrepreneur & Industry Solutions Architect AWS Solutions Architect – Associate (Cloud) announced internship vouchers to another 14 teams on the same occasion on seeing their astounding performance during evaluation.	4

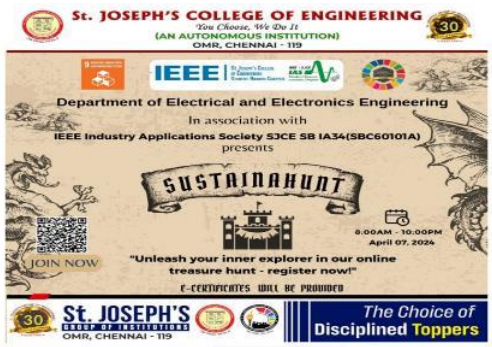
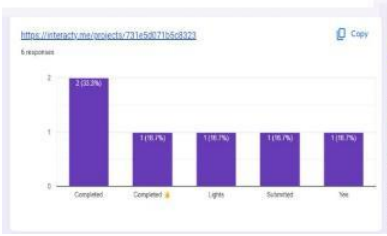
2	**IEEE activities**  ***PIC: EVENT PHOTO***	On behalf of the International Woman's Day celebration, IEEE WIE SJCE SB-AG, in association with the IEEE St. Joseph's College of Engineering student chapter, conducted a webinar session on "INSPIRE HER" on 1st April 2024. The topic for the session was "Investing in Women's Potential," presented by Ms. N Nithyavathy, Associate Professor, Excom Member IEEE Robotics and Automation Society, Madras Section, Immediate Past Chair WIE Madras Section, Treasurer IEEE Nanotechnology Council MAS, Vice Chair IEEE ADSF Sight Madras Section. She discussed education, health, wealth, and the growing economy among women. We believe that this session was beneficial for the female students. Approximately 25+ students took part in this event on G-Meet. The participants were rewarded with e-certificates as a token of appreciation. An e-Memento was awarded to the speaker by the end of the session.	4

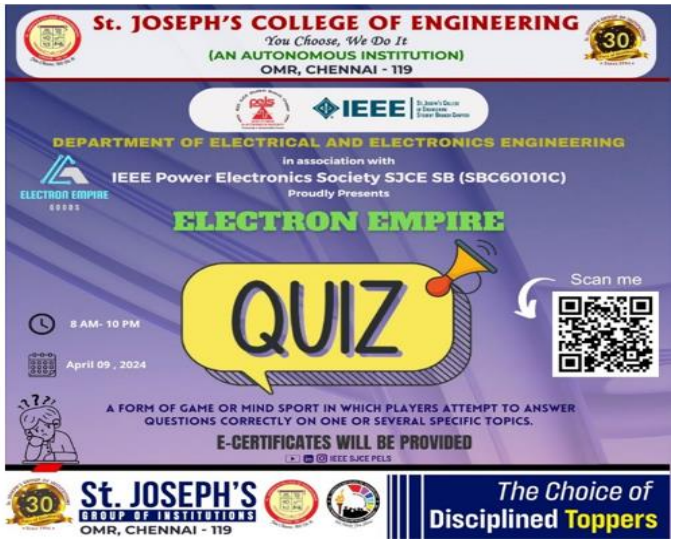
3	**IEEE activities**  ***PIC: EVENT PHOTO***	IEEE Women in Engineering, in association with the IEEE St. Joseph's College of Engineering student chapter, hosted an awareness program titled "Youth as Powerful Enablers" on 2nd April 2024 from 1:30 PM and 3:00 PM. The event aimed to create a constitutional rights-based environment in the context of gender equality, with a focus on building awareness about the Protection of Children from Sexual Offences Act (POCSO) 2012 (Amendment 2019). The session was presented by Ms. Kaushika Rajavelu, Junior Trainer for TRP - SAKSHI, The Rakshin Project associated with the Ministry of Youth Affairs And Sports. She discussed the POCSO Act and the initiatives of The Rakshin Project, emphasizing strategies to overcome sexual offenses and how to handle offended persons. We hoped that the session would be an eye-opening experience for the student community. Approximately 100+ students took part in this event via Zoom meeting, and the session was also projected in the AV Hall, Library Block SJCE. Participants were rewarded with e-certificates as a token of appreciation, and e-Memento was awarded to the speaker at the end of the session as a gesture of gratitude.	4

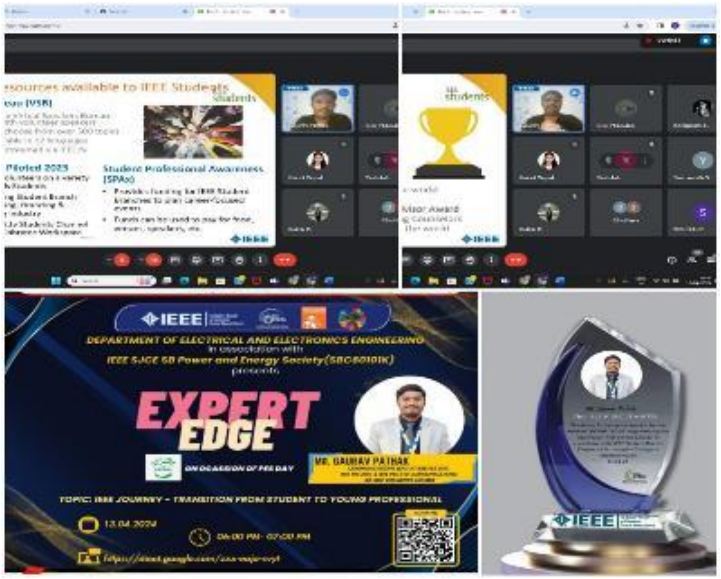
4	**IEEE activities**  ***PIC: EVENT POSTER***	IEEE PES SJCE SB- in association with IEEE St. Joseph's College of Engineering Student chapter conducted a webinar session "CAREER COMPASS" on 3rd April 2024.the topic session was "Soft skill for interview preparation and landing your first job" presented by Prathiba Leo TEDx Speaker, communication and soft skill coach. She introduced the Career Compass program, a comprehensive soft skill training initiative for interview preparation and job acquisition. This program focuses on key areas such as effective communication, teamwork, problem-solving, and adaptability. Mock interviews and feedback sessions are integrated to refine presentation skills and improve interview performance. The program emphasizes professionalism, ethical conduct, and emotional intelligence, ensuring candidates are well-prepared for various workplace scenarios. By equipping individuals with essential soft skills and interview strategies, the Career Compass program aims to help them secure their first job and navigate their career journey successfully. Approximately 25 students took part in this event over meet. The participants were rewarded with E-certificate as a token of appreciation -Memento was awarded to the speaker by the end of the session.	4

5	**IEEE activities**  ***PIC: EVENT POSTER***	IEEE PES SJCE SB- in association with IEEE St. Joseph's College of Engineering student chapter conducted a non-technical online mode event on April "PUZZLEMANIA" on 5th April 2024. Puzzle Mania brings the thrill of non-technical games like puzzles and Sudoku to life! Dive into a captivating realm of brain-teasing challenges that test your cognitive skills and foster strategic thinking. Whether you're a novice or an expert, Puzzle Mania offers something for everyone, with a range of difficulty levels to suit your preference. Our puzzles are meticulously crafted to provide hours of engaging entertainment while stimulating your mind. Sudoku enthusiasts can delve into intricate number grids, honing their logical reasoning and numerical prowess.	4
6	**IEEE activities**	Through a webinar on April 07, 2024, the IEEE Power Electronics Society Student Branch Chapter SJCE SB (SBC60101C) hosted a "Journey Jolt" that explored the significance of the IEEE journey within the field of power electronics. Under the direction of Mr. Abimel S. B. Kulumala , Founder Silicon Society, participants learned a great deal about professional growth, networking possibilities, and the critical role IEEE plays in promoting creativity and teamwork in the industry. Promoting proactive involvement in the community, participants were exhorted to use	4

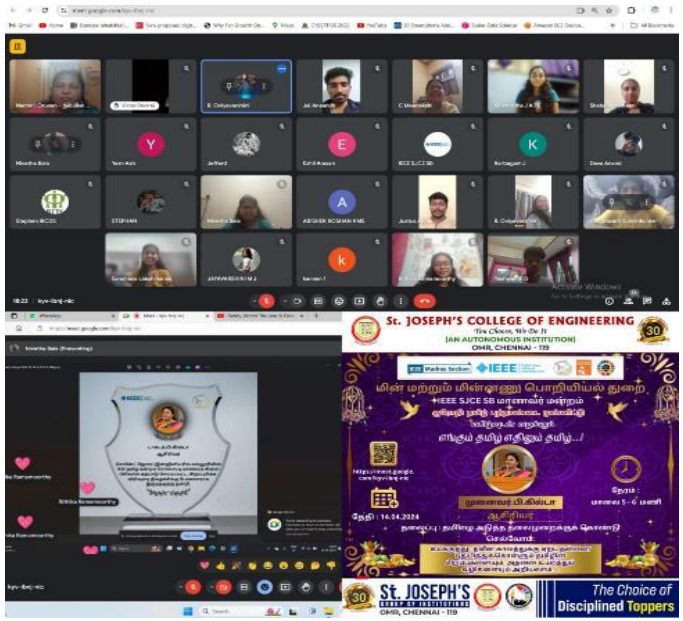
	 ***PIC: EVENT POSTER***	accessible resources to advance their career development. The interactive format of the event encouraged participants to share their knowledge and have spirited debates. At the end of the session, the speaker was given a memento and participants received E-certificates as a sign of appreciation.	
7	**IEEE Activities**	IEEE IAS SJCE SB in association with IEEE Industry Applications Society St. Joseph's College of Engineering student chapter conducted an online treasure hunt "SUSTAINAHUNT" on 8th April 2024. Students from the Final year, pre-final year, and Second year of the Department of Electrical and Electronics Engineering participated. The competition aimed to assess and enhance the technical knowledge of the participants in the field of Electrical and Electronics Engineering. The questions were carefully crafted to challenge the participants and evaluate their comprehension of both fundamental and advanced concepts. This Technical Treasure hunt	4

	   ***PIC: EVENT POSTER and PHOTO***	Competition stands as a testament to the commitment of the EEE department to nurturing and promoting academic excellence. Approximately 20+ students took part in this event and attended this event. The online Treasure hunt winners were rewarded with certificate of appreciation. The participants were rewarded with E-certificates.	
8	**IEEE activities**	IEEE Power Electronics Society Student Branch Chapter SJCE SB hosted a "ELECTRON EMPIRE" on 9th April 2024.The technical quiz was a dynamic event, encapsulated succinctly within a comprehensive report. Participants delved into a plethora of technical realms, from programming paradigms to network protocols. Each question was meticulously crafted to challenge the participants' understanding and analytical skills. As the quiz unfolded, a palpable sense of excitement filled the room, with contestants eagerly showcasing their knowledge	4

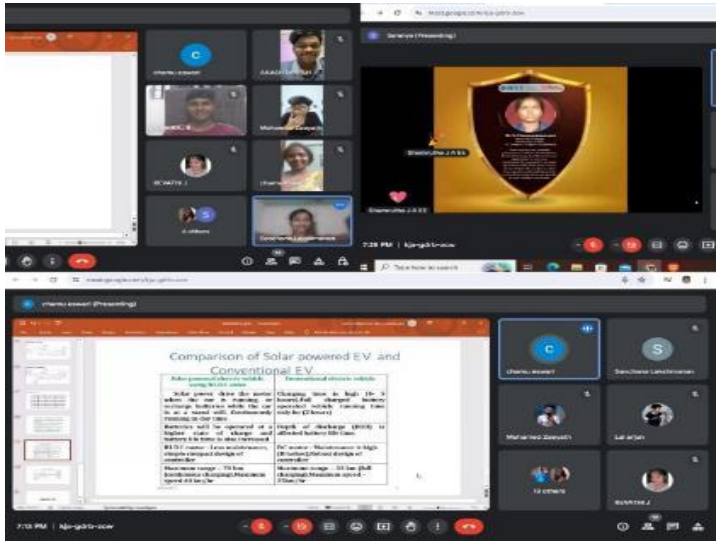
	 ***PIC: EVENT POSTER***	and problem-solving abilities. The event fostered an environment of healthy competition and collaboration, allowing participants to learn from each other's insights and perspectives. In the end, the quiz not only served as a platform for intellectual stimulation but also as a celebration of innovation and creativity in the realm of technology.	
9	**IEEE activities** 	The IEEE Photonics Society of SJCE SB PHO36(SBC60101L) Conducted 'PHOTONEXUS', a technical online mode webinar for second and third year EEE students, on 10th April 2024 from 7.00 PM to 8.00 PM (IST). The event aimed to inspire and motivate students to explore the field of Photonics among enthusiasts and featured a keynote address by Prof. Naeema Nazar, IEEE Photonics Society Global Strategy Representative for India, Asst. Prof. at VISAT Engineering College Kerala Student Branch Chapter Advisor of WiE, Comsoc. The event saw the cumulative participation of 30 students. Participants were also allowed to interact with the speaker and get	4

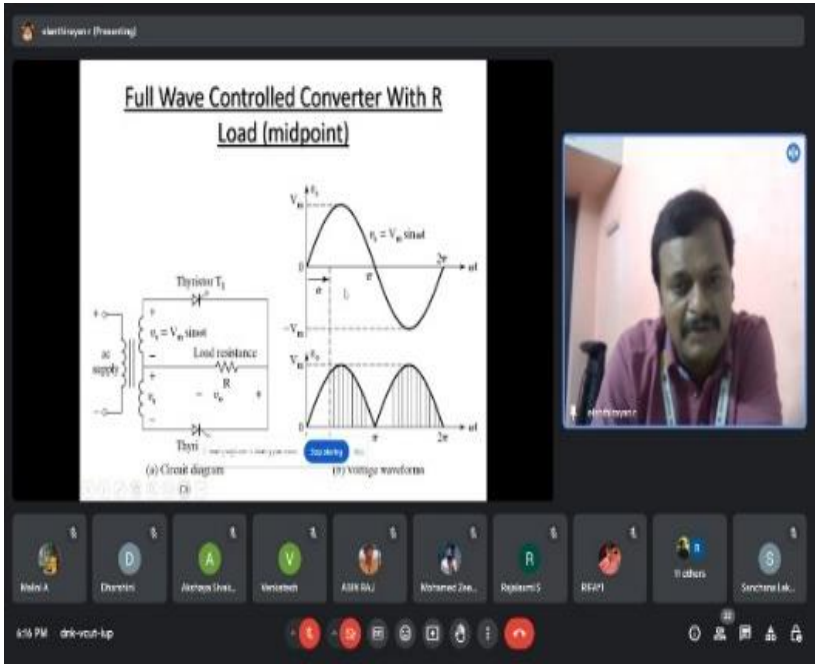
	PIC: EVENT POSTER and PHOTO	answers to their queries regarding Photonics Innovations and Breakthroughs: A Spotlight on the IEEE Photonic Society.	
1	**IEEE activities**  ***PIC: EVENT PHOTO***	IEEE PES SJCE SB- in association with IEEE St. Joseph's College of Engineering Student chapter conducted a webinar session "EXPERT EDGE" on 13th April 2024.The topic of the session was "IEEE JOURNEY - TRANSITION FROM STUDENT TO YOUNG PROFESSIONAL" presented by Mr. Gaurav Pathak - Communication Lead at IEEE PES day, IEEE PES MDC & IEEE PES R10 communications Ad Hoc Committee Member. At the IEEE Journey event, he extended beyond the mere transition phase, delving into the pivotal roles played by IEEE volunteers and young professional members. Speakers highlighted the invaluable contributions of volunteers in fostering a supportive ecosystem for aspiring professionals, providing mentorship, and facilitating networking opportunities. Insights were shared on the unique challenges faced by young professional members, such as balancing career aspirations with personal development and societal impact. Overall, the webinar provided valuable insights into transition from student to young professional. The participants were rewarded with E-	4

		certificate as a token of appreciation -Memento was awarded to the speaker by the end of the session.	
1	**IEEE activities**  ***PIC: EVENT PHOTO***	The "INSEGNANTE (A Spotlight Series)" event, hosted by the IEEE Student Branch of St. Joseph's College of Engineering in association with IEEE SJCE SB Robotics & Automation Society, captivated approximately 35 participants on 13th April, 2024, with an engaging exploration into the Basics of Robotics. Under the direction of Mr. Sadeesh Kumar A., Assistant Professor in the Department of EEE at St. Joseph's College of Engineering, the discussion covered a wide range of subjects, including the various categories of robots and the moral issues covered by the Laws of Robotics. The event not only provided a platform for learning but also acted as a catalyst for continued research and collaboration in the exciting field of robotics. All participants were given e-certificates.	4

1	**IEEE Activities**  *PIC: EVENT PHOTO*	The IEEE SJCE SB MAANAVAR MANDRAM of St. Joseph's College of Engineering organized an engaging online webinar titled "ENGUM TAMIL EDHILUM TAMIL" exploring the rich tapestry of Tamil literature. The event, conducted with finesse in a virtual setting on the date of 14TH APRIL 2024 with a total of 36 participants. DR P GILDA a notable speaker, eloquently discussed the evolution of Tamil and its significant developments. The event's seamless execution was credited to the dedicated student coordinators, Jayavarshini M J, Oviya Varshini R, Nivetha B, Saniya Benzer E, Isha T, Hassan A, and Anas Javith A. The event concluded with a virtual photo session.	4

1	**IEEE activities**  ***PIC: EVENT POSTER***	IEEE PES SJCE SB- in association with IEEE St. Joseph's College of Engineering Student chapter conducted a webinar session "EXPERT EDGE" on 16th April 2024.The topic of session was "AI MODELLING IN ELECTRICAL TECHNOLOGY DEVELOPMENT AND MAINTENANCE" presented by Mr. Nitin Mane - Arm Dev Ambassador-Intel® Certified oneAPI Instructor & Software Innovator - Google Innovator, Tester and Mentor-IEEE Volunteer - Software Engineer. attendees were enlightened about the significant role of artificial intelligence (AI) in reshaping the landscape of the electrical industry. The speaker provided an overview of how AI-driven modeling techniques are revolutionizing various aspects of technology development and maintenance within the electrical domain. The session underscored the importance of integrating AI into smart grid technologies for efficient energy distribution and grid management. Overall, participants left the session equipped with valuable knowledge and insights to leverage AI advancements effectively in their professional endeavors within the electrical sector. The participants were rewarded with E-certificate as a token of appreciation -Memento was awarded to the speaker by the end of the session.	4

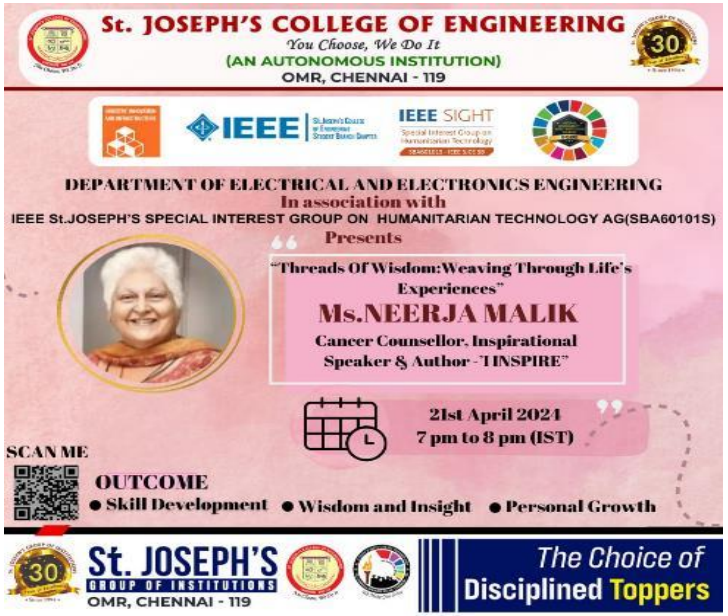
1	**IEEE activities**  ***PIC: EVENT PHOTO***	The second session of INSEGNANTE, organized by IEEE Student Branch Chapter of St. Joseph's College of Engineering and IEEE Solid-state Circuits Society of SJCE SB, held on April 16, 2024, from 6:00 PM to 7:00 PM via Google Meet, was a captivating exploration into the realm of power electronics. Led by Dr. V. Chamundeeswari, Associate Professor in the Department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, the event focused on "Power Electronics for Renewable Energy and Electric Vehicle Applications." Covering topics ranging from renewable and non-renewable energy resources to PV systems with DC-DC converters and EV applications, including NOSLC analysis and a comparison between solar-powered EVs and conventional EVs, the session provided valuable insights into the role of power electronics in shaping the future.	4

1	**IEEE activities**  ***PIC: EVENT PHOTO***	The IEEE Student Branch Chapter of St. Joseph's College of Engineering and IEEE Power Electronics Society of SJCE SB hosted a captivating session titled "Introduction to MATLAB Simulation on Basic Power Converters" on 18th April 2024, with 35 enthusiastic participants. Mr. R. ELANTHIRAYAN, Assistant Professor adeptly guided attendees through MATLAB simulation techniques applied to fundamental power converters, fostering an interactive learning environment. Participants explored cutting-edge technologies and received e-certificates, enhancing their educational journey. The session meticulously covered MATLAB's diverse toolbox for power converter simulation, providing insights into key components and practical applications. Through interactive discussions and hands-on demonstrations, attendees gained a thorough understanding of MATLAB's capabilities in power electronics engineering.	4
1	**IEEE activities**	IEEE PES SJCE SB- in association with IEEE St. Joseph's College of Engineering Student chapter conducted a webinar session "EXPERT EDGE" on 19th April 2024. The topic of session was "PROMPTING AI : WHAT FUTURE HOLDS FOR YOU?" presented by Dr. Vandana Sharma - Assoc. Professor at Christ University, Delhi NCR Campus, India | Honorary Adjunct Professor | Postdoc Fellow | Book Editor. Speakers explored the transformative potential of AI across various industries and domains,	4

	 *PIC: EVENT POSTER and PHOTO*	highlighting its role in reshaping the workforce, economy, and society as a whole, addressing concerns related to privacy, bias, and job displacement. Moreover, the event offered a glimpse into the future possibilities of AI, envisioning a world where intelligent systems collaborate seamlessly with humans to solve complex problems and drive innovation. The participants were rewarded with E-certificate as a token of appreciation -Memento was awarded to the speaker by the end of the session.	
1	**IEEE activities**	IEEE Power Electronics Society Madras Section and IEEE SJCE Power Electronics Society Organized a Webinar Session titled "POWERING PROGRESS" on April 20, 2024. The topic for the session was "Carrer in Power Electronics and How to Master a Craft in Core Engineering" presented by Dr.Brij N.Singh, Ph.D. Students and staff from the final year, pre-final year, and second year of the Department of Electrical and Electronics Engineering, as well as other college students and staff, participated. Start with rigorous coursework in electrical engineering, focusing on subjects like power electronics, control systems, and semiconductor devices Attend workshops, pursue certifications like IEEE membership, and engage in ongoing education.	4

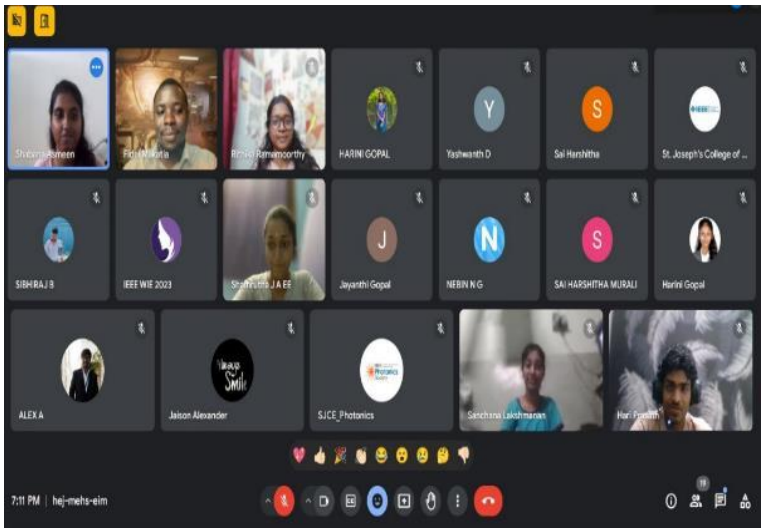
	 *PIC: EVENT POSTER and PHOTO*	Developing strong problem-solving skills is key to navigating the complex challenges inherent in power electronics design and optimization. Embrace challenges as opportunities for growth and innovation, and stay committed to mastering the intricacies of power electronics. By following these steps diligently, one can carve out a successful career path in power electronics and excel in the realm of core engineering.	
1	**IEEE Activities**	The IEEE Solid-State Circuits Society, in collaboration with IEEE SJCE SB, hosted a successful online webinar titled "Exploring Software Products" on April 20, 2024, from 10:00 AM to 11:00 AM. This webinar provided participants with valuable insights into various software products and their applications. Attendees had the opportunity to learn about cutting-edge software technologies, industry trends, and best practices related to software product development. With around 35 enthusiastic participants attending, the session fostered a dynamic exchange of ideas and	4

	 ***PIC: EVENT POSTER***	knowledge. E-certificates were eagerly awaited by the attendees	

1	**IEEE activities**  *PIC: EVENT POSTER*	The IEEE SIGHT Affinity Group, in collaboration with IEEE SJCE Student Branch, hosted an enriching online webinar titled 'Threads of Wisdom: Weaving Through Life Experiences' on April 21, 2024. Renowned career counsellor and author Ms. Neerja Malik shared invaluable insights on navigating life's challenges and extracting wisdom from personal experiences. Approximately 50 participants from diverse backgrounds joined the session, which emphasized the transformative power of technology in empowering positive change. Through engaging discussions and practical advice, attendees were inspired to embark on a journey of self-improvement and success. The webinar, conducted via Google Meet, provided a platform for meaningful interaction and learning.	4
2	**IEEE Activities**	The IEEE SJCE SB MAANAVAR MANDRAM of St. Joseph's College of Engineering organized an engaging online webinar titled "ILAKKIYAM KAATUM ARAM" exploring the rich tapestry of Tamil literature. The event, conducted with finesse in a virtual setting on the date of 21ST APRIL 2024 with a total of 36 participants. S.A.SYED AJMAL	4

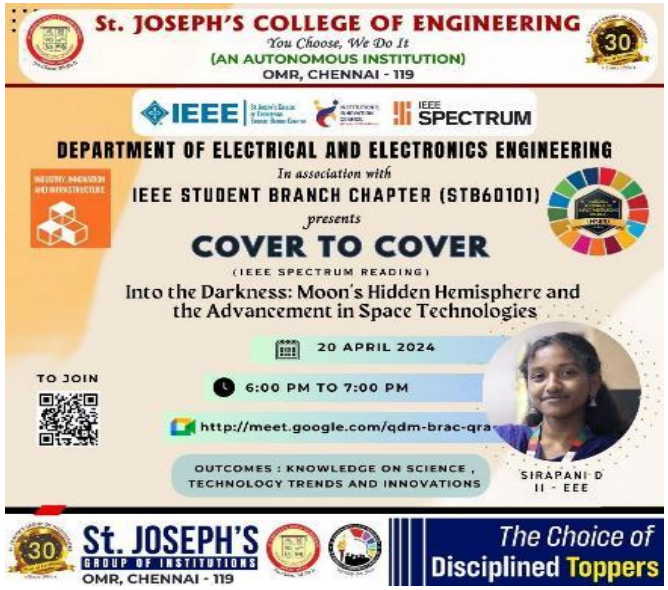
	 *PIC: EVENT POSTER*	TAHSEEN (a) MUTHAMIZHAN a notable speaker, eloquently discussed the evolution of Tamil and its significant developments. The event concluded with a virtual photo session	
2	**IEEE Activities**	IEEE IAS SJCE SB in association with IEEE St. Joseph's College of Engineering student chapter conducted a webinar session "SHINING BRIGHT" on 15-04-2024. The topic for the session was " Microwave Sensing and its Applications" presented by Prakrati Azad, Doctoral Scholar at Indian Institute of Technology, Kanpur , Vice-Chair. Students from the Final year, pre-final year, and Second year of the Department of Electrical and Electronics Engineering participated. Certainly, he discussed from the Microwave sensing employs microwave radiation for applications like weather	4

	 ***PIC: EVENT POSTER***	monitoring, radar imaging, and soil moisture estimation. Approximately 30+ students took part in this event over Google meet. The participants were rewarded with E-certificates. Appreciation Certificate and E- Memento was award to the speaker by the end of the session.	

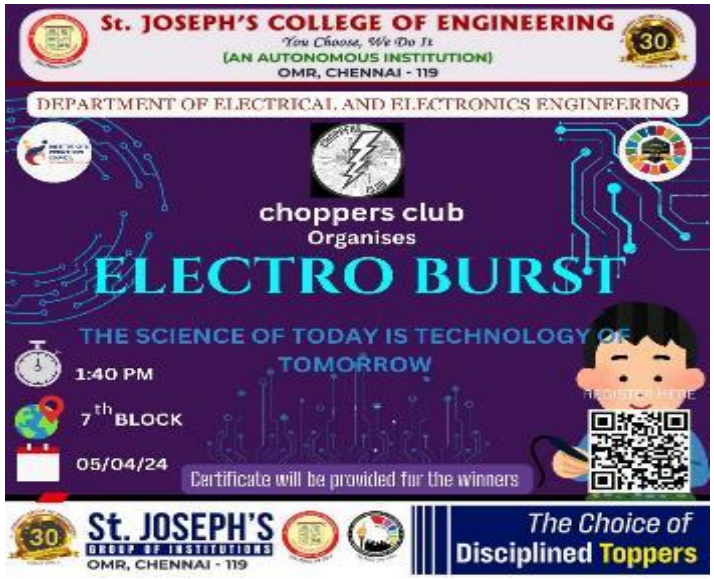
2	**IEEE Activities**  ***PIC: EVENT POSTER***	The "Erudite Season 9" international webinar series, jointly hosted by IEEE SJCE SB and IEEE VTS SB, excitedly introduces Mr. Fidel Makatia as the keynote speaker for the second session. Makatia, a Research Assistant at Texas A&M University and an ARM Ambassador with a prestigious background in Electrical and Electronic Engineering, sets the stage with his talk titled "Introduction to ARM Architecture." Delving into the transformative potential of AI, Makatia highlighted the exponential growth in computational demand and its implications for energy consumption. Makatia illustrated how major tech giants like Amazon, Google, Microsoft, and Oracle have embraced Arm technology to enhance performance and energy efficiency across various applications, from cloud computing to AI training and inference. The session drew a keen audience of 35 participants who actively engaged with Makatia's insights and contributions. Graciously, e-certificates were provided to all attendees, recognizing their valuable participation and commitment to the webinar series.	4

2	**IEEE Activities**  *PIC: EVENT POSTER*	The "ERUDITE'24" Event, hosted by the IEEE Student Branch of St. Joseph's College of Engineering, a technical online mode webinar on April 15, 2024 from 12.00 PM to 1.00 PM (IST). The event aimed to inspire and motivate students to explore the field of IEEE among enthusiasts and featured a keynote address by Ms.Ewell Tan, Project Manager IEEE,Certified Senior project Manager(IAPM), Certified Pastel Nagomi Art Advanced Instructor, Certified Associate NLP Practitioner IEEE, University of Hertfordshire, U.K. The event saw the cumulative participation of 30 students. Participants were also allowed to interact with the speaker and get answers to their queries regarding Career Growth Opportunities for student members through IEEE. At the end of the session, feedbacks were given by the participants about the event. E-Certificates were Provided to the participants.	4

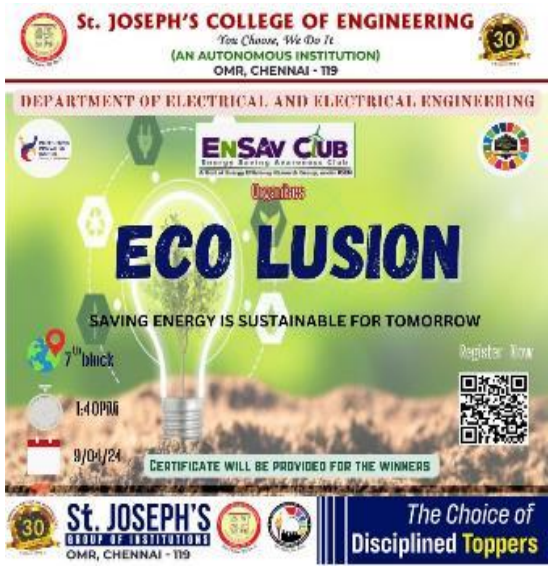
2	**IEEE Activities**  ***PIC: EVENT POSTER***	IEEE Spectrum of St. Joseph's College of Engineering, conducted a Spectrum session. The speaker, Ms.R.Rithika spoke on " Blink to Generate Power for Smart Contact Lenses " on 11th April , 2024. The speaker enlightened us with the idea that "The IEEE Spectrum article titled "Blink to Generate Power for Smart Contact Lenses" discusses a hybrid energy-generation unit that harvests power from both light and tears through a flexible silicon solar cell and a tear-activated system, providing a self-sufficient power source for smart contact lenses". The session was held between 6:00 p.m. and 7:00 p.m. Our target audience were II, III and IV years. A total of 20 participants participated and had an amazing experience during the meet, thoroughly enjoying the entire session.	4

2	**IEEE Activities**  ***PI: EVENT POSTER***	IEEE Spectrum of St. Joseph's College of Engineering, conducted a Spectrum session. The speaker, Ms.D. Sirapani spoke on " Into the Darkness: Moon's Hidden Hemisphere and the Advancement in Space Technologies " on 20th April , 2024. The speaker enlightened us with the idea that " The IEEE Spectrum article titled "Into the Darkness: Moon's Hidden Hemisphere and the Advancement in Space Technologies" discusses that " Scientists are racing to protect future lunar telescopes from interference on the moon's far side, which offers a quiet environment for radio telescopes. However, with a lunar "gold rush" of missions, including lunar landings and mining operations, astronomers are sounding the alarm to ensure science isn't compromised. Additionally, researchers are exploring the use of optical fibers as seismometers on the moon, potentially enabling detection of seismic waves from deep within the lunar interior" .The session was held between 6:00 p.m. and 7:00 p.m. Our target audience were 2nd , 3rd and final years . A total of 20 participants participated and had an amazing experience during the meet, thoroughly enjoying the entire session.	4

2	**Club Activities**  *PI: EVENT POSTER*	The **"ROBOTICS CLUB"** at St. Joseph's College of Engineering, specializing in Electrical & Electronics Engineering, hosted a technical event **"TECH TONIC"** on **April 1, 2024**. The event commenced at 1:15pm with all the members of the club and concluded at 3:00 pm with a photo session. Nearly 32 students participated in the event. The event had three rounds, The program concluded with a photo session. **Outcome of the event:** The students were able to analyze the design and enrich their basic concepts of technologies in robotics.	
2	**Club Activities**	St. Joseph's College of Engineering, (Electrical & Electronics Engineering) CHOPPERS CLUB organized a technical event **"ELECTRO BURST''** on **5th APRIL 2024**. This exclusive event started at **1:40PM** with all the members of our club. The event was started with full enthusiasm by exploring the hidden talents of the students. The rules of the event were	

	 ***PI: EVENT POSTER***	explained before each round. Participants with higher score were shortlisted for further rounds and finally we declare top two winners. They were honored with certificates for their outstanding contributions during the event. **Outcome of event:** The students were able to analyze the design and enrich their basic concepts of electronics.	
2	**Club Activities**	St. Joseph's College of Engineering, (Electrical & Electronics Engineering) ELECTRICAL CLUB organized a technical event "CORE QUEST " on 04/04/2024. This exclusive event started at 1:40 PM with all the members of our club. **Outcome of the event:** The students were able to analyze the design and enrich their basic concepts of electricals.	

	 ***PI: EVENT POSTER***		
2	**Club Activities**	St. Joseph's College of Engineering, (Electrical & Electronics Engineering) ENSAV CLUB organized a technical event "ECO LUSION'' on April 9, 2024. This exclusive event started at 1:40PM to 3:00 PM with all the members of our club.This event consists of two rounds:	

	 ***PI: EVENT POSTER***		
3	**Placement club activities**	The Department of EEE has conducted the SEERA for third year students on April 3, 2024 through the Bright byte Coders Club. Our alumni **Mr. Manjunath (Batch of 2017), gave a session on "Knowledge on the job portal for placement"** for advanced-level students. A seminar on "**Recent Trends in Artificial Intelligence**" was conducted for intermediate level students to enrich their knowledge on the basics of AI. Beginner's level students are	4

	 ***PIC: EVENT PHOTO***	motivated to improve their academic performance by providing coaching classes.	
3	**Placement club activities**	The Department of EEE has conducted the SEERA for third year students on April 5, 2024 through the Bright byte Coders Club and Lingual Clique Club. **Nikith Jude E & Jasigo Krifi S** who got placed in Soliton shared the interview process followed by Soliton for the Advanced Level Students. The primary goal was to boost problem-solving skills and augment their proficiency in C programming. The session covered essential concepts, ranging from basic syntax to advanced problem-solving techniques. By sharing the Soliton interview strategy, participants were better equipped to tackle challenges in future recruitment process. The emphasis on problem-solving aimed to cultivate	4

	 *PIC: EVENT POSTER AND PHOTO*	a mindset geared towards practical application and critical thinking. Overall, the session served as a valuable resource for students seeking to excel in the dynamic field of Electrical and Electronic Engineering. Beginner's level students are motivated to improve their academic performance by providing coaching classes.	
3	**Placement club activities**  *PIC: EVENT PHOTO*	The Department of EEE has conducted the SEERA for second-year students to enhance their skills on **12th April 2024**. For II EEE A, **Mr. C. Hariprasath** has taken a seminar on "**CATapult Your Preparation: Mastering the CAT**," and **Ms. T. Isha** has taken a seminar on **"Importance of Portfolios in Career Development."** For II EEE B, **Mr. S. Mouli and Mr. M. Jayaram** have taken a seminar on "**Problem solving using C programming and Python**", which enriches the programming skills of the students For II Year EEE C, **Ms. L. Sanchana and Ms. B. Sangamithra** have taken a seminar on **"Pathway for Gate Preparation and an aptitude topic on**	4

		Calendars and Blood Relation", which guide them to prepare Gate Preparation and also explain in detail the aptitude topic for their placement preparation.	
3	**Faculty awards and recognitions**	Our faculty **Dr.V.Krishnakumar** acted as a **reviewer in IET Electric Power Application Journal.** Our faculty **Mr.R.Sreekanth** acted as a resource person **4th International conference on communication and computing and internet of things technically cosponsored by IEEE Madras section on 17th and 18th April 2024.** **Dr.V.Chamundeeswari** - Acted as **a resource person in webinar** organised **by IEEE madras session insegnate** a spotlight series titled "A Power Electronics for Renewable energy and electric vehicle Applications" on 16th April 2024. **Dr.S.Sridharan** acted as **a resource person in webinar organised by IEEE madras session** insegnate a spotlight series titled "A state of art of wind power generation" on 22nd April 2024. **Mr.R. Elanthirayan** acted as a **resource person in webinar organised by IEEE madras session** insegnate a spotlight series titled "A introduction to Matlab Simulation on basic Power converters" on 18th April 2024.	**5**

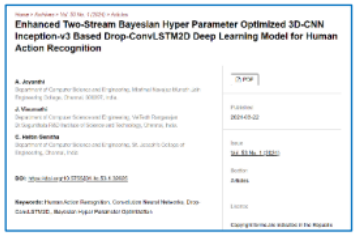
		Mr.A.Sadeesh Kumar acted as a **resource person in webinar organised by IEEE madras session** insegnate a spotlight series titled "Basics of Robotics" on 13th April 2024. **Mr.V.Balasubramanian** acted as a **resource person in webinar organised by IEEE madras** titled "A session on Robotics" on 20th April 2024. **Dr. KRISHNAKUMAR.V, Dr. VELMURUGAN.P, Dr. VENKATESH KUMAR.C, Mr. SRIANANDA GANESH.T Successfully Completed NPTEL course**.	
3	PLACEMENT DETAILS FOR THE MONTH OF APRIL 2024	**2020-2024 Batch** Total No of students placed = 78 Students Total No of Offers = 89 Offers Total No of Students (UG) = 150 Total No of Eligible Students (UG) = 128 (All Clear) % of students Placed (UG) = 60/150 = 52 % No of students having single offers = 66 No of students having Double offers = 10 No of students having Triple offers = 01 **2021-2025 Batch** Total No of students placed = 02 Students Total No of Offers = 02 Offers	**4**

		Total No of Students (UG) = 194 No of students having single offers = 02	

DEPARTMENT OF SCIENCE

Sl. No.	Events	Remarks
1	**Awards/Prize won by students / Staff**	Students Awards: 1. Ms. V. Priyanka, Ms. G. Priyanga, Ms. R. Rajeshwari of I EEE-B had won "I prize" in "SIT-Scihum 2024 - Innovation models" event conducted by "Sri Sairam Institute of Technology, Chennai" on 23.04.24. 2. Ms. M. Tharani, Ms. K. Srilekha, Ms. S. Yazhini of I EEE-C had won "II prize" in "SIT-Scihum 2024 - Innovation models" event conducted by "Sri Sairam Institute of Technology, Chennai" on 23.04.24. 3. Ms. Mythiri Janarthanan, Ms. Padala Dhonika, of I EEE-B had won "I prize" in "SIT-Scihum 2024 – Paper presentation" event conducted by "Sri Sairam Institute of Technology, Chennai" on 23.04.24. 4. Ms. Sai Siva Ruba H,of I AML-B had won "III prize" in "SIT-Scihum 2024 – coding" event conducted by "Sri Sairam Institute of Technology, Chennai" on 23.04.24.
2	**Publications(only published) details**	**Journals:** 1. Dr. V. Swarnalatha published a paper titled "Growth, Investigation of Calcium D-gluconatemonohydrate - CDG crystals with shocked impact for electronic usage and the pure crystal for sensor application" in "Journal of Materials Science: Materials in Electronics". Volume 35, article 832, (2024) doi: https://doi.org/10.1007/s10854-024-12579-4 **Patents:** 1. Ms. S. Savitha published a patent titled "IOT based fully automated medication storage Retrieval system" in "Patent and Design Journal". Dt.12/04/2024 Issue: 15/2024, Application number: 202441028359 2. Dr. N. Punitha published a patent titled "Advanced Nano composite Materials for Enhanced Humidty Sensing Performance" in "Patent and Design Journal". Dt. 26/04/2024 Issue 17/2024, Application Number No.202441031950

3	**Other activities(if any)**	Department of Science conducted the following Alumni talk programs: 1) Insights on Career Opportunities - By Ms. S. Karpagavalli (2016-2020 Batch ECE) on 06.04.24 2) Career and professional development – By Mr. Santhosh S (2019-23 batch, EEE) on 06.04.24

DEPARTMENT OF INFORMATION TECHNOLOGY		
Sl. No.	**Photographs Captured During Event/Screenshot**	**Corresponding remarks in regarding the status of activity execution**
1	 **Co-Author** Dr.C. Heltin Genitha Published a paper in SCIE Journal	**Staff Paper Publication** Jeyanthi, J. Visumathi, C. Heltin Genitha, "Enhanced Two-Stream Bayesian Hyper Parameter Optimized 3D-CNN Inception-v3 Based Drop-ConvLSTM2D Deep Learning model for Human Action Recognition", Information Technology and Control, DOI: https://doi.org/10.5755/j01.itc.53.1.32625, Print ISSN: 1392-124X, E ISSN: 2335-884X Vol. 53, No. 1, April 2024. **(Impact Factor: 1.35, Indexed in Scopus, Annexure I, SCIE, Q3).** Abstract: Human Action Recognition (HAR) has grown to be the toughest and most attractive concern in the domains of computer vision, communication between a person and the surroundings, and video surveillance. In variation to the conventional methods that usually make use of the Long Short Term Memory model (LSTM) for training, this work designed dropout variant Drop-ConvLSTM2D, to provide more effectiveness in regularization for deep Convolution Neural Networks (CNNs).In addition, to speed up the runtime performance of the Deep Learning model, Bayesian Hyper Parameter Optimization (BHPO) is also introduced to autonomously optimize, the hyperparameters of the trained architecture. In this study, a two-stream Bayesian Hyper Parameter optimized Drop-ConvLSTM2D model is designed for HAR to overcome the current research deficiencies. In one stream, an Inception-v3 model extracts the temporal characteristics from the optical frames which are generated through the dense flow process. In another stream, a 3D-CNN involves the mining of the spatial-temporal characteristics from the RGB frames. Finally, the features of Inception-v3 and 3D-CNN are fused using which the Drop-ConvLSTM2D model is trained to recognize human behavior. On perceptive public video datasets UCF-101, and HMDB51, the quantitative assessments are conducted on the Drop-ConvLSTM2D BHPO model. For all hyperparameters, the built model explicitly obtains optimized values in this process, which can save time and improve performance. The experimental outcome shows that with a precision of at least 3%, the designed model beats the traditional two-stream model.

2	 **Mrs. Gnanasoundharam J** Published an India Patent	**<u>Patent Published</u>** **Title of the invention:** INTEGRATED AI-DRIVEN HEALTHCARE PLATFORM FOR DISEASE PREVENTION AND MANAGEMENT **Name of Inventor:** 1. Mohan Raparthi 2. Saransh Arora 3. Ismail Keshta 4. Sohith Reddy **5. Mrs. Gnanasoundharam J.** 6. Dr. Anup kumar **Patent Application Number:** 202441025075 **Date of filing of Application:** 28/03/2024 **Publication Date:** 05/04/2024

3	 **Mrs. G. Sathyadevi** Published an India Patent	**Patent Published** **Title of the invention:** PERSONALIZED USER EXPERIENCE: BUILDING RECOMMENDATION SYSTEMS WITH MACHINE LEARNING **Name of Inventor:** 1. Dr.Ranjan Kumar H S 2. Rajiv Verma 3. Dr.Kookutla Ramesh **4. Mrs. G. Sathyadevi** 5. Sakthivel M 6. Sujata Kundu 7. Mrs. Nisha M 8. Vineetha Varghese 9. Mr. Amit Kumar Sharma 10. Anthony Savio Herminio da Piedade Fernandes 11. R Ramprakash 12. Pitcheri Praveen Kumar **Patent Application Number:** 202441028362 **Date of filing of Application:** 05/04/2024 **Publication Date:** 12/04/2024
4	 **Ms.E.Elakkiya** Published an India Patent	**Title of the invention:** PRIVACY-PRESERVING FEDERATED LEARNING FRAMEWORK FOR DISTRIBUTED BIG DATA PROCESSING IN CLOUD ENVIRONMENTS **Name of Inventor:** 1. Dr.Ganji Ramanjaiah 2. Ms.Manchukonda Mounika 3. Ms.Nagabhairava Srilakshmi 4. Mr.M.Hari Krishna Marrapu 5. Dr.Bandi Kiran Kumar 6. Dr.Dasari.Vijaya Kumar 7. Mr. Y. Venkateswara Rao 8. Dr.B J D Kalyani **9. Ms.E.Elakkiya** 10. Ms.Pannangi Rajyalakshmi **Patent Application Number:** 202441004210 **Date of filing of Application:** 21/01/2024 **Publication Date:** 09/02/2024

6	 **Mrs.Sinthuja PM** Published an India Patent	**<u>Patent Published</u>** **Title of the invention:** SYSTEM FOR PRECISION AGRICULTURE USING IOT DATA ANALYTICS AND MACHINE LEARNING **Name of Inventor:** 1. Dr. Ashu Gautam 2. Dr. Nikhil Kumar Marriwala 3. Dr. P. Padmaloshani 4. Saurabh Suman 5. Neelam Bohra 6. Dr. Vajenti Mala 7. Deepa Jose 8. Dr. Reena Chandel **9. Sinthuja PM** **Patent Application Number:** 202441014502 **Date of filing of Application:** 13/02/2024 **Publication Date:** 16/02/2024

DEPARTMENT OF MATHEMATICS AND ENGLISH

<table>
<tr><td>Events</td><td>Remarks</td></tr>
<tr><td colspan="2">FDP/Workshop/Conference</td></tr>
<tr><td>  </td><td>
<table>
<tr><th>S.No</th><th>Name of the staff</th><th>Title of FDP / Workshop</th><th>Organized by</th><th>Mode</th><th>From</th><th></th></tr>
<tr><td>1</td><td>Dr.Kubendiran</td><td>Tholliyal Ariviyal Inaya vazhi</td><td>Thirumullai thamizh sangam</td><td>Online</td><td>15-04-2024</td><td></td></tr>
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</td></tr>
<tr><td>Awards/Prize won by staff</td><td></td></tr>
<tr><td>Awards/Prize won by students</td><td>
<table>
<tr><th>S. No</th><th>Name of the Student</th><th>Branch & Sec</th><th>Event</th><th>Organized by</th><th>Date of the event</th><th>Place</th></tr>
<tr><td>1</td><td>Vishvesh Roshan S
Yuthishtra Bose M N</td><td>I CSE D</td><td>Paper Presentation</td><td>CONVERGENCE 2024
SRI SAIRAM ENGINEERING COLLEGE</td><td>16-04-2024</td><td>I</td></tr>
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<tr><td>Industial Projects done by students</td><td></td></tr>
<tr><td>Publications(only published) details</td><td>
1. S. Prabhu, M. Arulperumjothi, V. Manimozhi, Krishnan Balasubramanian, “Topological characterizations on hexagonal and rectangular tessellations of antikekulenes and its computed spectral, nuclear magnetic resonance and electron spin resonance characterizations”, International Journal of Quantum Chemistry, 2024, 124(7), e27365. https://doi.org/10.1002/qua.27365 (SCIE)
2. Rita Pal1, J. Leo Amalraj2, V. Venkata Kumar3, G. Venkat Narayanan, “Fixed Point Results Under Hausdorff Distance in the Fractal Spaces”, Communications on Applied Nonlinear Analysis, Vol 31 No. 1 (2024), DOI: 10.52783/cana.v31.395 (SCOPUS)
</td></tr>
</table>

DEPARTMENT OF MBA

FACULTY PUBLICATIONS:	**R. Arun,** Sundarapandiyan Natarajan, **K. Sampath**, Kiran Kumar Thoti, R. Mahalakshmi and K. Sivaperumal, "The Influence of Online Education on the Behavioral Patterns of University Students in India", In: Ashish Kumar Tripathi and Vivek Shrivastava (eds), Advancements in Communication and Systems, SCRS, India, 2024, pp. 335-348. https://doi.org/10.56155/978-81-955020-7-3-29
FACULTY ONLINE CERTIFICATION:  Elite NPTEL Online Certification (Funded by the MoE, Govt. of India) This certificate is awarded to BHARTH VAJAN R for successfully completing the course Marketing Management - II with a consolidated score of 65 % Online Assignments 22.83/25 | Proctored Exam 42/75 Total number of candidates certified in this course: 1213 Prof. B. V. Ratish Kumar, Chairman, Centre for Continuing Education, IIT Kanpur Feb-Apr 2024 (8 week course) Prof. Satyaki Roy, NPTEL Coordinator, IIT Kanpur Indian Institute of Technology Kanpur swayam Roll No: NPTEL24MG41S653404899 To verify the certificate No. of credits recommended: 2 or 3	Bharth vajan R has successfully completed NPTEL Onlinecourse on Marketing Management –II during Feb-April 2024.

DEPARTMENT OF MECHANICAL ENGINEERING

Sl No	Name of the Activity	Remarks
1	**Project Expo:**     	➢ The Intra-College Project Expo 2024, organized by the Department of Mechanical Engineering, was successfully held on 4 th April, 2024 at the Periwinkle Hall, Placement Block, St. Joseph's College of Engineering. The expo provided an exceptional platform for students to showcase their innovative hardware and software projects, aligning with one or more of the 17 Sustainable Development Goals (SDGs) outlined by the United Nations. ➢ The Expo showcased 45 Projects addressing different challenges while aligning with sustainable development objectives. These projects were evaluated by a panel of judges from various departments based on criteria such as innovation, feasibility, and potential impact.

2		➢ Communication skill & skill rack practice classes was planned and organized for third year students of Batch 2021-2025 on 3 rd April, 2024. The out come of the session is to improve communication skills, which is a essential one for effective interaction.

3		➢ On Innovative Idea for projects and skill rack practice was planned and organized for second year students of Batch 2022-2026 on 5 th April, 2024. Engineering project classes offer students a unique opportunity to apply theoretical knowledge to real-world challenges, fostering creativity, problem-solving skills, and hands-on experience.
4	**Staff Acheivements**	➢ Mr. N. Sathish Kumar, Assistant Professor, Department of Mechanical Engineering Received "Gold" certificate in the title of "Introduction to 3D Printing and CAD Modeling" from the Ministry of Electronics and Information Technology and Nasscom through futureskills prime portal. ➢ Mr.M.Ganesh, Assistant Professor, Department of Mechanical Engineering attended 5th International Conference on Computational Intelligence and Industry5.0 (ICCII-2024) ISBN Number:97881-967851-7-8 at Velammal Institute of Technology on 03rd April 2024 and presented a paper on "Deep hole drilling

		of aluminium alloys using MQL". ➢ Dr. N.E. Arunkumar, Associate Professor, Department of Mechanical Engineering attended 5th International Conference on Computational Intelligence and Industry5.0 (ICCII-2024) ISBN Number:97881-967851-7-8 at Velammal Institute of Technology on 03rd April 2024 and presented a paper on "Experimental Investigation of the effect of grinding wheel paramaters on surface grinding in Inconnel " ➢ Dr. N.E. Arunkumar, Associate Professor, Department of Mechanical Engineering attended 5th International Conference on Computational Intelligence and Industry5.0 (ICCII-2024) ISBN Number:97881-967851-7-8 at Velammal Institute of Technology on 03rd April 2024 and presented a paper on "Experimental Investigation of the effect of grinding parameters on cylindrical grinding in GVN Metal " ➢ Mr. T. Balasubramanian, Assistant Professor, Department of Mechanical Engineering, Published a Article on "Enhancement of the mechanical properties of EPDM/NBR rubbers using nanosilica for seal applications" in AIP Conference Proceeding on 02/04/2024 ➢ Mr. M. Subramanian and Mr. T. Balasubramanian Assistant Professors from Department of Mechanical Engineering Published a paper in Material Today Proceedings on the topic " Optimum cutting performance of AWJM for Fiber/Metal hybrid composites

		using GRA-ANN methods". ➢ Dr. R. Sathish, Professor from Mechanical Department published a article in Bull. Chem. Soc. Ethiopia 2024 on the title "Corrosion and inhibition studies on AISI 316 with AISI 410 fiber laser welded joints". ➢ Dr. Vaddi Seshagiri Rao, Professor and Mr. J. Vijayanand, Assistant Professor from Mechanical Department published an article in Transactions of FAMENA, Vol. 48 No. 2, 2024 on the title "An artificial neural network model supported with hybrid multi-criteria decision-making approaches to rank lean tools for a foundry industry". ➢ M.Ganesh Published paper on Characterization studies on nano aluminium composite reinforced with montmorillonite nanoclay and titanium carbide. Multiscale and Multidiscip. Model. Exp. and Des. (2024). https://doi.org/10.1007/s41939-024-00374-x

5		➢ Our Elite Alumni, Mr. A. Joseph Rijul Raj, Baker Hughes, Japan, gave a talk on “Industrial Design and Manufacturing" for our department students on 27th April, 2024

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

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<tr><th>Sl. No.</th><th>Title</th><th>Detail</th></tr>
<tr><td>I</td><td>Online Certification</td><td>
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<tr><th>S.No</th><th>Faculty Name</th><th>Title/Name of the course</th><th>Conducting agency</th><th>Period</th><th>Proof link</th></tr>
<tr><td>1.</td><td>Dr.S.Meena</td><td>Microprocessors and Microcontrollers</td><td>NPTEL</td><td>12 Weeks
(Jan-Apr 2024)</td><td>  </td></tr>
<tr><td>2.</td><td>Dr.P.Deepa</td><td>Computer Networks and Internet Protocol</td><td>NPTEL</td><td>12 Weeks
(Jan-Apr 2024)</td><td>  </td></tr>
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			3.	Dr.V.Vijayan	Probability for Computer Science	NPTEL	8 Weeks (Feb-Apr 2024)	
			4.	Dr.V.Vijayan	Data Analytics with Python	NPTEL	12 Weeks (Jan-Apr 2024)	
			5.	Dr.B.Senthilkumar	Reinforcement Learning	Jan-Apr 2024	12 Weeks (Jan-Apr 2024)	
			6.	Mr.N.Hariprasath	Introduction to Industry 4.0 and Industrial	Jan-Apr 2024	12 Weeks (Jan-Apr 2024)	

DEPARTMENT OF CIVIL ENGINEERING

Sl. No.	Photographs Captured During Events (Briefs About the Photographs)	Corresponding remarks (Minimum 300 words) in regarding the status of activity execution stating
1.	**Other activities (if any)**	• Dr. S. Thenmozhi served as Chairperson at the International Conference on Sustainable Environment and Civil Engineering, held on April 17th and 18th, 2024 organized by the Department of Civil Engineering at Easwari Engineering College.