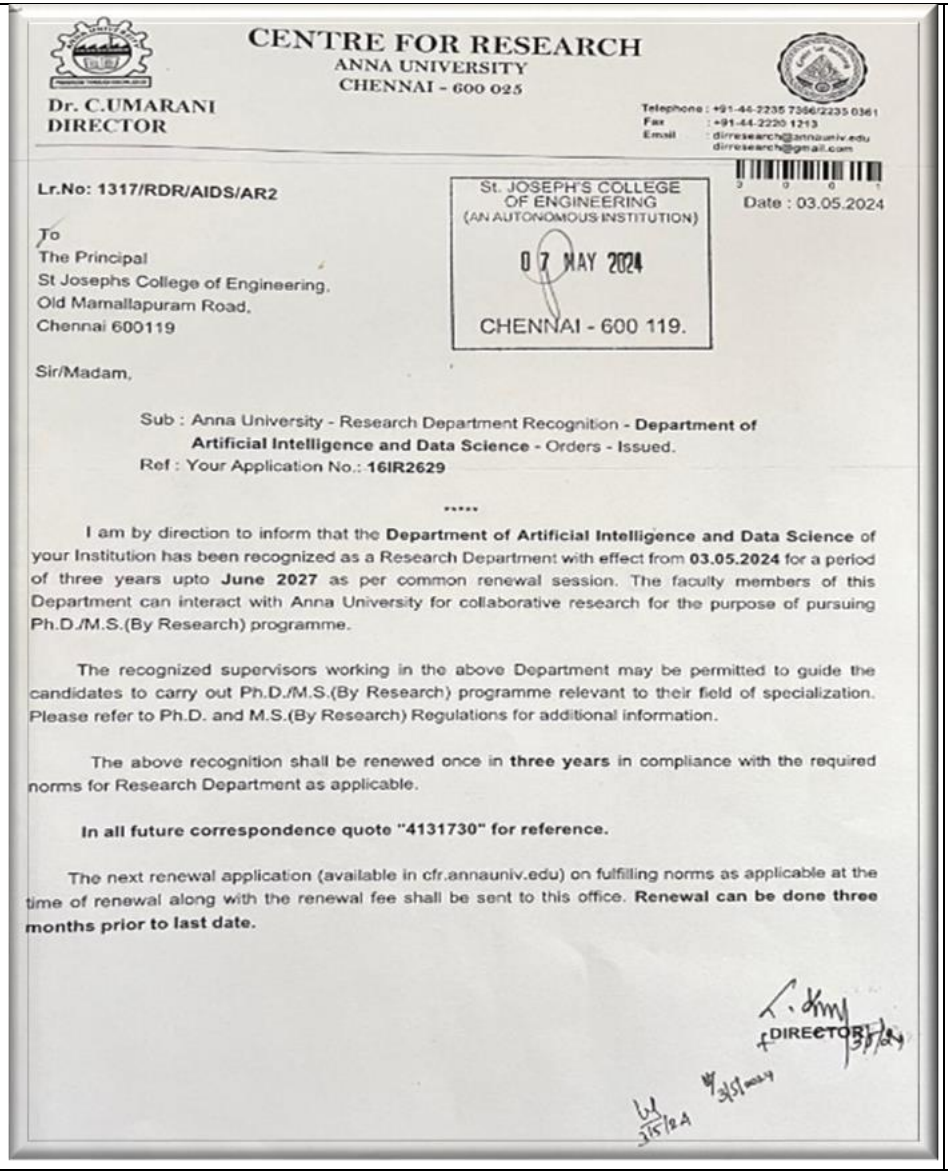
MAY 2024
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

S.No.	Title of the Events and Photographs	Details of the Event
1.	**COLLABARATIVE QUALITY INITIATIVES WITH OTHER INSTITUTIONS**	ANNA UNIVERSITY recognized RESEARCH DEPARTMENT (NODAL CENTRE) Our Department, Artificial Intelligence and Data Science have been recognized as an ANNA UNIVERSITY Research Department with effect from 03/05/2024.



CENTRE FOR RESEARCH
ANNA UNIVERSITY
CHENNAI - 600 025

Dr. C.UMARANI
DIRECTOR

Telephone : +91-44-2235 7386/2235 0361
Fax : +91-44-2220 1213
Email : dirresearch@annauniv.edu
dirresearch@gmail.com

Lr.No: 1317/RDR/AIDS/AR2

Date : 03.05.2024

St. JOSEPH'S COLLEGE OF ENGINEERING (AN AUTONOMOUS INSTITUTION)
07 MAY 2024
CHENNAI - 600 119.

To
The Principal
St Josephs College of Engineering,
Old Mamallapuram Road,
Chennai 600119

Sir/Madam,

Sub : Anna University - Research Department Recognition - **Department of Artificial Intelligence and Data Science** - Orders - Issued.
Ref : Your Application No.: **16IR2629**

*****

I am by direction to inform that the **Department of Artificial Intelligence and Data Science** of your Institution has been recognized as a Research Department with effect from **03.05.2024** for a period of three years upto **June 2027** as per common renewal session. The faculty members of this Department can interact with Anna University for collaborative research for the purpose of pursuing Ph.D./M.S.(By Research) programme.

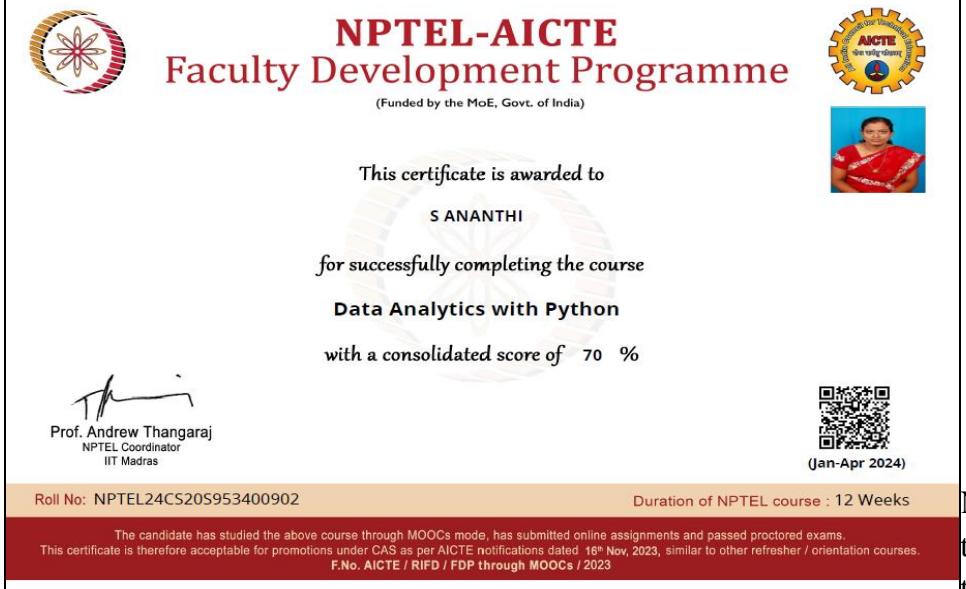
The recognized supervisors working in the above Department may be permitted to guide the candidates to carry out Ph.D./M.S.(By Research) programme relevant to their field of specialization. Please refer to Ph.D. and M.S.(By Research) Regulations for additional information.

The above recognition shall be renewed once in **three years** in compliance with the required norms for Research Department as applicable.

In all future correspondence quote "4131730" for reference.

The next renewal application (available in cfr.annauniv.edu) on fulfilling norms as applicable at the time of renewal along with the renewal fee shall be sent to this office. **Renewal can be done three months prior to last date.**

DIRECTOR

2.	**FDP/WORKSHOP/CONFERENCE/HACKATHON**  **NPTEL-AICTE** Faculty Development Programme (Funded by the MoE, Govt. of India) This certificate is awarded to S ANANTHI for successfully completing the course Data Analytics with Python with a consolidated score of 70 % Prof. Andrew Thangaraj NPTEL Coordinator IIT Madras (Jan-Apr 2024) Roll No: NPTEL24CS20S953400902 Duration of NPTEL course : 12 Weeks The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams. This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 16th Nov, 2023, similar to other refresher / orientation courses. F.No. AICTE / RIFD / FDP through MOOCs / 2023	Our Department Staffs 1. Ms.S.ANANTHI, Assistant professor 2. Ms.D.DEEPA, Assistant professor 3.Ms. JAYASRI R,Assistant professor Has successfully completed their Online NPTEL Course on "Data Analytics with Python"and their 12 Weeks Faculty Development Programme for the same.

NPTEL-AICTE
Faculty Development Programme

(Funded by the MoE, Govt. of India)

This certificate is awarded to

JAYASRI R

for successfully completing the course

Data Analytics with Python

with a consolidated score of **56** %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jan-Apr 2024)

Roll No: NPTEL24CS20S853506532

Duration of NPTEL course : 12 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 16th Nov, 2023, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2023

NPTEL-AICTE
Faculty Development Programme

(Funded by the MoE, Govt. of India)

This certificate is awarded to

D DEEPA

for successfully completing the course

Data Analytics with Python

with a consolidated score of **60** %

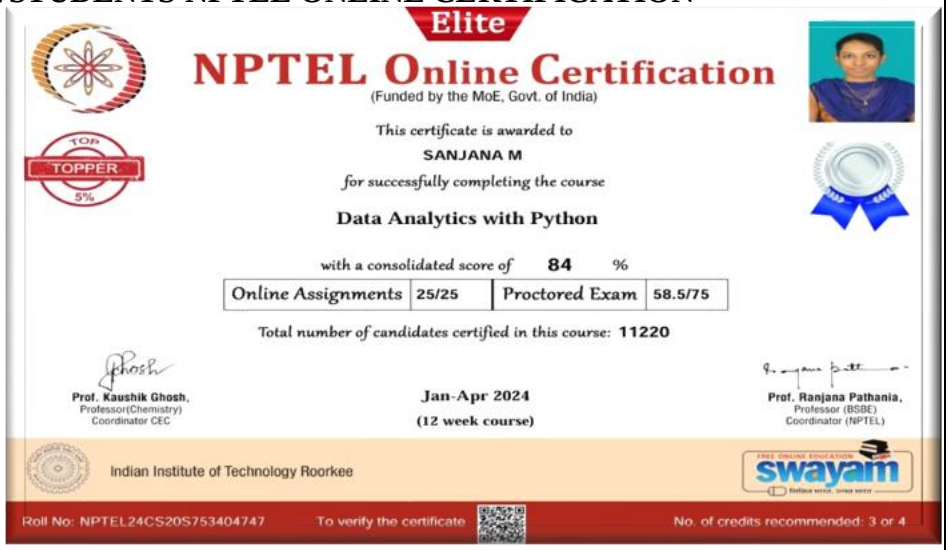
Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

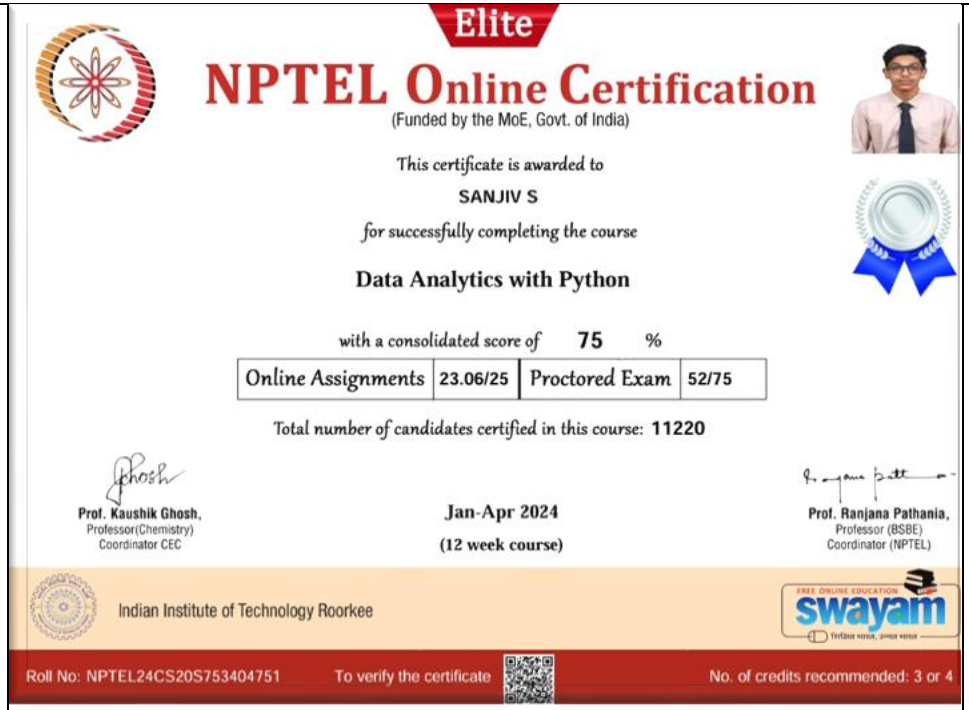
(Jan-Apr 2024)

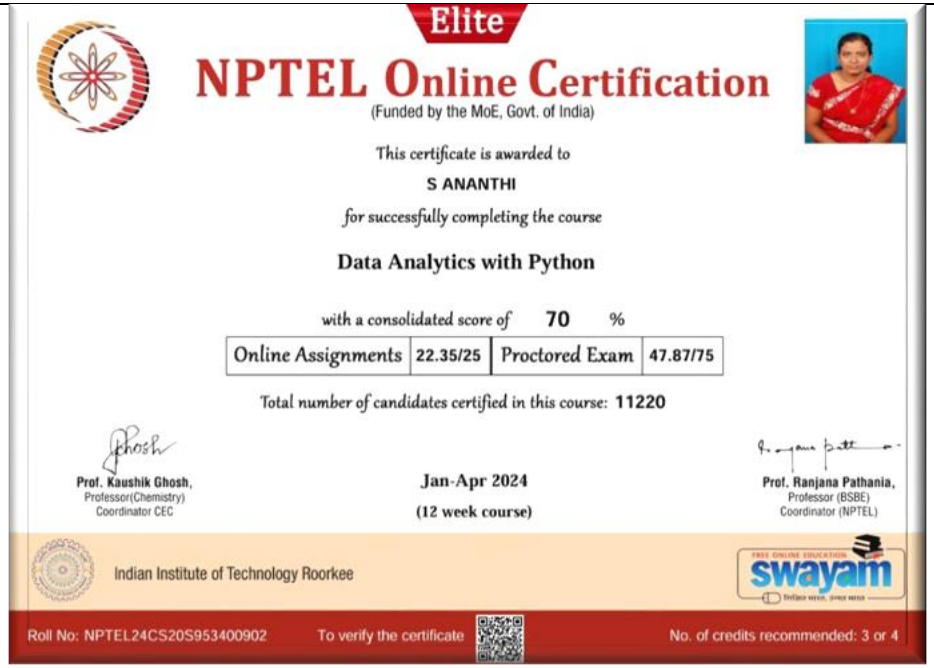
Roll No: NPTEL24CS20S853401914

Duration of NPTEL course : 12 Weeks

		Our Department Staff Ms. Durairaji V, Assistant Professor has participated in 2 days Workshop in "Business Intelligence using Power BI"
3.	**COMPETITIONS ATTENDED BY STUDENTS**	Our Third Year Student Ms. SANJANA M Mr. SANJIV S Ms. SNEKHA SURESH Ms. VARNIKAA D T has successfully completed the Twelve Week NPTEL Course on "Data Analytics with Python" with consolidated Score of 84% (Elite).

	/STUDENTS NPTEL ONLINE CERTIFICATION  Elite NPTEL Online Certification (Funded by the MoE, Govt. of India) This certificate is awarded to SANJANA M for successfully completing the course Data Analytics with Python with a consolidated score of 84 % Online Assignments 25/25 | Proctored Exam 58.5/75 Total number of candidates certified in this course: 11220 Prof. Kaushik Ghosh, Professor(Chemistry) Coordinator CEC Jan-Apr 2024 (12 week course) Prof. Ranjana Pathania, Professor (BSBE) Coordinator (NPTEL) Indian Institute of Technology Roorkee swayam Roll No: NPTEL24CS20S753404747 To verify the certificate No. of credits recommended: 3 or 4	

		
4.	**STAFF CONFERENCE PRESENTATION /PATENT PUBLISHED/STAFF NPTEL ONLINE CERTIFICATION**	

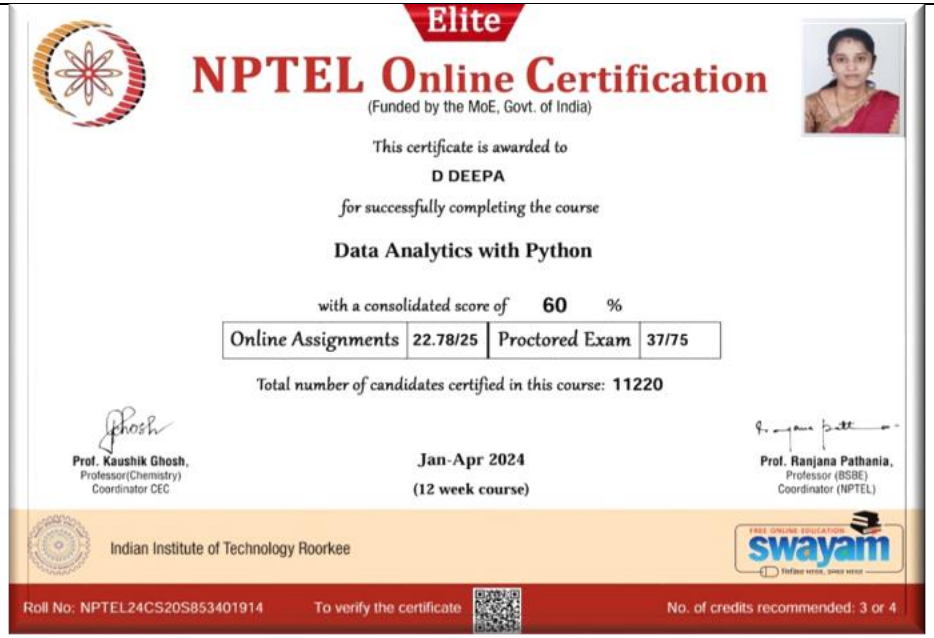


Copy of certificate S.ANANTHI

Our Department Staffs

1. Ms.S.ANANTHI, Assistant professor
2. Ms.D.DEEPA, Assistant professor
3. Ms. JAYASRI R,Assistant professor

Has successfully completed their Online NPTEL Course on “Data Analytics with Python”and their 12 Weeks Faculty Development Programme for the same.



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

D DEEPA

for successfully completing the course

Data Analytics with Python

with a consolidated score of 60 %

Online Assignments	22.78/25	Proctored Exam	37/75

Total number of candidates certified in this course: 11220

Prof. Kaushik Ghosh,
Professor(Chemistry)
Coordinator CEC

Jan-Apr 2024

(12 week course)

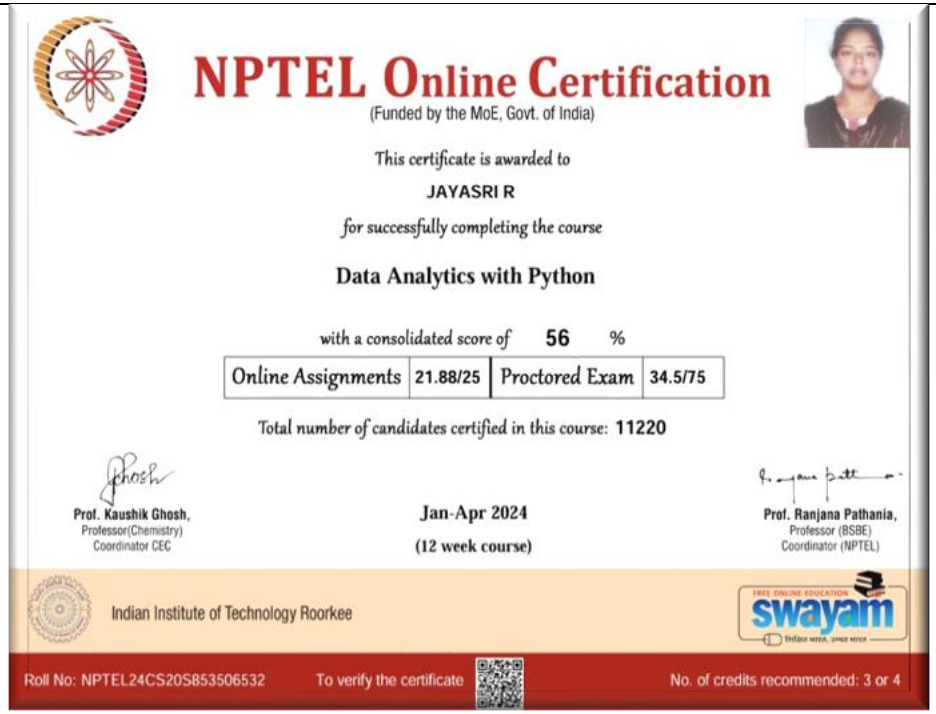
Prof. Ranjana Pathania,
Professor (BSBE)
Coordinator (NPTEL)

Indian Institute of Technology Roorkee

swayam

Roll No: NPTEL24CS20S853401914 To verify the certificate No. of credits recommended: 3 or 4

Copy of certificate D.DEEPA



NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

JAYASRI R

for successfully completing the course

Data Analytics with Python

with a consolidated score of **56** %

Online Assignments	21.88/25	Proctored Exam	34.5/75

Total number of candidates certified in this course: **11220**

Prof. Kaushik Ghosh,
Professor(Chemistry)
Coordinator CEC

Jan-Apr 2024
(12 week course)

Prof. Ranjana Pathania,
Professor (BSBE)
Coordinator (NPTEL)

Indian Institute of Technology Roorkee

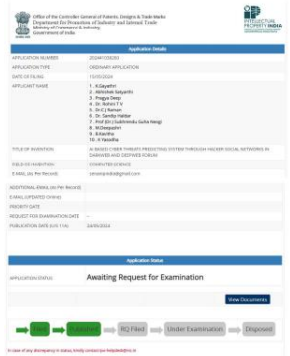
swayam

Roll No: NPTEL24CS20S853506532 To verify the certificate No. of credits recommended: 3 or 4

Copy of certificate Ms. JAYASRI R

DEPARTMENT OF ARTIFICAL INTELLIGENCE AND MACHINE LEARNING

Sl. No.	Photographs Captured During Event	Corresponding remarks in regarding the status of activity execution
1	 **Dr. L. Sherly Puspha Annabel** Published a paper in Scopus Indexed Conference Paper.	**Annabel, L. S. P.,** Sruthi, B. S., Rohini, M., & Svetha, B. S. (2023, December). Effective Prediction of Cardiovascular Disease Using Deep Learning. In International Conference on Information and Communication Technology for Competitive Strategies (pp. 259-270). Singapore: Springer Nature Singapore. **Abstract:** Today's leading cause of death worldwide is cardiovascular disease, which has risen to the top of the list of diseases in terms of diagnostic difficulty. Cardiovascular disease is more likely to occur in a person with chest pain, depression, hypertension, smoking, women with early menopause, diabetes, high cholesterol, and over drinking. Early prediction of cardiovascular disease is needed to save more lives. Here comes the saviour Machine Learning algorithms that are less expensive with more accuracy. Some of the common machine learning algorithms are implemented to predict the disease. Different techniques provide different accuracies depending on the attributes, dataset, and tools used for implementation. Using the ECG dataset, we create an 11-layer Convolutional Neural Network 2D in this study. We have proposed two models namely Cardiovascular Disease Detection—Machine Learning (CVD-ML) that can predict Cardiovascular Disease using real-time numerical data and Cardiovascular Disease Detection—Deep Learning (CVD-DL) using the ECG Image. By using ensembling technique, we have attained the highest accuracy of 94.6% for real-time numerical data and by using Convolutional Neural Network we have attained the accuracy of 99.9% for ECG data. Therefore, Artificial Intelligence techniques used are highly reliable and effective in providing accuracy for cardiovascular disease prediction.
2	**Ms. Priyadharshini. SP** Published a design patent	**Title of the invention:** Artificial Intelligence based knowledge Evolutionary process for optimization Decision support and personalized Recommendation in E-Commerce using Machine Learning Algorithms . Dr. Sathish Muppidi Dr. Sreejyothsna Ankam Dr. D. Anto Pravin Singh **Ms. Priyadharshini. SP**

		Dr. Prakash K Dr. Ajit M. Hebbale Ms. Nandhini D Mr. K. Karthikeyan Mr. Girish. R **Patent Application Number:** 202441041086 **Date of filing of Application:** 27.05.2024 **Date of Issue:** 31.05.2024
3	**Dr. CJ Raman** Published a design patent 	**Title of the invention:** AI Based Cyber Threats Predicting System Through Hacker Social Networks in Darkweb and Deepweb Forum K. Gayathri Ms. Abhishek Satyarthi Ms. Pragya Deep Dr. Rohini TV **Dr. C J Raman** Dr. Sandip Haldar Prof. Subhrendu Guha Neogi Ms. M. Deepashi B. Kavitha K. Yasodha **Patent Application Number:** 202441038260 **Date of filing of Application:** 15.05.2024 **Date of Issue:** 24.05.2024

4	**Certificates received by the Faculty**	**Workshop Attended by the faculty**

S.No.	Name of the FDP	Name of the Staff	Conducted By	Duration
1	AI Insights: Predictive Power of ML,DL &NLP	Dr. Lilly Raamesh	Sphoorthy Engineering College	14.5.2024 to 18.05.2024 (5 Days)
2	FDP on Quantum Computing	Dr. Ancy. S	Sri Sai Ram Engineering College	27.05.2024 to 01.06.2024(6 Days)
3	FDP on Quantum Computing	Ms. Poornima. M	Sri Sai Ram Engineering College	27.05.2024 to 01.06.2024(6 Days)
4	FDP on Quantum Computing	Ms. Priyadharshni	Sri Sai Ram Engineering College	27.05.2024 to 01.06.2024(6 Days)
5	FDP on Quantum Computing	Ms. Deepa	Sri Sai Ram Engineering College	27.05.2024 to 01.06.2024(6 Days)

DEPARTMENT OF BIOTECHNOLOGY

S.No.	Title of the Events and Photographs	Details of the Event
1.	**PAPER PUBLICATIONS**	1. **Dr. M. Chamundeeswari** was granted Indian product patent entitled 'In-vitro and In-vivo toxicity profile analysis of green synthesized spirulina dots for biomedical applications' for 20 years from 13th may 2022. 2. **Dr. M. Chamundeeswari and Dr. K. R. Preethy,**published a paper titled, Bio-waste valorization to formulate an eco-friendly reduced graphene oxide based biogel for clinical applications, E**nvironment Development and Sustainability**, published online May 14, 2024 **.** 3. **Dr. L. Antony Catherine Flora,** published a book chapter, Chapter 3 Corncob Waste for Food Packaging, in a book Agro-Waste Derived Biopolymers and Biocomposites: Innovations and Sustainability in Food Packaging, On First published: 10 May 2024 https://doi.org/10.1002/9781394175161.ch3

INTELLECTUAL PROPERTY INDIA

क्रम सं/SL No 044188312

पेटेंट कार्यालय,भारत सरकार
पेटेंट प्रमाण पत्र |
(पेटेंट नियमावली का नियम 74)

The Patent Office, Government Of India
Patent Certificate
(Rule 74 of The Patents Rules)

पेटेंट सं. / Patent No. : 538665

आवेदन सं. / Application No. : 202241027530

फाइल करने की तारीख / Date of Filing : 13/05/2022

पेटेंटी / Patentee : 1.Dr. M. Chamundeeswari 2.Ms. P. Kowsalya

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित *IN-VITRO AND IN-VIVO TOXICITY PROFILE ANALYSIS OF GREEN SYNTHESIZED SPIRULINA DOTS FOR BIOMEDICAL APPLICATIONS* नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख मई 2022 के तेरहवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled *IN-VITRO AND IN-VIVO TOXICITY PROFILE ANALYSIS OF GREEN SYNTHESIZED SPIRULINA DOTS FOR BIOMEDICAL APPLICATIONS* as disclosed in the above mentioned application for the term of 20 years from the 13th day of May 2022 in accordance with the provisions of the Patents Act,1970.

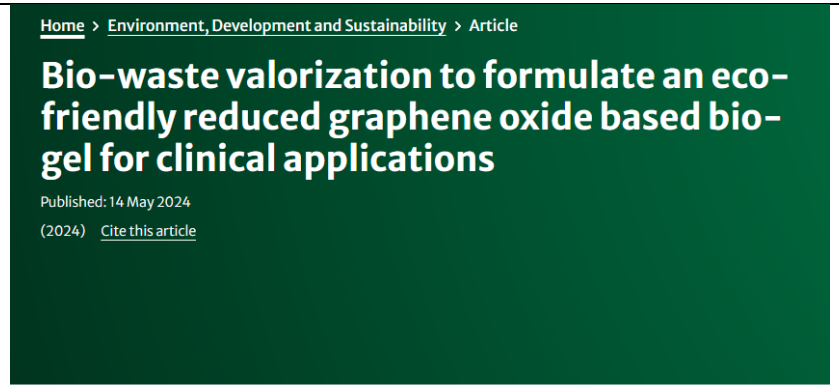
अनुदान की तारीख : 20/05/2024
Date of Grant :

पेटेंट नियंत्रक
Controller of Patents

टिप्पणी - इस पेटेंट के चालीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, मई 2024 के तेरहवें दिन को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained, will fall / has fallen due on 13th day of May 2024 and on the same day in every year thereafter.

Copy of patent granted by Dr. M. Chamundeeswari



Published copy of paper by Dr. M. Chamundeeswari, Dr. K. R. Preethy

Published copy of book chapter by Dr. L. Antony Catherine Flora

DEPARTMENT OF CHEMICAL ENGINEERING

S.No.	Title of the Events and Photographs	Details of the Event
2.	**COLLABARATIVE QUALITY INITIATIVES WITH OTHER INSTITUTIONS**	
3.	**INDUSTRIAL VISIT**	Dr.S.Vinod kumar and Dr.N.Magesh visited Orchid Pharma for the discussion of Industry -Institute collaboration.
4.	**NPTEL**	Mr.Dinesh Aravind V, Mr.Kishoke A, Ms.Samiha S and Mr. Shabeer Ahamed from IIIrd year has secured Elite certification in NPTEL course. Ms.Lakeisha and Mr.Santhosh from IInd year has secured Elite certification in NPTEL Course.
5.	**COMPETITIONS ATTENDED BY STUDENTS**	Mr.Sam Daniel, Mr.Lewin , Mr.Saran Deepak and Mr.Irfan, Ms.Jeevadharani , these two teams has participated in the first year project expo showcasing their academic knowledge combining with practical approach exhibiting a modelto monitor TDS,pH and temperature of the water with a single device and another model explaining the extraction of potassium from sawdust for fertilizer.
6.	**AWARDS/PRIZE WON BY STUDENTS**	Ms.Vaishali, First Year Chemical has secured Bronze medal in above 19 to 21 category 2nd National Championship happened at Hills College of Engineering in Solan , Himachal Pradesh.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Sl. No.	Event with Photo	Description
1	***International Conference On Advances In Computing, Communication And Applied Informatics***	**Date** : 9th &10th May 2024 **Venue** : **Placement block** **Nature of Event: International conference** Participants : Faculties & Students Organized by : Department of CSE Objective : • This conference served as a platform for scholars and practitioners to exchange ideas and collaborate on innovative solutions to contemporary challenges in technology Outcome : • Conferences often serve as platforms for experts, researchers, and practitioners to share their knowledge, present findings, and discuss advancements in their field • Some conferences focus on fostering collaboration among participants to address common challenges or explore innovative solutions to industry or societal issues.
		

2	**Motivational Speech**	
		**Date : 9-5-2024** **Venue : CSE lab** **Nature of Event :** Motivational talk Participants :II year Students Organized by : Department of CSE Objective : • The event served as a beacon of **inspiration**, spotlighting the remarkable success story of a distinguished graduate from their alma mater, thereby empowering students with the belief that they too can navigate the path to excellence and achievement. Outcome: • The primary goal of a motivational speech is to inspire listeners. It often seeks to ignite passion, enthusiasm, and a sense of purpose among the audience members. • Speakers often promote a positive mindset, encouraging listeners to adopt optimistic perspectives, overcome challenges, and stay resilient in the face of adversity.

3	**Workshop**	
		Date **:** 07.05.2024 **Venue** **: PEP center** **Nature of Event : Students workshop** Participants : II & III year Students Organized by : Department of CSE Objective : • As the workshop progressed, attendees not only gained invaluable insights into the inner workings of blockchain but also honed their skills through hands-on experiences. **Outcome :** • Workshops often focus on teaching practical skills or techniques relevant to a specific topic or industry. Participants may learn new methodologies, tools, or approaches that they can apply in their work or personal life. • Workshops frequently encourage participants to collaborate and brainstorm solutions to challenges or problems within their field. This fosters creativity and innovation as

		participants share ideas and perspectives.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. Events conducted:

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

1. SUMMER INTERNSHIP PROGRAM	
	
SUMMER INTERNSHIP PROGRAM DAY 1	**Report**
	Machines with a Mission: Unveiling the Future of Robotics The Department of Electronics and communication Engineering conducted Expertise Sharing for the student of XI and XII. State of the art of demonstration in Robotics and Automation on 29-04-2024. **Event Overview**:

The inaugural day of the internship witnessed enthusiastic participation from both students and faculty members. Under the esteemed guidance of Professors Dr. R. Niruban and Dr. J. Sivagurunathan, the event was a resounding success. The active involvement of student coordinators Prasanth, Lithin, and Madhan ensured smooth execution throughout the day.

Highlights:

1. *Presentation on Robotics: * Students Yuthika and Uma delivered an exceptional PowerPoint presentation, offering a comprehensive overview of Robotics, its applications, and future prospects.

2. *Interactive Learning: * Engaging quiz games, coordinated by student Prasanth, Lithin, and Madhan, facilitated an interactive learning environment, fostering participation and knowledge retention among the students.

3. *Project Demonstrations: * Sakthi Kumar and Saravanan showcased innovative projects, providing hands-on experience and practical insights into Robotics concepts.

Outcomes:

The first day of the internship program was met with overwhelming positivity and enthusiasm from the participants. It served as a platform

	for students to expand their understanding of Robotics and its interdisciplinary applications. Through engaging activities and expert guidance, students gained valuable insights, nurturing their interest and curiosity in the field.
SUMMER INTERNSHIP PROGRAM DAY 2	**Report**
 	**From Appliances to Cities: Exploring the Expanding World of IoT** **Event Overview:** Day 2 witnessed active participation from students and faculty members alike. Professors Dr. J. Sivakumar, Dr. J. Sivagurunathan, and Professor G.D. Vignesh led the proceedings, providing valuable insights into IoT and its applications. The engagement of student volunteers, Mohan Raj and Madhan, ensured the smooth coordination of activities throughout the day. **Highlights:** 1. *Presentation on IoT: * Professor G.D. Vignesh delivered an informative presentation, elucidating the concepts and applications of Internet of Things, providing students with valuable insights into this rapidly evolving field. 2. *Interactive Quiz: * Following the presentation, students Uma, Yuthika, and Sakthi Kumar organized an engaging online quiz, capturing

	the interest and enthusiasm of all participants, further deepening their understanding of IoT concepts. 3. *Demonstration: * After the interactive quiz, student coordinators Lithin and Prasanth conducted a hands-on demonstration using Arduino UNO, showcasing practical applications of IoT technology and its implementation. **Outcomes:** Day 2 of the internship program proved to be both informative and engaging, with students gaining valuable exposure to IoT technology. The interactive sessions and practical demonstrations facilitated a deeper understanding of IoT concepts, inspiring students to explore further and pursue avenues in this burgeoning field.
SUMMER INTERNSHIP PROGRAM DAY 3	**Report**
	**Beyond the Firewall: Unveiling the Art of Cyber Security** **Event Overview:** The session commenced with an enlightening presentation by Mr. Pradhan Vijayakumar, who passionately shared insights into cybersecurity, emphasizing its significance in today's digital landscape. The guidance provided by Dr. J. Sivagurunathan and Mrs. S. Devi Priya further enriched the learning experience for the students. Student coordinators Mohan Raj, Madhan, and Uma ensured the seamless execution of the event, contributing to its success.

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<td>Highlights:

1. *Guest Speaker Session: * Mr. Pradhan Vijayakumar's session on cybersecurity was highly informative and engaging, providing students with practical knowledge and insights into this crucial field.

2. *Interactive Group Discussion: * Students Yuthika and Sakthi Kumar facilitated an interactive group discussion, allowing participants to exchange ideas, share perspectives, and delve deeper into cybersecurity and ethical hacking concepts.

Outcomes:

Day 3 of the internship program proved to be a valuable learning experience for the students, as they gained a deeper understanding of cybersecurity and ethical hacking. The session, enriched by the guest speaker's expertise and the engaging group discussion, inspired students to explore career opportunities in these domains and equipped them with essential knowledge to navigate the digital world safely and responsibly.</td>
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<td>SUMMER INTERNSHIP PROGRAM DAY 4</td>
<td>Report</td>
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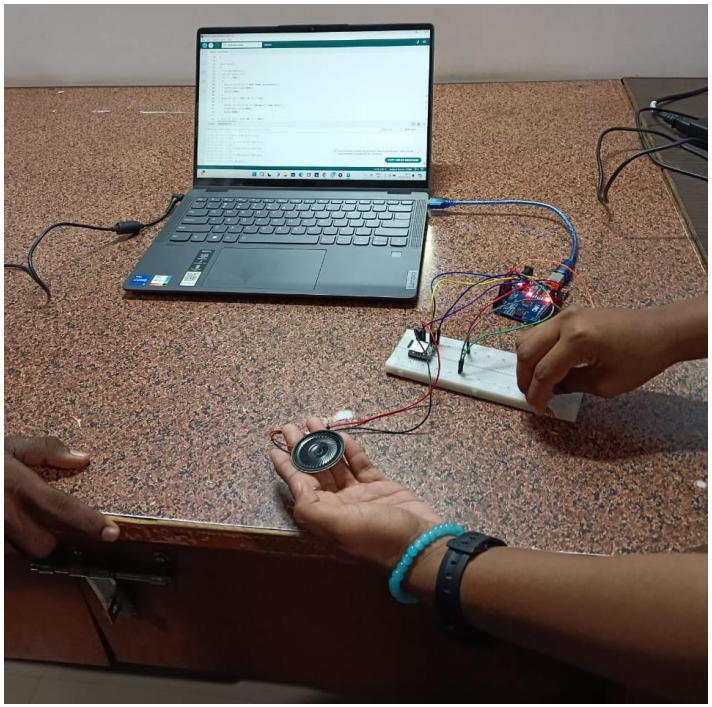

Event Overview:

The day commenced with an illuminating session led by Mrs. Elaveni, who provided expert guidance on AI and machine vision, highlighting their significance in today's technological landscape. Student coordinators Mohan Raj and Madhan ensured the seamless organization of the event, contributing to its success.

Highlights:

1. *Interactive Quiz: * Students Yuthika, Sakthi Kumar, and Uma conducted an engaging quiz, challenging participants to test their knowledge and understanding of AI and machine vision concepts.

2. *Super Duper Group Discussion: * Led by Yuthika and Sakthi Kumar, a dynamic group discussion ensued, allowing students to delve deeper into the intricacies of AI and machine vision. The lively exchange of ideas and perspectives made the session truly remarkable.

Outcomes:

	Day 4 of the internship program proved to be an enriching experience for the students, as they gained a deeper understanding of AI and machine vision. The interactive quiz and group discussion facilitated active participation and knowledge sharing, fostering a collaborative learning environment.
SUMMER INTERNSHIP PROGRAM DAY 5	**Report**
	**Event Overview:** The day commenced with the demonstration of over 10 innovative IoT projects developed by our talented ECE students. Each project showcased the potential of IoT technology to revolutionize various industries and sectors. The engaging presentations captivated the audience and provided valuable insights into the possibilities offered by IoT. **Highlights:** 1. *IoT Project Demonstrations: * Led by our ECE students, the demonstration of IoT projects highlighted the practical applications and innovative solutions developed during the program. The projects

showcased the students' technical prowess and creativity in leveraging IoT technology.

2. *Competitions: * Various competitions were conducted throughout the day to foster healthy competition and showcase the diverse talents of the participants. Notably, in the short film contest, a student who received training under our guidance secured the 1st prize, earning a prestigious award worth rupee 19,000.

Outcomes:

Day 5 of the internship program was a testament to the students' dedication, creativity, and technical expertise. The demonstration of IoT projects provided valuable hands-on experience and practical insights into the implementation of IoT technology. Additionally, the success of the competitions underscored the effectiveness of the program in nurturing and showcasing the talents of the participants.

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<tr>
<td>2. PLACEMENT ACTIVITIES</td>
<td>Report</td>
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<tr>
<td></td>
<td>From April 27th to May 4th, 2024, the Department of ECE hosted an immersive Introduction to Machine Learning training session tailored for 58 enthusiastic students from the 2nd year Electronics and</td>
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Communication Engineering (ECE) stream. Led by seasoned industry expert, Mr. Jeeva, Trev, the program delved into foundational concepts, algorithms, and practical applications of machine learning, equipping participants with invaluable skills poised to shape the future of technology. Through hands-on exercises, real-world case studies, and collaborative projects, students not only gained a comprehensive understanding of ML principles but also honed their problem-solving abilities and critical thinking skills. As they embark on their professional journeys, armed with this newfound knowledge, they are primed to thrive in the ever-evolving landscape of technology and innovation.

	
3. Placement Empowerment program- 5G/6G Technology Innovation Centre	**Report**

Bridging the Physical and Digital: A Recap of the IoT and Low-Cost Hardware Interfacing with MATLAB Workshop

The gap between the physical world and the computational power of MATLAB narrowed on [08/05/2024] with a successful one-day workshop geared towards Faculties, Researchers, and Students. Led by industry experts Er. Gowtham Rajmohan and Er. Afsal (Sr. Application Engineers-MATLAB, Chennai), the workshop empowered participants to seamlessly integrate low-cost hardware with MATLAB for innovative IoT projects.

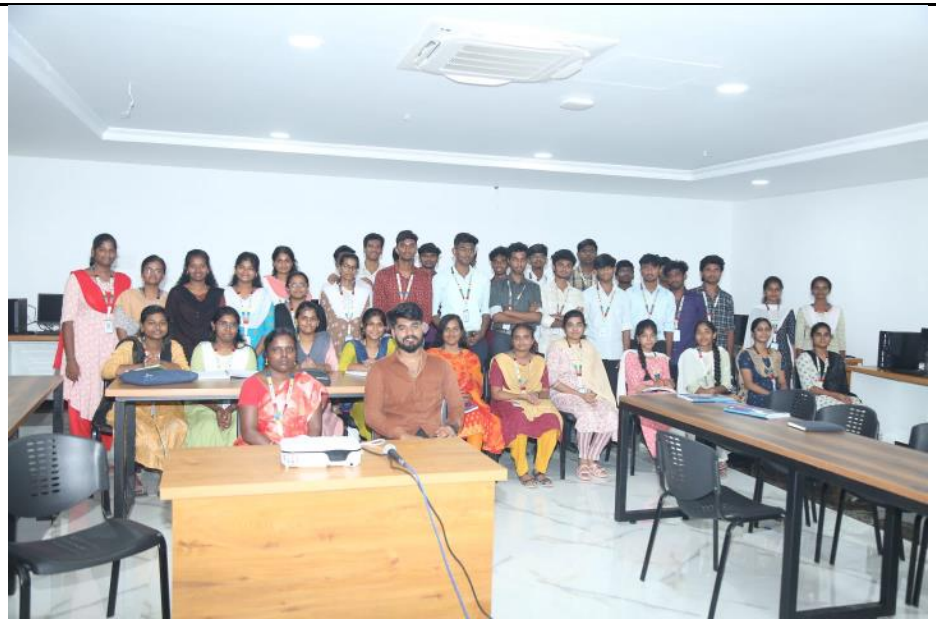
4. Placement Empowerment Program – VLSI Design Centre	**Report**

Objectives:

Techtalk aims to give brief overview of SoC Verification and Scopes in VLSI.

Outcomes:

The students gained a wealth of knowledge about VLSI technology and a deep dive into the myriad opportunities and cutting-edge advancements within the VLSI field. From this session, Students were able to learn about the dynamic career paths available and the significant impact VLSI technology has on various industries. The session not only broadened Students understanding of VLSI but also sparked a renewed sense of motivation and curiosity. It's amazing to see how much potential there is in this field and the exciting prospects it holds for the future. Students were able to learn front end process in VLSI Design flow completely.

5. **NPTEL Certification :**

The following staff Members have completed NPTEL Certification courses during the month of May.

S. No.	Name of the Staff	FDP/ Workshop Program Title	Host Institution	Date	Duration
1.	Dr. P. LATHA	VLSI Signal Processing	NPTEL	Jan- Mar 2024	8 Weeks

2.	Mrs. ANITHA	Research Methodology	NPTEL	Feb- Apr 2024	8 Weeks
3.	Mrs. R. MADHUMITHA	Research Methodology	NPTEL	Feb- Apr 2024	8 Weeks
4.	Dr. P. SURESH	Modeling and Simulation of Dynamic Systems	NPTEL	Feb- Apr 2024	8 Weeks
		Industrial Automation and Control	NPTEL	Jan- Apr 2024	12 Weeks
		Deep learning	NPTEL	Jan- Apr 2024	12 Weeks

6. Publications:

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

S. No.	Name of the Author	Paper Title	Name of the Conference/Journal	Publication Details
1.	G. Sivagurunathan	Implementation of unidirectional control mechanism for DC-DC converters	Journal of Information & Optimization Sciences	Vol. 45 (2024), No. 2, pp. 595–603

2.	J. Sivakumar	The Optimization of PEM Fuel-Cell Operating Parameters with the Design of a Multiport High-Gain DC-DC Converter for Hybrid Electric Vehicle Application	Sustainability	Volume:16, Issue :(2), Page No:872,
3.	R. Avudaiammal	Multi-Objective Spider Monkey Optimization for Energy Efficient Clustering and Routing in Wireless Sensor Networks	Ad-Hoc and Sensor Wireless Networks	Vol 59(1-2), pp. 99–119
4.	K. Jasmine Mystica J. Martin Leo Manickam	Learning to allocate: a delay and temperature-aware slot allocation framework for WBAN with TDMA-MAC	Wireless Networks	Early Access
5.	M. Angelin Ponrani	IOT-Based Instruction detection system to serve electric vehicle charging station	International conference of Embracing the digital Horizon: Pioneering Commerce and Management Strategies for a Transformative Future (EDH 2024)	-
6.	G. Anitha	Cyber Cognizance: A novel machine learning based ensemble framework for malware detection	7th International Conference on Intelligent Computing (IConIC)	-
		A novel ensemble pruning framework based on accuracy margin metric ordering		

7.	Shirley Selvan	Smart Shopping Trolley based on IoT and AI for the Visually Impaired	(ICC - ROBINS), IEEE XPLORE, Coimbatore, India, 2024	pp. 132-138

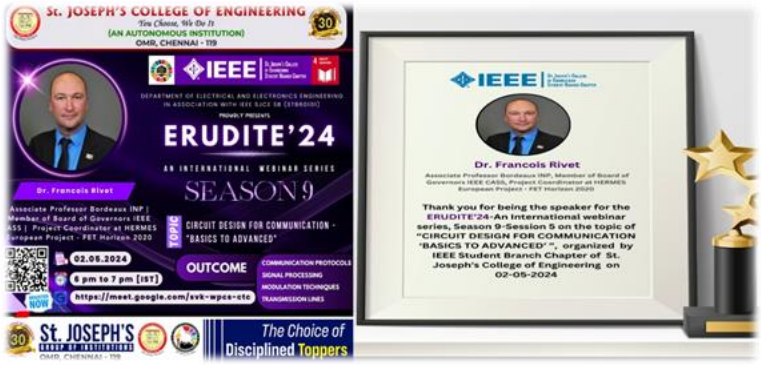
7. Patent Details:

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 202421022611	MR. GD VIGNESH	AI-DRIVEN STATISTICAL ANALYSIS OF SOCIAL MEDIA DATA FOR ENHANCED EVENT PROMOTION AND AUDIENCE INTERA	22-03-2024	03-05-2024	PUBLISHED	-
2.	202441033201	DR.D. LAKSHMI	AUTOMATIC MEDICAL DISPENSER WITH DYNAMIC TELEMONITORING IN RURAL AREAS	26-04-2024	03-05-2024	PUBLISHED	-
3.	202441033837	MR. M. LINGESHWARAN	NEXT GENERATION TELECOMMUNICATION NETWORK INFRASTRUCTURE FOR LOW LATENCY	29-04-2024	03-05-2024	PUBLISHED	-

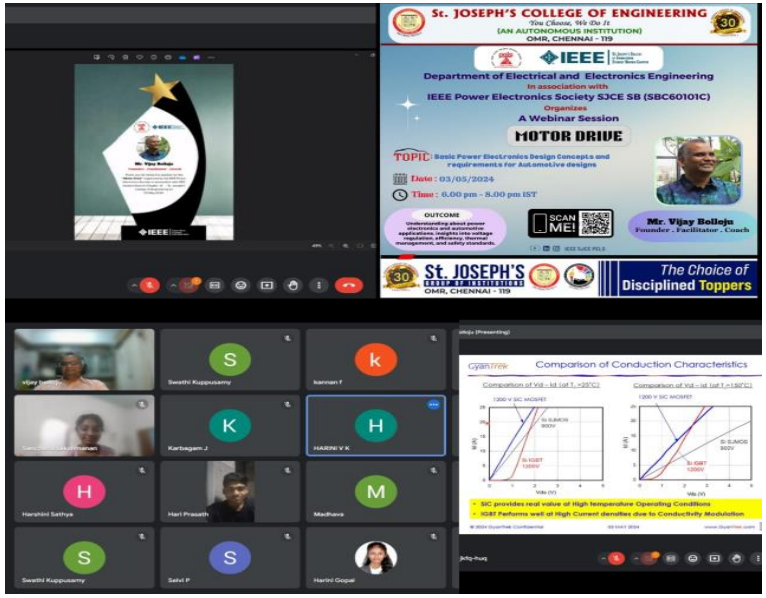
			DATA TRANSMISSON				
4.	INDIAN PATENT 202441032524 A	DR. J. SIVAKUMAR	INTELLIGENT IMAGE PROCESSING SYSTEM FOR ADAPTIVE TRAFFIC LIGHT CONTROL	23/04/2024	03-05-2024	PUBLISHED	
5.	INDIAN PATENT 202411035159	Mrs. JASMINE MYSTICA K	PREDICTIVE ANALYSIS OF STOCK MARKET TRENDS USING AI AND MACHINE LEARNING TECHNIQUES	29-04-2024	17-05-2024	PUBLISHED	

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Sl. No.	Photographs Captured During Events	Corresponding remarks (Minimum 300 words)	Criterion
1	**IEEE activities**  ***PIC: EVENT PHOTO***	The "Erudite Season 9" international webinar series, jointly hosted by IEEE SJCE SB excitedly introduces Dr. Francois Rivetas the keynote speaker for the fifth session. Dr. Francois Rivet, Associate Professor Bordeaux INP, Member of Board of Governors IEEE CASS, Project Coordinator at HERMES European Project - FET Horizon 2020, set the stage with his talk titled "Circuit design for communication -basics to advanced" on 02.05.24 from 6.00 PM to 7.00 PM (IST). The session emphasized the critical role of circuit design in establishing robust communication systems, spanning from foundational principles to advanced techniques. Participants gained insights into the fundamental concepts underpinning circuit design for communication, empowering them to innovate and drive efficiency while ensuring sustainable growth within their organizations. The session drew a keen audience of 30 participants who actively engaged with Dr. Francois Rivetas 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 PHOTO***	The "Erudite Season 9" international webinar series, jointly hosted by IEEE SJCE SB excitedly introduces Dr. Rik Das the keynote speaker for the fifth session. Dr. Rik Das, Principal Consultant, Manager (AI/ML/CV/GENAI) at PwC India, Patent Holder, Researcher, Author, ACM distinguished Speaker, ACM, USA, set the stage with his talk titled "Crafting Tomorrow – Leveraging generative AI responsibly" on 04.05.24 from 12.00 PM to 1.00 PM (IST). The session advocate for ethical AI use in crafting. Emphasizing transparency and accountability, we ensure AI benefits society while mitigating biases and harms. By upholding rigorous standards and fostering innovation, we shape a future where AI contributes positively. Through collective efforts, we can harness the transformative potential of generative AI for a more equitable and inclusive tomorrow. The session drew a keen audience of 30 participants who actively engaged with Dr. Rik Das insights and contributions. Graciously, e-certificates were provided to all attendees, recognizing their valuable participation and commitment to the webinar series.	4

3	**IEEE activities**  ***PIC: EVENT POSTER***	The "Erudite Season 9" international webinar series, jointly hosted by IEEE SJCE SB excitedly introduces Dr. Sneha Satish Hegde the keynote speaker for the 6th session. Dr. Sneha Satish Hegde, Postdoctoral Researcher, IEEE CS 20 in their 20's Honoree, IEEE DEIS WIE-International Corporate and Administration, IEEE Volunteer set the stage with her talk titled "Navigating Your Engineering Journey : Embracing Opportunities with IEEE "on 09.05.24 from 7.30 PM to 8.30 PM (IST). The event featured informative presentations, engaging panel discussions, and networking opportunities, fostering valuable connections and knowledge sharing among participants. Participants had the opportunity to exchange ideas, collaborate on innovative projects, and explore potential partnerships. Feedback from participants has been overwhelmingly positive, with many praising the event's organization, quality of content, and opportunities for learning and networking. The success of this event underscores the importance of continued collaboration and knowledge exchange within our community. The session drew a keen audience of 30 participants who actively engaged with speaker insights and contributions. e-certificates were provided to all attendees, recognizing their valuable participation and commitment to the webinar series.	4

4	**IEEE activities**  ***PIC: EVENT POSTER***	IEEE Power Electronics Society Student Branch Chapter SJCE SB (SBC60101C) Organized A Webinar Session titled "MOTOR DRIVE" on May 3, 2024. The topic for the session was "Basic Power Electronics Design Concepts and Requirements for Automotive designs," presented by Mr. Vijay Bolloju. 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. The session aimed to explore the role of power electronics in vehicles, focusing on motor drives, battery management, and charging systems, providing a platform for knowledge exchange and networking among professionals, researchers, and enthusiasts. Approximately 40+ participants joined this event on Gmeet. The participants were rewarded with e-certificates as a token of appreciation. A memento was presented to the speaker at the conclusion of the session.	4

5	**IEEE activities**  ***PIC: EVENT POSTER***	IEEE Power Electronics Society Madras Chapter PEL35, (CH10352) and IEEE Power Electronics Society Student Branch Chapter SJCE SB (SBC60101C) organized a webinar Session titled "MAXIMIZING POWER" on May 4, 2024. The topic for the session was "Advanced Power Electronic Converters" presented by Dr. D. Sreenivasarao. 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. Power electronic converters play a critical role in modern energy systems, enabling efficient conversion, control, and management of electrical energy. The session delves into advanced converter topologies, such as multilevel converters, resonant converters, and matrix converters. Approximately 40+ participants joined this event on Gmeet. The participants were rewarded with e-certificates as a token of appreciation. A memento was presented to the speaker at the conclusion of the session.	4

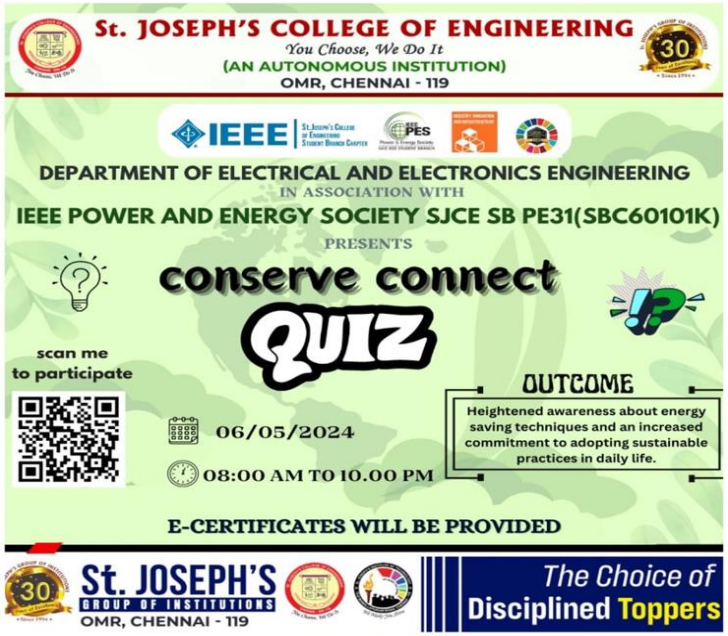
6	**IEEE Activities**  *PIC: EVENT POSTER and PHOTO*	IEEE Power Electronics Society Student Branch Chapter SJCE SB organized a webinar session titled "RECTIFIERIZA" on May 11th, 2024. The topic for the session was "Design and Analysis of front end rectifiers for level 1 chargers in electric vehicles," presented by Mr. Arjun Mudlapur, Power Electronics Control Engineer at Lead Engineer, Bosch, Bengaluru. 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. The speaker detailed about the various rectification topologies, component selection, and performance evaluation to optimize the design of front-end rectifiers for level 1 chargers, contributing to the advancement of EV charging infrastructure. Approximately 40+ participants joined this event on Gmeet. The participants were rewarded with e-certificates as a token of appreciation. A memento was presented to the speaker at the conclusion of the session.	4
7	**IEEE activities**	IEEE Power Electronics Society Student Branch Chapter SJCE SB and IEEE Robotics and Automation Society SJCE organized a webinar Session titled "BEYOND IMAGINATION" on April 24th, 2024. The topic for the session was "Generative Deep Learning," presented by Mr. Aryan Gadhiya. 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	4

	 *PIC: EVENT POSTER*	staff, participated. The session aimed to explore emerging trends, innovations, and challenges in the field of deep learning, providing a platform for knowledge exchange and networking among professionals, researchers, and enthusiasts. Approximately 40+ participants joined this event on Gmeet. The participants were rewarded with e-certificates as a token of appreciation. A memento was presented to the speaker at the conclusion of the session.	
8	**IEEE activities**	IEEE Power Electronics Society Madras Section and IEEE SJCE Power Electronics Society organized a webinar session titled "CIRCUIT MASTERY" on April 25, 2024. The topic for the session was "Design of Power Electronic Circuits using PLECS" presented by Mr. Max Savio Francis. 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. Through engaging presentations and hands-on demonstrations, attendees gained valuable	4

	 *PIC: EVENT POSTER and PHOTO*	knowledge and skills applicable to real-world scenarios. The webinar highlighted the importance of simulation tools like PLECS in optimizing designs and fostering innovation in power electronics. Overall, the webinar was a resounding success, fostering collaboration, knowledge exchange, and innovation in power electronics within a concise timeframe. Approximately 40+ participants joined this event on Gmeet. The participants were rewarded with e-certificates as a token of appreciation. A memento was presented to the speaker at the conclusion of the session.	
9	**IEEE activities**	IEEE Power Electronics Society Student Branch Chapter SJCE SB (SBC60101C) Organized A Webinar Session titled "BEYOND LIMITS" on May 18, 2024. The topic for the session was "An Efficient and Compact Multi-port Power supply for Nano-Satellites," presented by Mr. Arnab Sarkar, Power Electronics Hardware Jaguar Land Rover, Ph.d , IITB, IITK. 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. The event showcased advancements in power supply technology for nano-satellites, featuring expert presentations on	4

	 ***PIC: EVENT PHOTO***	efficient, compact, multi-port power solutions. Approximately 40+ participants joined this event on Gmeet. The participants were rewarded with e-certificates as a token of appreciation. A memento was presented to the speaker at the conclusion of the session.	
1	**IEEE activities**	The IEEE Photonics Society of SJCE SB Conducted “MATLAB MAGIC” a technical online mode webinar for 2nd and 3rd year EEE students, on 05.05.24 from 6.00 PM to 7.00 PM (IST). The event aimed to give fundamentals and a HANDS-ON session of MATLAB by Prof. Naeema Nazar Assistant Professor at VISAT Engineering College, IEEE Photonics Society Global Strategy Representative for India, Kerala Student Branch Chapter Advisor of WIE, Comsoc 2024 IEEE WIE Day Ambassador, IEEE Global Network Community. She shared her wonderful insights on the topic "Crack MATLAB: Engaging Virtual Labs!". The event saw the cumulative	4

	 *PIC: EVENT PHOTO*	participation of 50 students. The session was generally well-received by the participants and was very informative. E-certificates were provided to all who participated in the event.	
1	**IEEE Activities**	IEEE PES SJCE SB- in association with IEEE St. Joseph's College of Engineering Student chapter conducted an online quiz event "CONSERVE CONNECT QUIZ" on 6/05/2024. The online quiz event unfolded in a digital realm where participants are connected virtually to engage in a battle of intellect. Through a series of challenging questions covering a wide array of topics, ranging from history to technology, and from literature to current affairs, contestants demonstrated their sharp minds and quick reflexes. Despite the lack of physical proximity, the competitive spirit burned brightly as participants raced against the clock to showcase their knowledge prowess. Following intense rounds of quizzing, the event	4

	 ***PIC: EVENT PHOTO***	culminated in the announcement of the winners, who emerged triumphant amidst fierce competition. Through this virtual gathering, participants not only tested their knowledge but also forged new connections and celebrated the joy of learning in an online community. The participants were rewarded with E-certificate as a token of appreciation.	
1	**IEEE activities**	IEEE Power Electronics Society Student Branch Chapter SJCE SB (SBC60101C) organized a webinar session titled "DRIVE INSIGHTS" on May 8, 2024. The topic for the session was "Condition monitoring and fault diagnosis of electric drives applications to electric vehicles," presented by Mr. Rajesh Pindoriya. 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. The session aimed to explore the role of Electric vehicle design, development, battery technology, energy storage,	4

	 *PIC: EVENT POSTER*	and management. Approximately 40+ participants joined this event on Gmeet. The participants were rewarded with e-certificates as a token of appreciation. A memento was presented to the speaker at the conclusion of the session.	
1	**IEEE activities**	IEEE VTS SJCE SB in collaboration with the IEEE St. Joseph's College of Engineering student chapter, proudly presented a profoundly enlightening session titled "Innovate, Lead, Succeed:A Guide to the Richard E. Merwin Scholarship" on May 17, 2024, at 7:00 PM IST. The distinguished speaker for this event was Mr. Gaurav Pathak, IEEE CS REM Scholar - Fall 2022, IEEE CS 20 in Their 20s Honoree 2023, and IEEE CS SYP SOI Co-Lead 2024. Over 40 participants attended the session. Mr. Pathak, a highly accomplished Network Engineer, adeptly navigated attendees through the intricacies of the Richard E. Merwin Scholarship, offering invaluable insights into the application process, eligibility criteria, and the profound impact it can	4

	 *PIC: EVENT PHOTO*	have on one academic and professional journey. The session transcended mere information dissemination; it fostered a dynamic exchange of ideas and experiences, with participants actively engaging in a vibrant session, seeking guidance and clarification on various aspects of the scholarship. Their enthusiasm and thirst for knowledge underscored the significance of such platforms in empowering aspiring engineers to realize their full potential. As the session drew to a close, Mr. Pathak was felicitated with a memento in recognition of his contributions. Certificate of participation awarded to all attendees.	
1	**IEEE activities**	The IEEE St. Joseph's College of Engineering Student Branch Chapter, in collaboration with the IEEE Special Interest Group on Humanitarian Technology AG of SJCE SB, hosted Session 4 of INSEGNANTE, focusing on "Introduction to Electric Vehicles." With approximately 55 participants in attendance, the event featured Ms. Gomathi S, Assistant Professor at St. Joseph's College of Engineering, providing insights into EV fundamentals, emerging technologies, and sustainability. Through interactive discussions and networking opportunities, attendees gained a deeper understanding of the future of Electric Vehicles and their role in sustainable	4

	 ***PIC: EVENT PHOTO***	transportation. The event also highlighted Ms. Gomathi S's expertise in discussing major areas to be implemented in battery management systems of electric vehicles. Her insights into this critical aspect shed light on the advancements and challenges in optimizing battery performance, enhancing safety, and extending battery life in EVs. E-certificates were provided to the participants.	
1	**IEEE activities**	The IEEE SJCE SB and IEEE Vehicular Technology Society of SJCE SB organized an enlightening event, Session 7 of INSEGNANTE (A Spotlight Series), focusing on the Stability Analysis of Buck Converters using MATLAB. With Mr. Jeyaprakash N, Assistant Professor at St. Joseph's College of Engineering, as the speaker, participants were immersed in a comprehensive exploration of stability analysis techniques. Covering microconverters extensively, including their applications in power systems, and delving into the latest inventions in converters, the session provided invaluable insights into the realm of power electronics. With 35 enthusiastic participants, the event successfully ignited a	4

	 ***PIC: EVENT POSTER and PHOTO***	passion for understanding the intricacies of buck converters and provided e-certificates to acknowledge their participation.	
1	**IEEE activities**	The IEEE SJCE SB MAANAVAR MANDRAM of St. Joseph's College of Engineering organized an engaging online webinar titled "AGNI SIRAGUGAL" exploring the rich tapestry of Tamil literature. The event, conducted with finesse in a virtual setting on the date of 5th MAY 2024 with a total of 35 participants. HARIPRASATH.S, student 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,	4

	 ***PIC: EVENT POSTER and PHOTO***	Isha T, Hassan A, and Anas Javith A. The event concluded with a virtual photo session.	
1	**IEEE Activities**	The IEEE SJCE SB MAANAVAR MANDRAM of St. Joseph's College of Engineering organized an engaging online webinar titled "AGNI SIRAGUGAL" exploring the rich tapestry of tamil literature. The event, conducted with finesse in a virtual setting on the date of 6th MAY 2024 with a total of 30 participants. MALINI.A, student, 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	4

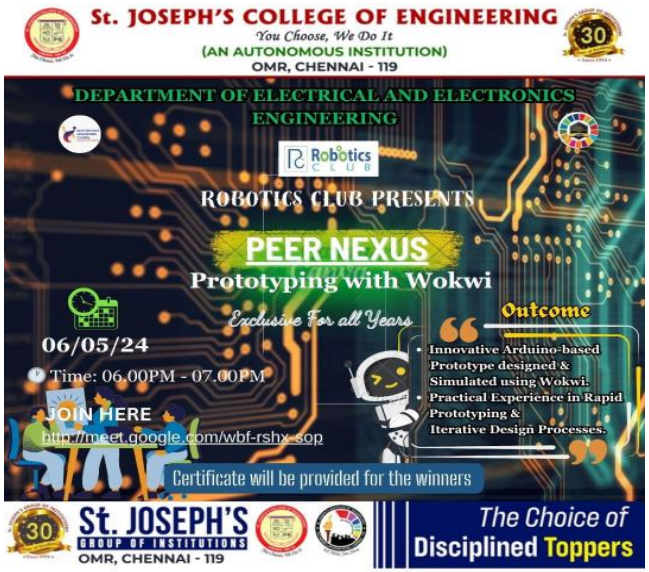
	 ***PIC: EVENT POSTER***	Anas Javith A. The event concluded with a virtual photo session.	
1	**IEEE activities**	The IEEE SJCE SB MAANAVAR MANDRAM of St. Joseph's College of Engineering organized an engaging online webinar titled "AGNI SIRAGUGAL" exploring the rich tapestry of Tamil literature. The event, conducted with finesse in a virtual setting on the date of 7th May 2024 with a total of 30 participants. Anaandh J, student, 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

	 *PIC: EVENT POSTER*		
1	**IEEE Activities**	The IEEE SJCE SB MAANAVAR MANDRAM of St. Joseph's College of Engineering organized an engaging online webinar titled "AGNI SIRAGUGAL" exploring the rich tapestry of Tamil literature. The event, conducted with finesse in a virtual setting on the date of 8th May 2024 with a total of 30 participants. Yashwanth D, student, 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,	4

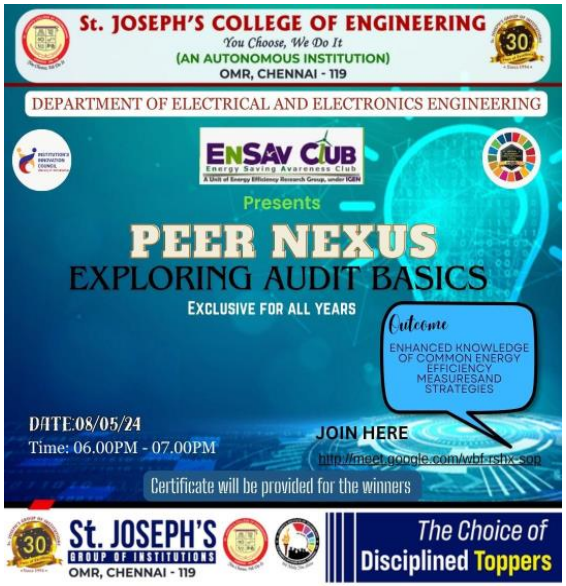
	 *PIC: EVENT POSTER*	Isha T, Hassan A, and Anas Javith A. The event concluded with a virtual photo session.	
2	**IEEE Activities**	The IEEE SJCE SB MAANAVAR MANDRAM of St. Joseph's College of Engineering organized an engaging online webinar titled "AGNI SIRAGUGAL" exploring the rich tapestry of Tamil literature. The event, conducted with finesse in a virtual setting on the date of 9th May 2024 with a total of 30 participants. Sanchana L, student, 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,	4

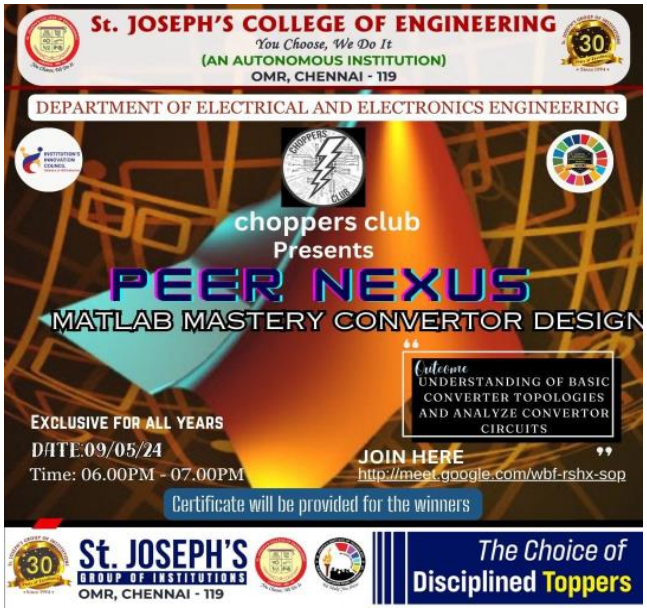
	 ***PIC: EVENT POSTER***	Isha T, Hassan A, and Anas Javith A. The event concluded with a virtual photo session	

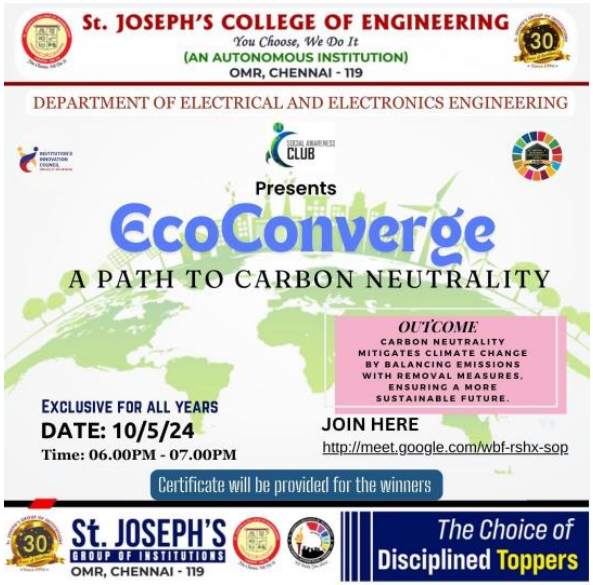
2	**ISTE Activities**  *PIC: EVENT POSTER*	On May 11th 2024, "ISTE STUDENT CHAPTER" of Department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, conducted an event **"PEER NEXUS ON VIRTUAL TINKERCAD HAKATHON",** presented by **Mr.Mohamed Zeeyath**, second year EEE. Approximately 32 Students from per final year and second year attended the event on G-meet at 6.00 pm to 7.00 pm. The event ended with the general quiz on Audit basics and winners rewarded with the certificate. ***OUTCOME: Solutions to real-world problems developed through collaborative efforts.***	4
2	**Club Activities**	On May 6th 2024, "ROBOTICS CLUB" of Department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, conducted an event **"PEER NEXUS ON PROTOTYPING WITH WOKWI,"** presented by **Mr Lal Arjun, second year EEE.** Approximately 34 Students from per	4

	 *PIC: EVENT POSTER*	final year and second year attended the event on G-meet at 6.00 pm to 7.00 pm. The event ended with the general quiz on Wokwi Software and winners rewarded with the certificate. ***OUTCOME: Understanding of basic converter topologies and Proficiency in using MATLAB to simulate and analyze converter circuits.***	
2	**Club Activities**	On May 7, 2024, **"ELECTRICAL CLUB"** of department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, conducted an event **"PEER NEXUS ON STRATEGIES AND TECHNIQUES FOR TROUBLE SHOOTING CIRCUITS ",** presented by **Ms.Joshika, second year EEE**. Approximately 27 Students from per final year and second year attended the event on G-meet at 6.00	4

	 *PIC: EVENT POSTER*	pm to 7.00 pm. The event ended with the general quiz on Techniques related to circuits and winners rewarded with the certificate. ***OUTCOME : Enhanced understanding of common circuit and debugging methodologies and techniques.***	
2	**Club Activities**	On May 8, 2024, **"ENSAV CLUB"** of department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, conducted an event **"PEER NEXUS ON EXPLORING AUDIT BASICS",** presented by **Mr Venkatesh, second year EEE.** Approximately 35 Students from per final year and second year attended the event on G-meet at 6.00 pm to 7.00 pm. The event ended with the	4

	 ***PI: EVENT POSTER***	general quiz on Audit basics and winners rewarded with the certificate. ***OUTCOME : Enhanced knowledge of common energy efficiency measures and strategies .***	
2	**Club Activities**	On May 9th 2024, **"CHOPPERS CLUB"** of department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, conducted an event **"PEER NEXUS ON MATLAB MASTERY CONVERTOR DESIGN"** presented by **Ms Sanmitha,** second year EEE. Approximately 34 Students from per final year and second year attended the event on G-meet at 6.00 pm to 7.00 pm. The event ended with the general quiz on	

	 ***PI: EVENT POSTER***	MATLAB convertor design and winners rewarded with the certificate. ***OUTCOME: Understanding of basic converter topologies and Proficiency in using MATLAB to simulate and analyze converter circuits.***	
2	**Club Activities**	On May 10, 2024, **"SOCIAL AWARENESS CLUB"** of department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, conducted an event **"PEER NEXUS ON A PATH TO CARBON NEUTRALITY,"** presented by **Ms Pon Janani**, second year EEE. Approximately 34 Students from per final year and second year attended the event on G-meet at 6.00 pm to 7.00 pm. The event ended with the	

	 ***PI: EVENT POSTER***	general quiz on Carbon neutrality and winners rewarded with the certificate. ***OUTCOME: Carbon neutrality mitigates climate change by balancing emissions with removal measures, ensuring a more sustainable future.***	
2	**Alumni activities**	On May 8th 2024 department of electrical and electronics engineering at St. Joseph's College of Engineering, organized an Alumni Talk for second year students on the topic **"Automation & Industry 4.0,"** presented by our alumni, **Mr. Vignesh Nagarajan (Batch : 2009-2013) ,Magna Intetrnational IOT and Digitization Manager (India Region).** On his lecture, students got a clear idea about the higher studies, abroad education, job availability also he gave introduction to Industry	4

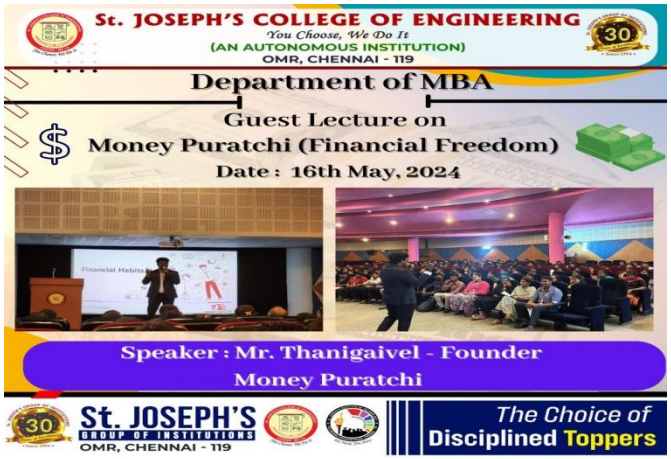
	   *PIC: EVENT PHOTO*	revolutionary, developments from 1.0 to 4.0, Introduction to 4.0, IOT and Automation, Real life application of IOT. At the end of the session, he cleared all the queries raised by the students.	
2	**Faculty awards and recognitions**	Our faculty **Dr. V.Chamundeeswari** has been granted **a Indian Invention Patent** titled **"A Novel Encode -Decode Power Electronic Circuit for Data Transmission"** Our faculty **Dr. M.Venmathi** acted as a **reviewer in "Electric Power Components and Systems" Taylor and Francis.** Our faculty **Dr. M.Venmathi** has published a paper titled **"ENVIRONMENTAL BENEFITS OF USING SOLAR STANDALONE INDUCTION HEATING WITH A DUAL FREQUENCY DUAL LOAD SYSTEM"** in	**5**

		Journal of Environmental Protection and Ecology. Our faculty **Dr. V.Krishnakumar** acted as a **reviewer in** "**IET Electric power Applications**" **Ms.S.Gomathi** - Acted as **a resource person in webinar** organised **by IEEE Madras Session Insegnante** a spotlight series **" Introduction to Electric Vehicles"** on 24th April 2024. **Dr.P.Anbarasan -** Acted as **a resource person in webinar organised by IEEE Madras Session Insegnante** a spotlight series titled **"State space modelling of DC-DC converters"** on 26th April 2024. **Dr.V.Krishnakumar -** Acted as a resource person in Webinar Organised by **IEEE Madras Session Insegnante** a spotlight series titled **"Introduction to Robotics Sensor"** on 29th April 2024. **Mr.N.Jeyaprakash -** Acted as a resource person in Webinar Organised by **IEEE Madras Session Insegnante** a spotlight series titled **"Stability Analysis of buck converter using MATLAB"** on 7th May 2024. **Dr.M.RameshBabu, Dr.T.D.Sudhakar, Dr.N.Chidambararaj, Dr.M.Venmathi, Ms.R.G.Nirmala, Dr.C.Venkatesh Kumar, Mr.K.Aravindhan, Mr.Harish, Mr.Sadeesh Kumar, Mr.H.Prasad, Mr.Balasubramanian VSuccessfully Completed NPTEL course**.	

2	PLACEMENT DETAILS FOR THE MONTH OF MAY 2024	**2020-2024 Batch** Total No of students placed = 96 Students Total No of Offers = 107 Offers Total No of Students (UG) = 150 Total No of Eligible Students (UG) = 128 (All Clear) % of students Placed (UG) = 96/150 = 64 % No of students having single offers = 83 No of students having Double offers = 12 No of students having Triple offers = 01 **2021-2025 Batch** Total No of students placed = 02 Students Total No of Offers = 02 Offers Total No of Students (UG) = 194 No of students having single offers = 02	**4**

DEPARTMENT OF MBA

FACULTY PUBLICATION:	Dr.J.Balamurugan has published a paper titled "Assessment of skills street vendors" in IEEE Conference on "New Frontiers in Communication, Automation, Management and Security (ICCAMS – 2023)
WORKSHOP/FDP/STTP/CONFERENCE / SEMINAR ATTENDED BY FACULTY: 	Mr. Surendiran David, Dr.L. Rajeshkumar and Dr.G.Nirmala have participated in One Week FDP on "Sales force Administrator" from 27.05.2024 to 31.05.2024.

GUEST LECTURE – I: 	Department of MBA conducted a Guest Lecture on Financial Freedom on 16.05.2024. Guest for the day is Mr.Thanigaivel – Founder, Money Puratchi, around 220 students attended this session. Students were eagerly interacted with the guest and clarified their doubts.
GUEST LECTURE – II: 	Department of MBA conducted a Guest Lecture on IKIGAI Framework for Business Success on 10.05.2024. Guest for the day is Dr.Balamurugan KGS, Founder - Leaderpods, around 180 students attended this session. Students were eagerly interacted with the guest and clarified their doubts.

INDUSTRIAL VISIT – I: 	On May 16, 2024, the Department of Management Studies facilitated a one-day industrial visit to "The New Indian Express" for the first-year MBA - A section students. The group of 54 students was accompanied by two professors, Dr. Aishwarya and Dr. Bala Murugan.
INDUSTRIAL VISIT – II: 	On May 23, 2024, the Department of Management Studies facilitated a one-day industrial visit to "The New Indian Express" for the first-year MBA – B section students. The group of 55 students was accompanied by two professors, Dr. K.Sampath and Dr.Angelin S Kiruba.
NGO VISIT – I: 	Date : 04.05.2024 NGO Name: Kalaivani Trust, Madambakkam, Chennai Students Visited: I MBA – A Section (54 Students) Number of Inmates: 30 Nature of Service: Food and other basic needs

NGO VISIT – II: 	Date : 04.05.2024 NGO Name: Dr. JC Kumarappa Home, Kancheepuram Students Visited: I MBA – B Section (55 Students) Number of Inmates: 60 Nature of Service: Food and other basic needs
NGO VISIT – III: 	Date : 04.05.2024 NGO Name: Love Care Centre, Kancheepuram Students Visited: I MBA – C Section (53 Students) Number of Inmates: 25 Nature of Service: Food and other basic needs
NGO VISIT – IV: 	Date : 04.05.2024 NGO Name: Home Happy Home, Perambur Students Visited: I MBA – D Section (56 Students) Number of Inmates: 45 Nature of Service: Food and other basic needs

NGO VISIT – V: 	Date : 11.05.2024 NGO Name: Kalaivani Trust, Madambakkam, Chennai Students Visited: I MBA – A Section (54 Students) Number of Inmates: 30 Nature of Service: Food and other basic needs

DEPARTMENT OF SCIENCE

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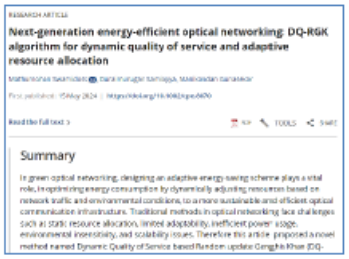
Sl. No.	Events	Remarks
1	**FDP/Workshop/Conference**	1. Dr. P. Saravanan presented a paper titled "Upcycling food by-products: characteristics and applications of nanocellulose"in the "3rd Sivas international conference on scientific and innovation research" conducted by " Sivas University of Science and Technology & IKSAD Institute, Turkey" held between 3.5.24 and 5.5.24. ***NPTEL FDP / Certification courses: JAN-APR 2024*** 1. Dr. S. Kiruba – Elite 2. Dr. S. Manikandan – Elite 3. Dr. S. Rama – Elite 4. Dr. G. Murugan - Silver 5. Dr. V. Swarnalatha – Elite 6. Dr. A. Uma Devi – 2% Topper 7. Dr. K. Jayamoorthy – Elite 8. Dr. B. Subash – Elite 9. Dr. G. Sasikumar - Elite
2	**Value added Courses/Courses other than VAC**	199 students have successfully completed their NPTEL certification program during the period of Jan – April 2024
3	**Awards/Prize won by students / Staff**	**Students Awards:** 1. Ms. Dhivya Mutharasu, Ms. Dheepshika Srinivasan, Ms. C. Karneka of I AML-A had won "II prize" in "Infinitus Club National Level Technical Symposium - Predator" event conducted by "Rajalakshmi Institute of Technology, Chennai" on 17.05.24. 2. Ms. Mithra R M, Ms. Monika B, Ms. Kowshika K of I ADS-B had won "III prize" in "Infinitus Club National Level Technical Symposium - Insights" event conducted by "Rajalakshmi Institute of Technology, Chennai" on 17.05.24.
4	**Publications(only published) details**	**Journals:** 1. Dr. P. Saravanan published a book chapter titled "Economic Growth and Blockchain Technology Inferences in E-Mobility" in "In book: Cases on AI Ethics in Business" (2024) , pp.94-114, IGI Global: International Academic Publisher , doi: 10.4018/979-8-3693-2643-5.ch007

		2. Dr. G. Sasikumar published an article titled “Design synthesis and characterization of novel functional poly esters containing chromone curcumin and evaluation of its anticancer potential - An invitro and in silico approach” in “Journal of Saudi Chemical Society” 28 (3) , 2024, 101854, https://doi.org/10.1016/j.jscs.2024.101854. **Patents:** 1. Dr. S. Rama published a patent titled “platinum nanoparticles as potent antibacterial agents” in “Patent and Design Journal”. Dt.03/05/2024 Issue: 18/2024, Application number: 202421026732 **Reviewer:** Dr. N.R. Rajagopalan acted as reviewer for the following journals. 1. Journal of New Developments in Chemistry - May 2024 2. International Journal of Clinical Microbiology – May 2024
5	**Other activities(if any)**	Department of Science conducted “Intra college Students Project Competition – Project Fest 2024” on 25.05.2024.

DEPARTMENT OF INFORMATION TECHNOLOGY

Sl. No.	Photographs Captured During Event/Screenshot	Corresponding remarks in regarding the status of activity execution
1	 **Co-Author** Dr. S Duraimurugan Published a paper in SCIE Journal	**Staff Paper Publication** Swamidoss M, **S Duraimurugan**, Gunasekar M. "Next-generation energy-efficient optical networking: DQ-RGK algorithm for dynamic quality of service and adaptive resource allocation" Concurrency and Computat Pract Exper. 2024; e8070. doi: 10.1002/cpe.8070 **(Impact Factor: 2.0, Q2, Indexed in SCIE)** **Abstract:** In green optical networking, designing an adaptive energy-saving scheme plays a vital role, in optimizing energy consumption by dynamically adjusting resources based on network traffic and environmental conditions, to a more sustainable and efficient optical communication infrastructure. Traditional methods in optical networking face challenges such as static resource allocation, limited adaptability, inefficient power usage, environmental insensitivity, and scalability issues. Therefore this article proposed a novel method named Dynamic Quality of Service based Random update Genghis Khan (DQ-RGK) algorithm, the proposed model can tackle the abovementioned complexities. In this study, cluster head dynamic placement is utilized to optimize the network's performance by adapting the placement of cluster heads to the current topology, load distribution, and energy levels in the network nodes. By dynamically assigning and reallocating resources based on the current demand the algorithm enhances overall network efficiency and reduces energy consumption. Then, this work analyzes the experimental results, where some evaluation measures estimate the DQ-RGK method's performance. Routing efficiency, latency, scalability, spectral efficiency, Packet Delivery Ratio, throughput, network lifetime, energy consumption, jitter, and energy consumption are the measures employed by the DQ-RGKmodel. In The results, other routing models that do not provide efficiency are utilized, a comparison of these other routing models is represented in results. The overall DQ-RGK model's effectiveness is represented in the experimental results and its effectiveness is greater among other methods.

	 **Co-Author** Dr. S Duraimurugan Published a paper in ScopusJournal	R. Avudaiammal, **S. Duraimurugan,** V. Sivasankaran and P. Jayarajan "Multi-Objective SpiderMonkey Optimization for Energy Efficient Clustering and Routing in Wireless Sensor Networks" Ad-Hoc and Sensor Wireless Networks, 2024, 59(1-2), pp. 99–119, DOI: 10.32908/ahswn.v59.11051 (Indexed in Scopus) In wireless sensor networks (WSN), the gateways far away from the base station (BS) use the gateways nearer to the BS to forward the data. It causes heavy traffic to the gateways in proximitywith the BS which in turn causes additional energy consumption and reduction in network lifetime. In order to overcome these issues, multi objective based spider monkey optimization (MOSMO) has been presented to balance the load and to improve the network lifetime through energy efficient routing and clustering. The performance of the proposed scheme is compared with the Particle Swarm Optimization (PSO) and Grey Wolf Optimization (GWO) based schemein terms of delay, energy consumption, delivery ratio, throughput and network lifetime with various node densities. The results show that the reduction in delay and energy consumption is about 18% and 17% respectively whereas improvement in delivery ratio, throughput and networklifetime is about 15%, 24% and 19% respectively when compared to the existing PSO and GWO methods.

3

Mr.Abdhur Rahman A
Published an India Patent

Patent Published

Title of the invention: ARTIFICIAL INTELLIGENCE-BASED DATA LEAKAGE PREVENTION SYSTEM FOR ORGANIZATIONS AND INDIVIDUALS USING BLOCK CHAIN AND MACHINELEARNING ALGORITHMS

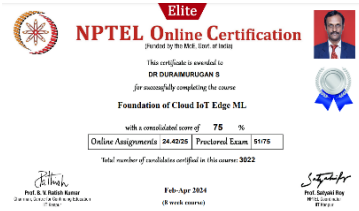
Name of Inventor:

1. Dr.M. Vikram
2. D.Shahi
3. Sagar Dilip Patil
4. Dr. S. Santiago
5. Dr. Surendra Kumar Yadav
6. Akella Subhadra
7. Dr Hemantkumar B Jadhav
8. **Abdhur Rahman A**
9. Dr. Puneet Banga
10. Deepika R

Patent Application Number: 202441005521

Date of filing of Application: 27/01/2024

Publication Date: 09/02/2024



Sample NPTEL Certificate

NPTEL Certification by Faculty

S.No	Name of the Staff	Name of the Course	Period	Credit
1.	DR DURAIMURUGAN S	Foundation of Cloud IoT Edge ML	(8 week course	Elite

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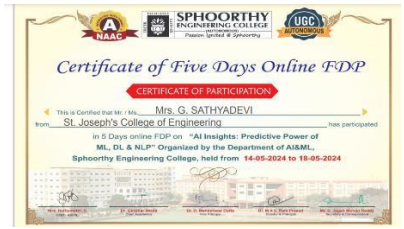
<td> 

Sample FDP Certificate</td>
<td>Seminar/ FDP Attended by Faculty
<table>
<tr><th>S.No</th><th>Title of the topic</th><th>Name of the Staff</th><th>Conducted By</th><th>Date</th></tr>
<tr><td>1.</td><td>AI insights: “Predictive Power of ML, DL & NLP”</td><td>Mrs.G.Sathyadevi</td><td>Sphoorthy Engineering College</td><td>14-05-24 to 18-05-24</td></tr>
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DEPARTMENT OF MATHEMATICS AND ENGLISH

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<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></tr>
<tr><td>1</td><td>Dr. G. Meeenadevi</td><td rowspan="5">AI in Learning, Teaching, Assessment and Research Practice</td><td rowspan="5">Bon Secours College for Women</td><td rowspan="5">Online</td><td rowspan="5">06-05-2024</td></tr>
<tr><td>2</td><td>Dr. G. Venkat Narayanan</td></tr>
<tr><td>3</td><td>Mr. S. Manikanda Prabhu</td></tr>
<tr><td>4</td><td>Dr. K. Suresh</td></tr>
<tr><td>5</td><td>Dr. S. Arul Amirtha Raja</td></tr>
</table></td></tr>
<tr><td>Publications(only published) details</td><td>1. R.Shruthi, R.Udhaya Kumar, K.Abinaya , A.Rajeswari , & K.Savitha , “Analysis of Factors Affecting Students’ Business Writing Skills”, World Journal of English Language, Vol 14, No 3 (2024) https://doi.org/10.5430/wjel.v14n3p43</td></tr>
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DEPARTMENT OF MECHANICAL ENGINEERING

Sl No	Name of the Activity	Remarks
1	**Patents Published**	➢ **Dr. M. Arun,** Assistant Professor from Mechanical Department published a patent titled "Development of Low-cost Rope Cycle" Application No.202441025766A. ➢ **Mr. R. Rangaraja**, Assistant Professor from Mechanical Department published a patent titled "Development of low cost flying windmills" Application no: 202441020633A. ➢ **Mr. G. Ashwin Prabhu,** Assistant Professor from Mechanical Department published a patent titled " Development of Low-Cost Multipurpose Coconut Cutting Machine" Application no: 202441031606 A.
2	**Staff Acheivements**	➢ **Dr.M.Arun**, Assistant Professor from Mechanical Department secured Elite certificate in the "Surface Engineering for Corrosion and Wear Resistance Application" in NPTEL exam in association with IIT Kharagpur. ➢ **Mr. K. Pravinkumar**, Assistant Professor from Mechanical Department secured Elite certificate in the "Welding Processes" in NPTEL exam in association with IIT, Madras. ➢ **Mr. D. Sakthivel**, Assistant Professor from Mechanical Department secured Elite certificate in the "IC Engines and Gas Turbines" in NPTEL exam in association with IIT Guwahati. ➢ **Dr. R. Selvam**, Associate Professor from Mechanical Department

		secured Topper 1% & Elite Gold certificate in the "Manufacturing Process Technology - I & II" in NPTEL exam in association with IIT, Kanpur. ➢ **Dr. K. Arun,** Associate Professor from Mechanical Department secured Top 5% & Eliite Silver in the "IC Engines and Gas Turbine" in NPTEL exam in association with IIT Guwahati. ➢ **Mr. R.Rangaraja,** Assistant Professor from Mechanical Department secured Elite silver certificate in the "Thermal Engineering Basic and Applied" in NPTEL exam in association with IIT Guwahati. ➢ **Mr. M. Siva**, Assistant Professor from Mechanical Department secured Elite Silver certificate in the "Manufacturing Process Technology - I & II" in NPTEL exam in association with IIIT, Kanpur.
3	**Paper Published**	A ➢ **M Ganesh, N Arunkumar** published an article titled, "**A sustainable approach in deep hole drilling of Ti6Al4V: Effect of cryogenic cooling on hole parameters and its evaluation**" in ***Journal of Manufacturing Processes*** 121, 343-360.**Impact Factor:6.2**

4	  Students acheivements	➢ **Mr. AKASH KUMAR G** of third year ‘A’ Section has successfully completed a 8 week course on “Manufacturing Guidelines For Product Design” and got ELITE SILVER among 532 candidates. ➢ **Mr. PRAKATHEESH ARUN K** of second year ‘B’ Section has successfully completed a 12 week course on “Product Design And Manufacturing” and got ELITE SILVER among 2952 candidates.

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

<table>
<tr><th>Sl. No.</th><th>Title</th><th>Detail</th></tr>
<tr><td>I</td><td>Patent</td><td>
<table>
<tr><th>S.No</th><th>Faculty Name</th><th>Published date</th><th>Title</th><th>Type (patent Or copyrights)</th><th>Proof</th></tr>
<tr><td>1.</td><td>Dr.B.Senthil Kumar</td><td>31/05/2024</td><td>Health Monitoring and Diagnosis System for Wearable IOT Devices with AI Analytics</td><td>Patent</td><td>  </td></tr>
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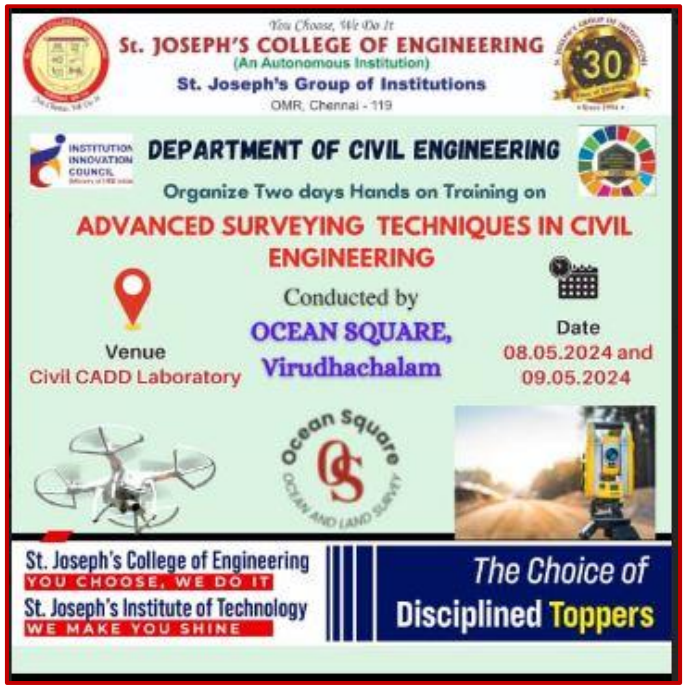
DEPARTMENT OF CIVIL ENGINEERING

Sl. No.	Photographs Captured During Events (Briefs About the Photographs)	Corresponding remarks (Minimum 300 words) in regarding the status of activity execution stating
1.	**Guest Lecture / Webinar Organized**	 Two-Day Hands-On Training on Advanced Surveying Techniques in Civil Engineering on 08-05-2024 & 09-05-2024 for second year students.

2.	**Publications (only published) details**	• Mrs.R.Ruthra has published a book chapter titled as "A Review of Landfill Leachate with Environment Impacts: Sustainable Waste Management and Treatment Methods of Vellalore Dump Yard, Coimbatore Corporation" on 14th May 2024 in Springer Nature.