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# St. JOSEPH'S COLLEGE OF ENGINEERING

(An Autonomous Institution)

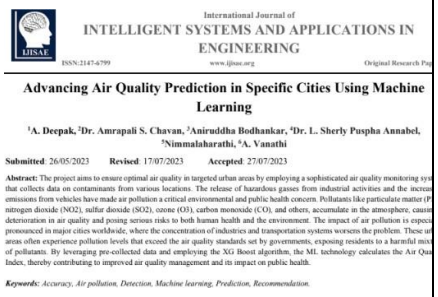
## St. Joseph's Group of Institutions

OMR, Chennai - 119

30 Years of Excellence ★Since 1994★

## OCTOBER 2023

## DEPARTMENT OF ARTIFICAL INTELLIGENCE AND MACHINE LEARNING

| Sl. No. | Photographs Captured During Event | Corresponding remarks in regarding the status of activity execution |
|---|---|---|
| 1 |  <br>**Co-author:**<br>**Dr. Sherly Puspha Annabel. L**<br>Published a paper in<br>Scopus Indexed<br>Journal | **Staff Paper Publication**<br>Deepak, A., Chavan, A. S., Bodhankar, A., Annabel, L. S. P., & Vanathi, A. (2023). Advancing Air Quality Prediction in Specific Cities Using Machine Learning. International Journal of Intelligent Systems and Applications in Engineering, 11(11s), 309-317.(Indexed in Scopus)<br><br>**Abstract:** The project aims to ensure optimal air quality in targeted urban areas by employing a sophisticated air quality monitoring system that collects data on contaminants from various locations. The release of hazardous gasses from industrial activities and the increasing emissions from vehicles have made air pollution a critical environmental and public health concern. Pollutants like particulate matter (PM), nitrogen dioxide (NO2), sulfur dioxide (SO2), ozone (O3), carbon monoxide (CO), and others, accumulate in the atmosphere, causing a deterioration in air quality and posing serious risks to both human health and the environment. The impact of air pollution is especially pronounced in major cities worldwide, where the concentration of industries and transportation systems worsens the problem. These urban areas often experience pollution levels that exceed the air quality standards set by governments, exposing residents to a harmful mixture of pollutants. By leveraging pre-collected data and employing the XG Boost algorithm, the ML technology calculates the Air Quality Index, thereby contributing to improved air quality management and its impact on public health. |

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| |  <br>Ancy Stephen Publisheda paper in SCIE Indexed Journal | Stephen, A., Arumugam, P., & Arumugam, C. (2023). An efficient deep learning with a big data-basedcotton plant monitoring system. International Journal of Information Technology, 1-7. (Indexed in Scopus only)<br>**Abstract:** In Agriculture, plant monitoring plays an important role from seedling to harvesting whichhelps farmers achieve a good yield. This paper focuses on building bigdata based cotton plantmonitoring system. To build this system, the plant images are collected from the agricultural field with an Android mobile App. The collected data are labeled using a web-based feature labelingapplication. After applying the pre-trained Deep-Learning (DL) classification algorithm to the labeledimages, the farmers benefited from the subsequent information. This paper discusses different pre-trained Convolutional Neural Network (CNN) architectures such as ResNet18, GoogLeNet,InceptionV3, and Mobile-NetV3 Large used to monitor the health of the cotton plant. In plant healthmonitoring, the classification and identification accuracy are improved with better feature extraction. In comparison with other methods employed in this paper, MobileNetV3Large provides high accuracy.The proposed model classifies 11 different cotton plant regions which are boll, bud, crown, flower,land, leaf, stem, unhealthy leaf, weed, young boll, and young leaf. The MobileNetV3Large model offersan accuracy, specificity, and precision value of 93.9%, 96.12%, and 97.48% when evaluated using theimages obtained from smartphones. The smart application developed also provides information to theframers regarding harvesting and yield. The proposed model is determined in real-world applicationsto identify whether a plant sprouted is a cotton plant or a weed. Next, it can also identify the health condition of the cotton plant and can predict the type of disease identified. |

Int. J. inf. tecnol.
https://doi.org/10.1007/s41870-023-01536-9

ORIGINAL RESEARCH

**An efficient deep learning with a big data-based cotton plant monitoring system**

**Ancy Stephen[1] · Punitha Arumugam[2] · Chandrasekar Arumugam[1]**

Received: 10 February 2023 / Accepted: 14 September 2023


**Abstract** In Agriculture, plant monitoring plays an important role from seedling to harvesting which helps farmers achieve a good yield. This paper focuses on building bigdata based cotton plant monitoring system. To build this system, the plant images are collected from the agricultural field with an Android mobile App. The collected data are labeled using a web-based feature labeling application. After applying the pre-trained Deep-Learning (DL) classification algorithm to the labeled images, the farmers benefited from the subsequent information. This paper discusses different pre-trained Convolutional Neural Network (CNN) architectures such as ResNet18, GoogLeNet, InceptionV3, and MobileNetV3 Large used to monitor the health of the cotton plant. In plant health monitoring, the classification and identification accuracy are improved with better feature extraction. In comparison with other methods employed in this paper, MobileNetV3Large provides high accuracy. The proposed model classifies 11 different cotton plant regions which are boll, bud, crown, flower, land, leaf, stem, unhealthy leaf, weed, young boll, and young leaf. The MobileNetV3Large model offers an accuracy, specificity, and precision value of 93.9%, 96.12%, and 97.48% when evaluated using the images obtained from smartphones. The smart application developed also provides information to the framers regarding harvesting and yield. The proposed model is determined in real-world applications to identify whether a plant sprouted is a cotton plant or a weed. Next, it can also identify the health condition of the cotton plant and can predict the type of disease identified.

**Keywords** Cotton plant image · Plant monitoring · Deep learning · Labelling

## 1 Introduction

Cotton plays an important role in satisfying human needs all over the world. There will be little more than a trace of cotton in each fabric [1]. India is one of the largest cotton producers in the world [2]. Even though India is the largest producer of cotton, the need for cotton is also increasing all over the world. Monitoring of the cotton plant is performed with the help of DL architecture [3, 4]. Thus, the demand for cotton may be met in this way, increasing the farmer's revenue [5–7]. Farmers now spend a significant amount of time manually monitoring the health of the plants. The computer constructed on handcrafted features chine (SVM) and bidirectional long-short-term memory (BiLSTM) [8, 9].

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|---|---|---|
| 2 |  <br>Ms. K. Deepa Published a patent (Indian Patent) | **<u>Patent Published</u>**<br><br>**Title of the invention :** Implementation Of Block Chain Security Scheme To Support Fog BasedInternet Of Things<br>**Name Of Inventor :**<br>1 . Dr.Yaswanth Kumar Avulapati2 . Manne Renuka<br>3 . Dr. Swarna Priya RM<br>4 . Nalineekumari Arasavali5 . Dr. S. Thamizharasan<br>6 . Dr. Padmavathi J<br>**7 . K. Deepa**<br>8 . GBSR Naidu<br>9 . Dr.P.M.K.Prasad<br>10 . Dr. Nagsen Samadhan Bansod11 . Arunkumar S<br>12 . Chtakunta Praveen Kumar<br>**Patent Application Number:** 202341032825<br>**Date of filing of Application :** 09/05/2023<br>**Publication Date:** 18/08/2023 |

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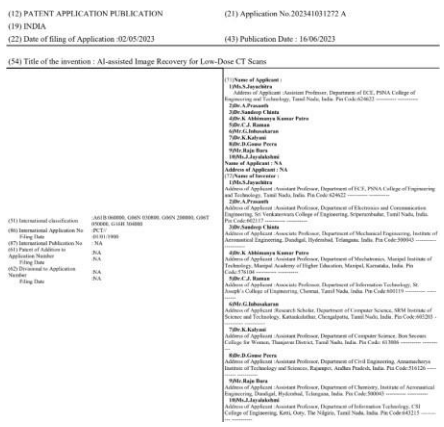
| 3 |  <br>(12) PATENT APPLICATION PUBLICATION<br>(19) INDIA<br>(22) Date of filing of Application :02/05/2023<br>(21) Application No.202341031272 A<br>(43) Publication Date : 16/06/2023<br>(54) Title of the invention : AI-assisted Image Recovery for Low-Dose CT Scans<br>Dr. C.J. Raman published a patent (Indian Patent) | **Title of the invention :** AI-assisted Image Recovery for Low-Dose CT Scans<br>**Name Of Inventor :**<br>1. Ms.S.Jayachitra<br>2. Dr.A.Prasanth<br>3. Dr.Sandeep Chinta<br>4. Dr.K Abhimanyu Kumar Patro<br>**5. Dr.C.J. Raman**<br>6. Mr.G.Inbasakaran<br>7. Dr.K.Kalyani<br>8. Dr.D.Gouse Peera<br>9. Mr.Raju Bura<br>10. Ms.J.Jayalakshmi<br>**Patent Application Number:** 202341031272 A**Date of filing of Application :**02/05/2023 **Publication Date:** 16/06/2023 |



Certificates received by Faculty

| S.No | Title of the topic | Name of the Staff | Conducted By | Date |
|---|---|---|---|---|
| 1. | AL3501 Natural Language Processing | Dr. Sherly Puspha Annabel. L | Anna University | 31-07-23 to 5-8-23 |
| 2. | AL3501 Natural Language Processing | Ms. K. Deepa | Anna University | 31-07-23 to 5-8-23 |
| 3. | Empowering Educators: Navigating Recent Trends | Priyadharshini.SP | Sathyabama University | 25.9.23 to 30.9.23 |

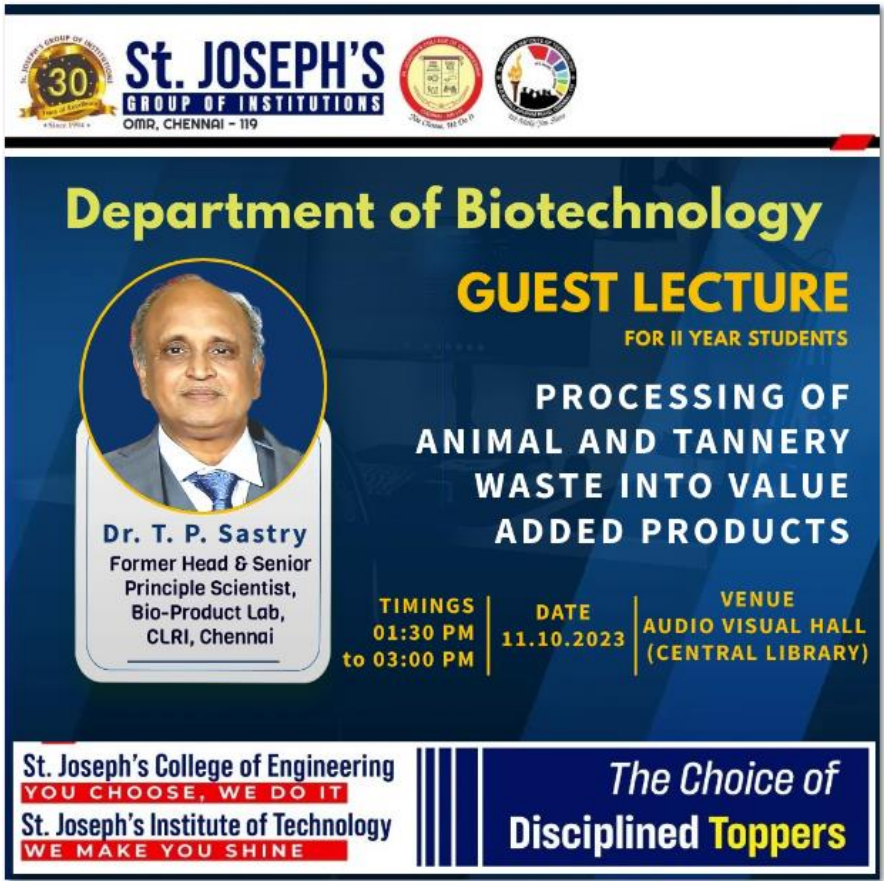


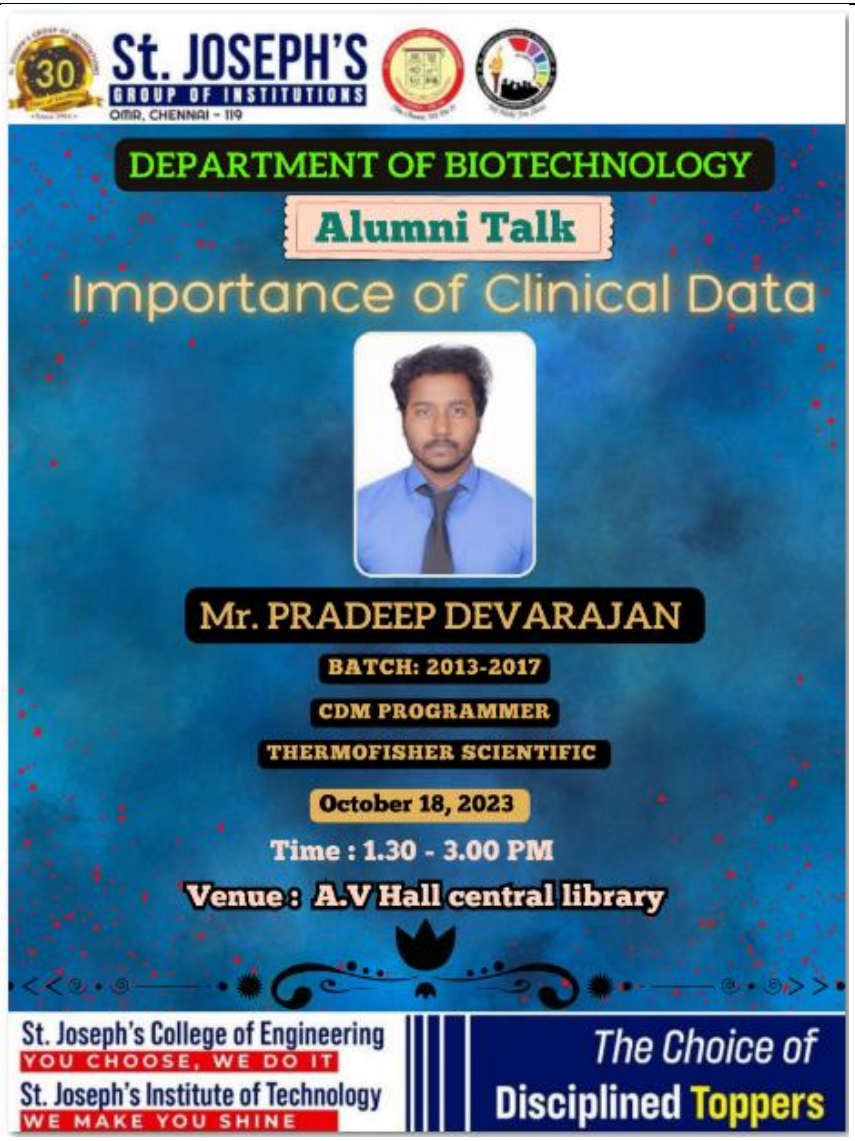
Certificates received by Faculty

## Online Course Completed by Faculty

| S.No. | Course Name | Name of the staff | Conducted By | Date of Completion |
|---|---|---|---|---|
| 1 | Python for Data Science | Dr. Sherly Puspha Annabel. L | NPTEL | **24-09-2023** |
| 2 | Data Science for Engineers | Dr. Sherly Puspha Annabel. L | NPTEL | **24-09-2023** |

# DEPARTMENT OF BIOTECHNOLOGY

| S.No. | Title of the Events and Photographs | Details of the Event |
|---|---|---|
| 1. | **GUEST LECTURE**<br>  <br><br>*Guest lecture Brochure* | 1. Guest lecture was organised for the II year students on 11.10.2023 on the topic Processing of Animal and Tannery waste into value adde products delivered by Dr.T.P.Sastry, Former Head and Senior Principle Scientist, CLRI<br><br>2. Alumni Talk was organised for the II year biotech student on 18.10.2023 on Importance of Clinical data, delivered by Mr. Pradeep Devarajan, CDM Programmer, Thermofisher Scientific<br><br>3. Guest lecture was delivered for the II year biotech students on 20.10.2023 on the topic Trends in industrial bioprocess delivered by Dr.Mohammed J. Taherzadeh, Professor, Swedish Centre of Resource Recovery, Sweden |




*Alumni Talk Brochure*

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| |  <br>*Guest lecture brochure* | |
| **2.** | **BIOTECH CLUB ACTIVITY** | Biozenith Club Activity was conducted for the II year biotech students on 12.10.2023. |


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DEPARTMENT OF BIOTECHNOLOGY
PRESENTS
BIOZENITH
CLUB ACTIVITIES
FOR
DATE: 12 /10/2023
II - YEAR
DAY: THURSDAY
PRELIMS
ROUND - 1
LET'S TAKE A CELLFIE
A FUNGUS AMONG US
ROUND - 2
TIMING
FINALS
10:20 A.M
To
12:20 P.M
BIOCHEMISTRY BALLATIONS
BIOHAZARDS
VENUE - BIOTECHNOLOGY MAIN LAB
St. Joseph's College of Engineering
YOU CHOOSE, WE DO IT
St. Joseph's Institute of Technology
WE MAKE YOU SHINE
The Choice of
Disciplined Toppers

| | | |
|---|---|---|
| | *Club Activity Brochure* | |
| **3.** | **AWARDS/PRIZE WON BY STUDENTS**<br>  <br>St. JOSEPH'S COLLEGE OF ENGINEERING<br>(An Autonomous Institution)<br>St. Joseph's Group of Institutions<br>OMR, Chennai - 119<br>DEPARTMENT OF BIOTECHNOLOGY<br>Congratulations<br>The Management, Principal, Faculty members and Students are proud to congratulate the following Biotechnology Students for Winning positions in Inter-College Fest held on 13th October 2023.<br>Name / Year / Event / Position / Event details<br>KEERTHANA S L — II Year (Biotech) — MED GADGET — I<br>KAMUSHREE T — TECH IT OUT — I<br>SAI SRINIVAS S — TECHNICAL QUIZ — II<br>ANUSHA S — MED GADGET — II<br>ILAKIYA T, KRITHIKA V, RUFINA PRICY S, MOHANAKRISHNAN B — URBAN FARM DESIGNING — III<br>INTER COLLEGE FEST at Saveetha Institute of Medical and Technical Sciences, Thandalam. 13th October 2023<br>CHAIRMAN<br>19/10/23 | Second year students Keerthana SL, Kamushree T, Sai Srinivas S, Anusha S, Ilakiya T, Krithika V, Rufina Pricy S and Mohanakrishnan B participated and won prize in Inter- College Fest conducted at Saveetha Institute of Medical and Technical science , Thandalam on 13.10.2023 |
| **4.** | **INDUSTRIAL PROJECTS DONE BY STUDENTS** | - |

**5.**

## PUBLICATIONS(ONLY PUBLISHED) DETAILS

Journal of Drug Delivery Science and Technology 90 (2023) 105094

Contents lists available at ScienceDirect

Journal of Drug Delivery Science and Technology

journal homepage: www.elsevier.com/locate/jddst

An *in-vitro* study on post-surgical breast wound healing activity by zinc oxide dots and its optimization using Box Behnken design

R. Mary Nancy Flora [a], S. Palani [b], V. Renuka [c], M. Chamundeeswari [d,*]

[a] Department of Chemical Engineering, Arunai Engineering College, Tiruvannamalai, 606603, India
[b] Department of Biotechnology, Arunai Engineering College, Tiruvannamalai, 606603, India
[c] Department of Chemical Engineering, St. Joseph's College of Engineering, Chennai, 600119, India
[d] Department of Biotechnology, St. Joseph's College of Engineering, Chennai, 600119, India

ARTICLE INFO

*Keywords:*
Post-surgical malignant wounds
Breast cancer recurrence
Curcumin-loaded zinc oxide bionanocomposite
Bio-enhancers
Fluorescent quantum dot
Drug delivery function
Neem essential oil-Aloe-vera gel complex

ABSTRACT

The development of effective treatments for post-surgical malignant wounds caused by recurrent breast cancer remains challenging. This study aimed to address this issue by creating a biocompatible fluorescent quantum dot using curcumin-loaded Zinc oxide bionanocomposite (Cur-ZnOBC). The ZnOBC was combined with neem essential oil-*Aloe-vera* gel complex to produce the nanoconjugate Cur-ZnOBC, which was then transformed into curcumin-based quantum dots (Cur-ZnOQDs) using a microwave-assisted method to enhance drug delivery function. The Box-Behnken design was used to optimize the concentration variables involved in the formation of Cur-ZnOQDs. The synthesized Cur-ZnOQDs were found to have low cytotoxicity to human breast cancer cells and exhibited wound healing activity in malignant wounds of breast cancer cells post-surgery. Cell death was noticed only at a concentration of 0.6 mg/mL, and the wound closure area increased from 22.3% to 44.2% at 48 h, which was 20 times greater than the control. Therefore, Cur-ZnOQDs at lower concentration range may act as bio-enhancers to improve outcomes associated with breast cancer and ultimately improve the survival rate.

*Published paper copy of Dr.M.Chamundeeswari*

1. Dr. **Chamundeeswari M** published a paper on **,** An In-vitro Study on Post-surgical Breast Wound Healing Activity by Zinc Oxide Dots and its Optimization using Box Behnken Design, Journal of Drug Delivery Science and Technology, Available online 30 October 2023, Volume 90, December 2023, 105094 **. Impact Factor :5.0**
2. Dr. **Chamundeeswari M, Dr.** K. R. Preethy, published a paper on, "Photocatalysis mediated reactive dye degradation using statistical approach to protect water resources", Biomass Conversion and Biorefinery, https://doi.org/10.1007/s13399-023-04960-w, 19 October 2023, **Impact Factor :4.0**

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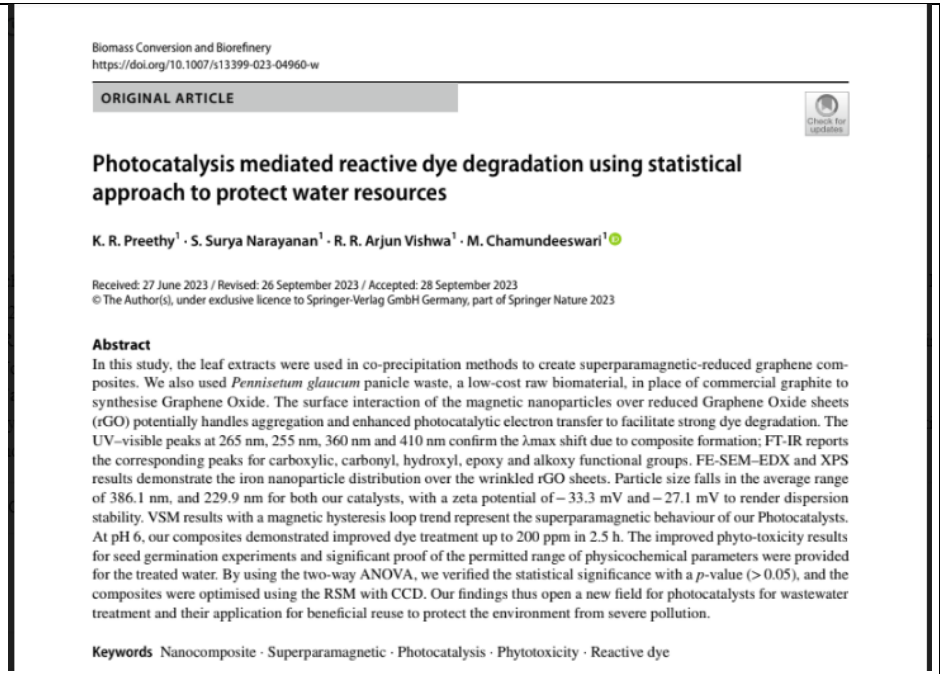
Biomass Conversion and Biorefinery
https://doi.org/10.1007/s13399-023-04960-w

ORIGINAL ARTICLE

**Photocatalysis mediated reactive dye degradation using statistical approach to protect water resources**

K. R. Preethy[1] · S. Surya Narayanan[1] · R. R. Arjun Vishwa[1] · M. Chamundeeswari[1]

Received: 27 June 2023 / Revised: 26 September 2023 / Accepted: 28 September 2023


**Abstract**
In this study, the leaf extracts were used in co-precipitation methods to create superparamagnetic-reduced graphene composites. We also used *Pennisetum glaucum* panicle waste, a low-cost raw biomaterial, in place of commercial graphite to synthesise Graphene Oxide. The surface interaction of the magnetic nanoparticles over reduced Graphene Oxide sheets (rGO) potentially handles aggregation and enhanced photocatalytic electron transfer to facilitate strong dye degradation. The UV–visible peaks at 265 nm, 255 nm, 360 nm and 410 nm confirm the λmax shift due to composite formation; FT-IR reports the corresponding peaks for carboxylic, carbonyl, hydroxyl, epoxy and alkoxy functional groups. FE-SEM–EDX and XPS results demonstrate the iron nanoparticle distribution over the wrinkled rGO sheets. Particle size falls in the average range of 386.1 nm, and 229.9 nm for both our catalysts, with a zeta potential of – 33.3 mV and – 27.1 mV to render dispersion stability. VSM results with a magnetic hysteresis loop trend represent the superparamagnetic behaviour of our Photocatalysts. At pH 6, our composites demonstrated improved dye treatment up to 200 ppm in 2.5 h. The improved phyto-toxicity results for seed germination experiments and significant proof of the permitted range of physicochemical parameters were provided for the treated water. By using the two-way ANOVA, we verified the statistical significance with a *p*-value (> 0.05), and the composites were optimised using the RSM with CCD. Our findings thus open a new field for photocatalysts for wastewater treatment and their application for beneficial reuse to protect the environment from severe pollution.

**Keywords** Nanocomposite · Superparamagnetic · Photocatalysis · Phytotoxicity · Reactive dye

*Published paper copy of Dr.M.Chamundeeswari and Dr. K.R.Preethy*
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<td>6.</td>
<td>STAFF CONFERENCE PRESENTATION</td>
<td>1. Dr. Chamundeeswari. M, Associate Professor, has presented a technical paper titled,<br>A Sustainable Approach towards the Isolation of Plastic Degrading Microorganism from Agriculture Soil, in 6th International Conference on Bioenergy, Environment and Sustainable Technologies (BEST2023), organised by Arunai Engineering College, Tiruvannamalai on 18$^{th}$ - 20$^{th}$ October 2023.</td>
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BEST2023EN17

**A SUSTAINABLE APPROACH TOWARDS THE ISOLATION OF PLASTIC DEGRADING MICROORGANISM FROM AGRICULTURE SOIL**

**Mohanapriya. P[1 *], Chamundeeswari. M[2]**

[1 *]*Research Scholar, Department of Biotechnology, St. Joseph's College of Engineering, Sholinganallur, Chennai- 600119.*

[2]*Associate Professor, Department of Biotechnology, St. Joseph's College of Engineering, Sholinganallur, Chennai- 600119.*

*Corresponding author: chamundeeswari@gmail.com*

**ABSTRACT**

Plastics are recalcitrant polymers released into the environment through astonishing use leading to accumulation and increased water and soil pollution. Transportation of these recalcitrant polymers in agricultural soil, sediment, and water leads to change of soil pH, temperature, water infiltration and soil infertility [1]. Nowadays, there is drastic rate of single use plastic accumulation in the environment has negative impact on human health; it enlightens to find the solution biological waste treatment [2]. Agriculture soil is rich source for the microbial diversity for potential degraders. The study aims to isolate plastic degrading microorganisms from the agriculture soil. The soil samples were collected at 5cm depth from soil surface and isolation of microorganism done by standards microbiological procedure. The isolated organisms were screened biochemical tests, genotyping and for the degradation activity using agar plate assay method. The organisms showed broad spectrum of degradation activity were confirmed by the zone of halo clearance around the inoculation of isolate with negative control organism. Further, the research has been extended to study plastic degradation using isolates and by products formed can be utilized as bio fertilizers for crops cultivation.

Key words: Polymers, Soil Pollution, Agar plate assay, Biochemical test, Degradation activity

References:

1. Nizzetto, L., Futter, M. and Langaas, S. (2016). Are agricultural soils dumps for microplastics of urban origin. Environmental Science and technology, 50: 10777–10779. https://doi.org/10.1021/acs.est.6b04140.
2. Peng, Y., Wu, P., Schartup, A. T., & Zhang, Y. (2021). Plastic waste release caused by COVID-19 and its fate in the global ocean. Proceedings of the National Academy of Sciences of the United States of America, 118(47).

*Copy of certificate Dr. M. Chamundeeswari*

2. Dr. L.F.A. ANAND RAJ, has successfully participated in IP Awareness/Training program " organized by the Intellectual Property Office, Government of India, on 6th October 2023

3. Dr. K.R. Preethy presented a paper on Bio waste valorization to create eco friendly reduced graphene oxide for skin care in National conferences on Advances in material science research conducted by the Department of Physics in Thiruvalluvar University on 19th and 20th October 2023.

INTELLECTUAL PROPERTY INDIA

NIPAM
NATIONAL IP AWARENESS MISSION

Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
Office of the Controller General of Patents, Designs and Trade Marks

CERTIFICATE

This is to certify that, **DR. L. F. A. ANAND RAJ , FACULTY** of **ST. JOSEPH'S COLLEGE OF ENGINEERING** has successfully participated in IP Awareness/Training program under

**NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION**

**on October 26,2023**

Azadi ka Amrit Mahotsav

Organized by
**Intellectual Property Office, India**

**Date:November 01,2023**

(Prof. (Dr) Unnat P. Pandit)
CONTROLLER GENERAL OF
PATENTS, DESIGNS & TRADE MARKS

*Copy of certificate Dr. L.F.A. Ananda Raj*

திருவள்ளுவர் பல்கலைக்கழகம்

THIRUVALLUVAR UNIVERSITY

(State University Accredited with "B+" Grade by NAAC)

Serkkadu, Vellore - 632 115, Tamil nadu.

TNSCST

DEPARTMENT OF PHYSICS

National Conference on Advances in Material Science Research (NCAMSR - 23)

(Sponsored by Tamil Nadu State Council for Science and Technology)

19th & 20th October 2023

CERTIFICATE

This is to certify that Dr / Mr / Mrs / Miss PREETHY.KR, Assistant Professor, Dept. of Biotechnology, St. Joseph's College of Engineering, Chennai, has participated/presented (oral/poster) / given an invited lecture on the paper entitled Bio-Waste Valorization to create Eco-friendly Reduced Graphene oxide for Skin care in the National Conference on Advances in Material Science Research (NCAMSR - 23) organized by the Department of Physics, Thiruvalluvar University, Vellore held on 19th & 20th October 2023.

Dr.S.UVARAJAN
Convener

THIRUVALLUVAR UNIVERSITY DEPT OF PHYSICS

Prof. Dr. R.VIJAYARAGAVAN
Registrar i/c.

Prof. Dr. T.ARUMUGAM
Vice-Chancellor

*Copy of certificate Dr. K.R. Preethy*

# DEPARTMENT OF CHEMICAL ENGINEERING

| S.No. | Title of the Events and Photographs | Details of the Event |
|---|---|---|
| 1. | **SYMPOSIUM** | On 02.09.2023 Department of Chemical Engineering has Organised a National Level Technical Symposium **" *Chemtrix 23*"**<br>Number of Particpants : 118<br>Number of colleges Participated : 15 |
| 2. | **COMPETITIONS ATTENDED BY STUDENTS** | ¤ |
| 3. | **NPTEL COURSES** | **Dr.N.Venkatesh**, Professor, Department of Chemical Engineering has achieved Elite in NPTEL course "The Science of Happiness and Wellbeing"<br>  |
| 4. | **PUBLICATIONS(ONLY PUBLISHED) DETAILS** | Dr.S.Sujatha, Assistant Professor, Department of Chemical Engineering has published a paper on " Efficient removal of methylene blue by iron nanoparticles syntesised by a novel green method using jujube leaf extract: Characterization, kinetics and isotherm studies" in Biomass conversion and Biorefinery. |

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| | | Home › Biomass Conversion and Biorefinery › Article<br>**Efficient removal of methylene blue dye by iron nanoparticles synthesized by a novel green method using jujube leaf extract: characterization, kinetics, and isotherm studies**<br>Original Article \| Published: 16 November 2023<br>(2023) Cite this article<br>Biomass Conversion and Biorefinery<br>Aims and scope →<br>Submit manuscript →<br>G. Venkatesan, S. Koteshwaran, M. Rengasamy ✉, R. Rajeshkannan, V. Saravanan, S. Sujatha, Pancharnoorthy Saravanan & M. Rajasimman<br>192 Accesses Explore all metrics →<br>**Abstract**<br>The most promising eco- friendly green synthesized iron nanoparticles (FeNPs) using jujube leaf extract to decolorize methylene blue (MB) dye was established. Synthesized nanoparticles were characterized through different techniques like TEM, SEM, and FTIR. Various parameters such as dye concentration (5 to 20 mg $L^{-1}$), nanoparticles load (0.5 to 2.5 mg), temperature, pH, and contact time (30 to 150 min) were optimized. A maximum MB dye removal efficiency of 93.5% is achieved at a time interval of 150 min, temperature 30 °C and pH 9 with 2.5 mg FeNPs for a concentration of 20 -$mgL^{-1}$ methylene blue. The adsorption behavior was monitored using a wide range of isotherm models which includes Freundlich, Dubinin—Radushkevich, Langmuir, and Temkin. The Elovich and intraparticle diffusion models, as well as the dynamical models of pseudo- first- and pseudo- second order has been analyzed for the data obtained from dynamic adsorption. Experimental results were consistent along the paradigm of pseudo- second order. Langmuir adsorption isotherm well suited for adsorption data across exclusive concentration range in comparison to other models. The green synthesized FeNPs has high sorption capacity (1000 mg/g) and environmentally friendly in nature, makes it a potential candidate for wastewater treatment applications.<br>Graphical Abstract<br>Access this article<br>Log in via an institution →<br>Buy article PDF 39,95 €<br>Price includes VAT (India)<br>Instant access to the full article PDF.<br>Rent this article via DeepDyve<br>Institutional subscriptions →<br>Sections Figures References<br>Abstract<br>Data availability<br>References<br>Acknowledgements<br>Author information<br>Ethics declarations<br>Additional information<br>Rights and permissions |
| **5.** | **PATENTS PUBLISHED** | **Dr.P.VRenuka**, Professor, Departmenty of chemical Engineering has published a Patent on ***"TRACKING OF VEHICLES IN SMART CITIES USING SPATIO TEMPORAL ANALYSIS"***<br>Application No : **202341062778 A**<br>(12) PATENT APPLICATION PUBLICATION (21) Application No.202341062778 A<br>(19) INDIA<br>(22) Date of filing of Application :19/09/2023 (43) Publication Date : 06/10/2023<br>(54) Title of the invention : TRACKING OF VEHICLES IN SMART CITIES USING SPATIO TEMPORAL ANALYSIS |

ABSTRACT TRACKING OF VEHICLES IN SMART CITIES USING SPATIO-TEMPORAL ANALYSIS The tracking of vehicles in smart cities is an important component for urban safety and efficiency. With the help of spatio-temporal analysis, the adequate planning of the city's mobility network can be made. By analyzing data gathered from different sources such as vehicle location history, sensor readings and video feeds, it is possible to track and monitor a vehicle's trajectory through a smart city. This data can be used to better understand and predict how a vehicle moves through a city's streets, and can even help identify patterns in how vehicles traverse through intersections to improve traffic flow. By establishing patterns of movement, urban planners can improve the overall safety and energy efficiency of a city, as well as reduce traffic congestion. Spatio-temporal analysis can also incorporate real-time data and forecasts made by the city's traffic monitoring system, enabling shorter response times for interventions and reducing the time-cost of traffic management. By monitoring and tracking vehicles in smart cities, safety, efficiency, and sustainability can be improved.

# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

| Sl. No. | Event with Photo | Description |
|---|---|---|
| 1 | Workshop- REACT JS | **Date** : 11th & 12th October<br>**Venue** : **CSE LAB 2nd Floor**<br>**Nature of Event :** Workshop<br>**Participants** : Engineering II year Students<br>**Organized by** : Department of CSE<br>**Objective** : **To** build your application using reusable components, making your code more modular, easier to maintain, and more scalable<br>**Outcome:** To gain knowledge, skills, attitudes, and behaviors |
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| **2** | Workshop- UI/UX design | |
| |  | **Date** : 11th & 12th October<br>**Venue** : CSE LAB FIRST FLOOR<br>**Nature of Event** : Workshop<br>**Participants** : Engineering II year Students<br>**Organized by** : Department of CSE<br><br>**Objective:**<br>To provide users with an enjoyable and satisfying interaction with digital products.<br><br>**Outcome:**<br>• To gain knowledge, skills, attitudes, and behaviors |

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| 3 | Workshop – Devops & Docker | |
| |  | **Date** : 11th & 12th October<br>**Venue** : **CSE LAB 2nd Floor**<br>**Nature of Event** : Workshop<br>**Participants** : Engineering II year Students<br>**Organized by** : Department of CSE<br><br>**Objective:**<br>• To create applications using unique interconnected components<br><br>**Outcome:**<br>• To gain knowledge, skills, attitudes, and behaviors |

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| 4 | WORKSHOP – Ethical Hacking and counter measures | |
| |  | **Date** : 11th & 12th October<br>**Venue** : CSE LAB FIRST FLOOR<br>**Nature of Event** : Workshop<br>**Participants** : Engineering II year Students<br>**Organized by** : Department of CSE<br><br>**Objective:**<br>• To evaluate the security of and identify vulnerabilities in target systems, networks or system infrastructure.<br>**Outcome:**<br>• To gain knowledge, skills, attitudes, and behaviors |
| 5 | **MOCK INTERVIEW – II YEARS** | |
| | | **Date** : 28-10-23<br>**Venue** : Hazel hall – placement block<br>**Nature of Event** : Mock Interview<br>**Participants** : Engineering II year Students<br>**Organized by** : Department of CSE<br><br>**Objective:**<br>• To provides job seekers an opportunity to practice, receive feedback and improve their skills.<br><br>**Outcome:**<br>• **It** helps you develop interview strategies, enhance |

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| |  | your communication skills, answer challenging questions, and ease the nerves that many experiences before an actual job interview |

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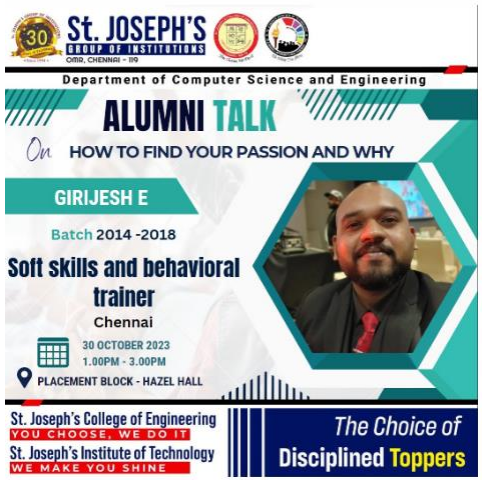
| **6** | Alumni Talk- Soft skills and Behavioral trainer | |




**Date** : 30-10-23
**Venue** : Hazel hall – placement block
**Nature of Event** : Alumni Talk- Soft skills and Behavioral trainer
**Participants** : Engineering II & III year Students
**Organized by** : Department of CSE

**Objective:**

- To assess their own strengths and weaknesses and help them use these skills to attain more success in their professional life

**Outcome:**

- To serve as a platform for the institute to engage with their graduates and gain insights into their career progress and achievements.

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| 7 | Club Activity – FIGMA FIESTA | |
| |  | **Date** : 31-10-23<br>**Venue** : Library AV Hall<br>**Nature of Event** : Club Activity<br>**Participants** : Engineering II year Students<br>**Organized by** : Department of CSE<br><br>**Objective:**<br>• To create, share, and test designs for websites, mobile apps, and other digital products and experiences.<br>**Outcome:**<br>• To help students develop sense of unity and teamwork, learning how to work with others in reaching the same goals. |

# DEPARTMENT OF MECHANICAL ENGINEERING

| Sl No | Name of the Activity | Remarks |
|---|---|---|
| 1 |   | ➢ NGO Visits were organized for the second year students on 07th October 2023.St.Joseph's Home for children,Paradise Home,Annai bharatha matha educational and Charity trust were visited by the studenst of II Year A,B and C section students respectively. |

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| 2 |  | The Indian Institute of Welding ,IIW-India Student chapter was inaugrtaed on 12th October 2023.Dr.V.Balasubramanian,Director,CEMAJOR was invited as chief guest to preside the event. |
| 3 |  | HODs and Faculty members Visited RK Nutecg Pvt Ltd for signing a MOU with the Industry. |

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. **Publications:**
   **The following staff members have published the research papers in Journal/Conferences organized during the month of October at International/National Level.**

| S. No. | Name of the Author | Paper Title | Name of the Conference/Journal | Publication Details | Date of Publication |
|---|---|---|---|---|---|
| 1. | P. Thilagavathi; J. Martin Leo Manickam | Circumcenter Based Mobile Beacon Aided Localization in Wireless Sensor Networks | 2023 3rd International Conference on Pervasive Computing and Social Networking (ICPCSN) | 1107-1111 | Oct 2023 |

# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

| Sl. No. | Photographs Captured During Events | Corresponding remarks (Minimum 300 words) |
|---|---|---|
| 1 | **Alumni talk**<br>  <br><br>***PIC: EVENT POSTER*** | **Date:** 12th Oct 23<br>Our department organized an alumni talk for students on the topic "**Awareness of joining Defence force & Special force among students**" by **our Alumni Mr. Diwakar Dhanasekaran, (2006-2010 Batch) M.Tech. (Armament Technology) Electronics and Mechanical Engineers, National Security Guards** on **12-10-2023** between 10:00 A.M to 11:40 A.M. The session was very interactive and useful to the students to get insights about defence sector and opportunities in special force. |

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| 2 | **Guest Lecture**<br>  <br><br>***PIC: EVENT POSTER*** | Our department organized a guest lecture for Ist year students on the topic "**Skills, Responsibilities, Job Opportunities, and Online Courses for Electrical Engineers with a focus on emerging technologies and latest trends**" by **Mr. S.Selvakumar, Business Head of Power Projects Limited in Porur, Chennai** at Laurel Hall. He covered a wide range of topics,including the essential skills required for electrical engineers, the responsibilities of electrical engineers in project and product development, the top job opportunities in the field, and recent online courses that electrical engineers can take to stay up-to-date with emerging technologies. The lecture was informative and inspiring, and students found it to be a valuable learning experience. |

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| 3 | **Student Workshop**<br>  <br><br>***PIC: EVENT POSTER*** | Our department of Electrical & Electronics Engineering organized a student workshop for second year students on "Analysis and Execution of Electrical Design in the Construction Industry" by UNIQUE MEP on 16-17 October in Electric Circuits Lab. The forenoon session of the workshop provided students with basic knowledge about Dailux software and electrical design using the Dailux software followed by hands-on training for students during afternoon session. |
| 4 | **Student Workshop** | Our department of Electrical & Electronics Engineering organized a two days student workshop for second year students on "**Electric Vehicle**" on October 16-17, 2023, at the Electric<br><br>Vehicle Lab. The resource persons from **Emcog Solutions** gave a session on the basics of electric vehicles, the different parts of electric cars, and a hands-on session on electric vehicles. The |

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| |  <br>***PIC: EVENT POSTER*** | students found the workshop to be valuable and informative, and the instructors were knowledgeable and helpful. Overall, the workshop was a success in providing students with the knowledge and skills they need to learn about electric vehicles. |
| 5 | **STUDENT WORKSHOP**<br>  <br>  | Our department of Electrical & Electronics Engineering organized a two days student workshop for second year students on "**Trends in Solar PV Technology and Entrepreneurship**" on October 16-17, 2023, in the Electrical Machines Lab. The resource persons from **TIAS** gave a session on the basics of solar photovoltaic systems and their applications, as well as hands-on training on solar PV systems. Overall, the workshop was successful in providing students with the knowledge and skills they |

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| | *PIC: EVENT PHOTOS* | need to learn about the solar PV technology and entrepreneurship. |
| 6 | **Student Workshop**<br>  <br><br>*PIC: EVENT POSTER* | Our department of Electrical & Electronics Engineering organized a two days student workshop for second year students on "**Hands-On PCB Prototyping-Design and Fabrication**" on October 16-17, 2023, in the Power Electronics Lab. The resource persons from **Towards Technology** covered the basics of PCB prototyping and the design procedure for fabrication, as well as hands-on training on PCB prototyping and fabrication. Participants found the workshop to be valuable and informative, and the instructors were knowledgeable and helpful. |

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| 7 | **Student Workshop**<br>  <br><br>***PIC: EVENT POSTER*** | Our department of Electrical & Electronics Engineering organized a two days student workshop for second year students on "**Accelerating Pace of Automation in Manufacturing**" on October 16-17, 2023, in the Electric Circuits Lab. The workshop conducted by First Logic Automation explored the concept of automation in manufacturing and taught students about the process of automation and different processes involved in it. Participants found the workshop to be valuable and informative. Overall, the workshop was a success in providing students with the knowledge and skills they need to understand and participate in the accelerating pace of automation in manufacturing. |
| 8 | **Placement club activities** | On October 11, 2023, a **mock presentation was organized for second-year EEE students** with the aim of improving their future presentation skills. The event focused on key aspects such as content structure, effective communication, and engaging visual aids. Students were encouraged to practice clear articulation and maintain eye contact with the audience. |

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| |  <br>*PIC: EVENT POSTER* | Feedback was provided to help them refine their delivery and improve confidence. Additionally, the importance of understanding the target audience and adapting the presentation to their needs was emphasized. This initiative aimed to prepare the students for successful presentations in their future careers, equipping them with valuable skills for professional communication. |
| 9 | **Placement club activities** | Seera Activity recently organized a **MATLAB simulation class for second-year Electrical and Electronic Engineering (EEE) students**. The session focused on enhancing their understanding of Simulink, a crucial tool in their academic and future professional endeavours. The aim was to equip students with practical skills that align with core industry requirements, fostering a solid foundation for their future careers. By delving into |

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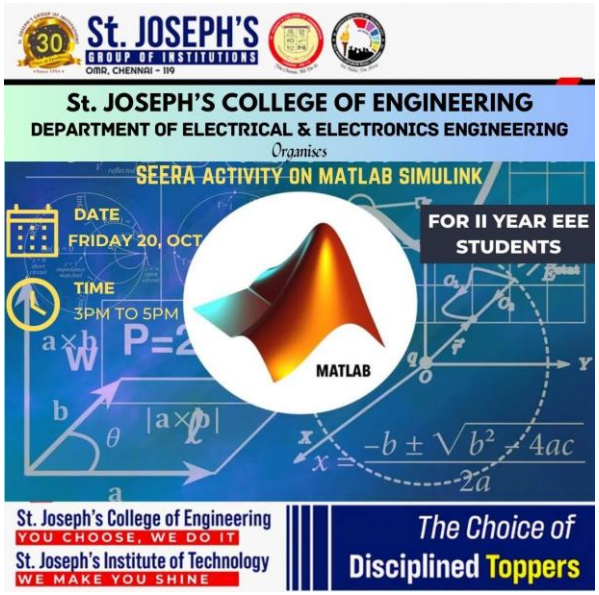
| |  <br>***PIC: EVENT POSTER*** | Simulink, participants gained valuable insights into real-world applications and scenarios within the realm of EEE, ensuring a well-rounded and applicable knowledge base for their journey ahead. |
| 1 | **Placement club activities** | Bright Byte Coders Club recently hosted a comprehensive session for second-year Electrical and Electronic Engineering (EEE) students, on the topic "**Fundamentals of C programming"**. 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 providing a solid foundation in C programming, participants |

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| |  <br>*PIC: EVENT POSTER* | were better equipped to tackle challenges in their academic coursework and future professional pursuits. The emphasis on problem-solving aimed to cultivate 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. |
| 1 | **Placement club activities** | A recent session organized by final-year IT students on October 30, 2023, catered specifically to the final-year students, spotlighting the intricate realm of **Data Structures in C Programming**. The purpose was to elevate the programming prowess of participants, providing them with a strategic edge in cracking placement interviews. Delving into the nuances of data structures, the session offered practical insights and problem-solving strategies |

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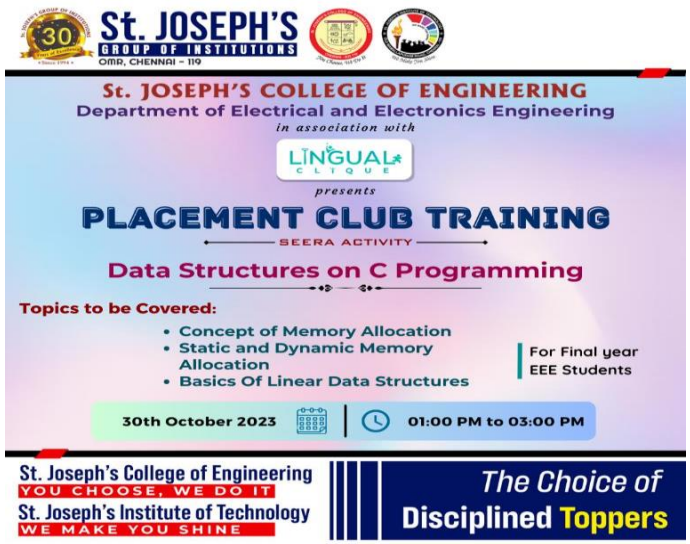
| |  <br>***PIC: EVENT POSTER*** | crucial for success in both academic pursuits and the professional arena. With an emphasis on hands-on learning, the event aimed to bridge the gap between theoretical knowledge and its application, empowering final-year students to navigate the complexities of data structures with confidence. The collaborative effort of final-year IT students created a dynamic learning environment conducive to honing essential skills for their imminent job placements. |
| 1 | **IEEE activities** | IEEE Power and Society in associated with IEEE St. Joseph's College of Engineering organized a webinar "UNLEASH YOUR VOICE " on the topic of "OVERCOME THE FEAR OF PUBLIC SPEAKING" .The motive of this webinar was to break the fear of public speaking among the students and we hope the motive achieved at the end of the session .This session was more interactive and a way two communication session .In this we have quiz and practice sessions also .Over 40 participants from II ,III,IV year of EEE were actively participated. E-Certificate were provided to all the active participants. |

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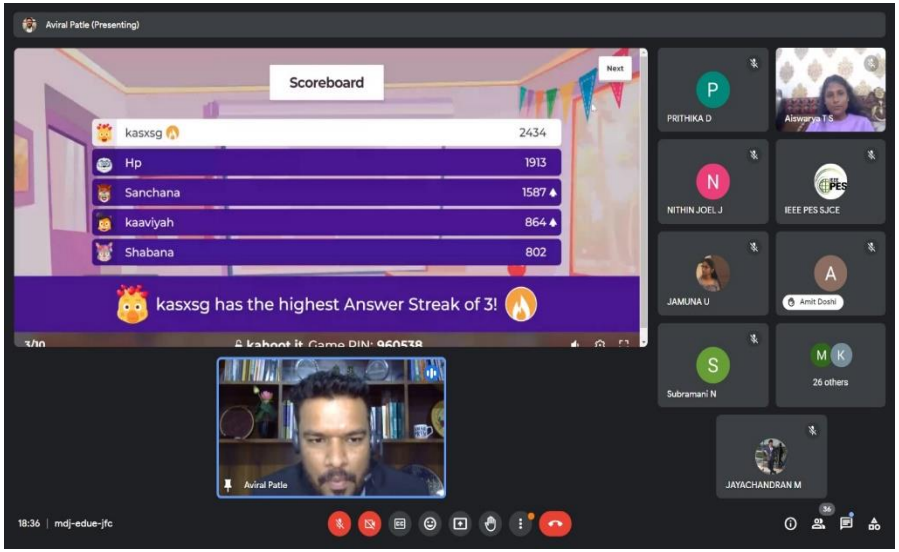
| |  <br>***PIC: EVENT PHOTO*** | |
| 1 | **IEEE activities** | On the occasion of IEEE day 2023, We the IEEE Power and Energy Society of St. Joseph's College of Engineering Student Branch Chapter conducted a webinar session "POWER THE FUTURE" and the topic of the webinar is "ROBOTICS" by Mr Arun Kumar ,vice president at Retech solutions . The main motive of the session to give the knowledge about robotics and form a base for their future on the field of robotics .This session took place on 9-10-23 with 30 participants from department of EEE joined over Gmeet. As a token of appreciation E-certificate were issued to all the participants. |

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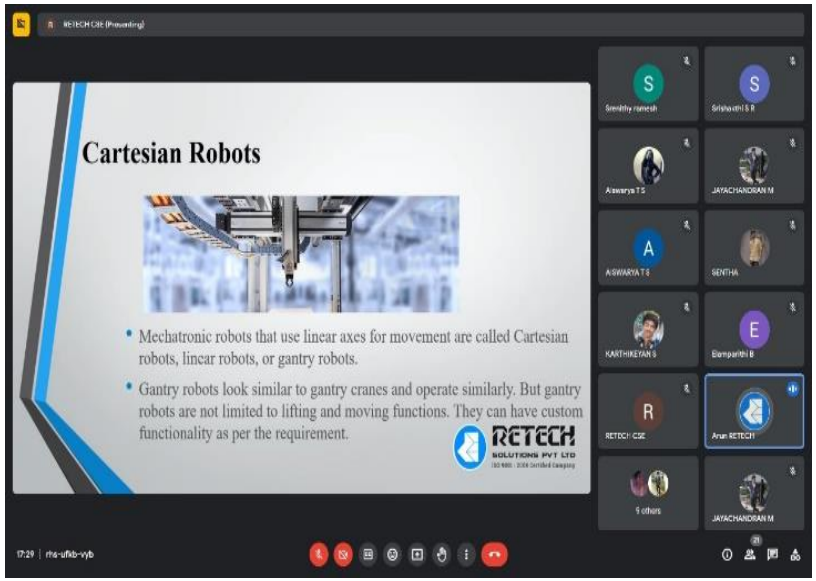
| |  <br>**Pic: EVENT PHOTO** | |
| 1 | **IEEE activities** | On behalf of IEEE Day celebration 2023, the IEEE Women In Engineering Affinity Group of St. Joseph's College of Engineering Student Branch hosted the event "RedefineHer" on October 5th from 6 pm to 7 pm (IST) via Google Meet. The event's theme centered around 'Financial empowerment for women' handled by Ms. S. Harivardhagini, Chair of IEEE WIE AG Hyderabad section, as the speaker.She explained how the Financial empowerment for women is a crucial step towards gender equality, granting them the tools and knowledge needed to secure their financial futures and independence. Totally 30 participants joined the webinar.The session concluded with the presentation of |

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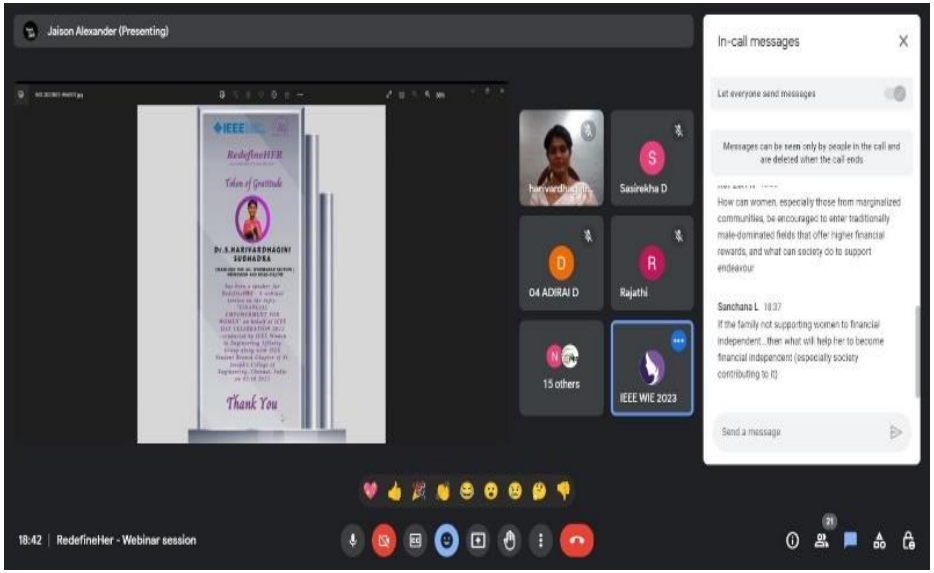
| |  <br>**PIC: EVENT PHOTO** | an E-memento to the speaker, acknowledging her contribution. |
| 1 | **IEEE activities** | **IEEE Robotics and Automation Society in associated with IEEE St. Joseph's College of Engineering organized a webinar "ROBOTIC ERA" on the topic of "ONLINE QUIZ BASED ON ROBOTICS ON BEHALF OF IEEE DAY" .The motive of this Quiz was learn the new automation technology among the students and we hope the motive achieved at the end of the session .This session was conducted on 6th October 2023 at 5pm. In this quiz and practice sessions also provided. Over 30 participants from II ,III,IV year of EEE were actively participated. E-Certificate were provided to all the active participants.** |

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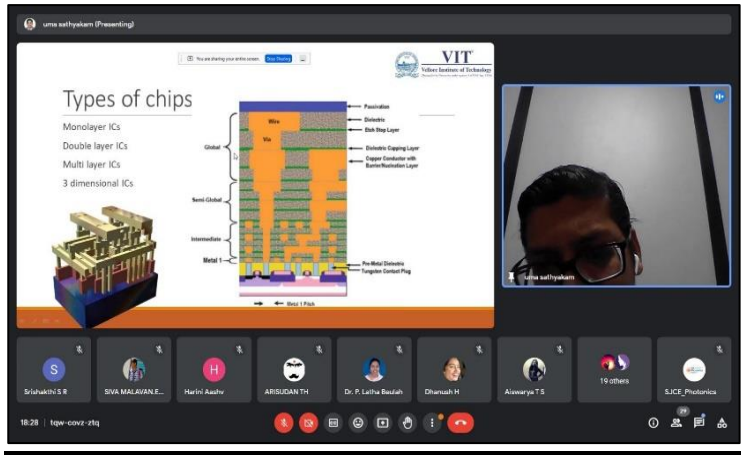
| |  <br>***PIC: EVENT POSTER*** | |
| 1 | **IEEE activities**<br>  | The IEEE Photonics Society Of St. Joseph's College Of Engineering Conducted 'TechForce', a technical online mode webinar for 3rd and 4th year EEE students, on October 7, 2023. The event aimed to inspire and motivate students to explore in the field of High Speed VLSI interconnects and foster collaboration among enthusiasts and featured a keynote address by Dr. P. Uma Sathyakam , an Associate Professor in School of Electrical Engineering, Vellore Institute of Technology.Senior Member of IEEE EDS/EPS and a Member of Indian National Science Congress, highlighting the significance of High Speed VLSI interconnects and its potential. The event saw the cumulative participation of 30 students over the Gmeet. The session was generally well received by the |

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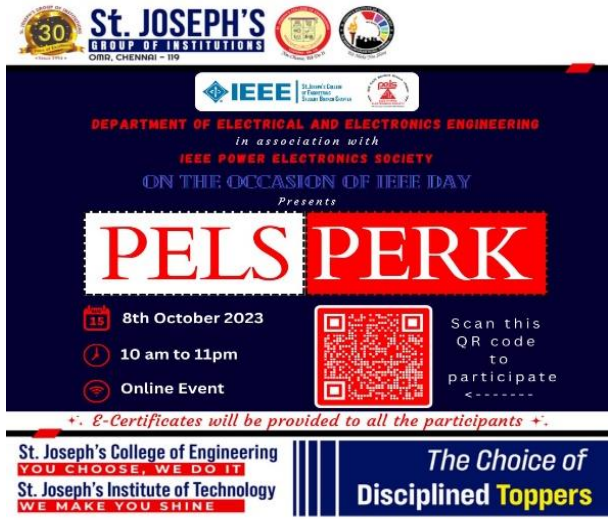
| | ***PIC: EVENT PHOTO*** | participants and was very informative. Participants were also allowed to interact with the speaker and get answers to their queries regarding High Speed VLSI interconnects and IEEE as a whole. E-Certificates were provided to all who participated in the event. |
| 1 | **IEEE activities**<br>  <br><br>***PIC: EVENT POSTER*** | In honor of IEEE Day, the **IEEE Power Electronics Society** and the **IEEE Student Branch Chapter** of St. Joseph's College of Engineering proudly presented "**PELS PERK**," an exciting and thought-provoking **quiz program**, **on October 8, 2023**. The goal of this virtual event, which took place from 10:00 AM to 11:00 PM, was to help attendees explore and fortify their ties within the IEEE community while also promoting a broader knowledge of the benefits of IEEE PELS membership. With the help of the program, engineers, students, and hobbyists could put their knowledge to the test, connect with like-minded people, and learn about the many benefits of joining the IEEE PELS community. The event invited involvement from a worldwide and diverse audience by adopting the internet approach. "**PELS PERK**" honored the essence of IEEE Day and supported the organization's objective of advancing technology for the good of humanity. |

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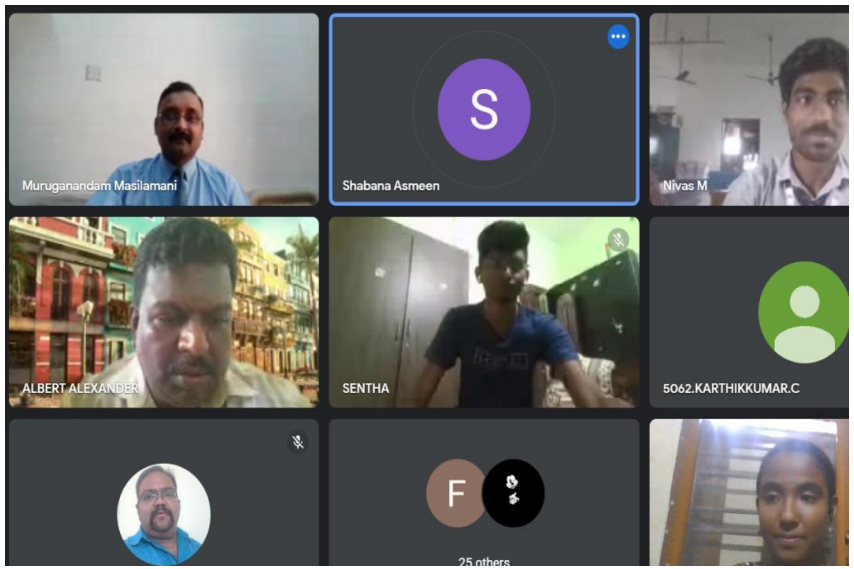
| 1 | **IEEE activities**<br>  <br><br>***PIC: EVENT PHOTO*** | On the **27th of October 2023**, from 10:00 AM to 11:00 AM, a groundbreaking online event titled "Sensing the Future: Innovation in Arduino and Sensor Projects" was presented by **IEEE PELS SJCE** in collaboration with **IEEE PELS Madras Chapter**. The event featured **Dr.M.Muruganandam**, M.E., Ph.D., a distinguished lecturer at the Sultanate of Oman's IBRI University of Technology and Applied Science, as the keynote speaker **Dr.M.Muruganandam** shared invaluable insights into the latest developments and innovations in the realm of Arduino and sensor projects. His expertise shed light on the cutting-edge advancements and applications in this field, enriching the knowledge of the attendees. This event marked a significant step in fostering knowledge dissemination and engineering excellence, emphasizing the commitment of IEEE PELS to advancing technology and education in the world of power electronics and beyond. |
| 1 | **IEEE activities** | **On the occasion of IEEE day 2023, We the IEEE Power and Energy Society of St. Joseph's College of Engineering Student Branch Chapter conducted a photo contest "ECO CAPTURE" This contest took place from October 6th to October 15th.In this contest around 101 students from various colleges took part and the best photos were selected by our jury ,which was posted in our social media platform and the winners were selected based on the likes and the best photograph . As token of appreciation e-** |

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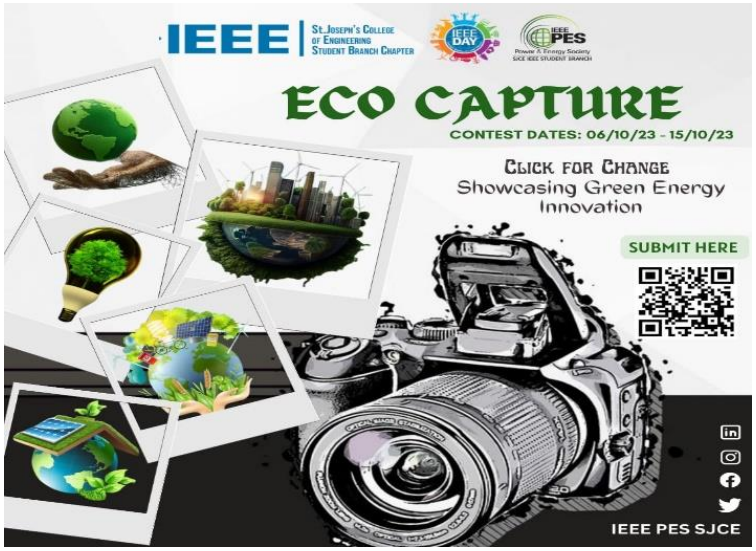
| |  <br>*PIC: EVENT POSTER* | **certificate will be provided to all winners and the participants.** |
| 2 | **IEEE activities** | On the occasion of IEEE day 2023, We the IEEE Student Branch Chapter Of St. Joseph's College of Engineering organized a series of webinar "**ExperTalks**-*TALES OF TRIUMPHS*". The first session by Mr. Mohamed Aashik S, EX-chairperson IEEE SJCE SB on 10-10-23 . The main motive of this event is to bridge the gap between past and present. During this session the speaker shares his insights about his IEEE journey and the session was more interactive. Students around 55 were took part through G meet. As a token of appreciation E -certificates were issued to all the participants. |

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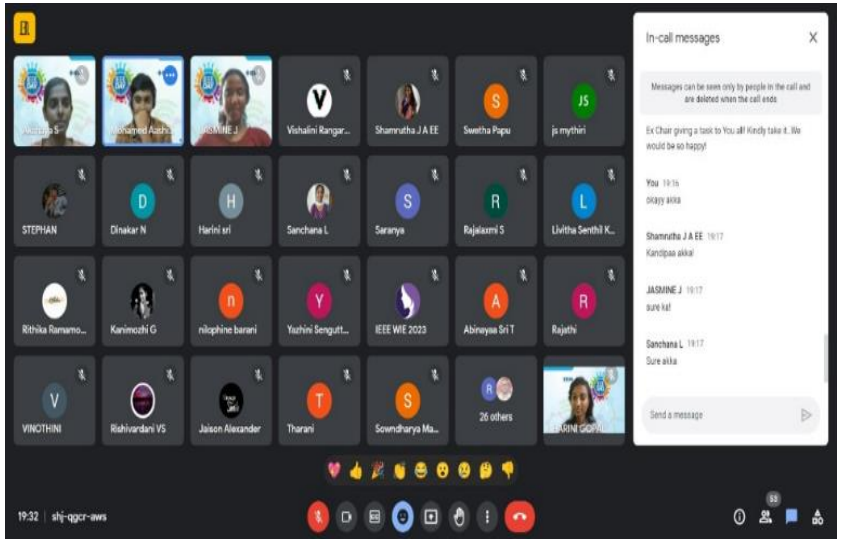
| |  <br>***PIC: EVENT PHOTO*** | |
| 2 | **IEEE activities** | On the occasion of IEEE day 2023, We the IEEE Student Branch Chapter Of St. Joseph's College of Engineering organized a series of webinar "**ExperTalks**-*TALES OF TRIUMPHS*". The Second session by Ms .Priyanka Jayakumar, EX-Secretary IEEE SJCE SB on 12-10-23 . The main motive of this event is to bridge the gap between past and present. During this session the speaker shares her insights about her IEEE journey and the session was more interactive. Students around 50 were took part through G meet. As a token of appreciation E -certificates were issued to all the participants. |

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| |  <br>***PIC: EVENT PHOTO*** | |
| 2 | **IEEE activities** | On the occasion of IEEE day 2023, We the IEEE Student Branch Chapter Of St. Joseph's College of Engineering organized a series of webinar "**ExperTalks**-*TALES OF TRIUMPHS*". The Third session by Mr. Arangan Rishikesh, EX-chairperson IEEE SJCE SB 2021 on 13-10-23 . The main motive of this event is to bridge the gap between past and present. During this session the speaker shares his insights about his IEEE journey and the session was more interactive. Students around 35 were took part through G meet. As a token of appreciation E -certificates were issued to all the participants. |

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| |  <br>***PIC: EVENT PHOTO*** | |
| 2 | **IEEE activities** | On the occasion of IEEE day 2023, We the IEEE Student Branch Chapter Of St. Joseph's College of Engineering organized a series of webinar "**ExperTalks**-*TALES OF TRIUMPHS*". The fourth session by Ms. Abinaiya Sri T, EX-chairperson IEEE WIE SJCE SB on 15 -10-23 . The main motive of this event is to bridge the gap between past and present. During this session the speaker shares her insights about her IEEE journey and the session was more interactive. Students around 45 were took part through G meet. As a token of appreciation E -certificates were issued to all the participants. |

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| |  <br>***PIC: EVENT PHOTO*** | |
| 2 | **IEEE activities** | On the occasion of IEEE day 2023, We the IEEE Student Branch Chapter Of St. Joseph's College of Engineering organized a series of webinar "**ExperTalks**-*TALES OF TRIUMPHS*". The fifth session by Mr.Swathish G , EX-chairperson IEEE RAS SJCE SB 2021 on 19-10-23 . The main motive of this event is to bridge the gap between past and present. During this session the speaker shares his insights about his IEEE journey and the session was more interactive. Students around 20 were took part through G meet. As a token of appreciation E -certificates were issued to all the participants |

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| |  <br>***PIC: EVENT PHOTO*** | |
| 2 | **IEEE activities**<br>  | The IEEE Student Branch chapter of St. Joseph's College of Engineering proudly hosted the 24-hour international-level online programming competition, IEEE Xtreme 17.0, with resounding success. The event garnered over 140 registrations from participants across the globe, underlining its global recognition and appeal.<br><br>To ensure that every registered participant could actively participate, the competition was held in both offline and online modes. Participants who could join us on our campus engaged in a collaborative and inspiring offline setting, while those unable to be present physically were seamlessly connected through Google Meet. This setup allowed all participants to effectively discuss and tackle the challenging problems |

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| | ***PIC: EVENT PHOTO*** | with their team members, fostering a sense of teamwork and shared learning. Our student branch members demonstrated exceptional dedication and technical prowess as they enthusiastically participated in the competition. They tackled numerous intricate problems, showcasing their problem-solving skills and technical acumen.<br><br>In conclusion, the event can be characterized as a triumph of global collaboration, technical prowess, and a shared passion for problem-solving. It not only enriched the knowledge and skills of the participants but also solidified our institution's reputation as a hub for innovative and inclusive educational experiences. |
| 2 | **IEEE activities**<br>  | The IEEE SJCE SB Maanavar Mandram of St. Joseph's College of Engineering conducted a "**KAVITHAIYAM**" on behalf of IEEE day. The Event is related to Tamil poetic writing on 10th October 2023. The event was conducted in online mode.The rules of the event were explained before each round. Overall, 35 people submitted their response for the event and the best three were given winners' certificates.The winners of the event are Anitta, Thevadharsini and Sivasankar and the others were provided with participation certificates. |

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| | *PIC: EVENT POSTER* | |
| 2 | **IEEE activities**<br>  <br><br>*PIC: EVENT PHOTO* | The IEEE Student Branch Chapter of St. Joseph's College of Engineering came together in a spirited celebration of IEEE Day 2023. With great enthusiasm, we organized over 15 diverse events, spanning webinars and contests, showcasing the multifaceted world of technology and innovation. The highlight of our festivities was the heartwarming cake-cutting ceremony held on 3-10-2023 in our college campus. Joining us in this momentous occasion were our dedicated SB counsellor , our SB advisor, IEEE members, and esteemed IEEE office bearers. It was an occasion filled with camaraderie and shared experiences as our members took the stage to reflect on their unique IEEE journeys. IEEE Day provided a platform for us to not only celebrate our passion for technology but also to strengthen the bonds within our vibrant IEEE community. The day was a true testament to the power of collaboration and the spirit of innovation that IEEE embodies .We also had the photo sessions with our Student Chapter Advisor ,counsellor , office bearers and members. |

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| 2 | **IEEE activities**<br>  <br><br>***PIC: EVENT PHOTO*** | IEEE Spectrum, is the world's largest professional organisation devoted to engineering and the applied sciences. It contains peer-reviewed feature articles pertaining to technology and science trends affecting business and society. This spectrum was conducted to enlighten the young minds and some skillful knowledge out of it. The speaker Mr.Senthamizhselvan. S spoke on the " Drones can fly better than you can ". The speaker enlightened us with the idea that "drones, especially quadcopters, were just coming out, but they were all remote controlled or they were actually using GPS. And so then we said, "What about flying drones autonomously, but with the onboard cameras?" And this had never been done until then. But what fascinates me about drones is the fact that, actually, they can overcome obstacles on the ground very quickly, and especially, this can be very useful for many applications that matter to us all today, like, first of all, search and rescue, but also other things like inspection of difficult infrastructures like bridges, power [inaudible] oil platforms, and so on." The participants had an amazing experience in the meet and enjoyed the entire session. |

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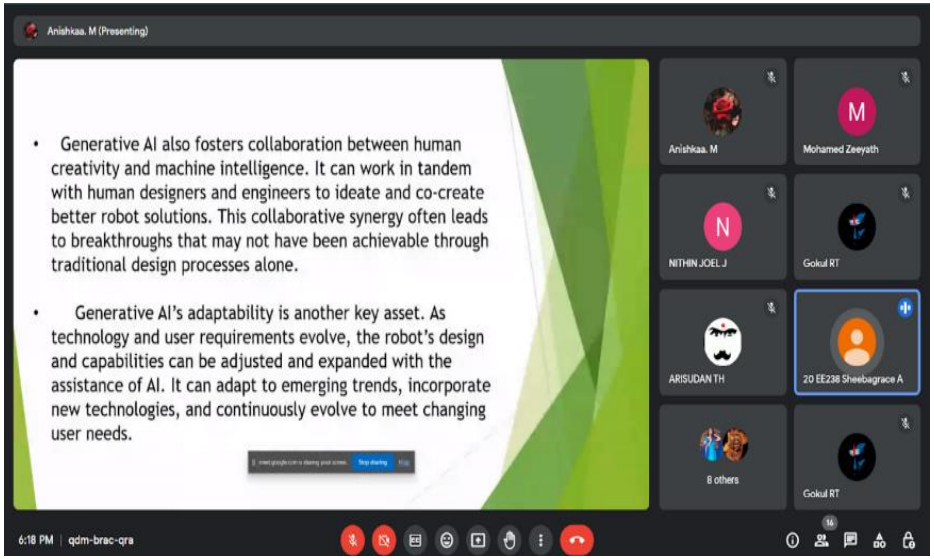
| 2 | **IEEE activities**<br>  <br><br>***PIC: EVENT PHOTO*** | IEEE Spectrum, is the world's largest professional organisation devoted to engineering and the applied sciences. It contains peer-reviewed feature articles pertaining to technology and science trends affecting business and society. This spectrum was conducted to enlighten the young minds and some skillful knowledge out of it. The speaker Ms.A.Sheeba grace spoke on " How generative AI helped me build a better robot ". The speaker enlightened us with the idea that "AI that's integrated into Divergent Technologies' digital 3D software to optimize the shape and layout of the rear subframe components. The rear subframe has an organic, skeletal look, enabled by the AI exploration of forms. The actual components were produced through additive manufacturing. Aston Martin says that this method substantially reduced the weight of the components while maintaining their rigidity. The company plans to use this same design and manufacturing process in upcoming low-volume vehicle models." The participants had an amazing experience in the meet and enjoyed the entire session. |
| 3 | **IEEE activities** | IEEE Spectrum, is the world's largest professional organisation devoted to engineering and the applied sciences. It contains peer-reviewed feature articles pertaining to technology and science trends affecting business and society. This spectrum was conducted to enlighten the young minds and some skillful knowledge out of it. The speaker Ms. Shamratha spoke on the "Inside the gobal race to tap potent offshore wind". The speaker enlightened us with the idea that "The prototype at the FloWave facility—one of 10 new floating wind-power designs tested here—is |

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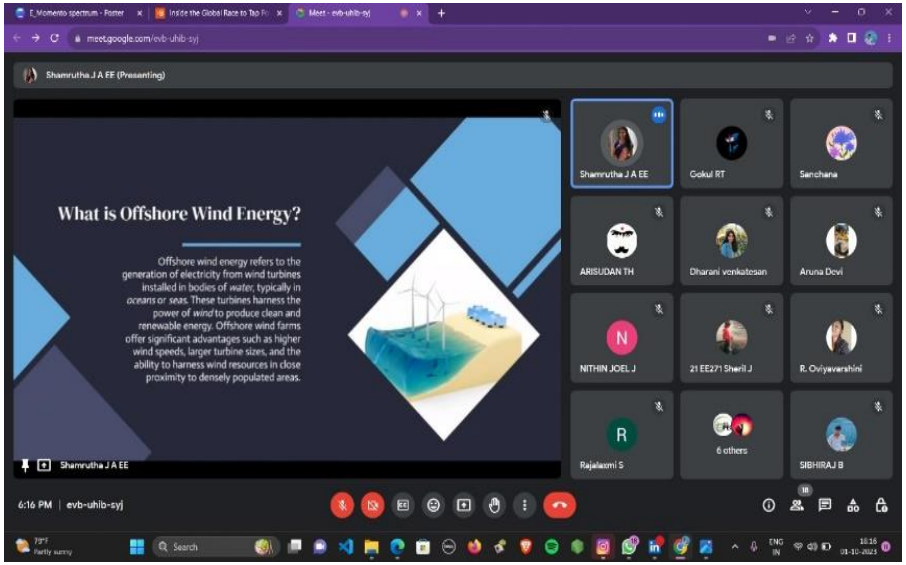
| |  <br>***PIC: EVENT PHOTO*** | progressing fast, says Tom Davey, who oversees testing. "Everything you see here has been manufactured and put in the water in the last couple months ."There's good reason for this hustle: The United Kingdom wants to add 34 gigawatts of offshore wind power by 2030, en route to decarbonizing its grid by 2035. But the shallow waters east of London are already packed with wind turbines. Scotland's deeper waters are therefore the U.K.'s next frontier. Auctions have set aside parcels for 27 floating wind farms, with a combined capacity exceeding 24 GW". The participants had an amazing experience in the meet and enjoyed the entire session. |
| 3 | **CLUB activities** | The **"ENSAV CLUB"** at St. Joseph's College of Engineering, specializing in Electrical & Electronics Engineering, hosted a technical event **"ECO ELECTRA QUEST"** on October 26, 2023. The event commenced at 9:30 am and concluded at 11:40 am, with all the members of the club.<br><br>**NUMBER OF PARTICIPANTS:** 37 Members. |

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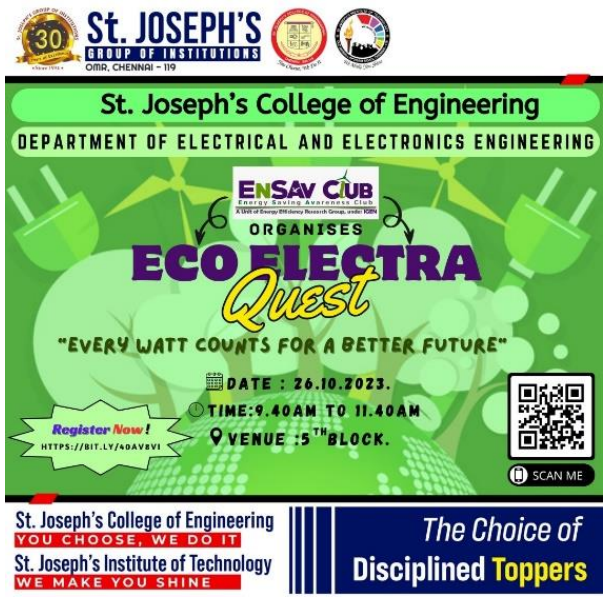
| |  <br>*PIC: EVENT POSTER* | |
| 3 | **CLUB activities** | The **"ROBOTICS CLUB"** at St. Joseph's College of Engineering, specializing in Electrical & Electronics Engineering, hosted a technical event **"ROBOTRIX"** on October 26, 2023. The event commenced at 1:15 pm and concluded at 3:00 pm, with all the members of the club.<br><br>**NUMBER OF PARTICIPANTS:** 35 Members. |

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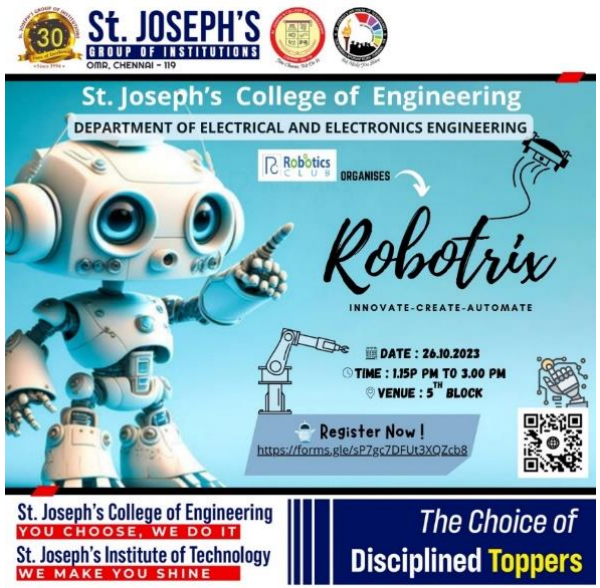
| |  <br>***PIC: EVENT POSTER*** | |
| 3 | **CLUB activities** | The **"ELECTRICAL CLUB"** at St. Joseph's College of Engineering, specializing in Electrical & Electronics Engineering, hosted a technical event **"ELECTRA FUSION"** on October 26, 2023. The event commenced at 1:15 pm and concluded at 3:00 pm, with all the members of the club.<br><br>**NUMBER OF PARTICIPANTS:** 37 Members. |

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| |  <br>***PIC: EVENT POSTER*** | |
| 3 | **CLUB activities** | St. Joseph's College of Engineering, (Electrical & Electronics Engineering) "**CHOPPERS CLUB"** organized a technical event **"INNOVISTA"** on **25/10/2023**. This exclusive event commenced at 1.40pm with all the members of our club. The event concluded at 3.00pm with the photo session.<br><br>**NUMBER OF PARTICIPANTS:** 33 Members |

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| |  <br>***PIC: EVENT POSTER*** | |
| 3 | **CLUB activities** | St. Joseph's College of Engineering, (Electrical & Electronics Engineering) **SOCIAL AWARNESS CLUB** organized a technical event **"ECO-CONSCIOUS"** on **25/10/2023**. This exclusive event commenced at 1.40pm with all the members of our club. The event concluded at 3.00pm with the photo session.<br><br>**NUMBER OF PARTICIPANTS:** 34 Members |

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| |  <br>***PIC: EVENT POSTER*** | |
| 3 | **ISTE activity** | The **"ISTE Student Chapter"** at St. Joseph's College of Engineering, specializing in Electrical & Electronics Engineering, hosted a technical event "HARDWARE HUNT" on October 20, 2023. The event commenced at 1:15 pm and concluded at 3:00 pm, with all the members of student chapter.<br><br>**NUMBER OF PARTICIPANTS:** 44 Members |

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| |  <br>***PIC: EVENT POSTER*** | |
| 3 | **VOCABULARY TEST SERIES** | Our department of Electrical and Electronics Engineering, Lingual Clique club has organized word power vocabulary test series for the students. The test series helped the students to improve their communication skills. |

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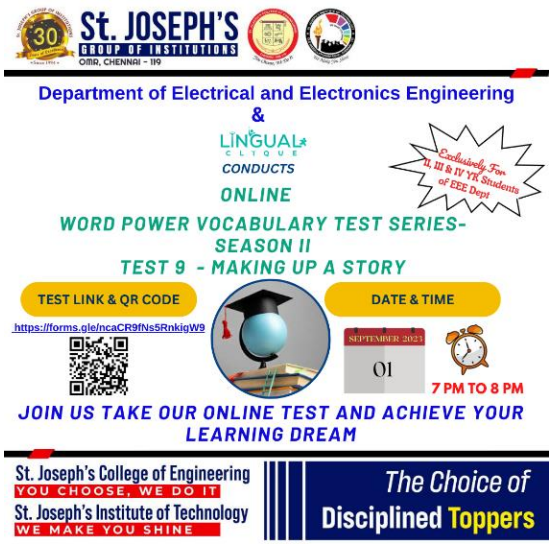
| |  <br>***PIC: EVENT POSTER*** | |
| 53 | **Faculty awards and recognitions** | **Mr. R.Sreekanth** Acted as a resource person at **IEEE R10 Madras Section Student Summit** (SBC Officer Training) on 14/10/2023.<br><br>**Dr.V.Chamundeeswari** Acted as a resource person and delivered seminar titled " **Power electronics for Renewable Energy systems**" at **Mohammed Sathak Engineering College** on 26.10.23 |

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| | | **Dr.M.Ramesh Babu** Acted as a reviewer for two papers in IEEE access. |
| 3 | PLACEMENT DETAILS FOR THE MONTH OF OCTOBER 2023 | **2020-2024 Batch**<br>Total No of students placed = 29 Students<br>Total No of Offers = 34 Offers<br>No of students having single offers = 25<br>No of students having Double offers = 3<br>No of students having Triple offers = 1<br>No of students having Quadruple offers = |

# DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

| Sl. No. | Title | Detail |
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**I — FDP**

| S.No | Faculty Name | Title/Name of the course | Conducting agency | Period | Proof link |
|---|---|---|---|---|---|
| 1. | Dr.R.Sivakumar | Introduction to Internet of Things | NPTEL | 12 Weeks (Jul-Oct 2023) | https://drive.google.com/file/d/1XUbWbwbTetMxl-qbULYZv2ZGJ-dVwSn4/view?usp=sharing |
| 2. | Dr.C.N.Gnanaprakasam | Introduction to Internet of Things | NPTEL | 12 Weeks (Jul-Oct | https://drive.google.com/file/d/1Zgb8oU_O9BwtayZSmncCn5cnQT8vdtbY/view?usp=sharing |

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| | | | | | | 2023) | | | |
| | | | 3. | Mr.D.Sankaran | Introduction to Internet of Things | NPTEL | 12 Weeks (Jul-Oct 2023) | https://drive.google.com/file/d/1yV9gKPe65RLKrXd3H8NE9nblEi470eJp/view?usp=sharing | |

# DEPARTMENT OF MBA

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| **FACULTY PUBLICATION / PATENT:** | Dr.G.Nirmala has published a Patent on Financial Risk Management Framework based on Digital Technologies and Analytical Processing of Big Data on 21.10.2023. |
| **FACULTY ONLINE COURSES:** | Ms.Jebakerupa Roslin A has successfully completed NPTEL Online Certification Course on Marketing Research and Analysis. |
| **WORKSHOP/FDP/STTP/CONFERENCE / SEMINAR ATTENDED BY FACULTY:**<br>  <br><br>  <br> | Dr.J.Balamurugan and Dr.A.Ammupriya participated in the One Week International Virtual Faculty Development Programme on "Innovative Teaching and Learning Pedagogies" from 04.10.2023 to 11.10.2023 organised by Sathyabama University, Chennai.<br><br>Dr.A.Ammupriya has participated Six Day FDP on " Funded Research Projects" from 16 – 21st October 2023 organised by Atlas Skilltech University |

**NGO VISIT:**

Date : 28.10.2023
NGO Name: Little heart (mentally retarted), panayur ,chennai-119
Students Visited: II MBA – A Section (61 Students)
Number of Inmates: 80
Nature of Service: Food and other basic needs

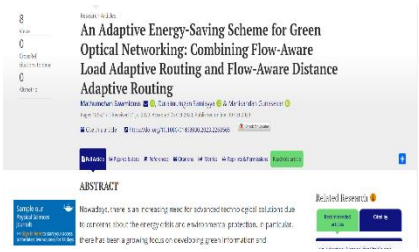
Date : 28.10.2023
NGO Name: Annai therasa Social welfare trust, thiruvottiyur
Students Visited: II MBA – B Section (63 Students)
Number of Inmates: 70
Nature of Service: Food and other basic needs

Date : 28.10.2023
NGO Name: St.Joseph Children Home, Koothavakkam.
Students Visited: II Integrated MBA (41 Students)
Number of Inmates: 65
Nature of Service: Food and other basic needs

**STUDENTS ACHIEVEMENTS:**

| STUDENTS | EVENTS | PRIZE |
|---|---|---|
| Vaikundamani Govindarajan | Business Plan | I PRIZE |
| NIVETA D<br>SANJUSHREE K | Paper presentation | II Prize |
| T.MANLIN SEAMUS | Business Innovation | III Prize |
| S. VIJAY ANAND<br>F. FREDDY JOSHU | Genearal Quiz | I PRIZE |
| SAVITHAA.K | Best Manager | Runner-3000RS |
| RAKSHITHA. P<br>SAVITHAA.K | Business Innovation<br>Business Innovation | III Prize |

# DEPARTMENT OF INFORMATION TECHNOLOGY

| Sl. No. | Photographs Captured During Event/Screenshot | Corresponding remarks in regarding the status of activity execution |
|---|---|---|
| 1 |  <br>**Co-author**<br>**Dr.S.Duraimurugan**<br>Published a paper in Scopus | **Student and Staff Paper Publication**<br>S. Mathumohan, **S. Duraimurugan**, G. Manikandan, "An Adaptive Energy-Saving Scheme for Green Optical Networking: Combining Flow-Aware Load Adaptive Routing and Flow-Aware Distance Adaptive Routing", Fibre and Integrated Optics, Publisher: Taylor & Francis Online, E ISSN: 10964681, Print ISSN: 01468030, https://doi.org/10.1080/01468030.2023.2268565, pp. 185-217, Oct 2023. **(Impact Factor:1.59, Indexed in Scopus)**<br><br>**Abstract:** This paper introduces EPSO-based flow-aware routing mechanisms that aim to minimize Queueing Delay, Power Consumption (Energy Dissipation), and Load Deviation. Two flow-aware mechanisms, namely, the Flow-aware load adaptive scheme (FA-LAR) and the flow-aware distance adaptive scheme (FA-DAR), are utilized in this study. The goal is to avoid traffic congestion across the routes by selecting the most direct and efficient paths for the flows. These routed paths are optimized using the MEPSO-based FA-DAR routing algorithm, resulting in significant energy savings. Extensive numerical simulations are conducted to evaluate the proposed algorithms using metrics such as throughput, routing efficiency, queuing delay, load deviation, and energy efficiency. The simulation results demonstrate that the proposed method outperforms existing benchmark methods in all metrics. Furthermore, it ensures lower power consumption, queuing delay, and load deviation. The method exhibits a 30% improvement in throughput and a 24% improvement in energy efficiency compared to existing benchmark methods. |
| 2 |  <br>**Co-authors**<br>**Mr.Manikandan J**<br>Published a paper in Scopus | Vijay K, Prithi Samuel, Brahmadesam Viswanathan Krishna & **Manikandan J**," Exploration of sentiment analysis in twitter propaganda: a deep dive", Multimedia Tools and Applications, Publisher: Springer, https://doi.org/10.1007/s11042-023-17383-6, Print ISSN: 13807501, E ISSN: 15737721, Oct 2023. **(Impact Factor: 2.577., Indexed in Scopus)**<br><br>**Abstract:** Text sentiment analysis is an automated process that offers valuable insight into the content of a text segment. It can reveal whether it conveys factual or subjective information and reveal its polarity; for Twitter sentiment classification this goal primarily lies with determining whether tweets have positive or negative undertones; researchers utilize various Machine Learning (ML), Deep Learning (DL) and other models to accomplish this task. Present research work utilising classification algorithms such as Support Vector Machines are among the most frequently utilized ML/DL models for sentiment analysis, along with Random Forest, Ensemble Machine Learning, Artificial Neural Networks, Long Short-Term Memory |

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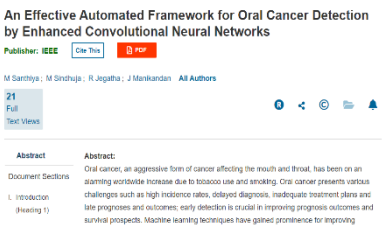
| | | (LSTM), Bidirectional LSTM (Bi-LSTM) for effective classification. Also, for preprocessing the tweets API, techniques such as filtering, tokenization, removal of stopwords, stemming and lemmatization have been used. Then preprocessed input is fed as input to the TF-IDF and Bag of Words for vectorize the input. Then classification has been performed with aforementioned models. Finally, performance evaluation metrices have been performed, from that out of all these models used for sentiment analysis on Twitter dataset, Bidirectional LSTM has proven itself most accurate at detecting sentiment with an accuracy rate of 98.14%, 98.39% in vectorize techniques includes TF-IDF and Bag of Words—making this tool invaluable when conducting voice analyses on this platform**.** |
| **Sl. No.** | **Photographs Captured During Event/Screenshot** | **Corresponding remarks in regarding the status of activity execution** |
| **3** |  <br>**Co-authors**<br>**Mr.Manikandan J**<br>Published a paper in Scopus | M. Santhiya, M. Sindhuja, R. Jegatha and **J. Manikandan**, "An Effective Automated Framework for Oral Cancer Detection by Enhanced Convolutional Neural Networks," 2023 12th International Conference on Advanced Computing (ICoAC), Publisher: IEEE, E ISBN: 979-8-3503-1821-0, Print ISBN:979-8-3503-1822-7, doi: 10.1109/ICoAC59537.2023.10249983, pp. 1-7, Chennai, India, Oct 2023**.(Indexed in Scopus)**<br><br>**Abstract:**Oral cancer, an aggressive form of cancer affecting the mouth and throat, has been on an alarming worldwide increase due to tobacco use and smoking. Oral cancer presents various challenges such as high incidence rates, delayed diagnosis, inadequate treatment plans and late prognoses and outcomes; early detection is crucial in improving prognosis outcomes and survival prospects. Machine learning techniques have gained prominence for improving cancer diagnosis while decreasing mortality and morbidity; in recent years they were used to detect oral cancer, providing highly accurate classification tasks yet limited capabilities in terms of feature extraction capabilities. To address these limitations, we are currently employing a deep-learning approach. To this end, we have devised an automated framework encompassing feature extraction, preprocessing and classification. Contrast-limited adaptive Histogram Equalization (CLACHE), used for effective pre-processing purposes to increase image contrast and resolution, is one form of pre-processing while Gray Level Cooccurrence Matrix extracts statistical texture-based features; finally, a Modified Convolutional Neural Net (MCNN) was employed for accurate classification of oral cancer cases. Utilizing Kaggle Repository dataset, we used it to assess the performance of our framework, while comparing it against other high-performance methods. Our proposed framework had an accuracy rating of 99.13% which surpasses current state-of-the art approaches. |

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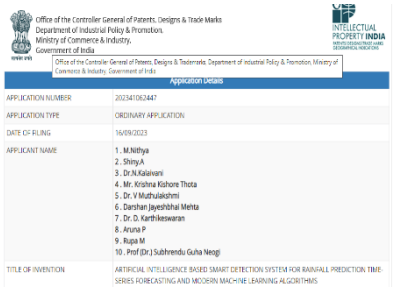
| 4 |  <br>Office of the Controller General of Patents, Designs & Trade Marks<br>Department of Industrial Policy & Promotion,<br>Ministry of Commerce & Industry,<br>Government of India<br>Application Details<br>APPLICATION NUMBER: 202341062447<br>APPLICATION TYPE: ORDINARY APPLICATION<br>DATE OF FILING: 16/09/2023<br>APPLICANT NAME: 1. M.Nithya 2. Shiny.A 3. Dr.N.Kalaivani 4. Mr. Krishna Kishore Thota 5. Dr. V Muthulakshmi 6. Darshan Jayeshbhai Mehta 7. Dr. D. Karthikeswaran 8. Aruna P 9. Rupa M 10. Prof (Dr.) Subhrendu Guha Neogi<br>TITLE OF INVENTION: ARTIFICIAL INTELLIGENCE BASED SMART DETECTION SYSTEM FOR RAINFALL PREDICTION TIME-SERIES FORECASTING AND MODERN MACHINE LEARNING ALGORITHMS<br>**Dr. V Muthulakshmi**<br>Published an India Patent | **Patent Published**<br>**Title of the invention:** Artificial Intelligence Based Smart Detection System For Rainfall Prediction Time-Series Forecasting And Modern Machine Learning Algorithms<br>**Name of Inventor:**<br>1. M.Nithya<br>2. Shiny.A<br>3. Dr.N.Kalaivani<br>4. Mr. Krishna Kishore Thota<br>**5. Dr. V Muthulakshmi**<br>6. Darshan Jayeshbhai Mehta<br>7. Dr. D. Karthikeswaran<br>8. Aruna P<br>9. Rupa M<br>10. Prof (Dr.) Subhrendu Guha Neogi<br>**Patent Application Number:** 202341062447<br>**Date of filing of Application:** 16/09/2023<br>**Publication Date:** 06/10/2023 |

| Sl. No. | Photographs Captured During Event | Corresponding remarks in regarding the status of activity execution |
|---|---|---|
| 5 |  <br>Certificate of Appreciation<br>This Certificate is presented to<br>Divya J<br>from St. Joseph's College of Engineering<br>for hosting a session on Introduction to Generative AI with Google Cloud<br>as part of India Edu Program's: Tech Talks for Educators<br>Karthik Padmanabhan<br>Developer Relations Program Manager Lead<br>September 2023<br>Google for Developers<br>**Appreciation Certificate of Ms.J.Divya** | **Faculty Interaction with Outside World**<br>**Title of the session:** Introduction to Generative AI with Google Cloud as part of India Edu Program's: Tech Talks for Educators<br>**Conducted by:** St. Joseph's College of Engineering in association with Google for Developers<br>Session Hosted by: Ms.J.Divya<br>**Date:** 11-9-23<br>**No of Participants:** 100 |

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# DEPARTMENT OF MATHEMATICS AND ENGLISH

<table>
<tr><td>Events</td><td colspan="7">Remarks</td></tr>
<tr><td>Guest Lecture</td><td colspan="7">-</td></tr>
<tr><td colspan="8">FDP/Workshop/Conference</td></tr>
<tr><td> 
</td><td colspan="7"><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>To</th></tr>
<tr><td>1</td><td>Dr.P.Agilan</td><td>Introduction to Probability and Statistics</td><td>IIT Madras (NPTEL)</td><td>Online</td><td>July</td><td>October</td></tr>
<tr><td>2</td><td>Dr.K.Nandhitha</td><td>Technical English for Engineers</td><td>IIT Madras (NPTEL)</td><td>Online</td><td>July</td><td>October</td></tr>
<tr><td>3</td><td>Dr.K.Abinaya</td><td>Soft Skills</td><td>IIT Roorkee (NPTEL)</td><td>Online</td><td>July</td><td>October</td></tr>
</table></td></tr>
<tr><td> 
</td><td colspan="7"><table>
<tr><th>S.No</th><th>Name of the staff</th><th>Title of Webinar</th><th>Organized by</th><th>Mode</th><th>From</th><th>To</th></tr>
<tr><td>1</td><td>Dr.V. Vallinayagam</td><td rowspan="2">“Some New Results in Graph Realizability”</td><td rowspan="2">Presidency University, Bengaluru</td><td rowspan="2">Online</td><td rowspan="2">06-10-2023</td><td rowspan="2">06-10-2023</td></tr>
<tr><td>2</td><td>Dr.P.Agilan</td></tr>
</table>
-</td></tr>
<tr><td>Symposium</td><td colspan="7"></td></tr>
<tr><td>Awards/Prize won by staff</td><td colspan="7">Ms. D. Arivukkodi presented a paper at the International Conference on Recent Trends in Mathematics and Computer Science, which<br>was held on October 19-20, 2023, at Auxilium College Of Arts And Science For Women.</td></tr>
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| **Publications(only published) details** | 1. **Purushothaman, G., Suresh, K.,** Tunc, E., & Thandapani, E. (2023). Oscillation criteria of fourth-order nonlinear semi-noncanonical neutral differential equations via a canonical transform. Electronic Journal of Differential Equations, 2023,. https://doi.org/10.58997/ejde.2023.70 , SCIE<br>2. Abraham D. Egan L,**B. Shoba** ,Rajkumar A.,Broumi said. "Selection of Agricultural Aircraft in Bipolar Neutrosophic Environment using Bipolar - TOPSIS method." International Journal of Neutrosophic Science, 22 no. 3 (2023): 15-35. Scopus<br>3. Hemalatha, S., Nileshkumar Patel, Ajay Kumar, Neelesh Kumar Jain, **G. Venkat Narayanan**, Manka Manwali, Harikumar Pallathadka, and Rajesh P. Chinhewadi. 2023. "MANET Hidden and Exposed Terminal - Challenges and Survey". International Journal on Recent and Innovation Trends in Computing and Communication 11 (10s):48-51. https://doi.org/10.17762/ijritcc.v11i10s.7593., SCOPUS |

## DEPARTMENT OF SCIENCE

| Sl. No. | Events | Remarks |
|---|---|---|
| 4 | **FDP/Workshop/Conference** | ***NPTEL / Online exams:***<br>1. Dr. S. Suresh has completed NPTEL certification on "Nanotechnology, Science And Applications" (July-Sep 2023 – 8 weeks course) with elite certificate.<br>2. Dr. P. Saravanan participated in "International Teacher's Olympiad" online exam on 07.10.2023.<br>***FDP / Conferences attended:***<br>1. Dr. G. Sasikumar attended 7 days FDP on "Emerging trends in chemistry for Multidisciplinary Applications (ETCMA-2023)" conducted by "Sathyabama institute of science and technology" between 04.10.23 and 10.10.23.<br>2. Dr. S. Kiruba and Dr. V. Swarnalatha attended 6 days FDP on "Recent Technological Trends in Aerospace Engineering" conducted by "SRM Institute of Technology , Kattankulathur" held between 15.10.2023 to 20.10.2023.<br>3. Dr. N.R. Rajagopalan, Dr. C. Abinaya, Dr. A. Uma Devi attended online international conference on "Functional nanomaterials and nanodevices (ICFNN)" conducted by "Chettinad Academy of Research and Education, Kelambakkam, Chennai" on 26.09.2023. (Certificate received in the month of October) |
| 9 | **Awards/Prize won by students / Staff** | ***Awards***<br>1. Dr. P. Saravanan has been awarded with "Best innovation faculty award" awarded by "Scientific Research Report & Publishing Research"on 15.10.2023.<br>***Reviewers:***<br>Dr. K. Jayamoorthy has acted as reviewer for the following reputed journals.<br>1. Environmental Advances– October 2023<br>2. Current Organic Chemistry – October 2023<br>3. Journal of Saudi Chemical Society – October 2023<br>***Prizes won by students:***<br>1. Ms. Saila Vashni. S, Ms. Samyktha V (I-ADS C), have won II prize in the Paper presentation event organized by Jerusalem College of Engineering held on 13.10.2023.<br>2. Ms. S A Dermika, Ms. S. Dharani (I ADS A), have won II prize in "Flicks and Beats-Zenista 2023" National level technical event conducted by "Sri Sariram Engineering |

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| | | College, Chennai" held on 19.10.2023.<br>3. Mr. V. Yashwanth Arjun (I-ADS C), Ms. J. S. Amirtha (I-ECE A), have won III prize in "Flicks and Beats-Zenista 2023" National level technical event conducted by "Sri SaIram Engineering College, Chennai" held on 19.10.2023. |
| 11 | **Publications(only published) details** | 1. Dr. N. Punitha Published an article titled "optical fiber systems performance signature based on dispersion compensated methods in dense wavelength division multiplexing systems" in "Journal of optics". https://doi.org/10.1007/s12596-023-01454-<br>2. Dr. N. Punitha Published an article titled "Green Synthesis of CuO Nanostructures from Murraya koenigii Leaf Extract and Photodegradation Efficiency on Methyl Orange Dye" in "Indian Journal of Natural Sciences". 2023, vol 14, issue 80, p.63118-63126 |