

You Choose, We Do It

St. JOSEPH'S COLLEGE OF ENGINEERING

(An Autonomous Institution)

St. Joseph's Group of Institutions

OMR, Chennai - 119















DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING







NEWSLETTER – EIE -MAR 2024

OUR PATRONS



Dr. B. Babu Manoharan
M.A., MBA., Ph.D

Chairman



Mr.B.Shashi Sekar
M.Sc.,INTL.Business
Managing Director



Mrs.S.Jessie Priya

M.Com

Executive Director



Dr.Vaddi Seshagiri Rao
M.E.,M.B.A., Ph.D
Principal

VISION:

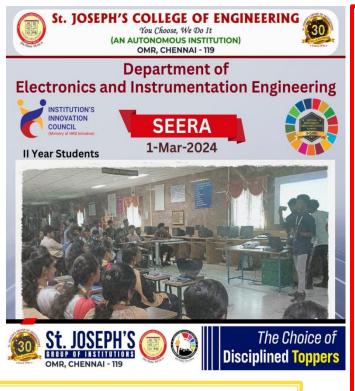
To make every student of the department irrespective of his/her social, cultural background and learning abilities gets a fair chance in mastering the various fields of Electronics and Instrumnetation to become a proficient individual for the empowerment of society.

MISSION:

- To Prepare students to understand recent technologies in Electronics and Instrumentation Engineering effectively and adapt themselves in an everchanging environment.
- To impart excellent computing knowledge to students by providing well equipped facilities and state of the art systems.
- To prepare students with excellent leadership skills, management capabilities and ethical understanding for successful career.

SEERA CLASS

The 2nd year EIE (Electronics and instrumentation) students attended the SEERA CLASS on 01.03.2024 and on 21.03.2024 as a part of curriculum.



EIE students on the topic "Electric Hybrid Vehicles". The class started with the teaching on Electric Hybrid vehicles, the 3rd year students covered various key aspects, including the fundamental working principles of hybrid engines, the integration with electric traditional of motors combustion engines, and the significance of battery technology. The discussion also touched upon the environmental advantages of hybrid vehicles, such as reduced emission and improved fuel efficiency. Additionally, the presentation highlighted innovations in hybrid vehicle design and the potential future developments in these rapidly evolving fields.

On 01.03.2024 it was conducted by 3rd year

On 21.03.2024 it was conducted by Prof Dr.V.Vijayan for II YR EIE students on the topic "MATLAB Programming".

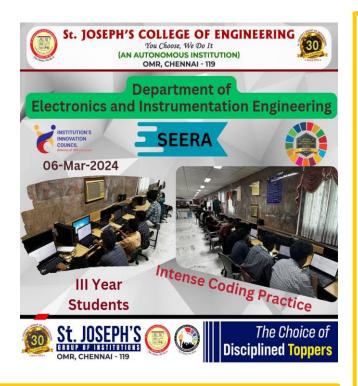
The students were exposed about various MATLAB tools and the dedicated toolboxes for the control systems.

They were trained on various plots and they were taught to acquire insights about bode, polar plots. With the basic techniques taught the students were equipped with the knowledge about checking the stability of simple and complex processes, systems.



SEERA CLASS III YEAR

The 3rd year EIE (Electronics and instrumentation) students attended the SEERA CLASS on 06.03.2024,13.03.2024 and 20.03.2024 as a part of curriculum. They indulged themselves in Intense Coding Practices sessions for all the three days.



In this intense coding practice SEERA class, the students of 3rd year EIE gained invaluable skills and insights. From mastering complex algorithms to refining problem-solving techniques, every session has been a journey of growth. Collaboration with peers has enhanced our ability to communicate and work in teams effectively. The rigorous practice has honed our coding proficiency, empowering us to tackle challenges with confidence. Overall, experience has been transformative, equipping us with essential tools for success in the world of programming.

In the intense coding practice SEERA class, students of 3RD year EIE delved into advanced algorithms, data structures, and problem-solving techniques. They tackled complex coding challenges, honing their skills in languages like Python, Java, and C++. Through hands-on projects and rigorous exercises, they mastered concepts such as dynamic programming, recursion, and efficient algorithm design. Moreover, students learned to collaborate effectively, debug efficiently, and optimize code for performance. This immersive experience equipped them with the expertise needed for real-world coding scenarios.



GUEST LECTURE

RECENT TRENDS IN IOT AND MACHINE LEARNING

APPLICATIONS

The 2nd year **EIE** (Electronics and instrumentation) students attended a Guest lecture on 15.03.2024. We had **Mr. Udhay Prakash K**, Senior Technical Programmer from **NEXTGEN Technologies**, who lead the session.





In the Guest Lecture on recent trends in IOT and Machine learning applications, we delved into cutting-edge technologies reshaping industries worldwide. covered fundamental concepts of IOT, exploring its integration with machine learning algorithms for enhanced functionality. Students gained insights IOT device connectivity, data into analysis methods, collection. and alongside advanced machine learning techniques like deep learning reinforcement learning. Emphasis was placed on real-world applications spanning healthcare, smart cities, agriculture, and more, illustrating how these technologies optimize processes and drive innovation. Through hands-on projects and case studies. students developed a comprehensive understanding of the synergy between IOT and Machine Learning, preparing them to tackle the challenges and opportunities presented by the rapidly evolving digital landscape.

Students indulged in emerging trends like edge computing, enabling devices to process data locally for faster response times and reduced latency. They explored machine learning techniques tailored for IOT environments, such as anomaly detection and predictive maintenance. Moreover, they studied the integration of IOT data streams with machine learning algorithms to create intelligent systems capable of autonomous decision-making. This knowledge equipped them to navigate and contribute to the cutting-edge developments in these fields.



INDUSTRIAL VISIT





On March 14, 2024, the Department of Electronics and Instrumentation Engineering organized an industrial visit to the Central Scientific Instruments Organisation (CSIO) located in [Taramani, Chennai]. The visit aimed to provide students with practical insights into the application of theoretical knowledge in the field of Electronics and Instrumentation engineering. This report summarizes the activities and observations made during the visit from 8:00 AM to 3:00 PM.

CSIO is a premier national laboratory dedicated to research, design, and development of scientific and industrial instruments. It plays a pivotal role in bridging the gap between academia and industry by fostering innovation and technological advancements in instrumentation and related fields.

The visit commenced with an introductory session by CSIO representatives, providing an overview of the organization's objectives, ongoing projects, and contributions to various sectors including healthcare, agriculture, and defence. Students were briefed about the importance of instrumentation in modern industries and research. The students were divided into groups and taken on guided tours of CSIO's state-of-the-art laboratories. They had the opportunity to witness advanced equipment and instrumentation used for research and development purposes.

CSIO showcased some of its cutting-edge projects and prototypes developed in collaboration with industries and research institutions. Students were impressed by innovations such as IoT-enabled sensors, environmental monitoring systems, and smart agricultural technologies.

The industrial visit to Central Scientific Instruments Organisation provided students with valuable exposure to cutting-edge research, development, and innovation in the field of electronics and instrumentation engineering. It served as a platform for bridging the gap between theoretical learning and practical applications, inspiring students to pursue careers in research, development, and industrial automation. The Department of Electronics and Instrumentation Engineering expresses its gratitude to CSIO for facilitating this insightful and enriching experience.

SPOKEN TUTORIAL - IIT B

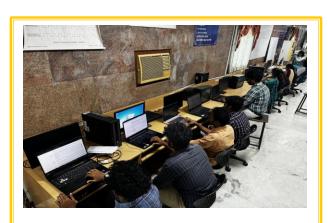


The spoken tutorial emphasized interactive learning, with opportunities for students to ask questions, seek clarification, and engage in discussions. Through online they were fostered with a collaborative learning environment, encouraging active participation from all students.

After an intense practice outside lab hours the students were tested for their proficiency in **Scilab** programming on 06.03.2024. Around 45 students have taken up the test and 40 of them cleared it. After successful completion IIT B provides them a certificate of evaluation which eventually helps them in placements.

The spoken tutorials on Python programming given by IIT B provided students with a solid foundation in Python programming fundamentals. By familiarizing students with Python's capabilities and applications in electronics and instrumentation engineering, the session aimed to enhance their academic learning and prepare them for future challenges in the field. The interactive nature of the tutorial, coupled with hands-on exercises, ensured that students gained practical experience and confidence in their programming abilities. Overall, the session was a resounding success in advancing students' proficiency in Python programming and its relevance to electronics instrumentation engineering.

After an intense practice outside lab hours the students were tested for their proficiency in **Python programming** on 19.03.2024. Around 50 students have taken up the test and 38 of them cleared it. After successful completion IIT B provides them a certificate of evaluation which eventually helps them in placements.



ALUMNI TALK

The alumni talk delivered by Mr. Hari Hara Sudhan Govindaraj to the students of the Electronic and Instrumentation Engineering department at St. Joseph's College of Engineering was incredibly informative and enlightening. His insights into the future of our careers and the various placement opportunities invaluable.



Mr. Hari Hara Sudhan Govindaraj, an esteemed alumnus of our college from the 2014-2018 batch, currently serving as a Senior Software Support Engineer at Geotab Inc. in Oakville, Canada, provided practical advice and firsthand experiences that resonated deeply with me and my peers. He discussed career path guidance, placement opportunities, considerations for pursuing a master's degree, and strategies for professional growth .He shared his views about exploring a career in IoT based on telemetry in Canada is an excellent choice given the country's vibrant tech scene. He said that there more opportunities are available. Overall, Mr. Hari Hara Sudhan Govindaraj's alumni talk was a resounding success and left a lasting impact on me and my fellow students. We are grateful to the department for organizing such enriching events that empower us to make informed decisions about our careers.

ALUMNI TALK



The alumni talk delivered by Mr. Lokeshwaran A to the students of the Electronics and Instrumentation Engineering department at St. Joseph's College of Engineering was an enlightening and incredibly informative experience. As a Third-year student, I found his insights into the future of our careers and the plethora of placement opportunities available to be invaluable.

Mr. Lokeshwaran A, an esteemed alumnus of our college from the 2018-2022 batch, is currently immersed in research on VLSI, showcasing his dedication to advancing technology in the field. His previous role as a project engineer in the biomedical department at IIT Madras, where he contributed to various projects related to biomedical engineering, underscores his expertise and commitment to innovation. Notably, his pivotal role in the research crew satellite project further highlights his dedication and proficiency.

During his talk, Mr. Lokeshwaran A provided comprehensive guidance on career paths, placement opportunities, considerations for pursuing a master's degree, and strategies for professional growth. His encouragement to focus on skill enhancement through certifications in VLSI and learning stm32 microcontroller resonated deeply with the audience, inspiring us to strive for excellence in our chosen fields.

Overall, Mr. Lokeshwaran A's alumni talk was a resounding success, leaving a lasting impact on me and my fellow students. We are immensely grateful to the department for organizing such enriching events that empower us to make informed decisions about our careers and aspire towards greater heights of achievement.

PROJECT EXPO WINNERS

The Management, Principal, Faculty members and Students are pleased to congratulate the following students for winning the national level technical symposium organized by Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai in association with IEEE Madras Section held on March 20, 2024.

S. N	Name of the Students	Year	Event Name	Prize Details	ALUMNI MENTOR
1.	Divakar S Hanathika T Dheepigha G Gayatri K	II Year EIE	Project Expo (NEXUS 2k24)	2 nd Prize Rs. 10,000/-	Mr. Hari Hara Sudhan Govindaraj



INTRAMURAL SPORTS DAY

The 3rd year Electronics and Instrumentation Engineering (EIE) students participated in the Intramural Sports event held on March 2, 2024. Basketball, Football, Kabaddi, Volleyball, Ball badminton, Badminton(doubles), Chess (Singles), Table tennis (Singles) were held for men and Basketball, Throwball, Ball badminton, Badminton(doubles), Chess (Singles), Table tennis (Singles) were held for women.

S.no.	EVENT	PLACE
1.	THROWBALL(WOMEN)	WINNERS

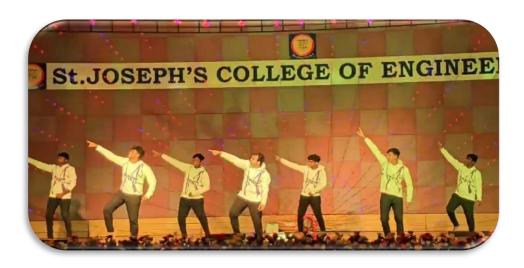
It is a day dedicated to promoting physical fitness, teamwork, and friendly competition among participants and a great way to encourage a healthy and active lifestyle while fostering camaraderie and sportsmanship among participants.





COLLEGE DAY

The 3rd year Electronics and Instrumentation Engineering (EIE) students participated in College day held on 9 March 2024. It includes various activities such as cultural performances and prize distributions. Outstanding performance of both the team "TIME TRAVELLERS" and "RHYTHM REBELS" and the team "TIME TRAVELLERS" won the cash prize. It is a day for students to showcase their talents, and foster a sense of community within the campus.





ISA ACTIVITY

(PYTHON PROGRAMMING QUIZ)

The 3rd year Electronics and Instrumentation Engineering (EIE) students participated in ISA (International Students Association) activity Python programming quiz focused on Python programming held on 13 March 2024.

The quiz program began with a brief introduction to Python programming, highlighting its importance in the field of technology and its versatility in various applications. They were then divided into teams and given a series of challenging questions related to Python syntax, functions, and algorithms.



This event was not only educational but also a great opportunity to showcase their skills and learn from their peers. This activity reinforced their passion for programming and ignited a desire to further the world of explore technology and innovation.

At the end of activity they were filled with a sense of accomplishment and pride in our teamwork and dedication. This activity reminds the importance of continuous learning and pushing ourselves out of our comfort zones to reach new heights.



NGO VISIT

The 3rd year Electronics and Instrumentation Engineering (EIE) students had the privilege of participating in a Non-Governmental Organization visit to Anjalamal Special Child School on March 16, 2024. The experience proved to be profoundly heartening. Students were warmly greeted by the cheerful countenances of the children, each exuding a palpable sense of joy and enthusiasm.

Throughout the day, students had the opportunity to interact with the students, participate in various activities, and witness the incredible dedication of the teachers and staff. From sensory play sessions to music therapy classes, every moment was filled with love, compassion, and genuine care for the children.



Despite their challenges, they exuded a sense of positivity and determination that was truly inspiring. It was a humbling reminder of the power of perseverance and the importance of creating a supportive and inclusive environment for all.

PLACEMENTS

Soliton is renowned for its commitment to excellence and innovation, offering a dynamic environment for professional growth and development. They announced that our students have met the eligibility criteria to attend placement opportunities at Soliton on **March 15, 2024.** For Soliton 40 out of 54 has attended the recruitment process.

With a rich history of innovation and excellence, HCL Technologies offers a dynamic environment for professionals seeking to excel in the field of embedded systems and they are delighted to announce that our students have met the eligibility criteria to attend placement opportunities at HCL(Embedded) on **March 15, 2024.** For HCL out of 54 students, 50 students have attended the first round of recruitment.

Juspay, a pioneering company at the forefront of digital payment solutions has offered dynamic and innovative environment for individuals seeking to make a meaningful impact in the **fintech** industry. They are delighted to announce that our students have met the eligibility criteria to attend placement opportunities at Juspay on **March 20, 2024.** Around 50 students of third year have attended the recruitment process.

INTRAMURAL SPORTS DAY

The **2nd year Electronics and Instrumentation Engineering** (EIE) students participated in the **Intramural Sports event** held on **March 16, 2024**. Basketball, Football, Kabaddi, Volleyball, Ball badminton, Badminton(doubles), Chess (Singles), Table tennis (Singles) were held for **men** and Basketball, Throwball, Ball badminton, Badminton(doubles), Chess (Singles), Table tennis (Singles) were held for **women**.

S.NO	Event	Place
1	BASKETBALL(Women)	RUNNER
2	TABLETENNIS (WOMEN)	WINNER
3	FOOTBALL (MEN)	RUNNER



We teamed up with the department of Artificial intelligence and machine learning(AIML) and emerged Victorious in the intramural sports day.

It is a day dedicated to promoting physical fitness, teamwork, and friendly competition among participants and a great way to encourage a healthy and active lifestyle while fostering camaraderie and **sportsmanship among participants**.

PROJECT EXPO





The 2^{nd year} EIE (Electronics and instrumentation) students attended the **Project Expo** on **20.03.2024** as a part of curriculum. It was conducted by 4th year EIE students.

The **Second and third year students** eagerly attended the project expo organized by their senior peers, with a blend of anticipation and curiosity. The event pulsated with **innovation and creativity**, as it showcased a myriad of projects spanning various disciplines.

The students found themselves immersed in a tapestry of ideas and technological advancements. Conversations buzzed with enthusiasm as they engaged with the **seniors** delving into the intricacies of each project.

Witnessing the culmination of the seniors' efforts served as both inspiration and motivation for the second year students. Moreover, the **Project expo** fostered a sense of **innovation and collaboration** among the students, laying the groundwork for future interdisciplinary ventures. As they departed from the event, the second year and third year students carried with them not only newfound knowledge but also a **renewed sense of purpose and determination to excel in their academic pursuits**.

COLLEGE DAY

We're thrilled to share the excitement from the recent College Day held on **March 23rd**, where our **2nd-year Electronics and Instrumentation Engineering** (EIE) **students** showcased their talents and enthusiasm. With 30 teams participating in **College Day**, the energy was palpable.

From our department, we proudly cheered for our two formidable teams: "9 Shots" represented by our talented girls and "Sentinels" by our spirited boys. Their dedication and skill were commendable throughout the day.

The anticipation peaked as the winners were announced, with **17 cash prizes of 3000** each up for grabs. We're delighted to announce that our girls' team, "9 Shots," emerged victorious, **claiming one of these prestigious prizes**. Their triumph is a testament to their hard work and perseverance.

Let's continue to support and celebrate the achievements of our students, inspiring them to reach greater heights in both academics and extracurricular pursuits.





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Chairman



Mr.B.Shashi Sekar
M.Sc.,INTL.Business
Managing Director



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M.Com

Executive Director



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Principal

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WORKSHOP ON ESP32

The 2nd year EIE (Electronics and instrumentation) attended a workshop on 22.02.2024 as a part of curriculum. It was a part of the workshops organized by the **IEEE**. Dr.VIjayan of EIE led the session.



The workshop started with teaching basics of electricals and electronics and teaching the basics of the microcontroller **ESP32**. The ESP32 is the family of microcontrollers developed by Texas Instruments (TI). It can be considered for simpler uses as a Arduino Board. The microcontroller is known for its scalability, mixed-signal architecture and lower power consumption. It is a 16-bit microcontroller that can be used in various simple and complex applications.

The workshop was very informative and easily understandable. We were able to design basic circuits and write codes to function them. The lecturer encouraged students to ask doubts and offered them very subjective answers. The workshop took place for one day in the Electronics and Instrumentation laboratory of St. Joseph's college of engineering. All the material was well prepared and the components were also provided to do projects on the successive day.

ALUMNI TALK & Mock Interview

ALUMNI TALK ON "APPLICATION OF IOT IN OIL & GAS INDUSTRY"



The 3rd year EIE (Electronics & instrumentation) students attended an Alumni Talk and Mock Interview on 09.02.2024. The event was organized to enhance the technical skills of the students. It was a part of the workshop organized by the IEEE Control systems society.

The alumni speakers were Mr. Syed Ibrahim Instrument Engineer, from **Shell Energies India Pvt Ltd,** Mr. A. Mahendra, Manager, from **Zoho**, Mr. M.Vijayakumar, process automation engineer from the **Dow chemical company** and **Ms. Snega R**, Terrestrial Manager from **Vodafone Idea Ltd** who lead the session.

The talk began with highlighting the importance of placement preparation and the role of alumni in guiding current students. The alumni speakers emphasized the significance of understanding the company's requirements, researching the company thoroughly, and preparing answers to common interview questions. They also stressed the importance of building a strong resume, developing communication skills, and showcasing one's technical knowledge and problem-solving abilities during interviews.

The session was interactive, with students actively engaging in discussions and seeking advice from the alumni speakers. The Alumni Talk on how to tackle placement drives was a beneficial session for the students of the Department of Electronics and

Instrumentation Engineering [EIE]. It provided them with valuable insights, strategies, and confidence to approach placement interviews with a positive mind set and enhance their chances of securing good job opportunities.

After the talk, a mock interview session was conducted, where students had the opportunity to participate in simulated job interviews.



ALUMNITALK & MOCK INTERVIEW



GUEST LECTURE

The 3rd- year **EIE** (Electronics and instrumentation) attended a Guset lecture on 09.02.2024. We had **Mr. Sathish kumar S**, Instrumentation Engineer from **Shell Energies India Pvt. Ltd**, who lead the session.





The Lecture started on the various challenges faced by the industry, such as remote monitoring of assets, predictive maintenance, and real-time data analytics, and explained how IoT technologies can address these challenges effectively.

The Lecture the on application of IoT in the oil and gas industry was a highly informative and interactive session, providing students with a deeper understanding of IoT technologies and their practical applications in dynamic industry sector.

VALUE ADDED COURSE

DESIGN AND DEVELOPMENT OF ROBOTICS

Retech Pvt Ltd successfully conducted a one week Value Added Course on "Design and Development of Robotics" for final year EIE and ICE students. The comprehensive curriculum covered key aspects such as robotics applications, electronics basics, control systems, sensor-actuator integration, microcontroller programming, and robotic system design. The teaching methodology included lectures, workshops, and hands-on projects facilitated by industry experts.

Practical sessions allowed students to apply theoretical concepts in building and programming small-scale robotic systems, fostering a deeper understanding of kinematics and dynamics. Guest lectures from industry professionals provided valuable insights into current trends and challenges. The assessment process, including quizzes and project evaluations, ensured a thorough understanding of the material.

Upon successful completion, participants received certificates from Retech Pvt Ltd, adding significant value to their academic profiles. Continuous feedback sessions will aid in refining future iterations of the course. Overall, the program equipped students with practical skills, industry knowledge, and a competitive edge in the evolving field of robotics, enhancing their employability and preparing them for real-world applications.

INDUSTRIAL VISIT

NEYVELI LIGNITE CORPORATION

The 3rd-year Electronics and Instrumentation Engineering (EIE) students of St. Joseph's College of Engineering undertook a valuable industrial visit to Neyveli Lignite Corporation (NLC) Limited on February 7, 2024. The visit aimed to provide practical insights into the operations of a significant power generation and mining facility. Accompanied by esteemed faculty members, Dr. C.N. Gnanaprakasam and Dr. S. Meena, the students were warmly welcomed at NLC.







The visit included a detailed overview of the site, with engineers explaining the intricacies of power generation and lignite mining. A guided tour of the power generation units offered students a firsthand look at turbines and generators, enhancing their understanding of technical specifications, maintenance procedures, and safety measures. The exploration extended to lignite mining operations, allowing students to grasp the machinery and logistics involved in the entire energy production cycle.

Engaging with industry professionals, students actively participated by posing questions and seeking clarification, fostering a dynamic learning environment. Emphasis on safety measures and environmental considerations highlighted the importance of responsible practices in large-scale industrial settings.

Engaging with industry professionals, students actively participated by posing questions and seeking clarification, fostering a dynamic learning environment. Emphasis on safety measures and environmental considerations highlighted the importance of responsible practices in large-scale industrial settings.

In conclusion, the industrial visit to **Neyveli Lignite Corporation** proved transformative for the **EIE students**, enriching their technical knowledge and instilling a sense of responsibility and environmental awareness.



VALUE ADDED COURSE

Arcres techsol pvt ltd., successfully conducted a one week from 26.02.2024 to 01.03.2024 Value Added Course on "Supervised Machine Learning for image classification" for third year EIE students. The event was organized by our HOD Dr. R. Sivakumar. We had faculty Ms. Sabura Banu who emphasized us with her teaching. The comprehensive curriculum covered key aspects such as image processing applications, MATLAB basics, WEKA basics, Machine learning. The teaching methodology included lectures, workshops, and hands-on projects facilitated by industry experts. Practical sessions allowed students to apply theoretical concepts in building and programming in MATLAB, fostering a deeper understanding of image classification.

Upon successful completion, participants received certificates from **Arcres techsol pvt ltd.**, adding significant value to their academic profiles.



EmCog solutions., successfully conducted a one week course from 26.02.2024 to 01.03.2024 on "Electric and hybrid vehicles" for third year EIE students. We had faculty Mr. Sreeraj who emphasized us with his teaching. The entire program featured the basics

in design and mechanism of the Electric and Hybrid vehicles. Designing a charger for batteries that are present in the EV (Electric Vehicles) and HEV (Hybrid Electric Vehicles) was one of the main modules of this program. **PROTEUS AND EASYEDA** were the two platforms that are used to do all the design and students have effectively mastered it. **BMS** (**Battery Management System**) another very crucial parameter related to EV AND HEV was lectured to us along with practical sessions where we got to see a miniature battery pack of a Electric Car.

Upon successful completion, participants received certificates from **Emcog** solutions., adding significant value to their academic profiles.

Overall, the program equipped students with practical skills, industry knowledge, and a competitive edge in the evolving field of Machine learning and in Electric Vehicles, enhancing their employability and preparing them for real-world applications.









SYMPOSIUM WINNERS

The **2nd-year Electronics and Instrumentation Engineering** (EIE) students of St. Joseph's College of Engineering won in the national level technical symposium organized by **Saveetha Institute of Medical and Technical Sciences (SIMATS),** held on 16th February 2024.

	NAME	OF	YEAR	EVENT NAME	PRIZE
S.no.	STUDENTS				DETAILS
1.	DHANUSH.G RUFFINO RIO FERNANDO .J SIJO DEVASSY. V SYED IMTHIYAZ TANISH LAL .C	/. J Z. S	II YEAR	Connexion Nexus (Tech connection)	2 nd Prize (Trophy)



ANNEXURE - VI LIST OF STAFF JOURNAL PUBLICATIONS YEAR 2023 & 2024

Sl. No	Authors	Title & Year	Journal	Vol.& Issue	Page start
1.	Giridharan Namasivayam & Sivakumar Ramamoorthy	Estimation of forest canopy density through Geospatial Technology—a case study on Sathyamangalam Forest, Erode District, Tamil Nadu (2024)	Environmental Monitoring and Assessment	196(2)	209
2.	Sindhuja, P.P., Vijayan, V., Panda, R.C.	Control of time-delay systems through modified Smith predictor using sliding mode controller (2023)	International Journal of Systems ScienceThis link is disabled.,,	54(9)	1961– 1986
3.	Sindhuja, P.P., Panda, A., Velappan, V., Panda, R.C.	Disturbance-observer-based finite time sliding mode controller with unmatched uncertainties utilizing improved cubature Kalman filter (2023)	Transactions of the Institute of Measurement and Control	45(9)	1795– 1812
4.	Panda, A., Sindhuja, P.P., Vijayan, V., Panda, R.C.	Operational control for the evolution of enthalpy in an SBR carrying out nitration of 4-chlorobenzotrifluoride and the thermal runway (2023)	Chemical Engineering Research and Design,,	197	774–799
5.	Rajinikanth, V., Vincent, P.M.D.R., Gnanaprakasam, C.N., Srinivasan, K., Chang, CY.	Brain Tumor Class Detection in Flair/T2 Modality MRI Slices Using Elephant-Herd Algorithm Optimized Features (2023)	Diagnostics	13(11)	1832
6.	Gnanaprakasam, C.N., Meena, S., Nivethitha Devi, M., Shanmugasundaram, N., Sridharan, S.	Robust energy management technique for plug-in hybrid electric vehicle with traffic condition identification (2023)	Applied Soft Computing	133	109937
7.	Jiao Ye, Hemant N. Patel, Sankaranamasivayam Meena, Renato R. Maaliw III*, Samuel-Soma M. Ajibade, and Ismail Keshta	Smart robots' virus defense using data mining technology (2023)	Journal of Intelligent Systems	32(1)	2023006 5

DEPARTMENT WISE BOOK CHAPTER DETAILS

Sl. No	Name of the Author & Department	Title of Books	Publisher	Publishing Date
1	Sivakumar, R., Seifedine Kadry, Sujatha Krishnamoorthy, Gangadharam Balaji, S.U. Nethrra, J. Varsha & Venkatesan Rajinikanth	Deep-Learning Supported Detection of COVID-19 in Lung CT Slices with Concatenated Deep Features	Lecture Notes on Data Engineering and Communications Technologies	9-8-2023
2	Kumar Pradyot Dubey, C.N. Gnanaprakasam, Ihtiram Raza Khan, Md Shibli Sadik, Liwa H. Al-Farhani, Samrat Ray	Parallel Byzantine Fault Tolerance method for blockchain	Artificial Intelligence, Blockchain, Computing and Security	1-12-2023

PATENTS FILED & PUBLISHED

S. No.	Country& Patent No.	Name of the Inventor(s)	Title	Date of Filing of Patent	Date of publicatio n
1	202341058149 A	1)R.Kotteeswaran 2)Athappan V 3)T.Subburaj 4)S.Sasikala 5)A Muthukumaravel 6)SheShang Degadwala 7)Vishal Ratansing Patil 8)G. Sundar 9)P. Patchaiammal	Firm Ware Vulnerability Spoofing Attacks Persistent Control Detection Using Machine Learning Supervi		26/02/2024
2	202241041666 A	1) Dr.R.Sivakumar 2)Dr. Pushpa B	Design of Robotic Marker for Welding	21/07/2022	26/02/2024

CONSULTANCY DETAILS

S.No.	Name of faculty (Chief Consultant) & Department	Client Organization	Title of Consultancy of project	Amount received (Rupees)	Month and Year
1	Dr.P.Deepa Mr.N.Hariprasad	J-Tech Instruments	Next-Gen Connectivity: Building Smart Cities with 5G communication and IOT Integration	4,00,000/-	Oct to Dec2023
2	Dr.P.Deepa Mr.D.Sankaran	J-Tech Instruments	Robotics and Automation in Agriculture : Integration of Sensing Technologies and Automation Systems	2,00,000/-	Dec 2023 to Feb 2024



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OMR, Chennai - 119



DEPARTMENT of EIE KARUVINGYAN 2022 17.09.2022 A ONE-DAY NATIONAL LEVEL TECHNICAL SYMPOSIUM

The state level technical symposium conducted by the Department of Electronics and Instrumentation Engineering and ICE, St. Joseph's College of Engineering, Chennai, titled 'KARUVINGYAN 2022' was held on Saturday, the 17th of September 2022. Every aspect of the event, from its inception to the execution had been the outcome of the culminated efforts of the faculty and students of the department. The website for the symposium was opened on 31st August 2022 and registrations closed on 10th September 2022, in the duration of which an overwhelming response had been observed from participants belonging to over 12 colleges from all over the state. This symposium witnessed the enthusiastic participation of over 101 students in over 5 events that tested their wits and abilities. During the valedictory function the Head of the Department Dr.R.Sivakumar distributed the cash prizes and certificates to winners. Symposium In charge, gave the vote of thanks.

1.Pamphlet:

Instructions to the participants

- Students have to register only online and confirmation mail will be sent to participants. For registration fill the below link. https://forms.gle/vAJFxoUVMgckSnPu6
- No Spot Registration is allowed.
- Transport is available from all parts of the city by our college bus.
- All participants should bring their college ID cards.
- Participants are permitted to enter the campus only with the Formal Dress code.
- Participants will be allowed to enter only with a confirmation printout up to 9.00 A.M.
- Proper decorum must be maintained following the college rules while on the College campus.
- The judge's decision will be final and binding.
- Cell phone is not allowed inside the college campus.
- Breakfast and Lunch will be provided
- ♦ No TA/DA will be provided.

Important Dates

Last date for registration : 10-09-2022 Intimation of selection : 12-09-2022 (Only through e-mail)

M.T.C Bus Routes to The College Stop: St. Joseph's College of Engineering. From ADYAR 19K, 19B, 102 From TAMBARAM: 95, 99 From T-NAGAR: 19B, 519

Contact Details

Organizers
Mr. Senthil Rashavan KK - 8300476495 - 6385044668

Ms. Karpagavalli S Mr. Axaxazhi TA - 8220012156
Mr. Sharon Resane -6369115448





St. JOSEPH'S COLLEGE OF ENGINEERING (An Autonomous Institution)
St. Joseph's Group of Institutions
OMR, Chennai 119.
Phone: 044-24501060/24501449 Ext: 5590

e-Mail: karuvingyan2022@gmail.com Website: www.stjosephs.ac.in/kernel/index.htm



ONE-DAY NATIONAL LEVEL TECHNICAL SYMPOSIUM

KARUVINGYAN 2022

Date: 17.09.2022

Total Cash Prize ₹ 30,000 /

Organised By

Department of Electronics and Instrumentation Engineering & Instrumentation and Control Engg

St. JOSEPH'S COLLEGE OF ENGINEERING (An Autonomous Institution)

St. Joseph's Group of Institutions

Jenniaar Educational Trust OMR, Chennai 119. Phone: 044-24501060/24501449 Website: www.stjosephs.ac.in

EVENTS

KVIZ!

(Technical Quiz)

- Three Participants per team and 20 Minutes will be allotted for the Preliminary round.
- · 5 finalists will be qualified.
- A 5 round finale.
- Ties will be settled.
- Participants must be from same institution / college.

LOGICAL BUG (Circuit Debugging)

- Debugging of circuit will be one of the rounds.
- A maximum of 3 members per team.
- Total number of 3 rounds will be conducted.
- Prelims will be conducted depending on the number of entries.
- Tasks and rounds should be accomplished within the stipulated time. (30 mins)
- Participants must be from same institution / college.

TECH CHASSE

(Technical treasure hunt)

- A maximum of 3 members per team.
- Technical clue solving event.
- Prelims will be conducted depending on the number of entries.
- Tasks and rounds should be accomplished within stipulated time.
- Participants must be from same institution / college.

TECH - CONNECTIONS (Technical connections)

- A maximum of 2 members per team.
- Connection quiz will be displayed on
- The first team to respond will be given the chance.
- The displayed picture should be analyzed within stipulated time. (30 secs)

For further details regarding all the events please visit :

karuvingyan2022@gmail.com

CURIOUS LINE FOLLOWER (Arduino Bot)

- Three members per team.
- Maximum number of sensors allowed in the robot is 5. (they can use any type of sensor. If an IR array is used. each IR in the array is considered a separate sensor)
- If the robot does not start within 30 seconds of starting the time the attempt will be considered as failed attempt.
- · If the robot goes out of track, 30 seconds will be given for selfcorrection.
- · In the case of Tie- breakers the event will be extended for another half
- · Winner will be decided on the basis of least time taken by the robot to finish the track.
- Violation of any rules will lead to disqualification.

Total cash prize: ₹ 30,000 /-

ISA STUDENT CHAPTER ACTIVITIES

SEPTEMBER 21, 2022.

As a part of the ISA - South India section, a HARMONIZE was held at Smart Classroom from 2.00 pm -3.00 pm. For the department of Electronics and Instrumentation Engineering by Dr. S. Meena for ISA members from 2nd,3rd, and 4th year

Isa chapter event:

HARMONIZE

The students who participated were asked to form a team of 3 and this is an MCQ event. The question was to match the circuit to its name. There were 4 sections each with 5 questions based on basics instrumentation and electronics.

The results of the ISA – Student Chapter Activity "HARMONIZE" held on September 21, 2022, for the academic year 2022 - 2023 (ODD semester) is detailed below:

Sl. No.	Name of the Students	Year	Position
	Mohammed Farhaan S	IV EIE	I
1.	Vidhyasaran R S	III EIE	
	Abinesh N	II EIE	
	Rajnarayanan S	IV EIE	II
2.	Prince Daniel T	III EIE	
	Yogavadhanan.V	II EIE	
	Padmavasan A	IV EIE	II
3.	Hemanth kumar R	III EIE	
	Ashwin B	II EIE	

May 05, 2022.

As a part ISA - South India section , a mini project expo was held at process control laboratory at $12.30\,$ - $3.00\,$ pm. For the department of Electronics And Instrumentation Engineering by Dr.S.Meena for all 2 nd and 3^{rd} year students .

Isa chapter event:

Mini- project expo.

The students who participated were asked to form a team of 5 and prepare a working model of their project. They came up with really interesting models and explained the purpose of their ideas.

To do:

- Components
- > Small briefing
- ➤ Block diagram
- Schematic diagram
- > Output of their model

Rules:

- ➤ Team of 3/4/5 members
- ➤ No software projects
- > Spot preparation of the model

Those who performed well with their innovative working model are awarded with the cash prize and certificate. The below table will show the results of the event. The Judges for this event were Dr.C.N.Gnanaprakasam, Dr.S.Meena and Mr.D.Sankaran.



Sl.	Title of the	Name of the	Year	Position
No.	Project	Project Students		
	IoT Based Plant	Hemanth Kumar R	III	I
1.	Watering System	Kamalesh S	EIE	
			III	
			EIE	
	Rain Detector	Pooja Sri A	II EIE	II
2.		Akila S	II EIE	
		Gomathi U	II EIE	
		Annie Beulah V	II EIE	
	Real Time	Ashwin B	II EIE	III
3.	Implementation of	Sakthi Vijayan S	II EIE	
	Ultrasonic Sensor	Balamanikandan B	II EIE	
		Keerthivasan VEE	II EIE	
		Albert Franklin M	II EIE	

The results of the ISA – Student Chapter Activity "MINI PROJECT EXPO" held on October 21, 2022 for the academic year 2022 - 2023 (ODD semester) is detailed below:

GUEST LECTURE FOR EIE STUDENTS

Topic: Role of Instrumentation Engineer in Instrumentation Industry

Speaker: Mr.A. Gowthaman, Senior Project Manager, CPCL

Date:03.09.2022

Time:10.00 am to 11.30 am

Venue: Basil, Training and Placement Block

The speaker has delivered about the role of instrumentation Engineers in Petroleum, Oil and Gas Industries. The details about the process of conversion from crude oil to different products like Petrol, Diesel, LPG, Naphtha, Bitumen with their specifications was delivered to the audience. The speaker has given the various parameters measurements from starting of the process to the end of conversion of product and By-Product in detail. The speaker motivated the students by giving examples of where Temperature, Pressure, Flow and Level was measured with examples and with their calibration of the corresponding Instruments. Finally, The speaker has given about the Erection, commissioning and functioning of the plant with details and HMI Interface details.





WEBINAR / FDP / WORKSHOP / OTHER COURSE ATTENDED BY FACULTY

S. No.	Faculty Name	Date	Webinar /FDP attended/ workshop	Conducting agency	No. of days
1.	Mr.D.sankaran	23.01.2023 to 28.01.2023	FDP	Easwari College of Engg	6
<i>L</i> .	Dr.C.N.Gnanaprakas am	23.01.2023 to 28.01.2023	FDP	Easwari College of Engg	6
3.	Dr.S.Meena	23.01.2023 to 28.01.2023	FDP	AVC College of Engg	6
4.	Mr.B.Senthilkumar	June 2022-Dec 20022	FDP	NPTEL	12 Weeks
5.	Dr.V.Vijayan	June 2022-Dec 20022	FDP	NPTEL	12 Weeks
6.	Dr.P.Deepa	June 2022-Dec 20022	FDP	NPTEL	12 Weeks

PUBLICATION / PATENT / FUNDED PROJECT / AWARDS

S. No	Faculty	Title of the paper	Date	Journal/Patent/Boo k Chapter/Conference
1.	Mrs. R Angel Sujitha	Glioma/Glioblastoma detection in Brain MRI using Pre- trained Deep Learning scheme	August 2022	2022 Third International Conference on Intelligent Computing Instrumentation and Control Technologies (ICICICT)

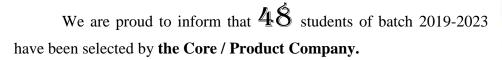
S. No	Faculty	Title of the paper	Date	Journal/Patent/Boo k Chapter/Conference
2.	P Princes Sindhuja, V Vijayan , Atanu Panda, Rames C Panda	Design and Analysis of Double Integrating and Dead time Processes	Jan 2022	IFAC-Papers OnLine
3.	S Meena, M Mercy Theresa, A Jesudoss, M Nivethitha Devi	A New Hybrid Approach of NaFA and PSO for a Spherical Interacting System	Mar 2022	Lecture Notes on Data Engineering and Communications Technologies book series
4.	Gnanaprakasam C. N T. Jaya Lakshmi , Nabamita Deb , Nashwan Adnan Othman	Privacy Protection of Healthcare Data over Social Networks Using Machine Learning Algorithms	Feb 2022	Computational Intelligence and Neuroscience
5.	Chidambaram Nithyanandan Gnanaprakasam, Gunasekaran Brindha, J. Gnanasoundram, E. Ahila Devi	An Efficient MFM- TFWO Approach for Unit Commitment with Uncertainty of DGs in Electric Vehicle Parking Lots	July 2022	Journal of Intelligent and Fuzzy Systems (IOS Press)

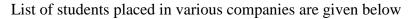
PATENTS:

		Patent
Name of the Faculty	Year of Publication	Applied/Granted/Published
Dr.S.Meena	November 2022	Patent Published
Dr.P.Deepa	August 2022	Patent Published
Dr.P.Deepa	July 2022	Patent Published
N Hariprasad	July 2022	Patent Published
Mrs. R Angel Sujitha	December 2022	Patent Published
Mr.D.Sankaran	August 2022	Patent Published

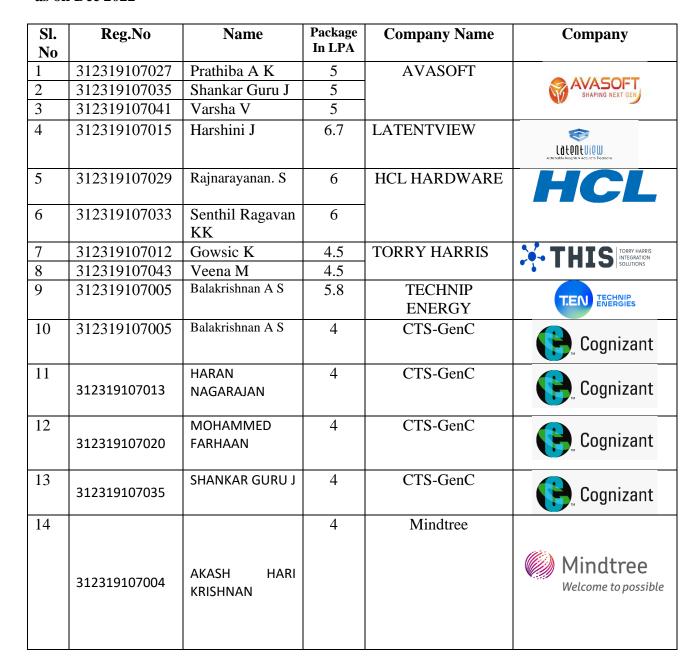
PLACEMENT

2022 – 23 CAMPUS PLACEMENT





*as on Dec 2022



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16	312319107018	KUMARAN B	4	Mindtree	Mindtree Welcome to possible
17	312319107025	NOOR MOHAMED IBRAHIM	4	Mindtree	Mindtree Welcome to possible
18	312319107027	PRATIBHA AK	4	Mindtree	Mindtree Welcome to possible
19	312319107032	R.SATHISH RAJA	4	Mindtree	Mindtree Welcome to possible
20	312319107047	VIJAYARAJ G C	4	Mindtree	Mindtree Welcome to possible
21	312319107028	Rabhina Roy A.P	5.6	CTS Temenos	TEMENOS
22	312319107027	Pratibha A.K	5.6	CTS Temenos	TEMENOS
23	312319107032	R.SATHISH RAJA	3.6	TCS NINJA	TATA CONSULTANCY SERVICES
24	312319107039	Sivaraman.P	3.6	TCS NINJA	CONSULTANCY SERVICES

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25	312319107016	Jnanesh A Shetty	3.56	TATA EXLSI	TATA ELXSI
26	312319107021	Nambi Ezhilarasu.A.K	3.56	TATA EXLSI	TATA ELXSI
27	312319107024	Naveen Kumar D	3.56	TATA EXLSI	TATA ELXSI
28	312319107034	Shafiq Ahamed Shahjahan	3	Verzeo	verzeo
29	312319107017	John Godwin M	3.6	Petro6	Petrob
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31	312319107042	Vashcini JS	2.6	Joy Technologies	ت
32	312319107011	Dillibabu R	2.6	Joy Technologies	J
33	312319107046	Vijay.S	2.6	Joy Technologies	J
34	312319107038	Shiram V	2.6	Joy Technologies	J
35	312319107022	Nandhakumara n C	4	Anora Labs	∧N∳R∧

36	312319107040	Siva Shankar R	4	Anora Labs	∧N∳R∧
37	312319107021	Nambi Ezhilarasu.A.K	2.5	Airtel-Accounts manager	airtel
38	312319107001	Abishek	3.4	Pentagon Space	PENTAGON SPACE Mastering The Feture
39	312319107014	Harrish G	3.4	Pentagon Space	PENTAGON SPACE Mastering The Facers
40	312319107024	Naveen Kumar D	3.4	Pentagon Space	PENTAGON SPACE Mastering The Februs
41	312319107037	Sherin Jonnah	5.48	Edyoda	EDYODA
42	312319107036	Sharon Shekinah.A	2.4	ReTech Solutions	RETECH SOLUTIONS PVT LTD
43	312319107002	Abishek chandran R	2.4	ReTech Solutions	RETECH SOLUTIONS PVT LTD
44	312319107023	Nangai Sri M	2.4	ReTech Solutions	RETECH SOLUTIONS PVT LTD
45	312319107030	Sanjay.K	2.4	ReTech Solutions	RETECTA SOLUTIONS PVT LTD
46	312319107034	Shafiq Ahamed Shahjahan	3	Stanza Living	stanza living

47	312319107031	Saran	3	Stanza Living	S stanza living
48	312319107016	Jnanesh A Shetty	5.2	Yokogawa	YOKOGAWA 🔶

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