JANSONS INSTITUTE OF TECHNOLOGY

Approved by AICTE | Affiliated to Anna University

Accrediated by NAAC with Grade "A"

An ISO 9001:2019 Certified Institution.

TECHNOVA -11

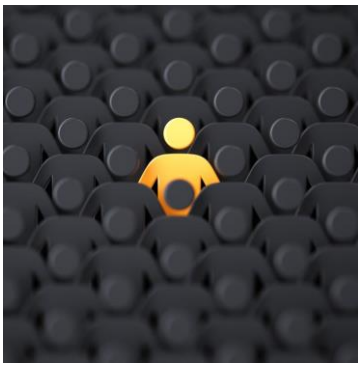
Jan 2024 - June 2024

"The scientist discovers a new type of material or energy and the engineer discovers a new use for it."

-Gordon Lindsay Glegg, British engineer and author.

VISION

To produce skilled and competent engineering professional in the field of Electronics and Communication



MISSION

Equip students with technical skills to meet current demands in the electronics industry Cultivate ethical and moral qualities to address societal needs

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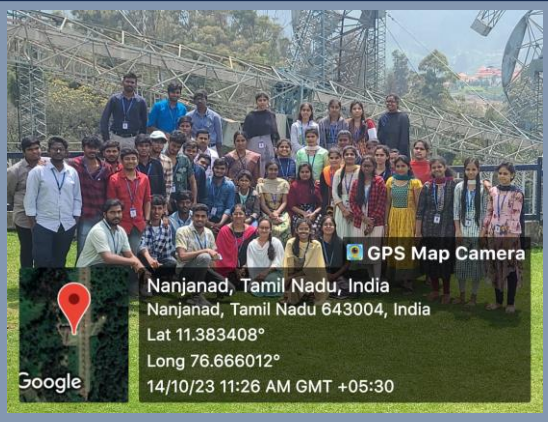
THE GUEST LECTURE

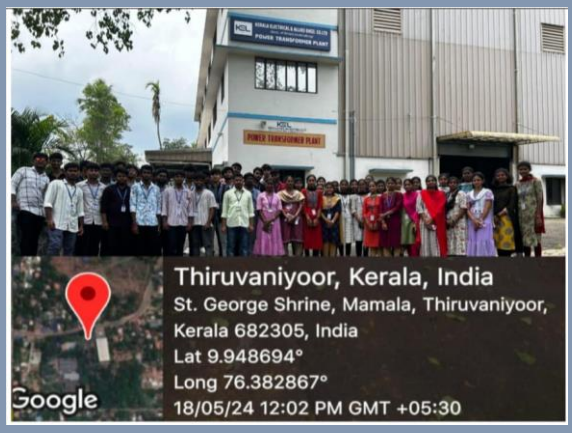
On October 5, 2023, Mr. K. Ranjithkumar from Moringa Promises Wellness conducted a seminar titled "MY Story – Motivational Session on Successful Entrepreneurship" as part of the Entrepreneurship course.

As a provider of world-class conformal coating services for the medical device industry, SCS offers experience and expertise to solve critical challenges facing today's leading medical technologies. Whether an application requires Parylene, a well-recognized medical device coating, or specialty liquid coatings, SCS coating solutions provide the essential protection needed for life-saving devices.

Industrial / Field Visit



Visiting Spectrum Soft tech Solutions Pvt. Ltd. in 2023-2024 provides students with a practical perspective on IT and software services. This experience helps bridge the gap between academic knowledge and industry requirements, allowing students to gain valuable insights into real-world applications. By understanding industry standards, technologies, and workflows, students become better prepared for careers in IT and software engineering, enhancing their skills and employability in a competitive job market.



Visiting Kerala Electrical & Allied Engineering Co. Ltd. (KEL) provides students with an opportunity to bridge the gap between theoretical knowledge and practical applications. This experience allows them to gain hands-on exposure to real-world engineering and manufacturing processes, enhancing their understanding of industry operations. By observing and engaging with practical applications, students develop a deeper appreciation for the complexities involved in engineering and manufacturing, preparing them for future careers in the field.

EVENTS

1.A motivational talk titled "My Story – Motivational Talk by a Successful Innovator: Developing Innovation and Creativity through Participation in Contests and Hackathons" was delivered by Mr. Shriram Kris Vasudevan, Lead – Technical Evangelist, Intel India Pvt. Ltd., Bangalore, India on September 23, 2023. The session inspired students to enhance their innovation and creativity through active participation in contests and hackathons. A total of 60 students benefited from this event.

2.A Technical Talk was organized for the student members of the JIT EHC Club on August 31, 2023. The session aimed to enhance students' technical knowledge and skills. A total of 50 students benefited from this event

3.A mentoring session titled "Yukthi – Innovation Repository – Mentoring @ JIT" was conducted on April 6, 2023, by Mrs. S. Sandra, Assistant Professor/ECE and EHC Club Coordinator. The session aimed to guide and support students in innovation and repository development. A total of 48 students benefited from this event.

4.A skill development Bootcamp on "Design Thinking Approach on Innovation and Product Development in the AI Sector" was conducted with Mr. NMK Theyzeswarr, Founder & Managing Director of Clover Technologies, and Mrs. S. Sandra, Assistant Professor of ECE, as resource persons. The Bootcamp was held on four dates: March 14, March 21, March 28, and April 4, 2024. A total of 42 students benefited from this program.

5.A session on "Process of Systematic Innovation in Product Development" was conducted on December 21, 2023, by Dr. V.P. Radha, Associate Professor of Chemistry, Jansons Institute of Technology. The session focused on systematic approaches to innovation in product development. A total of 60 students benefited from this event.

6.A motivational session titled "My Story – Motivational Session on Successful Entrepreneurship" was conducted on October 5, 2023, by Mr. K. Ranjith Kumar, Founder of Moringa Promise Wellness. The session aimed to inspire students by sharing insights into entrepreneurial success. A total of 54 students benefited from this event

7.A Technical Quiz was conducted on August 17, 2023, by Mrs. R. Kowsalya, Assistant Professor/ECE and IETE Faculty Coordinator. The quiz aimed to enhance students' technical knowledge and problem-solving skills. A total of 67 students participated and benefited from this event.

8.A Workshop on Fostering Continuous Value Proposition Fit for IoT-Based Startups was conducted on July 27 and July 28, 2023. The session was led by Mr. Arunkumar Ramamurthy, Incubation Manager at AIIRF EDII, Entrepreneur Evangelist at Diyas Ventures, and Co-founder, along with Mrs. L. Agnes Preethi, HoD/Civil & Innovation Ambassador, and Mrs. A. Praveena, Assistant Professor/CSE & Innovation Ambassador. The workshop aimed to guide students in developing value propositions for IoT-based startups. A total of 37 students benefited from this event

STUDENTS PARTICIPATION

S. NO.	NAME	EVENT NAME	ORGANISED BY	DATE	POSITION/STATUS
1	Abarna TG	Techathon	Sri Ramakrishna institute of technology	26/10/2023	Participated
2	Bodduluri Sri Lekha	Machine Learning course	ABC unlimited	30/12/2023	Participated
3	Jana Dharshini T	TECHOTHON '23	Sri Ramakrishna institute of technology	26/10/2023	Participation

CONFERENCE PUBLICATIONS

P.Sivamani, N.Krishnapriya, V.Vidhya Gowri "Industrial IoT: Revolutiionizing the safety standards of industry 4.0," in the Proceedings of the International conference on intelligent computing and smart communication systems, Coimbatore, India, December, 2023.

Dr.G.Vetrichelvi,"Design and Analysis of 5G Antenna with Defective Ground Structure," in the Proceedings of the IEEEExplore-International Conference on Applied Intelligence and Sustainable Computing pp. 1-4. IEEE, June 2023

T. Meenakshi, "IoT-Integrated Wearable Skin Sensors for UV Exposure Monitoring and Sun Protection." In 2023 International Conference on Self-Sustainable Artificial Intelligence Systems (ICSSAS), pp. 1407-1411. IEEE, 2023.

Dr.Shanmugam C," Air Pollution Prediction using IoT and Machine Learning," in the Proceedings of the International Conference on Science, Technology, Engineering and Mathematics 3.0, ICSTEM, Coimbatore, India, April 30, 2023, pp.29.

PATENT

Dr.P.Gowtham,Mrs.P.Eswari,Dr.C.Shanmugam, Mrs.N.Krishnapriya, **Mrs.P.Sivamani** "Dual powered Transformer less multi-output portable electronic workstation using solar photovoltaic panels," India patent 20224105487 A, September 22, 2023.

Mrs.P.Eswari, Dr.P.Gowtham, Dr.C.Shanmugam, Mrs.N.Krishnapriya," Standalone Oxygen Generating Mask For Urban Air Pollution Using Pyro- Piezo-Tribo- Nano electric Generator", India patent 202241015502 A, September 22, 2023.

Dr.K.Mahandran,Dr.T.Meenakshi," Solar Energy based automatic cow feed (Grass type) cutting machine", India patent 202241015507 A, September 22, 2023.

Dr.T.Meenakshi," Contactless twin disc with implanted magnets and belted pulley with shaft bearing arrangement for energy harvesting", India patent 202241015482 A, September 22, 2023.

Sponsered Research

Project Title	Duration	Funding Agency	Amount
A smart pill reminder and monitoring kit for visually impaired people using machine learning	3 Months	Tamil Nadu State Council for Science and Technology, Chennai	7,500
Gamified App for Learning by Persons with Disabilities	3 Months	TN-NaanMudhalvan- Niral Thiruvizha	10,000
IoT based Electricity Theft Monitoring System using Raspbperry Pi	3 Months	TN-NaanMudhalvan- Niral Thiruvizha	10,000

STUDENTS TRAINED

Er. R.S. Venkatachalam, MD of Wizaard Systems, Coimbatore, conducted a one-day hands-on training session sponsored by AICTE-MODROB. The training focused on elevating innovation and product development through the real-time applications of IoT and signal processing. The session provided participants with practical insights and skills, enabling them to integrate cutting-edge technologies into real-world solutions. The event aimed to bridge the gap between theory and practical implementation, empowering attendees to enhance their innovation and development capabilities in the fields of IoT and signal processing.

The Centre Director of RAC-Ooty organized a technical field visit on 14.10.2023 for problem identification. A total of 45 members participated, gaining practical insights into real-world challenges in the field.

PROGRAM OUTCOMES

- ✓ Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- ✓ Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- ✓ Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- ✓ Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- ✓ Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- ✓ The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- ✓ Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- ✓ Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- ✓ Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- ✓ Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- ✓ t Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PROGRAM SPECIFIC OUTCOMES

- ✓ Analyse, design, and develop solutions for electronic systems by applying fundamental concepts of electronics and communication engineering.
- ✓ Apply design principles and best practices for developing quality products for scientific and business applications.
- ✓ Adapt emerging electronics and communication technologies and develop innovative solutions for existing and newer problems.

EDITORIAL COMMITTEE MEMBERS