ASME-SRIT STUDENT SECTION

SETTING THE STANDARD

SRIT STUDENT SECTION

ABOUT ASME STUDENT SECTION

SETTING THE STANDARD

SRIT STUDENT SECTION

ASME helps the global engineering community develop solutions to real-world challenges. Founded in 1880 as the American Society of Mechanical Engineers, ASME is a not-for-profit professional organization that enables collaboration, knowledge sharing, and skill development across all engineering disciplines, while promoting the vital role of the engineer in society. ASME codes and standards, publications, conferences, continuing education, and professional development programs provide a foundation for advancing technical knowledge and a safer world. In 2020, ASME formed the International Society of Interdisciplinary Engineers (ISIE) II & III LLC, a new for-profit subsidiary to house business ventures that will bring new and innovative products, services, and technologies to the engineering community.

ACKNOWLEDGEMENT

"Behind every achievement lies an unfathomable sea of gratitude to those who actuated it; without them, it would never have come into existence." We sincerely thank the SNR Management Trust and Principal Dr. J. David Rathnaraj for providing access to essential technological resources. We sincerely thank Dr. B Chokkalingam, HOD/MECH, for his continuous guidance and encouragement. Special thanks to Mr. R. Immanual, AP/MECH, and Ms. N. Sanjana, AP/CSE, for their instrumental role in initiating the ASME-SRIT Student section at our college. We deeply thank all teaching and non-teaching staff across every department for their unwavering support and interest in the ASME-SRIT Student Section. In this spirit, we lay these words of gratitude, imprinted within us, to all those who have made this achievement possible.

SEMESTER REPORT OF ASME-SRIT STUDENT SECTION

ASME

SETTING THE STANDARD

The Board of Governors have established
A Student Section at

Sri Ramakrishna Institute of Technology

As evidenced by this Charter signed by the officers of the Society
Date of Establishment
2024

Mahantesh Hiremath
President

Thomas Costabile, P.E.
Executive Director

MEMBERS

DHANUSH KARTHIK J
Chair Person

SRIRAM M
Vice - Chair person

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Secretary

VISHAL M
Treasurer

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HR

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Outreach Head

KANTHETY JANSU CHOUDHARY
Webmaster

BHARATH P I
Design Head

AJAY VARDHANAN.J.V
Analysis Head

BHARATH E
Circuit Design Head

SIDDHARTH A
Programming Head

NALLASIVAN B
Manufacuring Head

ASME_SRIT

ESTEEMED ADVISORS

IMMANUAL R

ASSISTANT PROFESSOR - MECH

SANJANA N

ASSISTANT PROFESSOR - CSE

ASME_SRIT

COMPETITIONS

ASME TN-NOVATE SDG INNOVATION EXPO 2024

Program Type: Expo
Program Theme: Sustainable Development Goals (SDGs) & Innovation
Date: 8th November 2024 (Friday)
Duration: One Day
Time: 10:00 AM – 4:00 PM
Mode of Delivery: Hybrid (Online + Offline)
Venue: Sri Ramakrishna Institute of Technology, Coimbatore
Organized By: ASME Tamil Nadu Section in collaboration with SRIT
Participants:

- Engineering & Polytechnic Students from various institutions
- Faculty Coordinators & Experts from SDG-aligned domains

Entry Fee: INR 300 (Engineering), INR 200 (Polytechnic)
Prize Pool: USD 600

About the Event:

The **ASME TN-NOVATE SDG Innovation Expo 2024** was a state-level innovation showcase to encourage sustainable technology development. Held at SRIT, the event provided engineering and polytechnic students a platform to present impactful projects focused on the **United Nations Sustainable Development Goals (SDGs)**. The event was supported by ASME and broadcast live across digital platforms to maximize participation and outreach.

Event Highlights:

- Wide participation from **polytechnic and engineering students** across Tamil Nadu.
- Projects focused on **clean energy, water management, health tech, education, and smart systems**.
- A total **prize pool of USD 600** was awarded to the top innovations.
- Sessions were streamed live for maximum engagement and transparency.
- The event was hosted with **expert panels and juries** from academia, industry, and the ASME national body.

Event Photos:

WORKSHOPS

HANDS-ON TRAINING ON PATENT SEARCH

Program Type: Workshop
Program Theme: Intellectual Property Rights (IPR)
Date: 30th September 2024 (Monday)
Duration: 2 Hours
Time: 3:00 PM – 5:00 PM
Venue: LH 242, SRIT
Mode of Delivery: Offline
Organized By: Department of Mechanical Engineering in association with ASME-SRIT Student Section
Resource Person: Mr. R. Immanual, Assistant Professor, Department of Mechanical Engineering, SRIT
Participants:

- Faculty: 1
- Internal Students: 60
- External Students: Not Applicable

Expenditure: Nil

About the Event:

This workshop, titled **"Hands-On Training on Patent Search"**, was organized to equip students with essential knowledge and practical skills in navigating the world of intellectual property. Conducted by **Mr. R. Immanual**, a faculty expert in energy engineering and innovation, the session focused on building foundational competencies in **patent databases**, **search methodologies**, and understanding **patent classifications**. This session was part of the MoE's IIC self-driven activity series.

Event Highlights:

- Led by a resource person with **25 patent filings and 6 grants**, recognized for innovation and research.
- Delivered through practical demonstrations and interactive Q&A.
- Participants were trained on **real-world patent search scenarios**, covering industries such as automotive, healthcare, and clean energy.
- Aimed at promoting responsible innovation and preparing students for **entrepreneurship, R&D, and industry roles**.

Event Photos:

HANDS-ON INNOVATION: MASTERING IN DESIGN THINKING

Program Type: Workshop
Program Theme: Innovation
Date: 7th October 2024 (Monday)
Duration: 2 Hours
Time: 3:00 PM – 5:00 PM
Venue: LH 242, SRIT
Mode of Delivery: Offline
Organized By: Department of Computer Science and Engineering in association with ASME-SRIT Student Section
Resource Person: Ms. N. Sanjana, Assistant Professor, CSE Department, Sri Ramakrishna Institute of Technology
Participants:

- Faculty: 1
- Internal Students: 60
- External Students: Not Applicable

Expenditure: Nil

About the Event:

The workshop titled **"Hands-On Innovation: Mastering in Design Thinking"** was conducted to introduce students to the core principles and advanced methodologies of **design thinking**, a key framework for innovation and user-centric problem-solving. Through a blend of immersive activities and collaborative tasks, the session aimed to equip participants with the tools needed to ideate, prototype, and implement creative solutions to complex challenges.

Event Highlights:

- Practical engagement through activities like persona creation, brainstorming, and paper prototyping.
- Interactive session guided by a young and dynamic faculty expert in design thinking and innovation methodologies.
- Students developed a portfolio-ready design thinking experience applicable across disciplines.

Event Photos:

INNOVATE IN 3D

Program Type: Workshop
Program Theme: Innovation in Design and Mechanical Engineering
Date: 14th – 18th October 2024 (Monday to Friday)
Duration: 5 Days
Time: 10:00 AM – 5:00 PM
Mode of Delivery: Offline
Venue: CAD Lab, SRIT
Organized By: Department of Mechanical Engineering in association with ASME-SRIT Student Section and Coimbatore CAD Solutions Pvt. Ltd.
Resource Organization: Coimbatore CAD Solutions Pvt. Ltd., Nallampalayam, Coimbatore
Participants:

- Faculty: 5
- Internal Students: 30+
- External Students: Not Applicable

Expenditure: Sponsored (No direct expenditure mentioned)

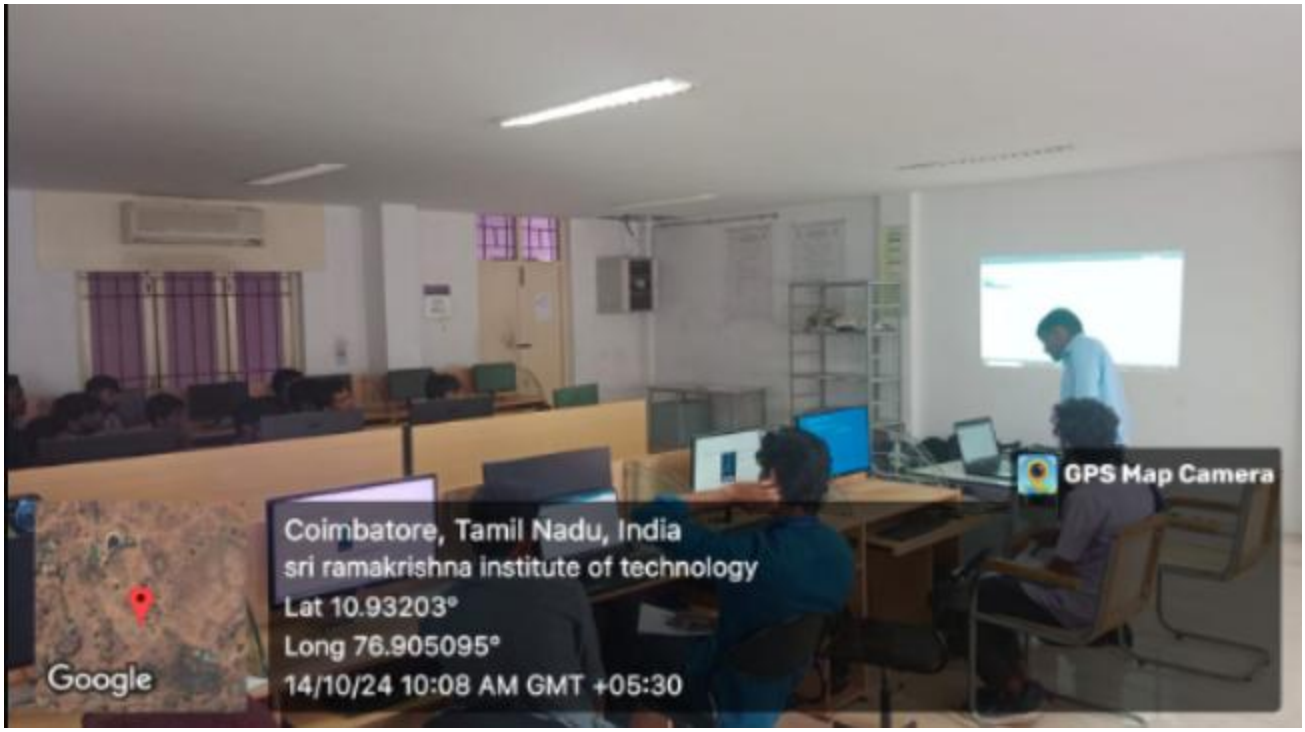
About the Event:

Innovate in 3D was a 5-day intensive CAD training workshop conducted for Mechanical Engineering students at SRIT in collaboration with **Coimbatore CAD Solutions Pvt. Ltd.** The workshop focused on hands-on learning using **Siemens Solid Edge** to design professional 3D models. It aimed to bridge the gap between academic knowledge and industrial standards in mechanical design, and was aligned with **ASME design guidelines**.

Event Highlights:

- Delivered by certified CAD professionals from Coimbatore CAD Solutions.
- Included theory sessions, live demonstrations, and mini-project evaluations.
- Enabled students to **visualize, design, and document complete mechanical components**.
- Supported career-focused learning aligned with mechanical engineering industry expectations.

Event Photos:



HANDS-ON TRAINING ON DRAFTING THE PATENT FORM

Program Type: IIC Self-Driven Activity – Workshop
Program Theme: Intellectual Property Rights and Patent Filing
Date: 15th October 2024 (Tuesday)
Duration: 2 Hours
Time: 2:00 PM – 4:00 PM
Venue: e-Learning Hall, SRIT
Mode of Delivery: Offline
Organized By: Department of Mechanical Engineering in association with ASME-SRIT Student Section
Resource Person: Mr. R. Immanual, Assistant Professor, Department of Mechanical Engineering, SRIT
Participants:

- Faculty: 60
- Internal Students: 60
- External Students: 6

Expenditure: Nil

About the Event:

The **"Hands-on Training on Drafting the Patent Form"** workshop was conducted to provide students and faculty with practical exposure to the legal and technical aspects of patent filing. The session aimed at demystifying the process of drafting patent documents, covering technical specification writing, understanding patent claims, and following legal documentation protocols as per the Indian Patent Act. Delivered by **Mr. R. Immanual**, this session was part of SRIT's IIC self-driven activities, focused on enhancing IPR literacy and promoting innovation protection strategies.

Event Highlights:

- Included real-time **form drafting demonstrations** using sample innovations.
- Covered legal terminology, submission timelines, and procedural requirements.
- Interactive session with Q&A that addressed **common errors and practical issues** in patent filing.
- Students and faculty expressed keen interest in **filing actual patents post-training**.

Event Photos:

BASICS OF INTELLECTUAL PROPERTY RIGHTS AND ITS IMPORTANCE FOR INNOVATORS AND ENTREPRENEURS

Program Type: Workshop
Program Theme: Intellectual Property Rights and Innovation
Date: 28th November 2024 (Thursday)
Duration: 1 Day
Time: 10:00 AM – 4:00 PM
Venue: LH 2412, SRIT
Mode of Delivery: Offline
Organized By: Departments of Computer Science and Mechanical Engineering in association with ASME-SRIT Student Section
Resource Person: Mr. R. Immanual, Assistant Professor, Department of Mechanical Engineering, SRIT
Participants:

- Faculty: 4
- Internal Students: 90
- External Students: Not Applicable

Expenditure: Nil

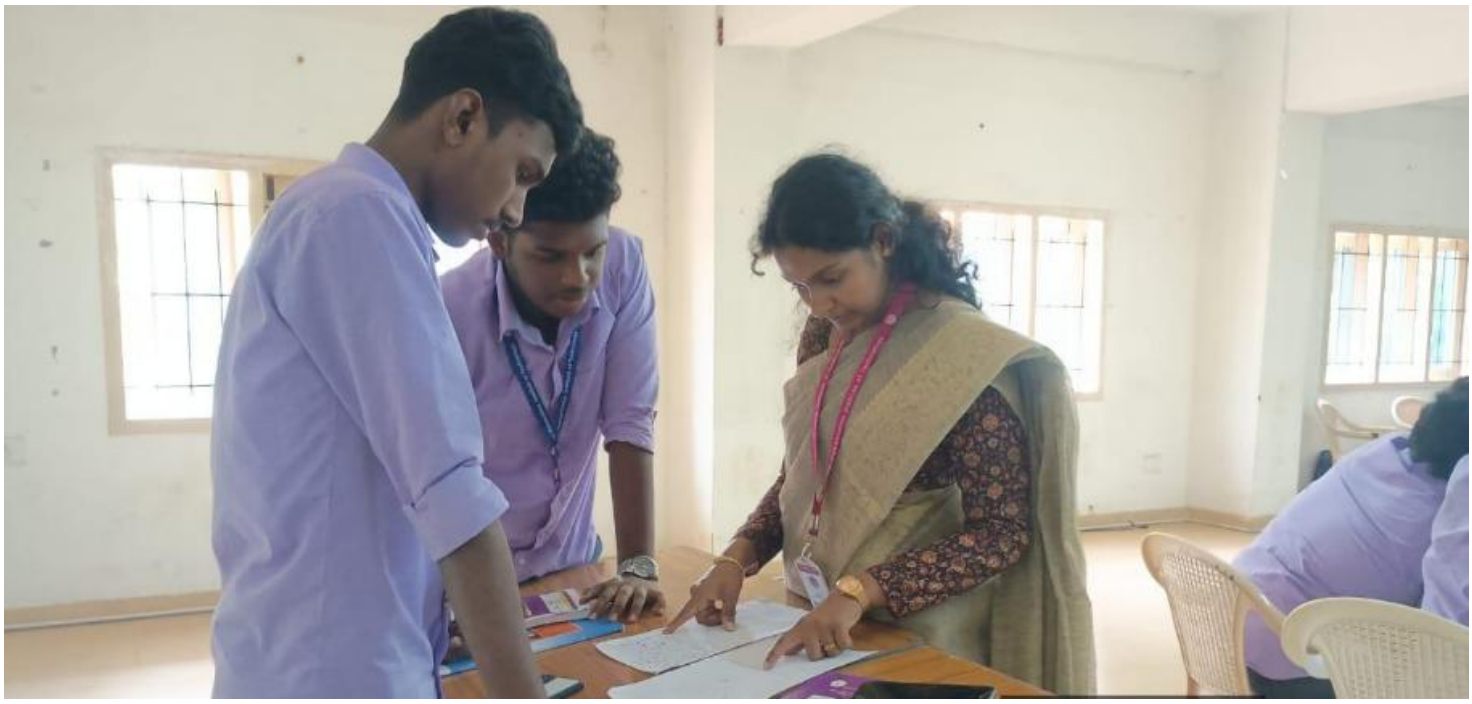
About the Event:

The workshop titled **"Basics of Intellectual Property Rights and Its Importance for Innovators and Entrepreneurs"** was designed to introduce students and faculty to the fundamentals of intellectual property rights (IPR) and how these concepts are vital for innovation-driven entrepreneurship. Conducted by **Mr. R. Immanual**, an expert in energy systems and patent law, the session helped participants understand how intellectual property plays a critical role in safeguarding inventions and driving commercialization in the startup and innovation ecosystem.

Event Highlights:

- Engaging session with real-time case examples and interactive Q&A.
- Included practical tips on **idea-to-patent** transformation.
- Led by an **IP expert with over 25 patent filings**, bringing industry and academic perspectives.
- Encouraged future innovators to **pursue IP protection** and align with global innovation trends.

Event Photos:



SESSION ON PROBLEM SOLVING AND IDEATION WORKSHOP

Program Type: Workshop
Program Theme: Innovation and Problem Solving
Date: 29th November 2024 (Friday)
Duration: 1 Day
Time: 10:00 AM – 2:00 PM
Venue: e-Learning Hall, SRIT
Mode of Delivery: Offline
Organized By: Department of Computer Science and Department of Mechanical Engineering in association with ASME-SRIT Student Section
Resource Person: Mr. Thirukkuralkani K. N, Director – Operations, Tectzo Solutions & Incubation Manager, SREC SPARK Incubation Foundation
Participants:

- Faculty: 4
- Internal Students: 30
- External Students: Not Applicable

Expenditure: ₹25,000

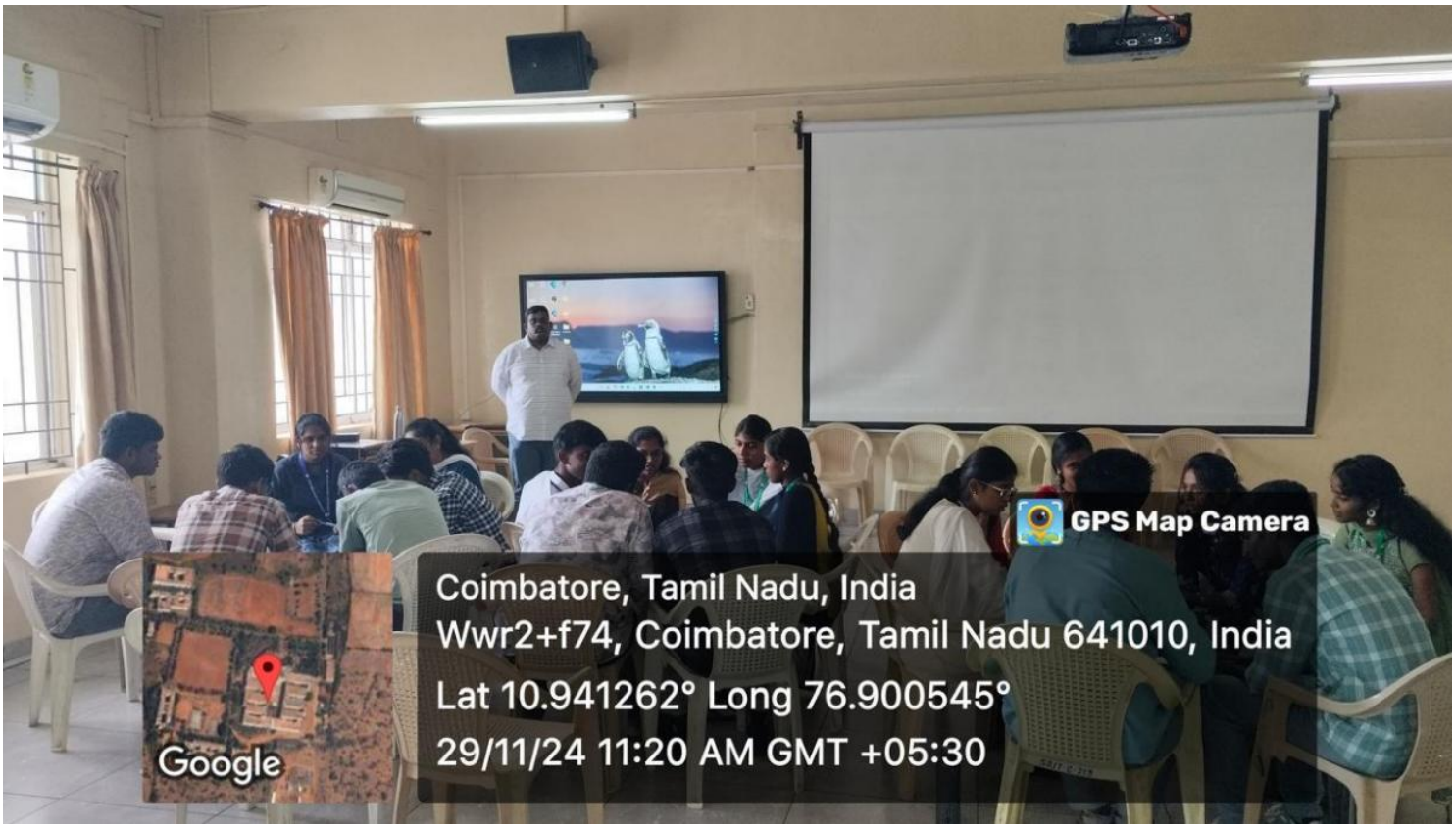
About the Event:

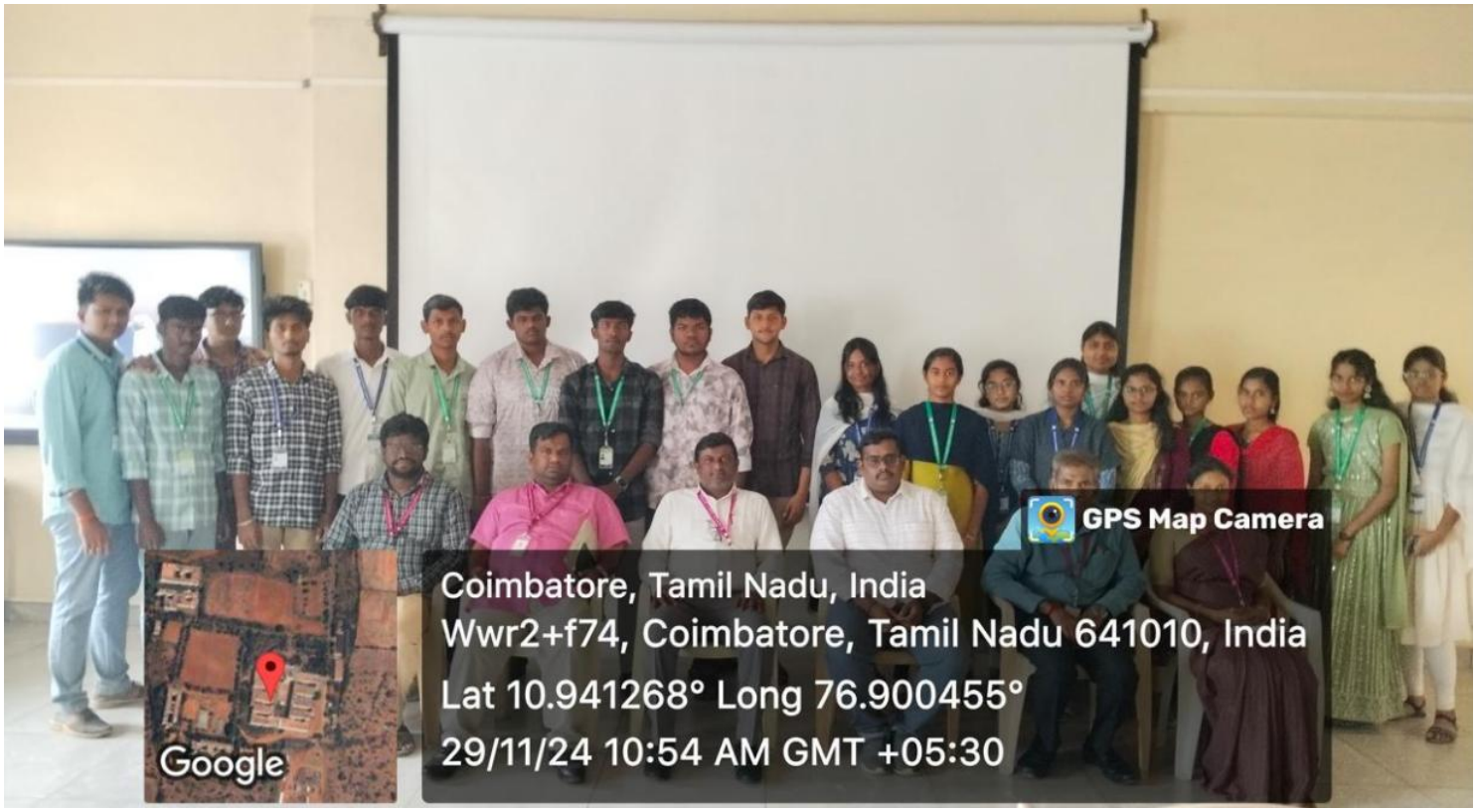
The **"Session on Problem Solving and Ideation Workshop"** was organized to train students in structured innovation techniques, emphasizing real-world problem-solving and ideation frameworks. The workshop, delivered by **Mr. Thirukkuralkani K. N**, a seasoned incubation mentor and innovation strategist, aimed to empower students with tools for critical thinking and creative problem formulation. The session was highly interactive and included activities focused on user-centric design, brainstorming, and idea evaluation.

Event Highlights:

- Real-time ideation sprints and collaborative sessions.
- Interactive Q&A on project-to-product transitions and IP linkage.
- Mentoring by a **professional with vast experience in startup incubation and prototyping**.
- Student teams were guided on how to take their problem statements to the prototype and patent stage.

Event Photos:





WORKSHOP ON ENTREPRENEURSHIP AND INNOVATION AS A CAREER OPPORTUNITY

Program Type: Workshop (IIC Calendar Activity)
Program Theme: Innovation and Entrepreneurship
Date: 29th November 2024
Duration: 2 Hours (2:00 PM – 4:00 PM)
Venue: E-Learning Hall, SRIT
Mode of Delivery: Offline
Organized By: Department of Electronics and Communication Engineering, SRIT
Resource Person: Dr. Thirukkuralkani KN, Director - Operations, Tectzo Solutions & Incubation Manager, SREC SPARK Incubation Foundation
Participants:

- Internal Students: 38
- Faculty Members: 3
- External Participants: 0

Expenditure: Nil

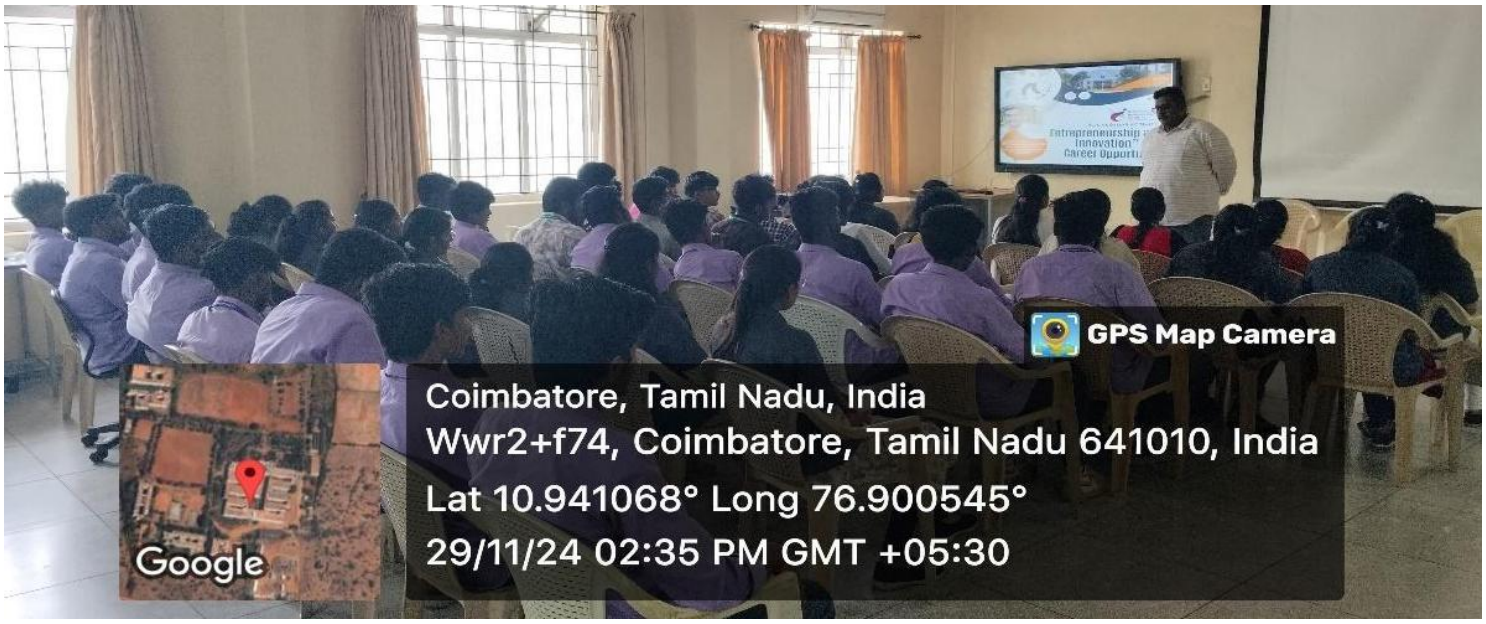
About the Event:

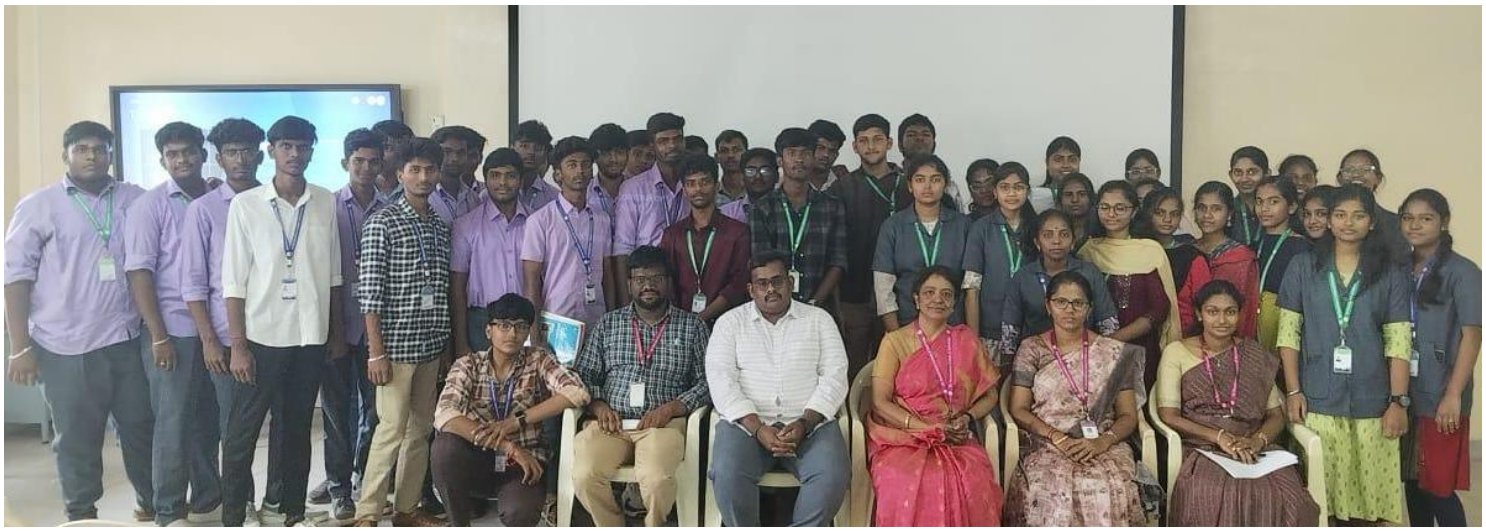
This session aimed to inspire and equip students with the knowledge and mindset needed to explore entrepreneurship as a career. Delivered by **Dr. Thirukkuralkani KN**, a seasoned innovation and incubation expert, the workshop focused on key areas such as business planning, startup strategy, innovation, marketing, finance, and leadership development. Students were exposed to real-world insights on transforming ideas into sustainable ventures and the value of socially responsible entrepreneurship.

Key Outcomes:

- Gained awareness of entrepreneurship as a career and its societal impact.
- Understood market opportunity identification and business model creation.
- Developed foundational skills in strategic planning and startup operations.
- Built a strong entrepreneurial mindset ready for future innovation challenges.

Event Photos:





INNOVATION IGNITE: SPARK YOUR CREATIVE POTENTIAL

Program Type: IIC Self-Driven Activity
Program Theme: Innovation and Entrepreneurship Development
Date: 6th December 2024
Duration: 2 Hours (10:00 AM – 12:00 PM)
Venue: Seminar Hall A, SRIT
Mode of Delivery: Offline
Organized By: Hub for Innovation and Entrepreneurship (HIVE), SRIT
Resource Person: Mr. Sakthi Vignesh, Software Team Lead, Semiconductor Division
Participants:

- Internal Students: 60
- Faculty Members: 0
- External Participants: 0

Expenditure: Nil

About the Event:

This workshop was designed to ignite the creative thinking potential of students and strengthen their innovation mindset. Led by industry professional **Mr. Sakthi Vignesh**, the session provided students with exposure to methodologies that foster creativity, practical ideation techniques, and innovation-led problem-solving frameworks critical in entrepreneurial pursuits.

Key Outcomes:

- Improved understanding of creative thinking tools and innovation frameworks.
- Participants gained foundational exposure to the innovation process and entrepreneurial mindset.
- Enabled practical thinking for transforming creative ideas into impactful solutions.
- Boosted motivation to pursue innovation-centric academic and project work.

Event Photos:

WORKSHOP ON DESIGN THINKING, CRITICAL THINKING, AND INNOVATION

Program Type: Workshop
Program Theme: Innovation and Design Thinking
Date: 25th January 2025 (Saturday)
Duration: 1 Day
Time: 9:00 AM – 5:00 PM
Venue: HIVE (Hub for Innovation and Entrepreneurship), SRIT
Mode of Delivery: Offline
Organized By: HIVE – Sri Ramakrishna Institute of Technology in association with ASME-SRIT Student Section
Resource Person: Mr. R. Immanual, Assistant Professor, Department of Mechanical Engineering, SRIT
Participants:

- Faculty: 41
- Internal Students: 41
- External Students: 5

Expenditure: Nil

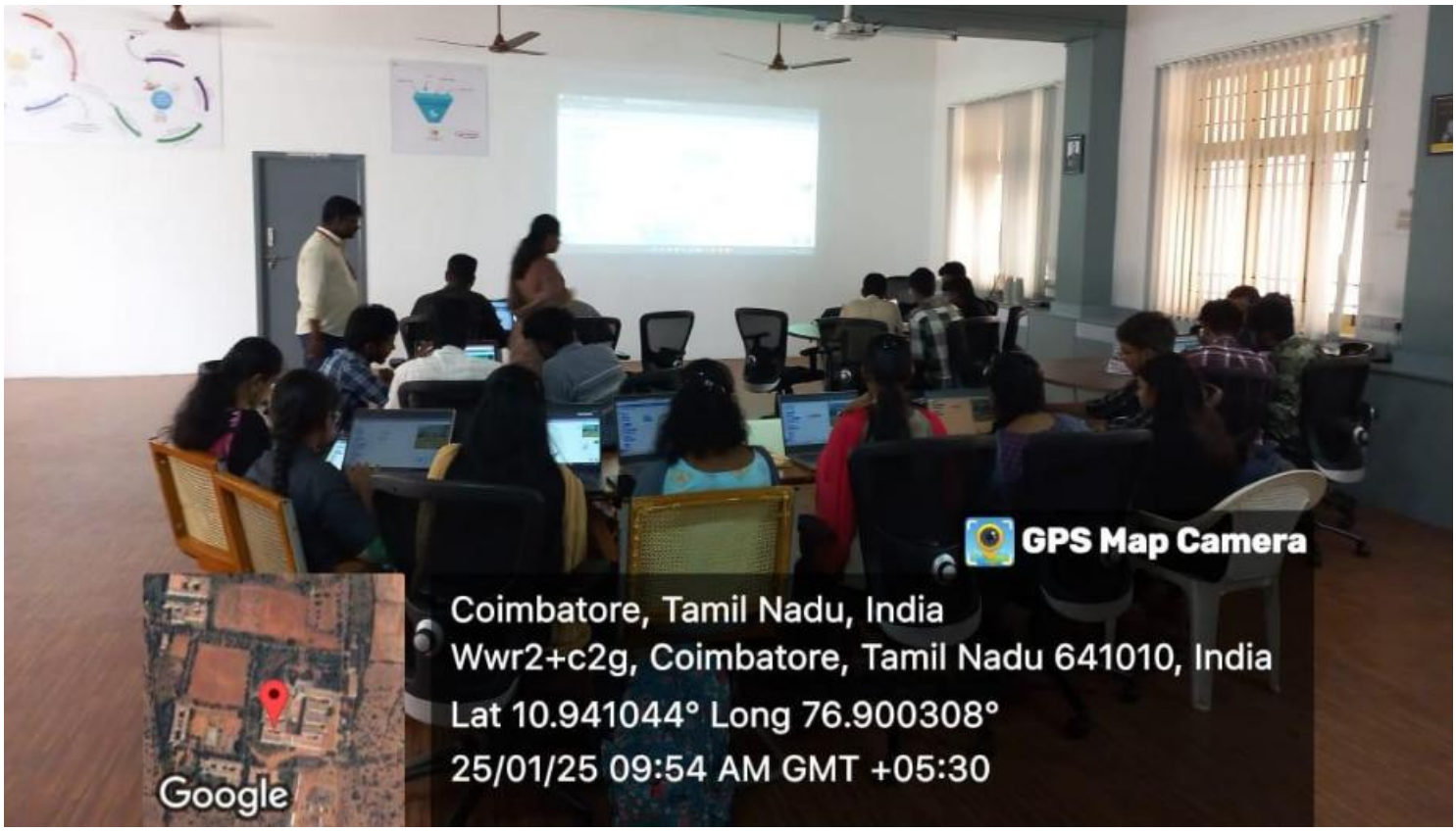
About the Event:

The **"Workshop on Design Thinking, Critical Thinking, and Innovation"** was conducted to cultivate innovation-driven mindsets and sharpen problem-solving capabilities in students and faculty. The session was held under the guidance of **Mr. R. Immanual**, an experienced educator and innovation mentor. This intensive one-day workshop engaged participants in applying structured methodologies such as empathy mapping, ideation frameworks, and innovation matrices to real-world challenges.

Event Highlights:

- Facilitated breakout group activities with idea presentations and peer evaluations.
- Participants worked on problem statements related to **sustainability, technology gaps, and societal needs**.
- Led by a resource person who has mentored multiple **IP filings and innovation contests**.
- Certificate of participation issued to all attendees.

Event Photos:



SESSION ON ACHIEVING PROBLEM-SOLUTION FIT AND PRODUCT-MARKET FIT

Program Type: Workshop
Program Theme: Innovation and Entrepreneurship
Date: 22nd February 2025 (Saturday)
Duration: 1 Day
Time: 9:00 AM – 5:00 PM
Venue: LH242, SRIT
Mode of Delivery: Offline
Organized By: Department of Information Technology in association with ASME-SRIT Student Section
Resource Person: Ms. J. Sangeetha Saral, Innovation Ambassador & Assistant Professor (IT), SRIT
Participants:

- Faculty: 7
- Internal Students: 41
- External Students: Not Applicable

Expenditure: Nil

About the Event:

The **"Session on Achieving Problem-Solution Fit and Product-Market Fit"** was designed to bridge the knowledge gap between idea generation and real-world startup success. Conducted by **Ms. J. Sangeetha Saral**, an experienced Innovation Ambassador, the workshop focused on providing students with critical frameworks for startup validation. The session enabled budding innovators to understand what makes ideas viable, how to assess market demand, and how to iterate products for successful market entry.

Event Highlights:

- Participants explored **real-world startup journeys** and product failures to understand common pitfalls.
- Teams developed early product concepts and pitched potential startup ideas for peer feedback.
- Facilitator shared industry insights on **pivoting**, **customer personas**, and **market traction strategies**.
- Encouraged **entrepreneurial thinking** in alignment with India's Startup India and Atal Innovation Mission.

Event Photos:

WORKSHOP ON EFFECTIVE SALES AND MARKETING STRATEGIES FOR ENTREPRENEURS / STARTUPS

Program Type: Workshop
Program Theme: Innovation and Entrepreneurship
Date: 22nd February 2025 (Saturday)
Duration: 2 Hours
Time: 3:00 PM – 5:00 PM
Venue: HIVE, SRIT
Mode of Delivery: Offline
Organized By: Hub for Innovation and Entrepreneurship (HIVE), SRIT
Resource Person: Ms. R. Rajeswari, Assistant Professor, Department of Information Technology, SRIT
Participants:

- Faculty: Not Mentioned
- Internal Students: 30
- External Students: None

Expenditure: Nil

About the Event:

The workshop titled **"Effective Sales and Marketing Strategies for Entrepreneurs / Startups"** was conducted with the objective of equipping budding entrepreneurs and engineering students with strategic tools and practical skills essential for navigating the competitive startup landscape. Hosted by **HIVE-SRIT**, the session focused on how modern entrepreneurs can drive business growth, customer acquisition, and revenue generation through strategic planning and digital marketing approaches.

Outcomes:

- **Improved Sales Acumen**: Participants gained clarity on customer journeys, persuasion tactics, and closing deals.
- **Branding Awareness**: Students understood the role of storytelling and consistency in market positioning.
- **Market Fit Alignment**: The session emphasized aligning offerings with market expectations.
- **Networking Exposure**: Enabled future collaboration and idea exchange with like-minded peers and mentors.

Event Photos:

WORKSHOP ON PROTOTYPE/PROCESS DESIGN AND DEVELOPMENT

Program Type: Workshop
Program Theme: Innovation and Entrepreneurship
Date: 4th March 2025
Duration: 1 Day (10:30 AM – 5:00 PM)
Venue: HIVE, SRIT
Mode of Delivery: Offline
Organized by: Hub for Innovation and Entrepreneurship (HIVE), SRIT
Resource Person: Mr. Shyam Prashad Rajasekar, CEO, Vegroute
Participants:

- Faculty: 2
- Internal Students: 41
- External Students: 0

Expenditure: ₹2,500

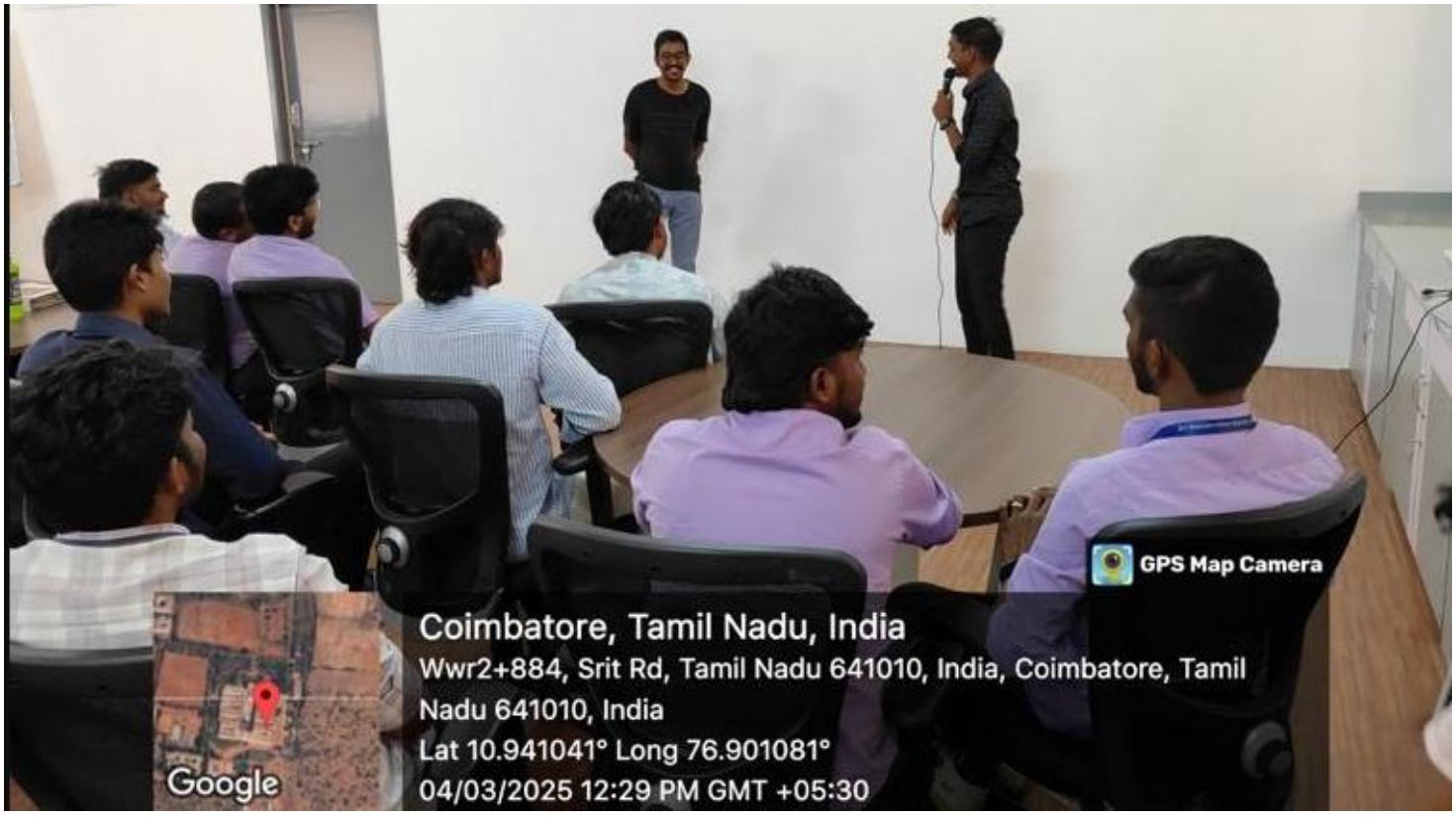
About the Event:

The workshop titled **"Prototype/Process Design and Development"** focused on bridging the gap between innovative thinking and practical implementation through hands-on prototyping. Delivered by **Mr. Shyam Prashad Rajasekar**, CEO of Vegroute and a seasoned startup mentor, this session equipped students with industry-relevant frameworks and real-world insights into product development processes in entrepreneurial settings.

Outcomes:

- Students demonstrated improved understanding of **early-stage product development**.
- Multiple teams **initiated their own prototype concepts** by the end of the session.
- Participants developed an **entrepreneurial mindset** toward process-based innovation.
- Exposure to **industry expectations**, enhancing **career readiness** in design & product roles.

Event Photos:



NATIONAL POLLUTION CONTROL DAY

DRIVING TOWARDS CLEANER AIR: THE REVOLUTIONARY IMPACT OF ELECTRIC VEHICLES ON URBAN POLLUTION

Program Type: Celebration Activity
Program Theme: Environmental Awareness and Sustainable Transportation
Date: 2nd December 2024
Duration: 2 Hours (2:00 PM – 4:00 PM)
Mode: Offline
Venue: HIVE, Sri Ramakrishna Institute of Technology
Organized By: Department of Mechanical Engineering, SRIT
Resource Person: Mr. S. Veerakumar, Assistant Professor / MECH, SRIT
Participants: 40 Faculty Members | 40 Internal Students | 0 External Participants
Expenditure: Nil

About the Event:

Organized on **National Pollution Control Day**, this celebration activity focused on raising awareness about air pollution in urban areas and explored how electric vehicles (EVs) offer a transformative solution. Led by **Mr. S. Veerakumar**, the session provided an overview of sustainable mobility, environmental challenges in cities, and EV technology's potential to reduce carbon emissions and improve public health.

Key Outcomes:

- Students and faculty gained a deeper understanding of the role of electric vehicles in pollution control.
- The session fostered environmental awareness and supported SRIT's commitment to sustainability education.
- Participants were introduced to clean transportation technologies, reinforcing the importance of eco-friendly innovation in urban planning.

Event Photos:

PATENTS

- In the past academic year, our faculty advisors, Mr. Immanual R, Mrs. Kirthika M, and Ms. Sanjana, and students have been granted three patents and have filed nine additional patent applications.

ORIGINAL

क्रम सं/ Serial No. : 195822

INTELLECTUAL PROPERTY INDIA

पेटेंट कार्यालय, भारत सरकार **The Patent Office, Government Of India**

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 411354-001

तारीख / Date : 22/03/2024

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *GO-KART CHASSIS* से संबंधित है, का पंजीकरण, श्रेणी 12-16 में 1.R. Immanual 2. Kirthika.K.M 3.N. Sanjana 4.Sanjay.K.R 5.Sathya.J 6.Dhanush Karthik.J 7.Sriram.M 8.Hariharan.M 9.Vishal.M 10.Raj Ganesh.K 11.Ragulsugatheswaran.P 12.Ananya.R, और अन्य के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 12-16 in respect of the application of such design to *GO-KART CHASSIS* in the name of 1.R. Immanual 2. Kirthika.K.M 3.N. Sanjana 4.Sanjay.K.R 5.Sathya.J 6.Dhanush Karthik.J 7.Sriram.M 8.Hariharan.M 9.Vishal.M 10.Raj Ganesh.K 11.Ragulsugatheswaran.P 12.Ananya.R, et al.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि Date of Issue 26/03/2025

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
Controller General of Patents, Designs and Trade Marks

*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का अनन्यधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

OUR FACULTY MEMBERS ACHIEVEMENTS

- Mr. R. Immanual, Assistant Professor, Department of Mechanical Engineering, received the ASME Outstanding Student Section Advisor Award (Honorary Mention) for his exemplary leadership and commitment to student development. The recognition includes a $500 cash award and a certificate, reflecting his valuable contribution to the ASME SRIT Student Section.

OUR STUDENT MEMBERS ACHIEVEMENTS

Project Title: AI-Driven Engineering: Drawing Dimension Identification and Parts & Parts Correlation System
Organized by: Techgium- 8th Edition, L&T Technology Services Ltd.
Team Composition:

- **Mr. R. Immanual** – Assistant Professor / Mechanical
- **Ms. K. Sanjana** – Assistant Professor / CSE
- **Mr. Ajay Vardhanan** – MECH
- **Mr. Wordson Jayakumar** – EEE
- **Mr. Rubankumar R**. – CSE
- **Ms. Manushree A** – ECE

About the Event:

The project team from SRIT has been **shortlisted for the Virtual Proof of Concept (PoC) round** for their innovative AI-based solution titled **"AI-Driven Engineering: Drawing Dimension Identification and Parts & Parts Correlation System."** The system aims to automate the process of interpreting engineering drawings, enhancing efficiency and quality in manufacturing environments.

This AI-powered web application uses image processing, OCR, and machine learning to identify dimensions, correlate them with part types, and streamline production workflows. The project has already led to a patent filing and paper publication, showcasing its technical depth and industry relevance.

Event Highlights:

- **Shortlisted** for Virtual PoC Presentation
- **Patent Filed** for Automated Engineering Drawing Interpretation
- **Research Paper Accepted** in "Journal of Advanced Research in Dynamical and Control Systems"
- Recognized for **AI-based innovation** in engineering process automation
- Developed by an interdisciplinary team from **Mechanical, CSE, ECE, and EEE** departments

Event Photos:

SRI RAMAKRISHNA INSTITUTE OF TECHNOLOGY

An Autonomous Institution, NAAC Accredited Institution with A Grade
(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
COIMBATORE, INDIA.

AI-Driven Engineering Drawing Dimension Identification and Parts & Parts Correlation System

Problem Statement

Engineering drawings are crucial in manufacturing, but manually interpreting dimensions and correlating them with parts is time-consuming and prone to errors. The challenge is to develop an automated system that can accurately interpret engineering drawings, identify dimensions, and correlate them with the type of part being represented. This will enhance efficiency, improve product quality, and reduce costs.

CONCEPT & SOLUTION

Our solution is a web-based application that utilizes AI-driven image recognition to accurately interpret engineering drawings. This system can:

- Identify various dimensions and their interrelationships.
- Correlate dimensions with the part type.
- Enhance manufacturing efficiency and quality control.

METHODOLOGY

1. Image Processing – Feature detection for accurate line, edge, and symbol recognition.
2. Optical Character Recognition (OCR) – Extracting dimensions and annotations.
3. Pattern Matching – Identifying standard engineering components.
4. AI & Machine Learning – Training models to recognize and classify engineering parts.
5. Integration with Manufacturing Systems – Automating quality control processes.

NOVELTY

Automated Interpretation – Reduces human intervention in drawing analysis.

- Enhanced Accuracy – AI-based detection minimizes errors.
- Time Efficiency – Speeds up manufacturing processes.
- Scalability – Can be implemented across industries.

IMPLEMENTATION PLAN

- Data Collection and Preprocessing
- 2 Model Training and Development
- System Integration with Industry Standards
- Testing and Validation
- Deployment and Monitoring

PATENT

- Patent Applied for "Automated Engineering Drawing Interpretation System"
- Application Number: Pending
- Intellectual Property India

PUBLICATION

Research paper submitted to "Journal of Advanced Research in Dynamical and Control Systems" (Accepted).

CONTACT

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TAMIL NADU KARTING CHAMPIONSHIP (TNKC) – SEASON 2

Dates: February 4–7, 2025
Venue:

- Static Events: PPG Institute of Technology, Coimbatore
- Endurance Race: Prozone Mall Go-Kart Track, Coimbatore

Organizer: Mechnido in collaboration with PPG Institute of Technologyssss
Team Representing SRIT: *Team Garudans*
Mode: Offline (Physical Participation)
Faculty Mentors:

- **Mr. R. Immanual**, Assistant Professor/Mechanical
- **Ms. Sanjana Kumar**, Assistant Professor/Computer Science
- **Ms. Poornima D**, Assistant Professor

About the Event:

The **Tamil Nadu Karting Championship (TNKC)** is a premier state-level motorsport event that challenges students to apply core engineering principles through the design and fabrication of custom go-karts. TNKC Season-2 offered a competitive platform for over 20 student teams from engineering colleges across Tamil Nadu to demonstrate their mechanical, electrical, and project management skills.

Over a span of four days, the event featured multiple rounds, including **static evaluations (design, cost, innovation, and presentation)** and **dynamic tests (acceleration, braking, endurance racing)**. The final endurance race tested both the kart's durability and the team's technical coordination under real track conditions.

This initiative fosters innovation, teamwork, and hands-on exposure to automotive systems, serving as a bridge between theoretical learning and industry readiness.

Event Highlights:

- **Best Build Quality Award** – Recognized for exceptional structural integrity and design execution.
- **Winners of SPID PAD Event** – Showcased superior maneuverability and control during the skill-based driving round.
- **On-Time Report Submission Recognition** – Demonstrated professional documentation and timely compliance with competition protocols.

Event Photos:

AUTOSPORTS INDIA – MEGA KARTING CHAMPIONSHIP- SEASON 1

Event Name: Mega Karting Championship – Season 1
Organized By: Autosports India
Host Institution: Sri Ramakrishna Institute of Technology (SRIT), Coimbatore
Dates: April 11–13, 2025
Venue: SRIT Campus (Day 1 & 2) and Coastt Track, Coimbatore (Endurance Race)
Category: Go-Kart Engineering Design & Racing Event
Team Representing SRIT: Team Garudans (25 Members)
Mode: Offline (Physical Participation)
Faculty Mentors:

- **Mr. R. Immanual**, Assistant Professor/Mechanical
- **Ms. Sanjana Kumar**, Assistant Professor/Computer Science
- **Ms. Poornima D**, Assistant Professor

About the Event:

The event challenged teams to showcase their technical prowess through:

- Design Validation
- Static and Dynamic Tests
- Racing Skills
- Endurance and Reliability of the Vehicle

It fostered a high-energy environment for practical learning, teamwork, and innovation in automotive engineering.

Event Highlights:

Team Garudans, representing SRIT, emerged as one of the top-performing teams of the season. Their commitment, engineering skill, and racing strategy earned them accolades across multiple rounds:

- **Overall Championship Winner** – ₹30,000 Cash Prize
- **Drag Race Runner-Up** – ₹3,000
- **Skid Pad Runner-Up** – ₹3,000
- **Autocross Winner** – ₹5,000

The event spanned three action-packed days, with static rounds and inspections on campus followed by high-speed dynamic testing and endurance races at the Coastt Track.

Event Photos:

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OUR ASME-SRIT STUDENT SECTION PICS

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Managing Editor

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OUR ACHIEVEMENT CONTINUES……