



SRI KRISHNA
COLLEGE OF ENGINEERING AND TECHNOLOGY
AN AUTONOMOUS INSTITUTION, ACCREDITED BY NAAC 'A' GRADE



VOLUME 4
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ECHO

MAGAZINE OF

MECHATRONICS

ENGINEERING DEPARTMENT

"A ROOM WITHOUT BOOKS IS LIKE A BODY WITHOUT SOUL."
- CIERO



Editorial

It gives me great pleasure to pen down the editorial column for the current issue of this colourful magazine. I would like share a quick technical update on how Amazon, the giant online retailer has planned to take home delivery to new heights. They are planning on enhancements to Amazon's Prime Air drone delivery service by expanding its smart-drone fleet. Incorporation of such technologies will ensure 1-hour delivery to our doorsteps, making the company seem indispensable to millions of people to which it delivers goods every week (IEEE Spectrum, January 2023).

This issue highlights the various Department activities, achievements of students and faculty members and of course showcases their poetic and artistic skills. I place on records my sincere appreciations to the Editorial team for their tireless efforts in bringing out this issue. I thank all the contributors for having taken time to send in their works.

Wishing you all a Happy Reading!

Dr. M. Lydia
Professor & Head



Faculty Editors:

Dr. K. Ananthi, Assistant Professor
Mr. S. Madhankumar, Assistant Professor

Student Editors:

2019-23 Batch

C. Bero
S. Gedendhar
P. Kishore
S. Vishal

2020-24 Batch

K. V. Deepak
S. Sooraj
A. Dheeraj

2021-25 Batch

S. Mohit
J. Abdul Wahid
R. Dhivya Dharshini
R. Mohan
G. Sree Karthika



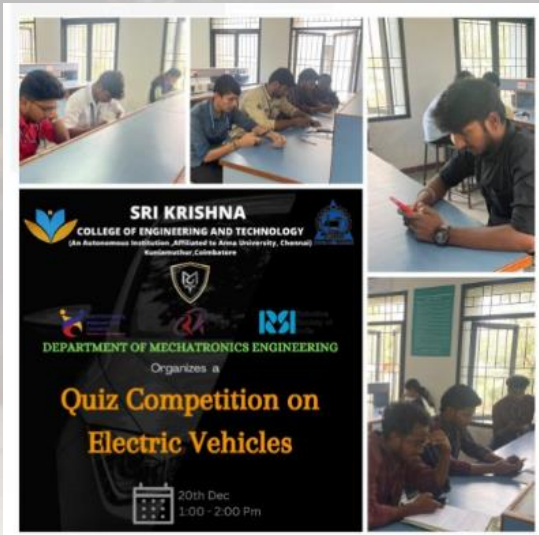
SYNOPSIS

- ❁ **DEPARTMENT EVENTS**
- ❁ **STUDENTS TESTIMONIAL**
- ❁ **STUDENTS ACHIEVEMENTS**
- ❁ **RESEARCH & DEVELOPMENT**
- ❁ **EXPLORE THE TECH**
- ❁ **SPIRIT LIFE UNLEASHED**
- ❁ **A STORY WITHOUT LETTERS**
- ❁ **THOUGHT MANIACS**
- ❁ **THINK! DO! TREAT!**

“Just the knowledge that a good book is waiting for one at the end of a long day makes the day happier.”

– Kathleen Norris

ASSOCIATION ACTIVITIES



Department has organized a Quiz competition on "**Electric Vehicles**" on 20th December 2022 for the III and IV year students with an aim to gauge their knowledge in plug-in vehicles. The Winners and participants were appreciated with E-certificates.

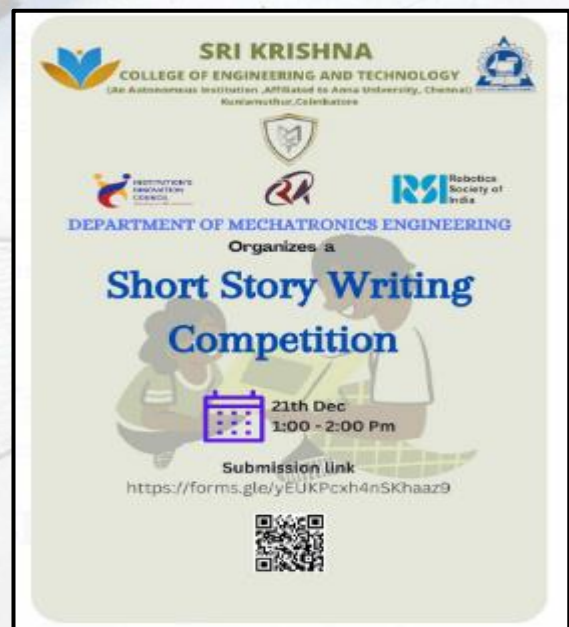
The Winners are,

1. Helan Jemima - III MCT A
2. Arul Murugan - III MCT A

As a part of **National short story day** celebration, Department has organized a "**Short story writing competition**" on 21st December 2022. It helped the students to expand their creativity and self-expression and also enriched the students to discover a new passion.

The Winners are,

1. Herbert Bevan- III MCT A
2. Elango C- III MCT A



As a part of **National Mathematics day**, Department has organized a "**Math wizard Challenge**" on 22nd December 2022. It helped the students to sharpen their problem solving and critical thinking skills and also advanced their computational strategies.

The Winners are,

1. Jagadeeshwaran S - III MCT A
2. Jayasurya R - III MCT A



FACULTY SEMINAR SERIES



Mr. T. Vignesh, Assistant Professor shared his views on the topic "**Augmented Reality based Inspection System**" on 13.02.2023. Session highlights were Augmented Reality (AR), Virtual Reality (VR), AR with Internet of Things (IoT), AR Inspection System, Digital Twin, AR-IoT-Machine Learning, Hands on Experience on AR & VR

GUEST LECTURE

Department organized Guest Lecture on "**Role of IoT and AI in Industrial Automation**" on 27.01.23. **Mr. S.Manickaraj**, Director - MELZ Indcosys, Coimbatore was the resource person. Basics of Automation systems, Role of Engineering in Industrial Automation, Benefits of IoT in Industrial Automation Applications, Future Automation systems with AI techniques were the session highlights.



WELCOME NOTE



Dr. M. Lydia, Head of the Department, welcomed and addressed **II and III Year** Students on the first day of the even semester. She emphasized on the rules and necessary actions that every student should follow.

BOS MEETING



The Department conducted 14th Board of Studies (BoS) meeting on 23.12.2022 in the Conference Hall for the students admitted under the regulation 2022. The meeting was convened by **Dr. M. Lydia**, Professor and Head of the Department along with the external experts **Dr. K. Linga Durai**, Dean, Anna University Regional campus Madurai, **Dr. Santhakumar Mohan**, Associate Professor Department of Mechanical Engineering IIT Palakkad, **Dr. R. Ramakrishnan**, Associate Professor, Department of Design and Automation VIT- Vellore and the faculty members of MCT. The Industrial expert member **Mr. Raghul Manogaran**, Senior Tech Lead, Mercedes Benz, Research and Development, Bangalore and our prestigious alumni member **Mr. Muthiah**, Computation Engineer (Automotive), Akka Technologies, Germany have joined the meet online. The members pooled in their vast experience and technical knowledge to fine-tune the syllabi in order to improve our students' skills and equip them with the latest technical know-how.



GUEST LECTURE



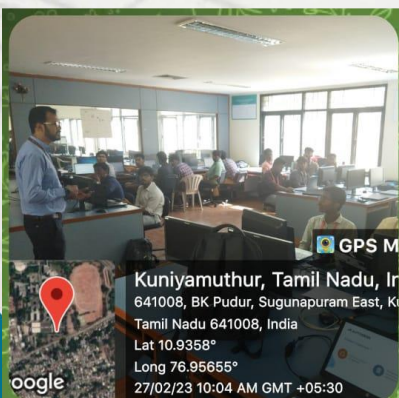
IIC of SKCET in association with the Department Organized a Guest Lecture on "**Entrepreneurship-My Story**" on 31.01.2023. **Mr.R.Bharat Balaji**, Founder and Proprietor, DJ Power Solutions, Coimbatore was the resource person. Finance Skills, Leadership Skills, Benefits of Affiliated Marketing, 5C's of Entrepreneurship were the session Highlights.

WORKSHOP

Department organized workshop on "**LabVIEW for IoT Applications**" on 11.02.2023. **Mr. V. Rajasekaran**, Senior Application Engineer, Innovative Invaders Technologies, Coimbatore was the resource person. LabVIEW for Industrial applications, Web development Tool, NI Web server, Configuration of Web server, G web development software, Web interface using LabVIEW were the session highlights.



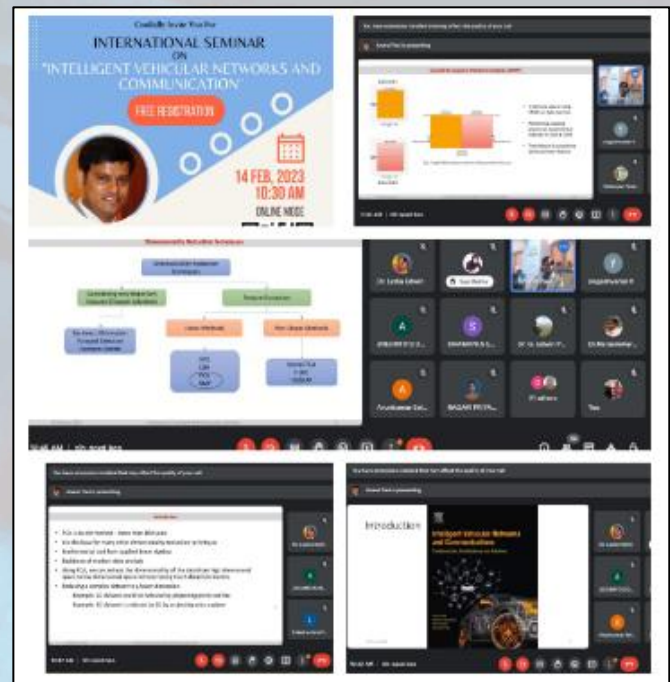
WORKSHOP



Department in association with **Autodesk and ICT Academy** organized a one-day workshop on '**Design Now**' on 27.02.2023. The objective of the workshop is to provide hands on exposure to students in using Fusion 360 software for India Design Week 2023 event.

INTERNATIONAL SEMINAR

Department organized an International Seminar on **"Intelligent Vehicular Networks and Communication"** on 14.02.2023. **Dr. Anand Paul, Director, Connected Computing and Media Processing Lab, Kyungpook National University, South Korea** was the resource person. Dimensionality Reduction Techniques, Couple Non negative Matrix Factorization, Intelligent Transportation Systems, Vehicular Network Model were the session highlights.

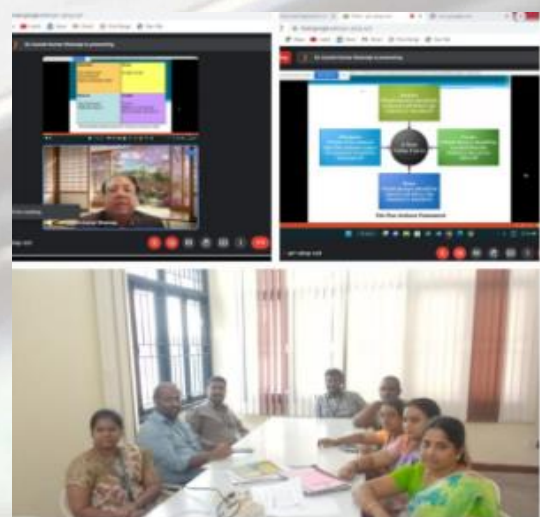
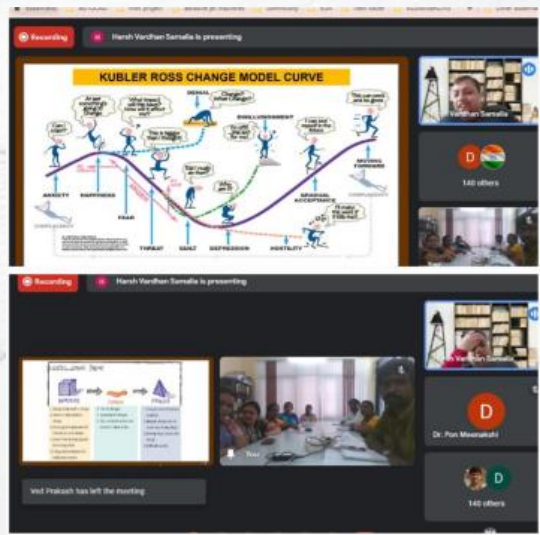
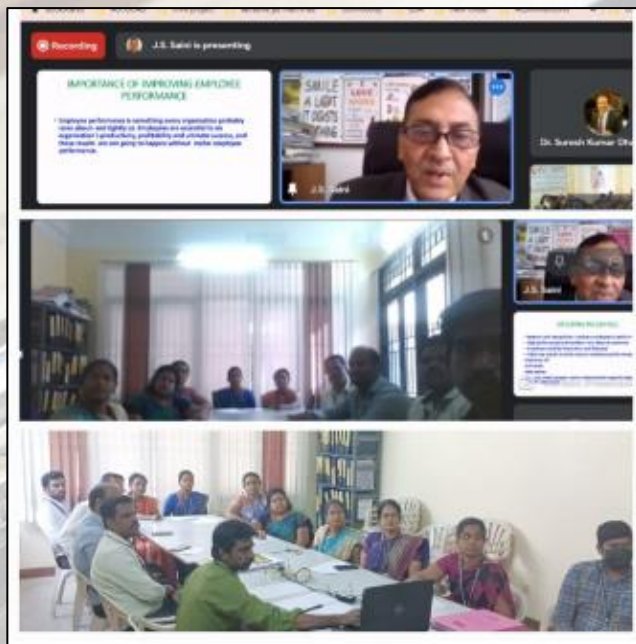


ACADEMIC REVIEW MEETING



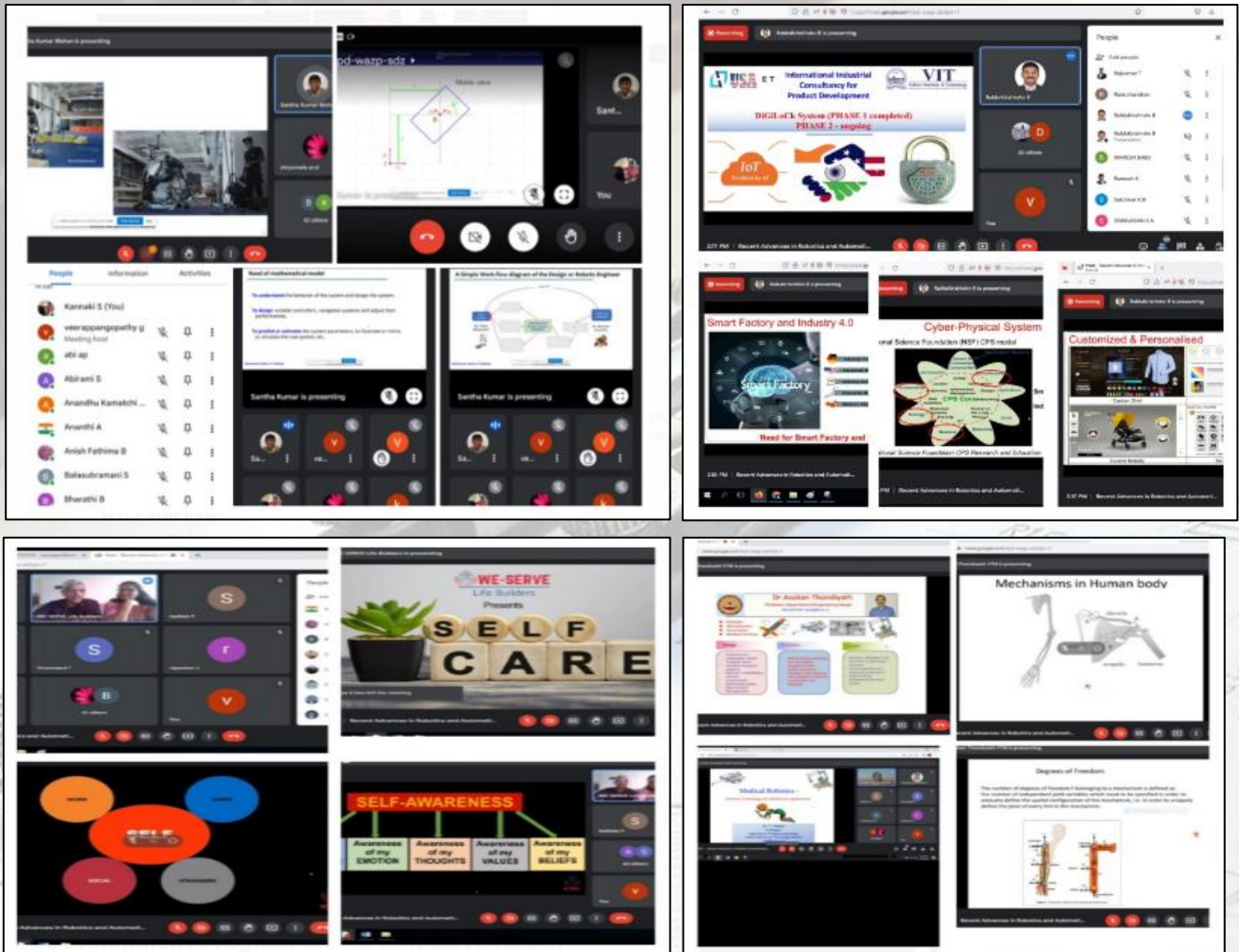
As a part of Parent-Teacher interaction, an **Academic Review Meeting** was organized on 5th February 2023 in the Sri Krishna Hall. Parents of First year students attended the meeting and interacted with the Tutors and subject handling faculty members to know about their ward's performance in academic, co-curricular and extracurricular activities, options for placements and higher studies. **Class toppers** were appreciated by **Principal Madam** and were honored with a **merit certificate**.

SHORT TERM COURSE



Department along with NITTTR Chandigarh organized a Short-Term course on **“Leadership and Management Development”** from 09.01.2023 to 13.01.2023. In this short-term course, Eminent Professors and Industrial experts shared their views on Strategic Planning and Management, Leadership Styles, Change Management in Technical Institutions, SWOT Analysis of Technical Institutions, Enhancing Employee Performance, Blue Ocean Strategy and Tipping Point Leadership, Academic Leadership, Managing Personnel in Industry.

FACULTY DEVELOPMENT PROGRAM



Department organized Two-days Online **Faculty Development Program** on "**Recent Advances in Robotics and Automation**" from 8.12.22 to 9.12.22. **Dr. Sunil Jha, Professor**, Department of Mechanical Engineering, IIT Delhi, **Dr. Santhakumar Mohan**, Associate Professor, Department of Mechanical Engineering, IIT, Palakkad, **Dr. T. Asokan**, Professor & Head, Department of Engineering Design, IIT Madras, **Justus Zachariah & Shiby Justus**, Director, We-Serve, Life Builders, Coimbatore, **Mr. P Anand Rajkumar**, Head Regional Service Manager, South India, Yokogawa India Limited, Chennai, **Dr. Shiv Manjaree Gopaliya**, Program Chair - AI and Robotics, School of Mechanical Engineering, VIT Bhopal University, **Dr. R. Ramakrishnan**, Associate Professor, Department of Design and Automation, VIT University, Vellore were the resource persons for this faculty development program.

ROBORG 23



Department in association with **IEEE Robotics and Automation Society (IEEE RAS)** organized **ROBORG 23** on 22.02.2023. **Dr. B. Vinod, Professor and Head**, Department of Robotics and Automation, PSG College of Technology and Chairman, IEEE RAS Madras Section inaugurated the event.



As a part of Technical Events, **Paper presentation** was conducted in Roborg 23. **Dr.R.Senthil Ganesh**, Associate Professor, Electronics and Communication Engineering and **Dr.V.P.Srinivasan**, Assistant Professor, Mechanical Engineering were the Jury members for this event. 20 Shortlisted teams from various Institutions presented their innovative ideas in Artificial Intelligence and Robotics & Automation.

As a part of Technical Events, **Dronz, a competition for drones** was conducted in Roborg 23. Shortlisted teams showcased their flying drones. Racing drone and agri based drone were demonstrated in the venue.

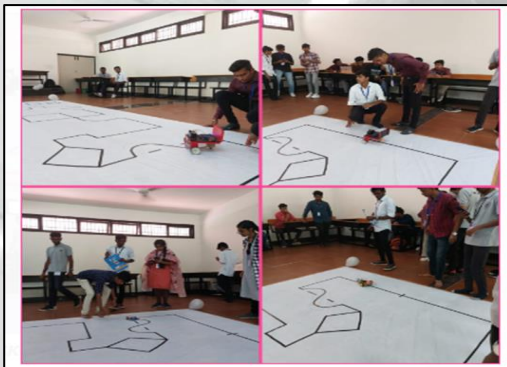


ROBORG 23



As a part of ROBORG'23 **QUIZ competition** was conducted on various aspects of engineering in four rounds. It helped participants to sharpen their problem solving and critical thinking skills. It also advanced their computational strategies.

Shortlisted participants from various Institutions took part in various innovative ideas like CAD 2D, Group Discussion and Mental Ability tests in real time events to grab **Mr. BOT** title.



24 shortlisted participants from various Institutions took part in **Line Follower Robot** event and showcased their Robotic Intelligence.

Rob World, a project presentation was organized as part of Roborg 23. The project teams from various colleges presented their innovations in the field of Robotics and Automation.



The students showcased their splendid musical talents and presented fabulous dance performance in the **Valedictory function. The winners of ROBORG '23** were appreciated with Prize mementos, Cash awards and Certificates. Special appreciation was bestowed to the coordinators and volunteers.

BOOK PUBLICATION



Ms. Dhivyadharshini, II year student has received certificate of appreciation for being a co – author in the anthology “**Autumn - Volume – 2**” by The Quill House Publication.

POSTER PRESENTATION

Mr. Gurunathan, III year student has been awarded with cash prize in the **Poster Presentation** event conducted by the Department of CSBS.



THE UNSEEN

Mr. Kamalesh, III year student has won **Third place** in Youth Day Celebrations – 2023 for the event “**THE UNSEEN**” conducted on 20.01.2023.

WRITE PICTURE MINDED COMPOSITION

Mr.Elango, III year student has won 3rd place in **Youth Day Celebrations** – 2023 for the event “**WRITE PICTURE MINDED COMPOSITION**” conducted on 20.01.2023.



SLOW BIKE RACE EVENT

Mr. Gurunathan, III year student has won **second place** and has been awarded with cash prize in the **Slow Bike Race** event conducted by the Department of Information Technology.



NATIONAL CHAMPION AWARD

Mr. K. Amritbalaji, II year student has received "**National Champion Award**" from Coimbatore District Sports Secretary Dr. Chandrasekar for getting 3 consecutive victories in the past 3 National Level Skating Championship representing Team Tamil Nadu and also for representing Team India in 2019 and 2020 World Championship by completing 4th in the World level ranking.



NATIONAL PLAYER AWARD

Mr. A. Medhun Krishnaa, IV year student has received the **National Player Award** from the Coimbatore District Sports Secretary Dr. Chandrasekar as an honour for getting selected for the All India Inter University Championship representing Anna University.



PHOTOGRAPHY CONTEST



Mr. P. Praveen Kumar, IV year student has actively participated and declared **runner up with the cash prize of Rs.3000** in the **Photography Contest** of URJITH 2023 held on 07.01.2023 conducted by the GRG School of Management Studies and PSGR Krishnammal College for Women.

PARA POWERLIFTING

Mr. B. Sanjay kumar, II year student has got **First Place** in the Junior under 65 class with a performance of 60 kg in the 5th Senior State Para powerlifting and 2nd Junior Para powerlifting Championship 2023 conducted by Tamilnadu Paralympic Sports Association on 29.01.2023.





V. Midhun
2019 – 2023 Batch
Aspire Systems

SKCET has not only given me degree but also good experience for future life. As a student I had an effervescent life here during my four years. Each and every faculty member in Mechatronics Department had given their support and guidance for us throughout our academic years. Especially I would like to show my gratitude to the placement team members who gave us lot of trainings as per our skill sets. Moreover, SKCET gave us lot of opportunities to explore various technologies. They have taken the initiative of making a bright future of the students and are moving ahead in progression. I place on records my sincere gratitude to the management team of SKCET for moulding me and making me what I am today.

I would like to extend my thanks to the talented faculty members of our college for helping me by providing the guidance and training during placement. SKCET provided us enough knowledge and experience to excel in the field of choice. These experiences helped me in a lot of ways, improving my communication skills, technical skills and management skills all of which are essential for a good career. Overall, I believe that SKCET presents a very conducive environment for an enriching experience. I also want to thank the Placement Team for giving very valuable placement training sessions and mock tests which really helped us during the test and also for bringing us wonderful career opportunities. It was a wonderful experience. I am very glad to be a part of SKCET. Thanks to my parents, SKCET Management, Principal and the entire SKCET family for the wonderful opportunity.



K.S.R. Muthu
Khumaran
2017 – 2021 Batch

Ph.D. COMPLETION



Dr. K. Ananthi, Assistant Professor has successfully defended her Ph.D Viva voce on the topic, **“Certain investigations on Multilevel Inverter based Shunt Active Power Filter for Power Quality Improvement”**. The examiners highly appreciated her Research work.

JOURNAL PUBLICATION

Mr. M. Vigneshwaran, Assistant Professor has successfully published a paper, entitled **“Effect of Kapok Seed Powder on Mechanical and Water Intake Properties of Untreated Kenaf Fiber Composites”** in **Materials Today: Proceedings**. It is a Scopus indexed publication.



Mr. M. Vigneshwaran, Assistant Professor has successfully published a paper, entitled **“Distinctive Study on Banana/Sisal Fiber Hybrid Composites Filled with Nano Marble Dust Particles”** in **Materials Today: Proceedings**. It is a Scopus indexed publication.

SUPERVISOR RECOGNITION



Dr. L. Feroz Ali, Assistant Professor has been recognized as a Research Supervisor under Anna University, Chennai.

CFR Supervisor No: 4120019

Area of Research:

- Tribology
- Automation
- Additive Manufacturing



Dr. S. Balasubramani, Assistant Professor has been recognized as a Research Supervisor under Anna University, Chennai.

CFR Supervisor No: 4120006

Area of Research:

- Composite Materials
- Additive Manufacturing



Dr. J. Justin Maria Hillary, Assistant Professor has been recognized as a Research Supervisor under Anna University, Chennai.

CFR Supervisor No: 4020059

Area of Research:

- Metal Matrix composites
- Welding Technology



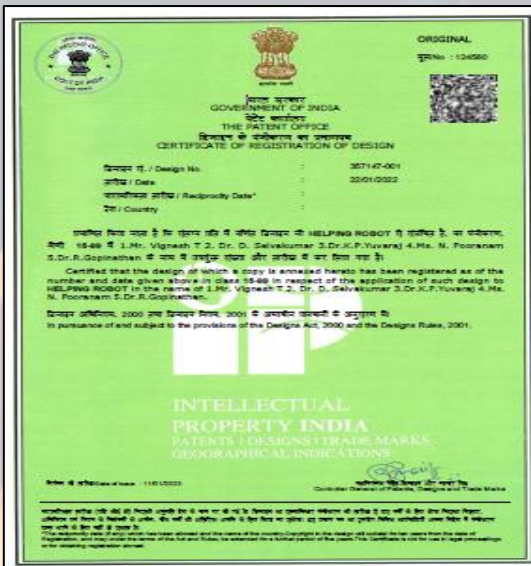
Dr. R. Manikandan, Assistant Professor has been recognized as a Research Supervisor under Anna University, Chennai.

CFR Supervisor No: 4120143

Area of Research:

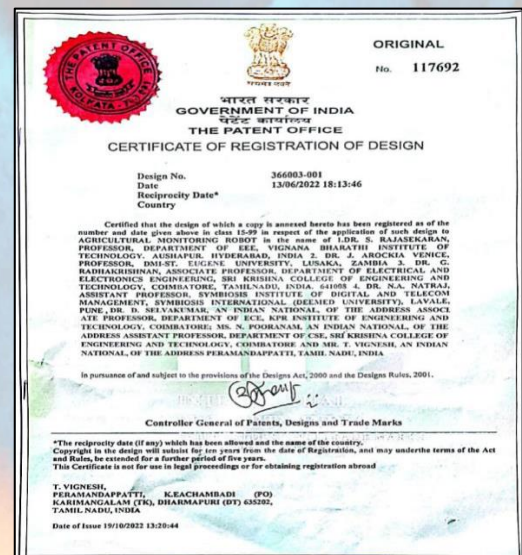
- Composite Materials
- Automation

DESIGN PATENT GRANT

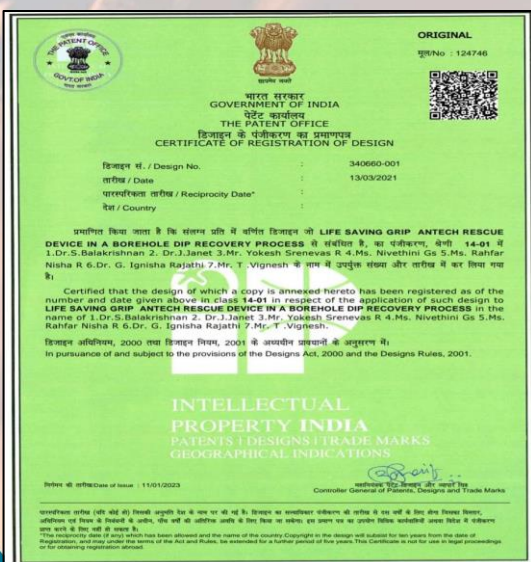


Mr. T. Vignesh, Assistant Professor and **Dr. R. Gopinathan**, Associate Professor have received the design patent grant with the certificate of registration of Design by the Patent Office, Government of India for the title, **"Helping Robot"** on 11.01.2023.

Mr. T. Vignesh, Assistant Professor Patent titled **'Agricultural Monitoring Robot'** with design number of 366003-001 has received the Design Patent Grant with a Certificate of Registration of Design by the Patent Office, Government of India.



Mr. T. Vignesh, Assistant Professor has received the design patent grant with the certificate of registration of Design by the Patent Office, Government of India for the title, **"Life Saving Grip Antech Rescue Device in a Borehole Dip Recovery Process"** on 11.01.2023.



AI IMAGE GENERATORS

Artificial Intelligence (AI) image generators are computer programs that use AI to create images based on text prompts or other input. These tools have become increasingly popular in recent years, with programs like **Dall-E 2**, **Stable Diffusion**, **Midjourney**, and **Craiyon** gaining attention for their impressive capabilities.

How AI Image Generators Work:

AI image generators are trained on millions of photos and are able to identify and categorize objects based on existing images created by real people. Using this knowledge, the program can generate new images based on text prompts or other inputs.

For example, a user might input the prompt "**a cat riding a bicycle**", and the program would generate an image of a cat riding a bicycle.



Some AI image generators, like Stable Diffusion, allow users to fine-tune a variety of parameters and control the entire image generation process. Other programs, like Craiyon, are simpler and generate lower-quality images.

Ethical and Safety Concerns:

While AI image generators have many potential applications, they also raise ethical and safety concerns. For example, some worry that these tools could be used to create fake images that could be used to push a narrative. Additionally, there are concerns about copyright violations and the potential for these programs to generate images that resemble existing designs or artworks.

Another concern is the potential for AI-generated images to highlight biases or harmful stereotypes. For example, the program Craiyon warns that "because the model was trained on unfiltered data from the Internet, it may generate images that contain harmful stereotypes."

The Future of AI Image Generators:

Despite ethical and safety concerns, the popularity of AI image generators continues to grow. As the industry evolves, we can expect to see more advancements and new players entering the space. However, the current cost of training each model and generating images on beefy servers may prove cost-prohibitive for some companies.

Overall, the future of AI image generators is exciting, with new advancements being made daily. As the technology continues to evolve, we can expect to see

- T. Mohana Kumar
(2021-25 Batch)

A HEAVY SIGH**SIGH**

Sitting through my armrest, Gazing through my Window to avoid yesterday's pictures that's rushing through, a Heavy Sigh!

27 bones holding the dear Cup filled with Hot liquid so that I could drink my regrets, a Heavy Sigh!



God always Tried his best to keep this garden a lush with chirps and buzz, squeaks and Growls. And I know all along that I am the one, being the wrecker I am, a Heavy sigh!

Now I look at it, brown decorating the green, No water falls of Butterflies, No Apian outfits, No Birds to sing to the Flowers who are trying their very best, a Heavy Sigh!



A Bushy tailed guy rushing through the autumn leaves to find his friend, The Leporine. My eyes looks for him unconsciously and We lock eyes then he smiles, a Deep Heavy Sigh!

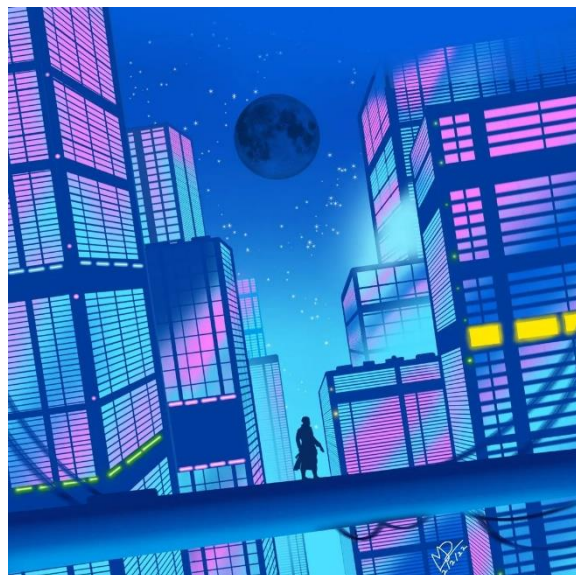
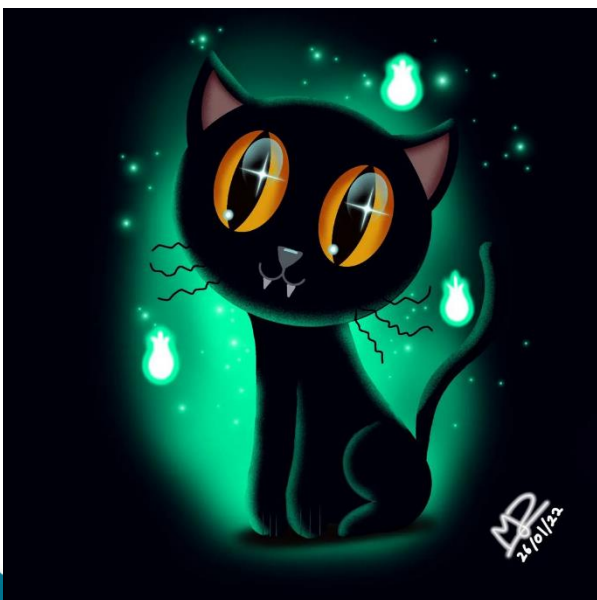
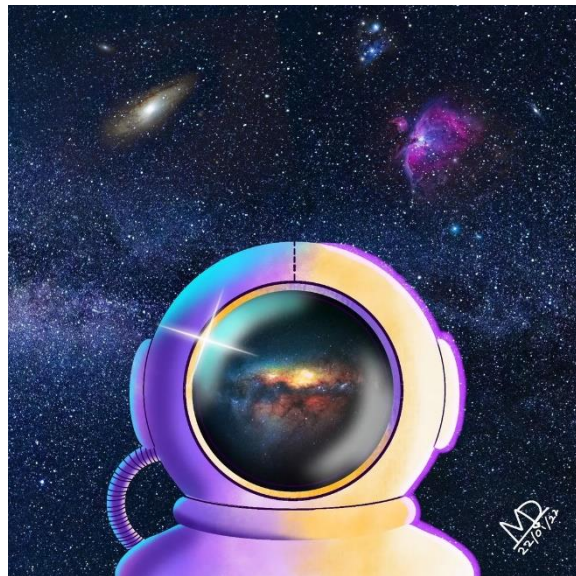
- R. Dhivya Dharshini
(2021-25 Batch)

- Art



- **K. Amrit Balaji**
(2021-25 Batch)





- **M. Dhanasekaran**
(2021-25 Batch)

RIDDLES

1. I'm tall when I'm young, and I'm short when I'm old. What am I?
2. What has to be broken before you can use it?
3. What is full of holes but still holds water?
4. What goes up but never comes down?
5. What gets wet while drying?
6. I shave every day, but my beard stays the same. What am I?
7. You see a boat filled with people, yet there isn't a single person on board. How is that possible?
8. I have branches, but no fruit, trunk or leaves. What am I?
9. A man dies of old age on his 25 birthday. How is this possible?
10. It belongs to you, but other people use it more than you do. What is it?
11. What has many keys but can't open a single lock?
12. What building has the most stories?

- Mr. S. Panneerselvam
Assistant Professor

Answers: 1. A candle; 2. An egg; 3. A sponge; 4. Your age; 5. A towel; 6. A barber; 7. All the people on the boat are married; 8. A bank; 9. He was born on February 29; 10. Your name; 11. A piano and 12. The library

கயல்விழி

பெண்ணே என் கண்ணே!
 உன் கயல்விழிகளைக் கண்டு,
 அந்த நிலவு கூட ஒரு கணம் நின்று,
 வெட்கம் கொண்டு,
 வெண்வானினுள் ஒளிந்து நின்று,
 உன் அழகை இரசிக்குமடி.
 உன் விழிகளில் வலி மறந்தேனோ,
 கண் இமைக்க மறந்தேன்.
 எப்போரிலும் விழாத என்னை,
 உன் புருவ வாளினாலே,
 தாக்கினாயே என் நெஞ்சை.
 அச்சமில்லை; அச்சமில்லை;
 என்றார் பாரதி.
 நானோ அச்சம் கொண்டேன்,
 உன்னை கண்டு அன்று,
 உன் விழிகளைக் கண்டு.....

- **A. C. Anton Sathya**
 (2021-25 Batch)

CANDID SHOTS



- **S. P. Sharmietha**
 (2021-25 Batch)



A student Teams from the Department have presented their Innovative project idea in the **Project Exhibition** organized in **YOUNG AMBASSADOR SUMMIT 2023**.

Mr. R. N. Ravi, Honorable Governor of Tamilnadu, and **Mr. Amitabh Kant, India's G20 Sherpa** witnessed the project and discussed with the team.



ONE EARTH, ONE FAMILY, ONE FUTURE