SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

THE PULSE

ELECTRICAL AND ELECTRONICS ENGINEERING

2024 ISSUE 1

NAAC A++

Category 1 with 12B Status

nirf (2023) Ranked 18th University

QS (2024) World Ranking one among 45 Indian Universities

THE WORLD UNIVERSITY RANKINGS (2023) World Ranking one among 75 Indian Universities

QS 4 Star VERY GOOD QS 4 Star Rated Globally

SHANGHAI RANKING (2023) World Ranking one among 14 Indian Universities

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HOD's Desk

Dr.K.Vijayakumar
HOD/DEAN
Electrical and Electronics Engineering

Dear All,

As we venture into the vibrant sunny days of April, hope this edition of "The Pulse" finds you all in high spirits. I whole heartedly thank our faculty members whose tireless efforts in teaching, research, and academic leadership inspire excellence and drive innovations. In today's scenario, it is very vital to remember that learning extends far beyond the confines of our classrooms and lecture halls. The department of EEE is a launchpad for exploring, engaging, and contributing to the broader society. The experiences of students' garner beyond our campus borders are vital to tackle the challenges of the real world.

The exposure can be acquired through internships, community service, research projects, or cultural exchanges. Each interaction with the world outside our academic bubble offers unique opportunities for personal and intellectual development. These experiences not only complement the classroom learning but also provide us with invaluable insights, skills, and perspectives that are essential for success in the future endeavours.

I urge each one to step out of your comfort zones, immerse yourselves in diverse experiences, and be active participants in our communities, both locally and globally Together, we can harness the power of experiential learning to create a brighter, more inclusive, and more enlightened future for all.

My dear final year students, as you prepare to embark on the next chapter of your lives, may you continue to inspire and innovate, and may the future hold boundless opportunities for your success.

Editorial Desk

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Copy Editor

Dear Readers,

Welcome to the first edition of "The Pulse" for the year 2024! As we embark on this journey through the realms of Electrical and Electronics Engineering, we're excited to bring you the latest updates, innovations, and insights from our department.

The past few months have been a whirlwind of activity, with our faculty and students pushing the boundaries of knowledge and technology. From groundbreaking research to impactful projects, the spirit of innovation continues to thrive within our community.

In this edition, we delve into some of the most intriguing developments that have taken place between January and March 2024. From advancements in renewable energy systems to the latest trends in artificial intelligence and machine learning applications, there's something for everyone to explore.

We are also thrilled to showcase the achievements of our students and faculty members, who have been making waves both within the department and beyond. Whether it's winning prestigious awards, presenting at international conferences, or spearheading community initiatives, their dedication and passion are truly inspiring.

We hope you find this edition is informative, thought-provoking, and inspiring. Your feedback and suggestions are invaluable to us as we strive to enhance the quality and relevance of our newsletter.

Thank you for your continued support, and we look forward to embarking on this journey together.

Warm regards,
Team Newsletter.

Pongal Celebration

The EEE Association at SRM Institute of Science & Technology recently hosted a vibrant and culturally rich Pongal celebration on January 12, 2024, in Electrical Science Block. From 8:30 am to 10:00 am, faculty members and students came together to mark the auspicious occasion, fostering a sense of unity and celebration. The event commenced with energetic faculty members showcasing their culinary skills by preparing the traditional dish of Pongal, filling the air with its aromatic fragrance.

Participants actively engaged in performing Pongal rituals, symbolizing gratitude and prosperity, and connecting with the festival's rich traditions. One of the highlights was the sharing of freshly prepared Pongal, which transcended cultural boundaries, symbolizing unity in diversity.

The event concluded with a heartwarming greet and photos session, capturing the joyous moments and camaraderie shared among attendees. As we reflect on this festive gathering, let it serve as a reminder of the strength found in embracing our differences and coming together as one EEE family.

Students' CORNER

PLACEMENT RECORDS

(JAN TO MAR 2024)


Austin Sunny


Praveen


Saumyarup


Venkatesh


Anshul


Anany Jain


Nishukanth


Aryan


Awanish


Sindhuja S


Gokul Raj C


Sumandeep


R S Charan Reddy


Nikunj Lahoti


C B S V S Subbarao


Sidharth Joly


Srighanesh A S


Sidharth Nambiar


K Vinith


Narendhiran S

AWARDS AND ACHIEVEMENTS

T.Durgadevi, fourth-year student have got the **First Prize** in a poster presentation (Cash award - Rs.10,000/-) in the event "Empow(H)er - International Conclave For Women in STEM" organized by Anna University Chennai, on 18-03-2024 and 19-03-2024.

Kopulla Gokul Sai, K.Vinith & Aranyak roy fourth year students have got the **First Prize** for project in the "VIVID 8.0 National level technical project competition" organised by SSN College of engineering, Chennai, on 26-03-2024 and 27-03-2024.

Saad Abdul third-year students got the **Second Prize** in the "Business case study competition" organised by National Institute of Technology Kurukshetra, on 17-03-2024.

Hethu Venkat Vardhan, and Shriram Jayan first year students have got the **Third Prize** in the project (Cash award - Rs.7,500/-) in the event "Project Expo NEXUS 2k24" organized by Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Chennai in association with IEEEE Madras Section held on 20-03-2024.

Syed Firoz Ahamed third year student got the **Second Prize** in Scriptwriting competition (Cash award - Rs.1,500/-) in the event "MILAN'24" organized by SRMIST KTR held on 15-03-2024.

Ayush Daga, Rohit Jhajhria, and Muskan Singh first-year students are the **winners** in the technical presentation competition, "Sci-Tech Quest" organized by SRMIST KTR held on 15-03-2024.

Atish Dinda, and Souvik Maity second-year students have got the **Second Prize** in "Project expo-Rollie generative AI-powered home", organized by SRMIST KTR held on 15-02-2024.

Rahulkumar J, Research Scholar secured Gold Medal for "Research Day - 2024" paper presentation on 04-03-2024 at SRM Institute of Science and Technology

Venkatesan R, Research Scholar received Best Poster award for DPRC-2024 on 31-03-2024 at SRM Institute of Science and Technology

Priya E, Research scholar received the Best Paper Award in "IEEE Third International Conference on Intelligent Techniques in Control, Optimization and Signal Processing" Kalasalingam Academy of Research and Education, from 14-03-2024 to 16-03-2024

STUDENTS PARTICIPATION

Aravindkumar M, T.Durgadevi, fourth year student has participated in the "National Level Poster Presentation Competition on Renewable Energy" organised by MITS Gwalior on 10-03-2024.

P Kodanda Rama Sai third year student has participated TNKC- TAMILNADU KARTING CHAMPIONSHIP 06-03-2024 to 09-03-2024.

Aparajita Pal, Chitesh Thangasamy N A first year student has participated in the Inter college project competition "Research Exploration for Novel Energy- efficient Water Management Technique (RENEW 2024)" organised by Satyabama Institute of science and technology, Chennai on 22-03-2024.

Varshini V S first year student has participated in the Technical Hackathon "CYBERTRONZ-2K24" organised by Vels Institute of Science and Technology, Chennai on 12-03-2024.

Suranyo, Adarsh, Ayan, Shivansh Gupta fourth year student has presented the paper titled "AIM-CARE- Autonomous Intelligent Modular Charging Apparatus for Roadway Electrics" in the International Conference on Advanced Communication, Energy and Big Data (ICACEBD-24) organised by G H Raisoni Institute of Engineering & Technology, Nagpur, held on 15-03-2024 and 16-03-2024.

Atul Nair, Sabarish M third year student has presented the paper title on "Mitigation of Common-mode Voltage and Current Using Modified Quasi-Z-Source Inverter" in the 5th International Conference on Advances in Mechanical Engineering (ICAME 2024) organised by SRMIST KTR from 20-03-2024 to 22-03-2024.

Dinesh Kumar S third year student has participated in the "Design Bootcamp 1.0" organised by SRMIST KTR from 19-01-2024 to 20-01-2024.

Harshil Gupta first year student has participated in the Workshop on "BMS for EV" organised by SRMIST KTR.

- **Gupta, Saurabh**, Palanisamy Ramasamy, Pandi Maharajan Murugamani, Selvakumar Kuppusamy, Selvabharathi Devadoss, Barath Suresh, and Vignesh Kumar. 2024. "Long-Term Power Prediction of Photovoltaic Panels Based on Meteorological Parameters and Support Vector Machine." Indonesian Journal of Electrical Engineering and Computer Science 33(2):687.
- Mahaadevan, V. C., R. Narayanamoorthi, **Sayantan Panda, Sankhaddep Dutta**, and Gerard Dooly. 2024. "AViTRoN: Advanced Vision Track Routing and Navigation for Autonomous Charging of Electric Vehicles." IEEE Access 12:12402-23.
- Eswar, K.M.R., Aravind, R., Bharatiraja, C., **Akshat, S., Srishti, C., Bindu, S.** (2024). Closed-Loop Control of Modified Switched Inductor Boost Converter with High Voltage Gain and Reduced Switch Voltage Stress. In: Mahajan, V., Chowdhury, A., Singh, S.N., Shahidehpour, M. (eds) Emerging Technologies in Electrical Engineering for Reliable Green Intelligence. ICSTACE 2023. Lecture Notes in Electrical Engineering, vol 1117. Springer, Singapore

INDUSTRIAL VISIT

Goa Shipyard Limited

On March 8th, 2024, 39 students from the Electrical and Electronics Engineering department, comprising both 2nd and 3rd year B.Tech students, embarked on a transformative industrial visit to Goa Shipyard Limited (GSL), facilitated by the academic affiliate of IPowerE professional society. With the support of key figures like Mr. Prafull Lal and Dr. K. Vijayakumar, and coordination by Mr. Rajendra S. Kerkar and faculty mentors from **IPowerE Student Chapter and EEEA** EEE Association, the visit provided an immersive experience into GSL's advanced infrastructure and technologies. Students engaged in corporate presentations, interacted with management, engineers, and technicians, and gained insights into shipbuilding's significance in national defence and commercial sectors. Adhering to strict safety measures, the visit emphasized the practical application of engineering knowledge and left students inspired and enriched, highlighting the importance of industrial exposure in academic learning. The visit was coordinated by IPowerE Student Chapter faculty mentors, Dr. D.Suchitra, Dr.R.Ramya, and EEE association faculty members Dr.V.Pradeep, and Dr.A.Sureshkumar.

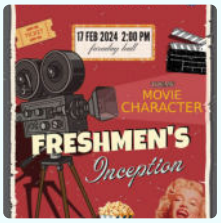
Schwing Stetter Private Limited

The Department of EEE organized an enlightening Industrial Visit to SCHWING STETTER PVT. LTD., located in the SIPCOT Industrial Estate, Irungattukottai Sriperumpudur, Kanchipuram District. The visit took place on 25-03-2024, and was attended by esteemed faculty members including Dr. T.M.Thamizh Thentral, Dr.R.Palanisamy, Dr. D. Selvabharathi, and Mr. D. Ravichandren, along with 41 enthusiastic students. Mr. Sridhar from SCHWING STETTER (INDIA) PVT. LTD. graced the event as the speaker, providing invaluable insights into the industry. The primary objective of the visit was to offer students firsthand exposure to industrial practices within the field, facilitating a deeper understanding of the subject matter. Such initiatives aim to bridge the gap between theoretical knowledge and practical application, equipping students with essential skills and knowledge for their future endeavors. This Industrial Visit undoubtedly enriched the learning experience of all participants, fostering a culture of continuous growth and development within the department.

Fresher's Day

The Fresher's Day event organized by the EEE Association was an extraordinary affair, designed to warmly welcome the graduating students of Batch 2027 into the vibrant EEE family. With meticulous planning and enthusiastic participation, the event unfolded into a memorable experience filled with laughter, camaraderie, and inspiration. The welcome address by Nithish and Rethu infused the atmosphere with energy and positivity, setting the stage for an engaging program ahead. Dr.V.Pradeep, Dr.P.Suresh, Dr.U.Sowmiya and Dr.C.Nithya, with their insightful speeches, provided invaluable guidance and motivation to the newcomers, emphasizing the values of dedication and curiosity in their academic journey.

The addresses by Dinesh Kumar S, the Vice President, and Ajay Aksanth J, the Cultural Head, resonated with the audience, sharing personal anecdotes and encouraging the freshers to embrace opportunities and challenges alike. Musical performances by Balaji and Ajay captivated the audience, showcasing the diverse talents within the EEE department.



The highlight of the event was the alumni talk by Chandru and Sibhi, whose success stories served as beacons of inspiration for the aspiring engineers, instilling in them the belief that with determination and perseverance, they too can achieve great heights. The interactive games, group dances, and open mic session added to the festivities, creating a sense of camaraderie and belonging among the students. As refreshments flowed and conversations flourished, friendships were forged and memories were made, marking the beginning of a remarkable

Trip to Goa

The EEE Association recently organized an exhilarating tour to Goa from March 7th to 11th, 2024, offering students of the EEE Department a well-deserved break and a chance to explore the vibrant coastal destination. The tour commenced with an early departure from Chennai, with a stopover in Bangalore before reaching the picturesque beaches of Goa.

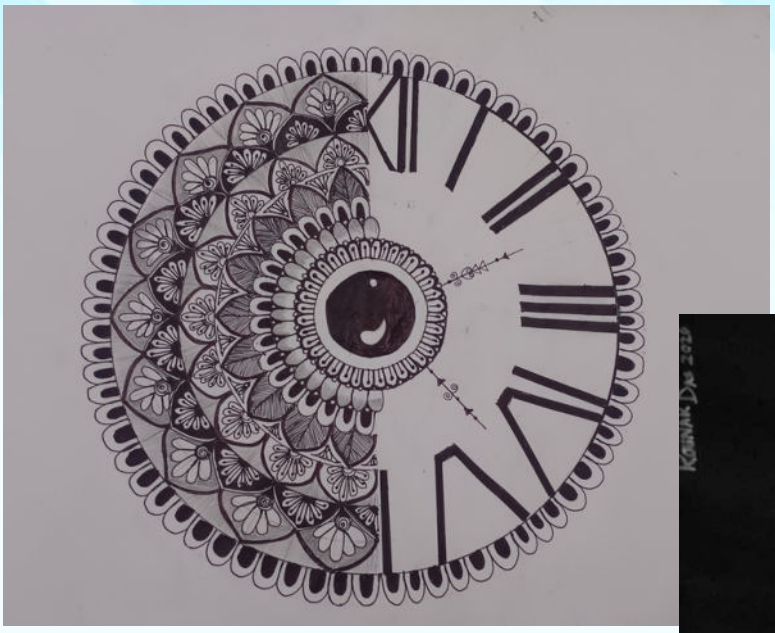
Throughout the journey, students were filled with anticipation for the adventures that lay ahead. The itinerary included immersive experiences such as unwinding at Baga Beach, cultural exploration at the historic Basilica de Born Jesus, and leisurely relaxation at Calangute Beach. These experiences allowed students to not only unwind and rejuvenate but also to delve into the rich cultural and architectural heritage of Goa.

As the tour concluded and students bid farewell to Goa, they returned home with cherished memories and a renewed sense of camaraderie. The tour served as a reminder of the importance of recreational experiences in fostering holistic development and creating lasting bonds among students.

Recreation Games

The Department of Electrical and Electronics Engineering, in collaboration with the EEE Counselling Cell, hosted a vibrant and engaging event titled "Recreation Games" on February 2nd, 2024. Led by esteemed coordinators Dr. S. Usha, Dr. A. Geetha, Dr. D. Karthikeyan, and Dr. R. Palanisamy, the event aimed to provide participants with a refreshing break from their daily routines through a series of recreational activities. With a focus on fostering enjoyment and social interaction, the session featured various physical activity games tailored to relieve stress and promote overall well-being. Participants, numbering 57 in total, were immersed in an atmosphere of fun and relaxation, experiencing the positive benefits of endorphin release, stress reduction, increased energy levels, enhanced concentration, and team building.

By participating in leisure activities, individuals can alleviate stress, boost mood, enhance cognitive function, and strengthen social connections. Moreover, incorporating leisure activities into one's routine fosters a sense of fulfillment and satisfaction, contributing to a more fulfilling and meaningful life. Thus, events like "Recreation Games" serve as important reminders of the value of leisure in nurturing holistic health and happiness.



Kavya N
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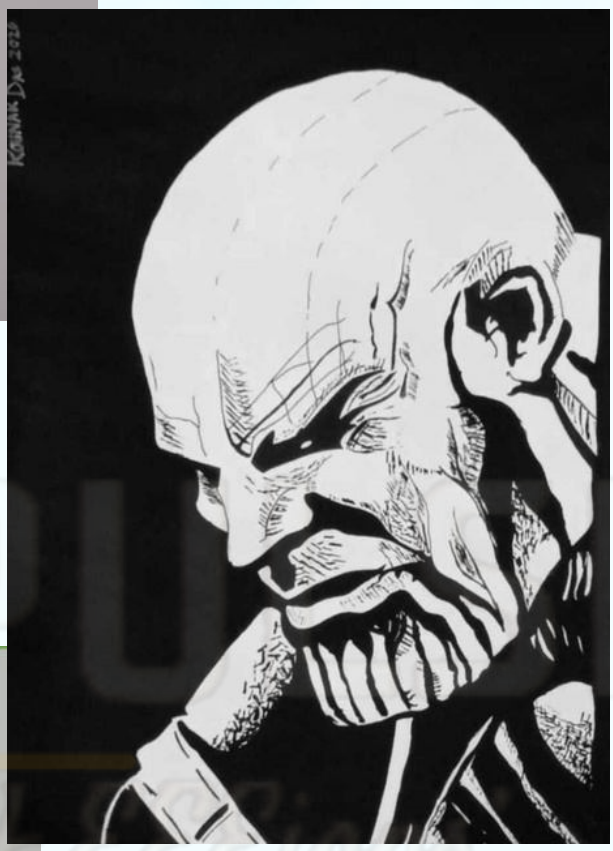
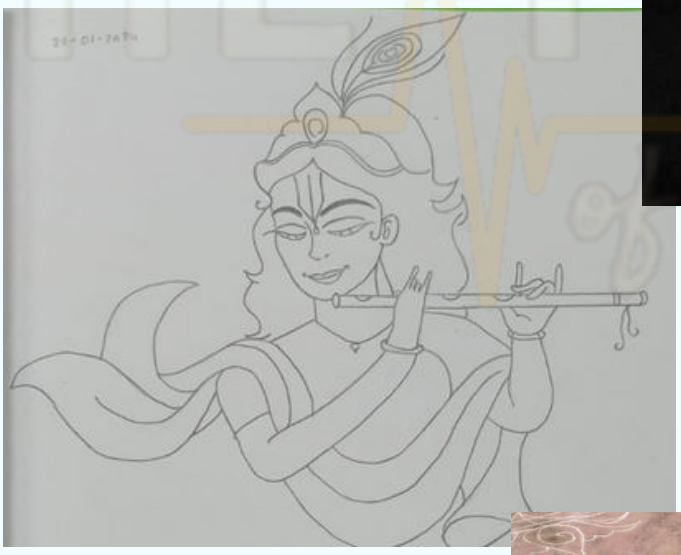


Rounak Das
RA2211005010063



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மகளின் ஏக்கம்

*மதுவுக்கு அடிமையான தந்தையின் அன்பு கிடைக்காது என்று தெரிந்தும் தந்தையின் பாசத்திற்காக ஏங்கும். குழந்தை..

இன்றுடன் சாதனாவின் தந்தை இறந்து ஒரு வருடம் ஆகிறது. அவள் ஓர் அழகிய கடற்கரையோரம் அமர்ந்திருந்து தன் தந்தை இறந்ததை நினைத்து கொண்டிருக்கிறாள். சாதனாவிற்கு பதினேழு வயதாகிறது. அவள் தந்தை மதுவிற்கு அடிமையானவர். அவள் தந்தை ஒருநாள் கூட அவளிடம் அன்பாக பேசியதில்லை; சொல்லப்போனால் பேசியது கூட இல்லை. ஆனால் அவள், "தந்தையின் செல்லபிள்ளை" என்றிருக்க ஆசைப்பட்டாள். அவள் தந்தையோ "மதுவே உலகம் என்று இருப்பவர்."என்றாவது ஒருநாள் தன் தந்தை மாறிவிடுவார்; தன்னிடம் அன்பாக பேசுவார்"; என்று நம்பிக்கையுடன் காத்துகொண்டு இருந்தாள்.

சாதனா பிறந்தபொழுது அவள் தந்தை மதுஅருந்தி அட்டு தகராறில் இடுபட்டு சிறையில் இருந்திருக்கிறார். அவளின் பூப்புனித நீராட்டு விழா அன்று அவர் எங்கு இருந்தார் என்று கூட தெரியாது அவளுக்கு,தன் திருமணத்தின் போது தந்தை இருக்கவேண்டும் என்பதே அவளின் மிகப்பெரிய ஆசையாக இருந்தது. ஆனால், அவள் ஆசை நிறைவேறா ஆசையாக மாறிவிட்டது. இதையெல்லாம் நினைத்து கொண்டு,தன் அம்மாவாவது கடைசிவரை தன்னுடன் இருக்கவேண்டும் என்று இறைவனிடம் சண்டையிட்டு கொண்டிருக்கிறாள்.

மதுவிற்கு அடிமையாகும் முன்பு உங்கள் அன்புக்கு ஏங்கும் குடும்பத்தை ஒரு முறை நினைத்து பாருங்கள்.

நன்றி!

Rohini S
RA2211005010052

Facultys' CORNER

FUNDED PROJECTS

Project Title: Product Development of Indigenous Cost-Effective High-Performance Electrical Vehicles Automotive Grade 40kW PMSM and Controller
PI: Dr.C.Bharatiraja
Co PIs: Dr.K.Vijayakumar
Dr.K.M.Ravi Eswar
Funding Agency: Technology Development Programme, Department of Science & Technology
Sanctioned Amount: 56.87 Lakhs

Project Title: Development of Floating Solar PV Powered Wireless Power and Data Transfer System for Remotely Operated Underwater Vehicles
PI: Dr.R.Narayanamoorthi
Co PI: Dr.K.Vijayakumar
Funding Agency: IIT Guwahati Technology Innovation and Development Foundation
Sanctioned Amount: 24.72 Lakhs

Project Title: Optimizing Autonomous Navigation: Advanced AI for Efficient Multi-Sensory Decision-Making in Controlled Environments
PI: Dr.C.Bharatiraja
Funding Agency: TiHAH, IIT Hyderabad
Sanctioned Amount: 3 Lakhs

Project Title: Accelerate Vigyan
PI: Dr.J.Preetha Roselyn
Funding Agency: NI Academy and research centre is funded with DST student internship programme
Sanctioned Amount: 1.2 Lakhs

Dr.K.Vijayakumar

Dr.C.Bharatiraja

Dr.J.Preetha Roselyn

Dr.R.Narayanamoorthi

Dr.K.M.Ravi Eswar

PUBLICATIONS AND PATENTS

Number of papers published in 2024 : **70**
Number of papers in IEEE Transactions : **2**
Total citations of the department : **21696**
H-Index of the department : **60**
i10-Index of the department : **560**
Number of patent published in 2024 : **1**
Number of patent granted in 2024 : **2**
Highest impact factor : **5**

List of Articles

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- Deepak, M., G. Janaki, and C. Bharatiraja. 2024. "Model Predictive Torque Control for Enhanced SRM With Improving Drive Hardware Performance." Pp. 1-6 in 2023 IEEE International Transportation Electrification Conference (ITEC-India). IEEE.
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- MS, Kamalesh, C. Bharatiraja, Kumar Cherukupalli, S. Sanal Kumar, and Chandrasekar S. 2024. "Coupled Inductor Based SIDO-Buck Converter with Self-Adaptive Digital PWM Control for 12V/24V On-Board Lighting and Dashboard System for 48V-EV." Pp. 1-6 in 2023 IEEE International Transportation Electrification Conference (ITEC-India). IEEE.
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- **M, Jagabar Sathik, Gopinath N, Arpan Hota, Vijayakumar K, Saad Mekhilef, and Vivek Agarwal. 2024. "Improved Dual Boost Mid-Point Clamped Five-Level Inverter Topology." IEEE Transactions on Circuits and Systems II: Express Briefs 1-1. doi: 10.1109/TCSII.2024.3356171**
- **Sathik M, Jagabar, Marif Daula Siddique, Sandeep N, and Dhafer Almakhles. 2024. "1- Dual Boost ANPC Type Inverter Topology With High Voltage Gain." IEEE Transactions on Industry Applications 60(2):3418-26. doi: 10.1109/TIA.2024.335001**

PATENTS

Granted

- **Dr.K.Saravanan, Dr.K.Vijayakumar, Dr.M.Jagabar Sathik** received patent grant for the title, " Helmet with Lock", Government of India, Grant number: 439394
- **Dr.S.Vidyasagar, Dr.V.Kalyanasundaram, Dr.K.Saravanan** received patent grant for the title, " Double Jaw Angle Holding Profile Vice ", Government of India, Grant number: 376159001

Published

- **Dr.A.Geetha** published patent title, "A low-cost indigenous patient monitoring system and a method thereof", Indian patent, Application Number: 202341087711

AWARDS AND ACHIEVEMENTS

Dr.C.Bharatiraja received the **Best Researcher Award** from SRMIST for being recognized in the top 2% of the Scientists Global List by Stanford University, US.

Dr.C.Bharatiraja received the **Best Researcher Award** from SRMIST.

Dr.C.Bharatiraja received the **Best Researcher Award** at the IEEE Annual Meeting 2024 organized at SRMIST.

Dr.C.Bharatiraja received the **Best Patent Award** at the IEEE Annual Meeting 2024.

Dr.C.Bharatiraja received the **Best Publication Award** from the IEEE Madaras Section for the year 2024.

Dr.C.Bharatiraja received **Two Best Paper Awards** from the International Conference On Advances In Mechanical Engineering organised by the Department of Mechanical Engineering, SRMIST.

Dr.S.Shanmugapriya received the following prizes for the Inter-Department competition held in SRMIST for International Women's Day 2024.

- **First Prize-Speech Tamil**
- **First Prize-Tamil Debate**
- **Third Prize-Logo Design**
- **Third Prize-Fast Cycling**

Dr.D.Karthikeyan received a **Certificate of Honour** for student project funding from the Tamilnadu State Council for Science and Technology.

Dr.R.Palanisamy received the **Best Researcher Award** from Novel Research Academy - National Faculty Award 2023-24

Dr.M.Jagabar Sathik received the **Best Publication Award** from the IEEE Madras Section for the year 2024.

Dr.J.Divya Navamani received the **Best Publication Award** from the IEEE Madras Section for the year 2024.

Dr.K.M.Ravi Eswar received the **Best Research Paper Award** in the IEEE-International conference held in Bengaluru from 15-03-2024 to 16-03-2024.

Dr.M.Jagabar Sathik becomes the academic editor of **International Transactions on Electrical Energy Systems, IET Electrical Systems in Transportation,** and **PLOS ONE journals.**

Dr.R.Palanisamy becomes the academic editor of the **Australian Journal of Electrical and Electronics Engineering journal.**

FACULTY FACILITATIONS

Dr.V.Kalyanasundaram delivered an Expert Lecture on the topic "Electrical Machines in Power System Operation and Control" Organized by SRM Valliammai Engineering on 04-01-2024.

Dr.C.Bharatiraja delivered a valedictory address in "National Level Technical Symposium Turbo" Organized by the Department of Automobile Engineering of Rajalakshmi Engineering College on 24-02-2024.

Dr.K.Vijayakumar delivered a talk on "AI Implementation in Microgrid Control: Current Progress and Future Scopes" organized by the Department of Electrical & Electronics Engineering, Dayananda Sagar College of Engineering, Bengaluru, Karnataka, India held between 12-03-2024 to 16-03-2024.

Dr.C.Nithya served as the chairperson at the IEEE International Conference on Intelligent Techniques in Control, Optimization, and Signal Processing 2024 held at Kalasalingam Academy of Research and Education on 15-03-2024.

FACULTY PARTICIPATION

Dr.C.Nithya attended a faculty development program titled "Applications of Machine Learning Techniques in sustainable Technologies," from 24-01-2024 to 28-01-2024 organised by National Institute of Technology Rourkela.

Dr.C.Anuradha attended a faculty development program titled "Energy storage and control of single stage grid connected photovoltaic using bi-directional sepic converter," from 20-03-2024 to 22-03-2024 organised by SRM Institute of Science and Technology.

Dr.C.Anuradha attended a faculty development program titled "Recent Trends On Power Electronics in Renewable Energy Systems And Electrical Drives," from 05-02-2024 to 09-02-2024 organised by SRM Institute of Science and Technology.

Dr.D.Selva Bharathi attended a faculty development program titled "Exploring teaching strategies and research scope in renewable energy sectors," from 02-01-2024 to 06-01-2024 organised by Hindusthan College of Engineering and Technology

Dr.T.M.Thamizh Thentral has presented the paper title on "Mitigation of Common-mode Voltage and Current Using Modified Quasi-Z-Source Inverter" in the 5th International Conference on Advances in Mechanical Engineering (ICAME 2024) organised by SRMIST KTR from 20-03-2024 to 22-03-2024.

Dr.K.Selvakumar attended a faculty development program titled "Exploring teaching strategies and research scope in renewable energy sectors," from 02-01-2024 to 06-01-2024 organised by Hindusthan College of Engineering and Technology.

Dr.K.Selvakumar attended a faculty development program titled "Future trends and advances in electrical engineering," from 01-01-2024 to 05-01-2024 organised by Annasaheb Dange College of Engineering & Technology, Ashta.

Dr.P.U.Poornima attended a faculty development program titled "Application of machine learning techniques in sustainable technologies," from 24-01-2024 to 28-01-2024 organised by National Institute of Technology Rourkela.

Dr.P.U.Poornima attended a faculty development program titled "Recent Trends On Power Electronics in Renewable Energy Systems And Electrical Drives," from 05-02-2024 to 09-02-2024 organised by SRM Institute of Science and Technology.

Dr.R. Femi attended a faculty development program titled "Inculcating Universal Human Values in Technical Education," from 20-01-2024 to 22-01-2024 organised by All India Council for Technical Education.

Dr.R.C.Ilambirai attended a faculty development program titled "Applications of Machine Learning Techniques in Sustainable Technologies," from 24-01-2024 to 28-01-2024 organised by National Institute of Technology Rourkela.

Dr.R.C.Ilambirai attended a faculty development program titled "Recent trends on Power Electronics in Renewable energy systems and Electrical Drives," from 05-02-2024 to 09-02-2024 organised by SRM Institute of Science and Technology.

Dr.R.Femi presented a paper in the "International Conference on sustainable Power and Energy Research," from 01-03-2024 to 03-03-2024 organised by National Institute of Technology Warangal.

Dr.R.Femi attended a faculty development program titled "Publishing open access in 2024," on 11-01-2024 organised by LetPub Learning Nexus.

Dr.R.Palanisamy attended a faculty development program titled "Exploring teaching strategies and research scope in renewable energy sectors," from 02-01-2024 to 06-01-2024 organised by Hindusthan College of Engineering and Technology.

Dr.R.Palanisamy attended a faculty development program titled "Future trends and advances in electrical engineering," from 01-01-2024 to 05-01-2024 organised by Annasaheb Dange College of Engineering & Technology, Ashta.

Dr.R.Senthil Kumar attended a faculty development program titled "Exploring teaching strategies and research scope in renewable energy sectors," from 02-01-2024 to 06-01-2024 organised by Hindusthan College of Engineering and Technology.

Dr.R.Senthil Kumar attended a faculty development program titled "Intelligent Techniques for Integration of Renewable Energy, Electric,Vehicle and Energy Storage System," from 05-02-24 to 09-02-24 organised by Coimbatore Institute of Technology.

Dr.S.Geethanjali attended a faculty development program titled "Inculcating Universal Human Values in Technical Education," from 20-01-2024 to 22-01-2024 organised by All India Council for Technical Education.

Dr.D.Karthikeyan attended a faculty development program titled "Future trends and advances in electrical engineering," from 01-01-2024 to 05-01-2024 organised by Annasaheb Dange College of Engineering & Technology, Ashta.

Dr.S.Lourdu Jame attended a faculty development program titled "Machine Learning for Medical Image Processing," from 05-02-2024 to 09-02-2024 organised by SRMIST.

Dr.S.Shanmugapriya attended a faculty development program titled "Advances in Remote Sensing Techniques for Geological Applications," from 11-03-2024 to 15-03-2024 organised by Indian Institute of Remote Sensing.

Dr.S.Shanmugapriya attended a faculty development program titled "Applications of Machine Learning Techniques in Sustainable Technologies," from 24-01-2024 to 28-01-2024 organised by National Institute of Technology Rourkela.

Dr.S.Shanmugapriya attended a faculty development program titled "Recent trends on Power Electronics in Renewable energy systems and Electrical Drives," from 05-02-2024 to 09-02-2024 organised by SRMIST.

Dr.S.Vijayalakshmi attended a faculty development program titled "Analysis of Power Train Parameters of an Electric Vehicle Using Regenerative Braking," from 20-03-2024 to 22-03-2024 organised by SRMIST

Dr.S.Vijayalakshmi attended a faculty development program titled "Recent Trends On Power Electronics in Renewable Energy Systems And Electrical Drives," from 05-02-2024 to 09-02-2024 organised by SRMIST.

Dr.D.Karthikeyan attended a faculty development program titled "Exploring teaching strategies and research scope in renewable energy sectors," from 02-01-2024 to 06-01-2024 organised by Hindusthan College of Engineering and Technology.

Dr.S.Geethanjali attended a faculty development program titled "Recent trends on Power Electronics in Renewable energy systems and Electrical Drives," from 05-02-2024 to 09-02-2024 organised by SRM Institute of Science and Technology.

Dr.V.Pradeep presented a paper titled "AIM-CARE: Autonomous Intelligent Modular Charging Apparatus for Roadway Electrics" at the International Conference on Advanced Communication, Energy And Big Data organised by GH Raisoni Institute of Engineering & Technology Nagpur.

Dr.A.Geetha presented a paper titled "A Novel Proportional Integral Derivative (PID) Controller Based Control Strategy for A Formula Student Vehicle" in ISDIA 2024 during 3-4 January 2024.

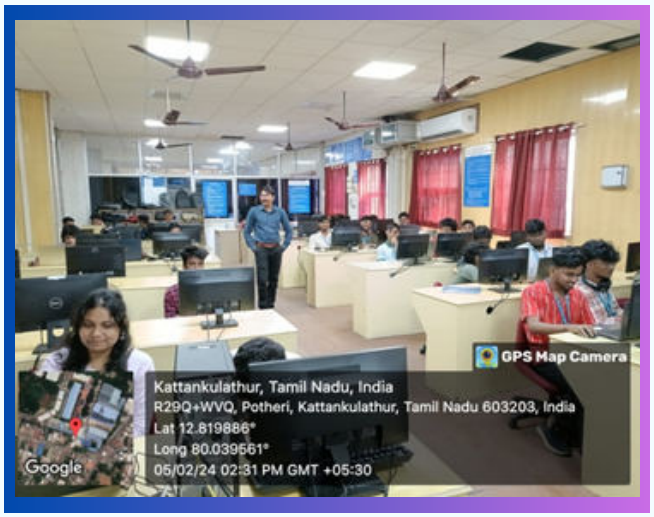
Dr.S.Usha presented a paper titled "A Novel Proportional Integral Derivative (PID) Controller Based Control Strategy for A Formula Student Vehicle" in ISDIA 2024 during 3-4 January 2024.

FDP on "Recent Trends on Power Electronics in Renewable Energy Systems and Electrical Drives"

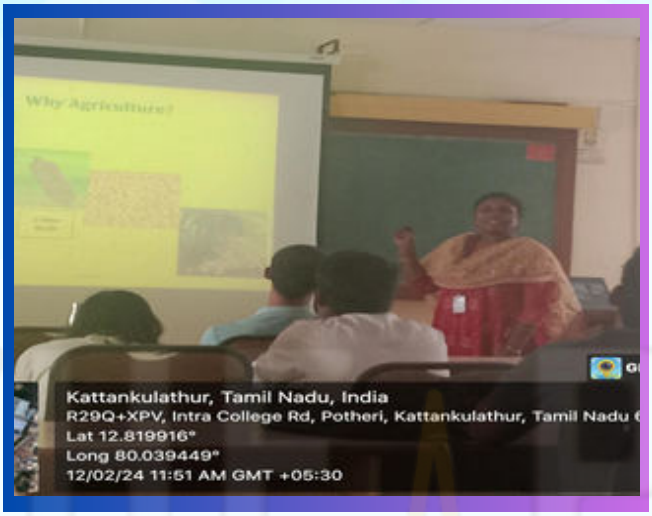
A dynamic five-day Faculty Development Programme is organised from February 5th to 9th, 2024, Sponsored by TIHAN, Department of Science and Technology, Government of India. The FDP aimed to equip scholars and faculty members with cutting-edge knowledge in power electronics, advanced power electronic converters, renewable energy systems, and electrical drives. With a focus on practical application, participants delved into insightful lectures and hands-on sessions utilizing real-time simulation software like dSPACE and OPAL RT. The event commenced with a keynote speech by Er. Venkatesh Routhu from Valeo India Private Limited, Chennai, on "Overview of Power Electronics in EV Powertrain," setting a tone of expertise and innovation. With an attendance of 52 members, including 35 research scholars and 17 faculty members from esteemed organizations, the FDP covered topics ranging from power semiconductor advancements to control strategies in power systems. This program was organised by Dr.N.Chellammal,Dr.K.M.Ravi Eswar KM, Dr.Phani Teja Bankupalli.

TECHNICAL EVENTS

Workshop on "Data Acquisition and Visualization Using LabVIEW and NidaQMX"



The EEE department, in collaboration with the **MTS student chapter**, organized a 3-day technical workshop titled "Hands-on Training: Data Acquisition and Visualization using LabVIEW and NidaQMX" for the B.Tech EEE batch of 2027, facilitated by professionals from EduTech on Feb 6, 7 and 8 2024. The workshop introduced students to LabVIEW, a graphical programming tool for test system development, emphasizing its intuitive interface and connectivity to instruments. Topics covered over the three days included basic interface understanding, programming concepts such as loops and logic gates, and integrating physical systems with LabVIEW. Student engagement was high, with active participation and inquiries, culminating in a successful acquisition of basic LabVIEW skills. The workshop also delved into NidaQMX, a data acquisition device used to interface LabVIEW with external sensors and instruments, providing hands-on experience in configuring and acquiring data from various sources. Participants were encouraged to apply their newfound knowledge through practical exercises and mini-projects, fostering a deeper understanding of the software's capabilities.

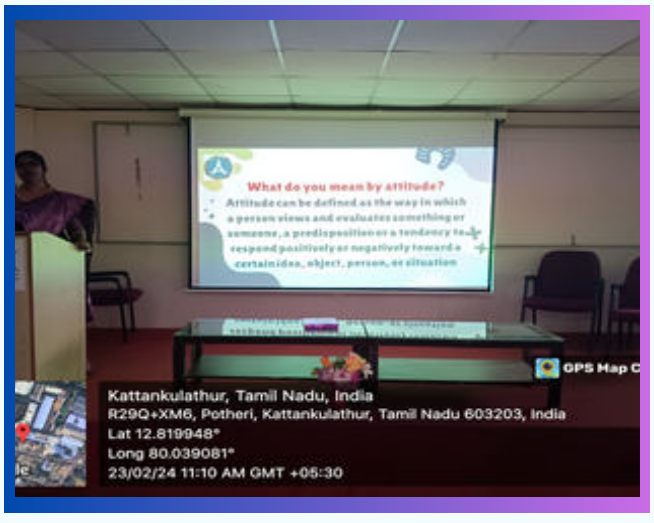


Technical talk on "Unleashing Agriculture Potential Through IOT Artificial Intelligence and Machine Learning"

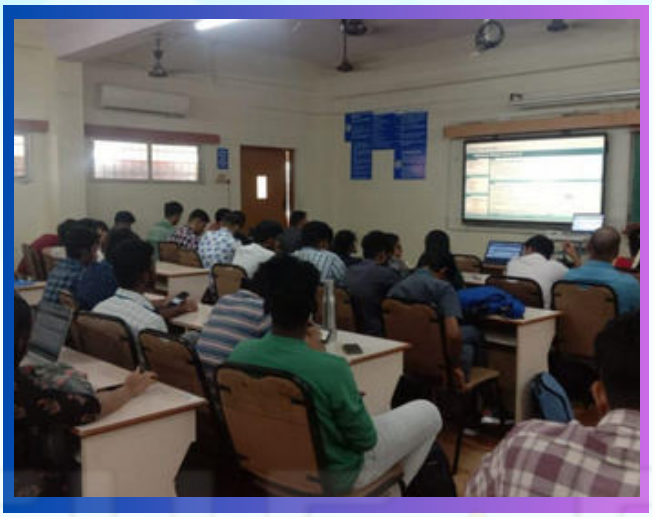
The **IoT Alliance Students Club** (Electrical Division) orchestrated a transformative event on February 12th, 2024, titled "Unleashing Agriculture Potential through IoT, Artificial Intelligence, and Machine Learning." With 24 registered participants, the technical talk delved into innovative applications of these advanced technologies to revolutionize farming practices, enhance productivity, and promote sustainability in agriculture. Through insightful discussions and expert insights, attendees gained valuable knowledge on leveraging IoT, AI, and ML for more efficient and intelligent farming methods. This event underscores the commitment of the student chapter to advancing the understanding and application of emerging technologies among EEE students, empowering them to drive innovation in agriculture and beyond. The event featured presentations from industry experts showcasing real-world case studies and success stories where IoT, AI, and ML have been deployed to address challenges in agriculture.

TECHNICAL EVENTS

EEE counselling cell hosted a event on "Power of Positive Attitude"



The Department of Electrical and Electronics Engineering, in collaboration with the **EEE Counselling Cell**, orchestrated a thought-provoking seminar on February 23rd, 2024, themed around the pivotal concept of the "Power of Positive Attitude" by Prof. A.Anubama Baskar. Guided by the expertise of esteemed coordinators including Dr. S. Usha, Dr. A. Geetha, Dr. D. Karthikeyan, and Dr.R.Palanisamy, the event aimed to instill in its 59 eager participants a profound understanding of the transformative influence wielded by a positive mindset. Renowned speaker Prof. Anubama Baskar, Director of Alpha Healthcare, graced the occasion with her invaluable insights, delving into the nuances of cultivating and sustaining a positive outlook amidst life's myriad challenges. Through engaging discussions and real-world examples, attendees were inspired to embrace optimism as a catalyst for personal growth and professional success. The seminar, held in an offline setting, served as a beacon of motivation, empowering individuals to navigate life's journey with resilience and determination.



Workshop on "World leading Industry Relevant Embedded, IoT, Robotics, Design, Simulation and Rapid Prototyping Software Proteus VSM"

The **EEEA** hosted an engaging workshop on March 18, 2024, focusing on the practical applications of Proteus VSM software in core engineering. Led by Dr. S. Shanmugapriya, Assistant Professor , the workshop catered specifically to 3rd-year students, providing hem with invaluable insights into various aspects of engineering. Distinguished speakers from Cybermotion Technologies Pvt Ltd., t including Mr. Prudhvi Talluri, Mr. Tilokesh Mallick, Ms. Navyasri, and Mr. Elavazhagan, shared their expertise, while the event, held on the virtual platform Zoom, saw active participation from 43 enthusiastic students. Topics ranged from project creation in Proteus with and without microcontrollers to embedded systems, IoT, robotics projects, and PCB design, making it a comprehensive and enriching experience for all involved.

TECHNICAL EVENTS

Project expo "SCI-TECH QUEST"

The Sci-Tech Quest 2024, organized by the **EEE Association**, was a remarkable testament to the innovative spirit and technical prowess of students in the field of Electrical and Electronics Engineering. Taking place on March 15th, 2024, the event provided a platform for students to showcase their groundbreaking ideas and projects, ranging from renewable energy solutions to advanced electronic devices. Evaluated by a panel of esteemed judges, the event culminated in the recognition of outstanding contributions, highlighting the dedication and ingenuity of participating teams. As the EEE Association, we celebrate the success of Sci-Tech Quest 2024 and commend all participants for their exemplary efforts in pushing the boundaries of innovation and excellence in our field. The event not only showcased the technical expertise of students but also fostered networking opportunities and collaboration among peers and industry professionals. Participants received valuable feedback from judges, further enhancing their projects and skills. This events was coordinated by Dr.V.Pradeep and Dr.P.Suresh.

Workshop on "Hardware-In-The-Loop Simulation Solution for EV Applications"

We're thrilled to share highlights from the recent workshop on "Hardware-in-the-loop Simulation solution for EV applications" hosted by the Department of Electrical and Electronics Engineering at SRM Institute of Science and Technology, Kattankulathur. The event, supported by **DST Purse**, witnessed an impressive turnout of over 80 participants, comprising experts, scholars, and industry professionals. The workshop provided a platform for deep exploration into the pivotal role of HIL simulation in advancing electric vehicle technologies. Sessions led by esteemed speakers like Dr. S. Devakirubakaran and Dr. C. Bharatiraja shed light on the integration of cutting-edge tools such as OPAL-RT and Altair Embed, amplifying the precision and efficiency of validation processes. Mr. Shajahan Yocob's insights into interfacing real-time controllers further enriched participants' understanding, while Dr. Mohd Saalim Qureshi's discussion on Typhoon HIL Technology underscored its significance in MIL/SIL/HIL validation for EV systems.

TECHNICAL EVENTS

National level Ideathon 2024

The DST PURSE Sponsored National level Ideathon 2024, organized in collaboration with the Centre for Electric Mobility and the Department of Electrical and Electronics Engineering, was a resounding success, drawing participation from 140 teams across India. The event, held on March 23, 2024, provided a platform for engineering students to unleash their creativity and innovation. Through rigorous evaluation rounds, including abstract submissions, online presentations, and offline demonstrations, 18 teams emerged as finalists. These teams showcased their groundbreaking ideas and prototypes, vying for top honors in front of esteemed panels and industry experts. The event not only celebrated ingenuity but also fostered meaningful interactions and knowledge exchange. With Dr. Shivaprasad Amaravayal, Scientist B from the Department of Science and Technology, as the Chief Guest, Ideathon 2024 showcased the immense potential of India's engineering talent in driving forward electric mobility and innovation.

Workshop on "Building IOT Based Automation Using ESP & CLOUD"

The Department of Electrical and Electronics Engineering, in collaboration with the **IoT Alliance club and ENFUSE students chapter**, conducted an enriching two-day workshop titled "Building IoT Based Automation Using ESP & Cloud" on March 8th and 9th, 2024. The workshop provided a comprehensive exploration of ESP IoT, focusing on the utilization of ESP8266 and ESP32 microcontrollers in IoT applications. Led by Anu Electronics and team, the hands-on session delved into practical aspects, aiming to equip attendees with tangible skills and insights. Held in the Project Lab of the EEE Dept, the workshop facilitated immersive learning experiences, empowering participants to delve into the realm of IoT-based automation with confidence and proficiency. The workshop covered various topics including setting up development environments, interfacing sensors and actuators, and establishing communication protocols for data transfer to cloud platforms. Participants were encouraged to work on mini-projects throughout the sessions, applying the concepts learned to create functional IoT systems.

EVENTS

Outreach Program on "Electrical Safety Awareness"

The Department of EEE collaborated with Muthucharam Radio Community 90.4 Mhz to host an outreach program dedicated to raising awareness about electrical safety. The program, held on Feb 29, 2024, from 3:30 to 4:00 pm, aimed to educate the community on the potential hazards of electricity and provide essential safety tips to prevent accidents. Dr.A.Geetha and Dr.D.Karthikeyan distinguished faculty members of the EEE department, delivered a comprehensive talk on the topic of electrical safety, covering various aspects and offering valuable insights. The collaboration between the department and Muthucharam Radio Community underscored a shared commitment to promoting safety and well-being within the community. The event served as a platform to disseminate crucial information and empower individuals with the knowledge needed to ensure their safety in dealing with electrical appliances and systems.

PHOTO GALLERY

Wireless charging unit

Department highlights

Autonomous Vehicle

Women's day award

Internship offered students

Technical talk

Team RUDRA

Aqua boat

Electric vehicle

Team 1.618

Autonomous Vehicle

Project expo

HUMAN VALUES

We are happy, yet it is not continuous. How to make it continuous?

(Previously we explored Step 1: RIGHT UNDERSTANDING)

Step 2: NATURAL ACCEPTANCE

Natural acceptance is a mechanism of self-exploration

Natural acceptance implies unconditional and total acceptance of the self, people, and environment.

In other words, Natural acceptance is a way to accept the good things naturally. By understanding our natural acceptance; we can also understand the natural acceptance of others.

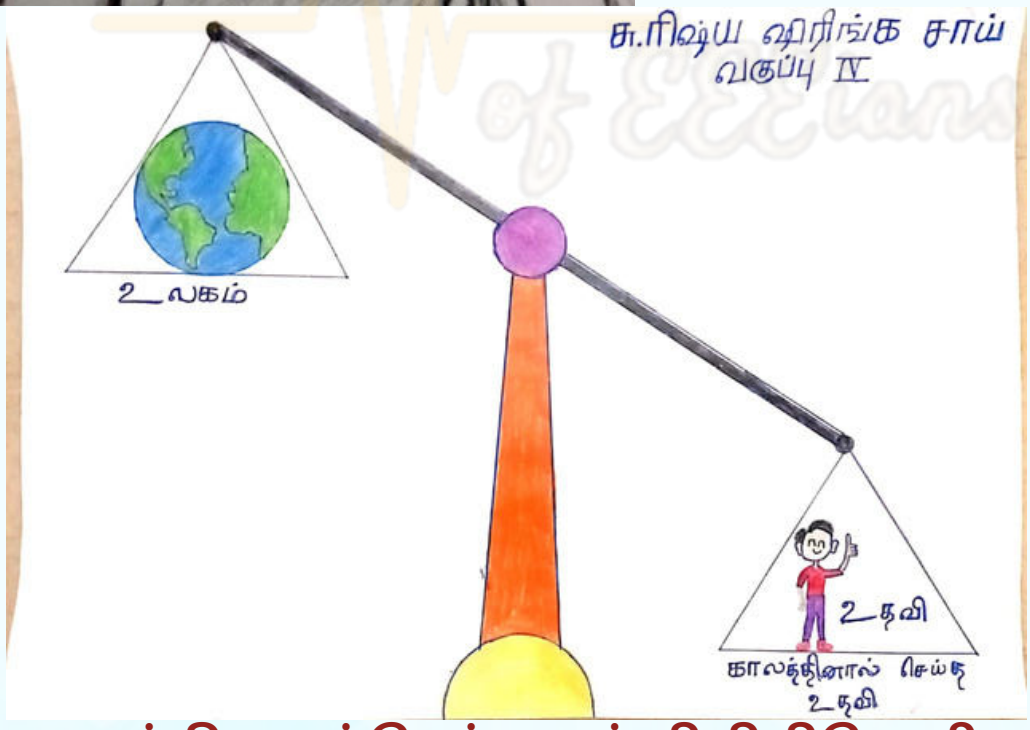
Observations about Natural acceptance :

- Natural acceptance does not change with time, place, the individual.
- Natural acceptance is uncorrupted by likes and dislikes or assumptions or beliefs.
- Natural acceptance is innate; we don't need to create it.
- Natural acceptance is definite.

So, with Natural acceptance we can accept everything in right understanding which will lead to a harmonious life.

To be continued...

Dr.S.Shanmugapriya, Assistant Professor,EEE



**காலத்தி னாற்செய்த நன்றி சிறிதெனினும்
ஞாலத்தின் மாணப் பெரிது.**

A favour conferred in the time of need, though it be small (in itself), is (in value) much larger than the world

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