NEW PRINCE SHRI BHAVANI
COLLEGE OF ENGINEERING AND TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
(ISO 9001:2005 Certified and Accredited by NAAC with A+ grade)
Vengaivasal Main Road, Gowrivakkam, Tambaram, Chennai-600 073

DEPARTMENT OF
ELECTRICAL AND ELECTRONICS ENGINEERING

Proudly presents

FAISCA'24

Date:5th Apr 2024

PREFACE

Welcome to the Faisca 2024 Magazine, a special edition devoted to capturing the essence and impact of our recent symposium. This magazine serves as both a reflection and a celebration of the vibrant discussions, ground breaking ideas, and invaluable connections that characterized our event.

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NOTE FROM THE EDITOR

Hello Readers!

Greetings from team Faisca!!

With immense pleasure, we bring to you yet another successful edition of Faisca Magazine, on behalf of the department of EEE!

This edition has truly been a delight to work on, and as editors, it has been our pleasure and privilege to collaborate with so many brilliant and enthusiastic minds from all across the EEE student body. The determination, creativity and resourcefulness that was displayed by the writing and design team is a testament to the spirit of collaboration and community that we have always aimed to foster and build here at Faisca. In this edition, we present to you a wealth of knowledge, interesting research and thoughtful discourse on all that is exciting in the world of EEE. Our team has also put in great efforts to bring to you an exciting glimpse into the world of placements, outside exposures and experience in working journey which we hope will help you decode and navigate the much-anticipated but feared process. Most of all, this edition is a foray into the numerous exciting activities undertaken by both faculty as well as the students of our department and we are honored to document them and present them to you.

We would like to congratulate the writers for creating such informative and well researched articles and the designers for aesthetically and intelligently presenting such vast content with beautiful layouts and designs. We would like to sincerely thank our HOD Dr. R. Venkatasubramanian and the department of EEE for giving us an opportunity to bring this magazine to life. We would like to extend our sincere gratitude to Faisca Coordinators Assoc. Prof. Ms. S. Ananthi and Assoc. Prof. Ms. M. Devi. We also extend our gratitude to our faculty in-charge, Prof. Dr. Theresa Cenate C F who guided us with respect to content and design for the magazine. We hope you enjoy reading Faisca as much as we did creating it!

R Dinesh, IV EEE
Sahil Dhanaji Zimal, IV EEE
S Tharun Kumar, III EEE
R **Manish Kumar,** III EEE
D Suresh, III EEE
V Lavanya, II EEE

EDITORIAL TEAM

FACULTY COORDINATOR

Dr.R.Venkatasubramanian, Prof & HOD,EEE

FACULTY INCHARGE

Dr. Theresa Centae C F, Professor,EEE

EDITORS

V.Dinesh, IV,EEE
D.Suresh, III,EEE

SUB EDITORS

S.Tharun Kumar, III, EEE
V.Lavanya, III,EEE

DESIGN HEAD

R.Gokulkrishnan, IV, EEE
R.Manish Kumar, III,EEE

DESIGN TEAM

Sahil Dhanaji Zimal, IV, EEE
S.Arun, III,EEE

THIRU . K. LOGANATHAN,
M.COM., M.ED.
CHAIRMAN

Dear Members of our Esteemed Institution,

I am thrilled to congratulate everyone on the release of FAISCA'24 magazine. This publication exemplifies the creativity, intellect, and dedication of our students and staff.
Kudos to the editorial team for their commitment in curating an exceptional collection of articles, abstracts, insights, artwork and photographs. Your efforts have truly showcased the diverse talents within our community.

To our contributors, your contributions have added depth and richness to the pages of FAISCA'24, for which I am immensely grateful. Let us take pride in this achievement and continue to strive for excellence. May FAISCA'24 serve as an inspiration for all who engage with it.

Congratulations to everyone involved in bringing FAISCA'24 to fruition. Your hard work and dedication are commendable, and I eagerly anticipate the impact this publication will have on our community.

Mr.L. Naveen Kumar,
B.E., M.B.A.
VICE CHAIRMAN

The release of the FAISCA'24 magazine fills me with joy. This creative endeavor is sure to ignite a plethora of artistic and scientific expressions, each bearing the distinctive personal touch of our students and staff. I admire and applaud the team's achievement in organizing the myriad ideas and aspirations of our academic community into the vibrant visual celebration that is FAISCA'24. It's a testament to the talent and dedication within our institution. I anticipate that this publication will not only showcase the creativity of our community but also serve as a source of inspiration for others. Congratulations to all involved in bringing this project to fruition, and I look forward to experiencing the diverse array of perspectives and talents showcased within its pages.

PROF. A. SWAMINATHAN,
M.E., F.I.E.
DIRECTOR

Dear Students and Faculty,
I am very happy to congratulate everyone on the release of FAISCA'24 magazine, a testament to our community's innovation and creativity. This publication embodies the inspired imagination of our academic community and serves as a platform to showcase our collective talents.

I extend my heartfelt congratulations to the students and faculty involved in producing FAISCA'24. Your dedication and hard work have resulted in an exceptional publication despite the challenges we have faced.

As we launch FAISCA'24, I encourage every student to use the wings of education to soar high and make a positive impact in their respective fields. Let this magazine inspire you to reach new heights and glorify both the world and your profession.
Congratulations once again to all involved, and I look forward to witnessing the impact of FAISCA'24 on our community.

DR. T.SARAVANAN,

M.E., PH.D.

PRINCIPAL

Dear Students and Faculty,

I am thrilled to wish everyone behind the FAISCA'24 magazine, underscoring the commitment at NPSBCET to provide every student with access to high-quality education and abundant opportunities in engineering. FAISCA'24 offers a platform for students to reflect on their research and development achievements, presenting a blend of challenges and potential for growth.

In a world where technology evolves rapidly, our classrooms may face challenges in keeping pace. Nonetheless, FAISCA'24 celebrates the successes of our educational approach while acknowledging areas for improvement.

Heartfelt congratulations to the students and staff of the Electrical and Electronics Engineering department for their tireless efforts in producing FAISCA'24. I wish you continued success and hope that the forth coming batches will carry forward the legacy established by current students. Together, let us strive to enhance educational delivery and empower students to excel in an ever-changing world.

Dr.R.VENKATASUBRAMANIAN,
M.E., Ph.D.
HEAD OF DEPARTMENT

Dear Students and Faculty,

It brings me immense joy to announce the release of the department magazine, FAISCA'24, a testament to the dedication and creativity within our Electrical and Electronics Engineering department. FAISCA'24 serves as a showcase of the remarkable research, development, and academic achievements of our students and faculty.

As we navigate through an era of rapid technological evolution, FAISCA'24 provides a platform for reflection, innovation, and inspiration. It celebrates our successes while acknowledging areas for growth and improvement.

I extend my heartfelt congratulations to all the students and staff involved in the production of FAISCA'24. Your tireless efforts have truly made this publication a success. May FAISCA'24 serve as a source of pride and inspiration for our department, and may it motivate us to continue striving for excellence in all our endeavours.

VISION OF THE INSTITUTE

To be a globally recognized academic institution and there by contribute to technological and socio-economic development of the society.

MISSION OF THE INSTITUTE

1.To develop the needed resources and infrastructure, and to establish a conducive ambience for the teaching learning process.

2.To engage committed members of faculty who will infuse subject knowledge with latest teaching pedagogies

3.To ignite the desire for higher learning, research and entrepreneurship and equip them to face the global challenges

4.To engage the alumni professionals as productive partners with the current students to help to enrich and enhance their student life.

Vision of the Department

To produce globally competent Electrical and Electronics Engineers who can cater to the contemporary needs of the Industry and Society.

Mission of the Department

M1: To provide a good infrastructure and serene environment to cater the curriculum requirements of Electrical and Electronics Engineering

M2: To motivate the students and faculty towards research activities in association with industries

M3: To provide a conducive environment for students to enhance their co curricular, soft skills and ethical values for their career development.

M4: To stimulate continuing education for creating quality engineers towards sustainable improvement in the society.

Program Educational Objectives of the Department

PEO I: Procure optimum solution for Electrical Engineering problems in order to cater a successful professional career.

PEO II: Demonstrate creativity in the engineering practices including entrepreneurial and collaborative ventures with strategic thinking, planning and execution for lifelong learning.

PEO III: Exhibit to communicate effectively, recognize and incorporate societal needs and constraints in their professional endeavors and practice the profession with high regard to legal and ethical responsibilities.

Program Specific Outcome of the Department

PSO I: Shall have Potential to analyze, design, synthesize and provide technical solutions in the field of Power generation, distribution, renewable energy systems and Embedded Systems.

PSO II: Shall exhibit leadership skills, pursue entrepreneurship and contribute in the field of Electrical and Electronics Engineering.

INDEX

EVENTS ORGANIZED

GUEST LECTURE

Guest lecture on Simulation of Electronic circuits using MATLAB was organized on 31.3.2023. Mr.R.Vijay kumar, Founder CEO of Fheenix Tech solutions was the resource person He explored about creating a circuit schematic using a tool like MATLAB's Simulink or any other circuit design software and also to analyze the results using MATLAB's plotting functions and other analysis tools.

Participants eagerly listening about the Lecture .

Guest lecture on Job Hunting and self improvement practices was held on 20.5.2023, Mr. Karthikeyan ponnusamy, Technical lead R&D engineering, Erode was the resource person of the event.

Glimpse of Guest lecture on Job Hunting & Self Improvement Practices.

By this program the faculty members and students are able to know about the entrepreneur and support, boot strapping self-confidence ,development process of enterpreneur and smart work.

TECHNICAL SEMINAR

A Seminar on “Power Flow Analysis” was organized on 7th February, 2023. Mr. P. Aswin Surendar, Properitor, OMEGA ABRASIVES. Chennai , our dignified Alumni of Electrical And Electronics Engineering presented the latest trends in power flow analysis.

Glimpse of Workshop on “Robotics and Automation”

Glimpse of Seminar on Power Flow Analysis

A Workshop on the topic “Robotics and Automation” was conducted by the Department of Electrical and Electronics Engineering on 28.10.2022. Students have been expertise on simulation using UI Automation path during the workshop.

RESEARCH PROGRAM

PUBLICATIONS

1. **S. Senthil Kumar, "Design and development of novel security approach designed for cloud computing with load balancing", AIP Conf. Proc. 2581, 050003 (2023), Conference Proceedings on 3rd International Conference on Engineering Facilities Maintenance and Management Technologies (EFM2T'21)-Published by AIP Publishing. 978-0-7354-4455-3/$30.00.,2023/6/2.**
2. **S. Senthil Kumar, "Smart event management system using Pega", AIP Conf. Proc. 2581, 050003 (2023), Conference Proceedings on 3rd International Conference on Engineering Facilities Maintenance and Management Technologies (EFM2T'21)-Published by AIP Publishing. 978-0-7354-4455-3/$30.00.,2023/6/2.**
3. **S. Senthil Kumar, "Effects of long-term Exercise Training on Physiological Signals and Personality Traits in Women in Law Enforcement", Journal of Intelligent & Fuzzy Systems, Volume 44, Pages 1085–1097, Publisher IOS press,2023.**
4. **S. Senthil Kumar, "An Advanced Neural Network-Based Predictive Maintenance System for Autonomous Systems with Adaptive Learning and Real-Time Analytics, 202441004209, 2024/9/2, 2, Sensor based Smart Currency Counter Device,6342191,2024/2/6.**
5. **R. Padmavathy, "Comparison of Lidar and Ultrasonic Sensors for Obstacle Detection System in Automobiles", Crossroad'23 - National Conference on 06.10.24 by Dr.M.G.R Educational and Research Institute, Chennai.**
6. **R. Padmavathy, Design and Implementation of Automated Inspection System for Manufacturing Machinery based on Internet of Things, published in IEEE Explorer https://ieeexplore.ieee.org/xpl/conhome/10391093/proceeding**

RESEARCH PROGRAM

FDP ATTENDED BY FACULTY

- **S. Senthilkumar, “5 days FDP in "Research-The journey from inception to publishing" by DHANRAJ BAID JAIN COLLEGE on 5.2.24 to 9.2.24**
- **C. F. Theresa Cenate, “FDP on Electrical and Electronic Systems for Wind and Solar”, by NITTR, 8.1.24 to 12.1.24**
- **R. Revathi, “5 days FDP in "Research-The journey from inception to publishing" by Dhanraj Baid Jain College on 5.2.24 to 9.2.24**
- **R. Revathi, “FDP-Electrical and Electronic Systems for Wind and Solar”, by NITTR, 8.1.24 to 12.1.24**
- **R. Revathi, “PLC using SIMATICS” on 24.7.23 to 28.7.23 by TANSAM, Chennai**
- **B. Thamizhkani, “STTP- Emerging Technologies in Electrical and Electronics Engineering”, Dhanraj Baid Jain College**
- **B. Thamizhkani, “FDP-Electrical and Electronic Systems for Wind and Solar”, by NITTR, 8.1.24 to 12.1.24**
- **B. Thamizhkani, “FDP-The journey from inception to publishing”**
- **R. Padmavathy, “FDP on VLSI and Chip Design”, Mohammed Sathak AJ College of Engineering, Chennai, from 10.07.2023 to 14.07.2023**

STUDENT ACHIEVEMENTS

VISIT TO DELHI

I'm Priyanka V,my visit to the Startup Mahakumbh in Delhi on March 18th to 20th surpassed my expectations, offering an enriching experience. Presenting my idea at this esteemed event provided an excellent opportunity to showcase my entrepreneurial vision to a diverse audience amidst an electric atmosphere of creativity and innovation, fostering networking and learning. Participating in the poster competition added another layer, allowing visual representation and engaging with fellow entrepreneurs, fostering healthy competition and idea exchange.

The event provided a wealth of knowledge and insights from industry experts, seasoned entrepreneurs, and peers through interactive sessions, panel discussions, and keynote speeches, enhancing my understanding of entrepreneurship from ideation to execution. The contagious energy and enthusiasm fuelled collaboration and growth, offering not only a platform for idea presentation but also personal and professional development.

In summary, the Startup Mahakumbh was transformative, leaving a lasting impression and providing newfound knowledge, inspiration, and a network of potential collaborators. Grateful for this impactful experience, I eagerly anticipate applying these lessons to further advance my entrepreneurial journey.

-PRIYANKA V
III YEAR

PROJECT EXPO @ Crescent

During my third year at NBSBCET, I had the privilege of participating in a transformative IIC Regional Meet conducted by BS Abdur Rahman Crescent Institute of Science and Technology, on December 1st, 2023. I found myself immersed in an extraordinary experience as we presented our groundbreaking project, “Maximum PowerPoint Extraction from PV Panel using Pneumatic Controls" in Yukthi Innovation Challenge event, an opportunity to showcase our innovation before esteemed higher officials.

It allowed us to enhance our project’s devolping skill. It had a greater impact as we happened to present in front of diverse audience, garnering recognition and acclaim. Moreover, our project’s selection for advancement to the next level, increased the confidence and promising even greater rewards on the horizon.

This venture marked our inaugural foray into sharing our vision with other esteemed institutions. It had been a milestone in my Engineering student life. It had become successful through the extensive support and encouragement of our mentor Dr. R. Dhilip Kumar. It was truly a momentous experience that has left an indelible mark on my journey as a budding innovator.

-LAKSHMI NARAYAN M
III YEAR

SILAMBAM FOR GIRLS

Silambam, a traditional Indian martial art, offers girls a unique blend of physical fitness, mental discipline, and cultural enrichment. Learning Silambam empowers girls with self-defense skills while instilling confidence and resilience.

In Silambam classes, girls develop agility, strength, and coordination through various techniques involving the staff (silambam), sword, and other traditional weapons. This not only enhances their physical capabilities but also fosters a sense of discipline and focus as they master intricate movements and forms.

Moreover, Silambam provides a platform for girls to connect with their cultural heritage, as it is deeply rooted in Indian history and tradition. By immersing themselves in the practice of Silambam, girls gain a deeper appreciation for their roots and cultural identity.

Additionally, Silambam fosters a supportive community where girls can bond with peers, learn from experienced instructors, and challenge themselves in a safe and inclusive environment. This sense of camaraderie encourages girls to push their limits and strive for personal growth.The Silambam experience for girls offers a holistic

THANGALAKSHMI R
III YEAR

How can win a Technical Quiz

Winning a technical quiz often involves a combination of preparation, quick thinking, and teamwork. One might share experiences such as studying a wide range of topics, practicing with past quiz questions, developing strategies for answering quickly and accurately, and collaborating effectively with teammates to cover different areas of expertise. Above all instantaneous responses which are right on target surely helps one bag the prizes.

-SURESH D
III YEAR

ALUMNI CORNER

I'm Nithishwaran. I'm an one of the alumni of New Prince Shri Bhavani college of Engg & Tech. I completed my Bachelor degree in our college in 2022. My journey through college has been nothing short of remarkable. The blend of academics, extracurricular activities, and personal growth has shaped me into a more confident and capable individual.

And also we had very supportive faculties. The professors dedication to teaching and their willingness to guide students were invaluable. Also, we had lot of library resources for each subjects, which is very helpful for our study. Well-equipped laboratory facilities with lot of modern instruments relevant to our field of study really helped us to learn concepts practically.

After completing the course, I feel lot of personal growth on myself. Living away from family taught me independence and responsibility. Overcoming academic hurdles and personal challenges has forced to upskill myself. There is lot self discovery in myself. College life allowed me to explore my interests and passions. And, with the help of college campus placement, I got placed to an good software company.

End of my college journey, I'm filled with sense of gratitude for all that I have experienced and achieved. The memories I have made and the lessons I have learned will stay with me for a lifetime.

Nithishwaran C
System Engineer
Infosys Limited
Technopark Campus
Thiruvananthapuram

WWW.WEB-BACKGROUND

How I Reached to my BSF Posting.....

Joined in the rigorous training program for aspiring Central Armed Police Forces (CAPF) personnel. Our comprehensive program spanned for 44 weeks, ensuring thorough preparation for the challenges ahead.

Training Schedule:

Duration: 44 Weeks
Class Timings:
Morning: 6:00 am to 1:00 pm
Evening: 3:00 pm to 6:00 pm

Discipline:

Mobile usage is permitted only on Sundays.
Entertainment devices are strictly prohibited during the training period.

Adherence to a healthy diet chart is mandatory, with no allowance for junk food.
Upon successful completion of the training program, I could secure a position with the prestigious Central Armed Police Forces (CAPF), serving in the 112th Battalion stationed in Calcutta as a Border Security Force Constable.

Join our ranks and contribute to safeguarding our nation. Your dedication and commitment are vital in ensuring the safety and security of our fellow citizens.





SEETHA P
Constable
Central Armed Police Forces
Boarder Security Force

WWW.WEB-BACKGROUND

EVENTS ATTENDED

Students Participation

COLLEGE NAME	EVENTS	STUDENT NAME
VEL TECH	**Paper presentation** **Error Epic** **Enigma** **Mind Maze**	**M. Laksmi Narayanan,** III EEE
VEL TECH	**Paper presentation** **Error Epic** **Enigma** **Mind Maze**	**V. Priyanka,** III EEE
AVIT	**Project Expo**	**A. Akash Jeba Kumar,** II EEE **K. Mathan Kumar** II EEE
Arunai Engineering College	**Paper presentation**	**K. Mathan Kumar,** II EEE **D. Sai Balaji,** III EEE **D.Suresh,** III EEE **S. Tharun Kumar,** III EEE
Arunai Engineering College	**Technical Quiz**	**K. Mathan Kumar,** II EEE **D. Sai Balaji,** III EEE **D.Suresh,** III EEE **S. Tharun Kumar**, III EEE
Dr.MGR	**Channel Surfing**	**R.Thanghalakshmi,** III EEE

STUDENTS VISIT

Visiting a thermal power station was an eye-opening experience for students studying in EEE The industrial visit to a thermal power station offered students a holistic learning experience, bridging theoretical knowledge with practical application and fostering a deeper appreciation for the complexities of energy generation and its broader implications.

-SRINATH K
III YEAR


FAISCA 2K24
TECHNICAL SYMPOSIUM

ORGANIZING TEAM

Convener: **Dr. R. Venkatasubramanian,** Prof & Head/EEE
Co-ordinator: **Mrs. S. Ananthi,** Assoc Professor/EEE
Mrs. M. Devi, Assoc Professor/EEE

OFFICE BEARERS

PRESIDENT	**:R. GOKULAKRISHNAN,**IV EEE
VICE-PRESIDENT	**:M.LAKSHMI NARAYANAN,** III EEE
SECRETARY	**:R.ROBINSON,** IV EEE
JOINT SECRETARY	**:V.PRIYANKA,** III EEE
TREASURER	**:J ASHOK KUMAR,** IV EEE
JOINT TREASURER	**:D.SAI BALAJI,** III EEE

FINANCIAL COMMITTEE

Faculty Incharge

Dr.S.SenthilKumar, Dean Research/EEE

Student Incharges

R. Jayakumar, IV EEE
M.Lakshmi Narayanan, III EEE

PAPER PRESENTATION COMMITTEE

Faculty Incharge

Mrs.S.Ananthi, Assistant Professor/EEE

Student Incharges

V.Dinesh, IV EEE
M.Lakshmi Narayanan, III EEE
V.Priyanka, III EEE

PROJECT EXPO COMMITTEE

Faculty Incharge

Dr. R. Padmavathy, Prof./EEE

Student Incharges

Sahil Dhanaji Zimal, IV EEE
D. Sai Balaji, III EEE
K. Bharath, II EEE
K. MathanKumar, II EEE

TECHNICAL QUIZ COMMITTEE

Faculty Incharge

Mrs. R. Revathi, Asst Prof/EEE

Student Incharges

S. Sathish, IV EEE
R. Gokulakrishnan, IV EEE
D. Suresh, III EEE
V. Deepika, II EEE

REGISTRATION & CERTIFICATE COMMITTEE

Faculty Incharge

Dr. C.F. Theresa Cenate, Prof/EEE

Student Incharges

R. Gokulakrishnan, IV EEE
R. Thanga Lakshmi, III EEE
S. Tharun Kumar, III EEE
D. Sai Balaji, III EEE
S. Kathirasan, II EEE
V. Deepika, II EEE
V. Lavanya, II EEE

NON-TECHNICAL EVENTS

LOOP ACTION COMMITTEE

Student Incharges

A. Vijaya Kumar, IV EEE
E.Vikraman, IV EEE
S. Jaya Kumar, IV EEE

JAM COMMITTEE

Student Incharges

V. Dinesh, IV EEE
S. Tharun Kumar, III EEE

CANVA DESIGN COMMITTEE

Student Incharges

Sahil Dhanaji Zimal, IV EEE
M.Lakshmi Narayanan, III EEE

ABSTRACTS

DDoS ATTACK MITIGATION AND NOTIFICATION SYSTEM

N Sriram, T.Santhosh Kumar, V. Joshva
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NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING AND TECHNOLOGY

This project introduces a comprehensive DDoS Mitigation and Notification System designed to fortify digital infrastructure against the escalating threat of Distributed Denial of Service (DDoS) attacks. Leveraging advanced real-time traffic monitoring, anomaly detection algorithms, and responsive mechanisms, our system swiftly identifies and mitigates potential disruptions. Key advantages include real-time responsiveness, robust anomaly detection, and adaptability. With applications spanning e-commerce, critical infrastructure, and online services, our system serves as a proactive defence against evolving cyber threats. Future directions involve the integration of threat intelligence feeds, ensuring continuous refinement to address emerging attack vectors. In conclusion, the DDoS Mitigation and Notification System contributes to the resilience and security of online services, offering an innovative, effective defence against DDoS attacks.

EDULEARN

Priyavarshini M, Rahul R
sec20cs021@sairamtap.edu.in
SRI SAIRAM ENGINEERING COLLEGE

Our proposed system, titled "EduLearn," is designed to create an inclusive education ecosystem for differently-abled individuals. Leveraging the power of AI and Machine Learning, we aim to enhance the quality of learning for these students. EduLearn offers personalized learning paths and content tailored to the unique disabilities and learning preferences of each user. EduLearn also includes a Complaints and Feedback module, allowing users to report rights violations by automatically sending emails to relevant authorities. An Awareness Module highlights the rights, needs, and challenges of differently-abled individuals and educates users about the Disability Act of 2016. For the deaf and mute community, EduLearn offers a Live Practice Session, enabling real-time sign language learning and practice using an AI/ML model. Additionally, a Voice Redirection feature allows users to navigate the application using voice commands, ensuring accessibility for all. EduLearn aims to empower differently abled students, break down barriers to education, and create a more inclusive society.

PORTABLE MEDICARE MODULES FOR AUTOMOBILES

Kavina R Varsha J, Delhi Ganesh I, Karthick Kumar S
kavinanrd@gmail.com

This project proposes the development and implementation of a portable driver health monitoring module for integration into different vehicles. The module aims to continuously monitor vital signs, such as heart rate and blood pressure, and provide real-time notifications of any health abnormalities detected. Various attachment options will be evaluated to ensure optimal accessibility, visibility, and comfort for the driver. In the event of a health instability, automatic alerts will be triggered to notify the nearest hospital and the driver's family, thereby enhancing driver safety and overall driving experience. Future iterations of the module will focus on introducing additional features for safe automobile landings.

NEXT-GEN VEHICLE SECURITY: AN ARDUINO-POWERED ACCIDENT ALERT SYSTEM

ISHWARAYA
Ishwaryasenthilkumar2107@gmail.com

The main purpose of the project is that after the accident, the life of the passengers should be saved as soon as possible. This project detects sudden change in the axis of vehicle due to a crash or accident. Arduino based vehicle accident alert system using Arduino Uno, GPS Module, GSM and ADXL are the main components of the project. Accelerometer detects the sudden change in the axes of vehicle and GSM module sends the alert message to their close relative Mobile number and also to the ambulance with the location of the accident. Location of accident is sent in the form of Google Map link, derived from the latitude and longitude from GPS module. The Message also contains the speed of vehicle in knots. If the project detects false crash due to noise or some other reason. Then you don't want to receive that false accident alert on their relative's phone. So, I have added a push button. If you want to cancel the Alert SMS then you just press the push button within 30 seconds and it will cancel the SMS and Call Alert. The main advantage of this project is, it doesn't use any application. The whole project is based on GSM network. So, No internet connection is required for this project. You just need a 2G SIM card and GSM module for sending SMS alerts and making calls.

HYDROBOT

Srilekha P
sec21ee047@sairamtap.edu.in
Sri Sairam Engineering college

The most indispensable natural resource on earth is water. Water is the lifeblood of planet Earth and mankind. It is essential for social well-being, economic prosperity, and quality of life. The emerging technologies and population have degraded the water resources abundantly. This paper deliberates on the water assets administration and progress in the productivity of water. The sequence of this paper discusses detecting and continuously monitoring rain humidity, changing water levels, water current, water pollution, availability of power requirements at remote areas, activities of birds /animals/humans, wind speed, Dissolved Oxygen (D0), Total Dissolve Solids (TDS), pH level, etc. The technology we implemented here is a miniature floating bot integrated system with diverse sensors that keep a beady eye on the efficiency and nutrient content of the water body and transmit the real-time database. The statistics observed by the bot system will be transmitted to the cloud database through a Wi-Fi module. The data values were also inspected through a mobile application. Here cost-effective sensors and IoT devices are used to monitor long-term changes in the quality & quantity of surface water.

AUTOMATIC STREET LIGHT BASED ON LIC

Sathya Narayanan .V , Kiruthika .A, Grishma.R
grishma.ee2022@jerusalemengg.ac.in
JERUSALEM COLLEGE OF ENGINEERING AND TECHNOLOGY

This project is about designing and make a Linear integration of circuit that can solve the Mannual turn ON and OFF of street light. Automatic Street Light Project, this can turning ON light at night time and OFF during day time the street lights automatically without human interference. By using the LM358 IC which compare the voltage coming from 10 K Potentiometer (RV1) and LDR (R2). The potentiometer is used to set a reference voltage at the inverting terminal (IC Pin 2) of the comparator-1, it is used to adjust the LDR sensitivity . Therefore, it Automatically turns ON the street light when the surrounding is Dark (Night) and it automatically turns OFF the street light when it receives light from the surroundings (Daylight). Thus, It can save electricity consumption and decrease human effort.

DECENTRALIZED BATTERY ASSESSMENT AND SMART BATTERY MONITORING

MADHANKUMAR. K

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NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING AND TECHNOLOGY

The proposed Decentralized Battery Assessment Stations and smart battery monitoring system introduce an innovative paradigm in battery management. This framework strategically places assessment stations in diverse locations, employing cutting-edge monitoring technologies for real-time assessment of battery health and performance. Complementing this decentralized structure, smart battery monitoring systems offer remote tracking and analysis capabilities. This integrated approach aims to revolutionize battery management across various applications, ensuring efficient and timely evaluations, proactive issue identification, and ultimately optimizing battery lifespan and energy storage efficiency.The Decentralized Battery Assessment Stations and smart battery monitoring system revolutionize conventional battery management by leveraging advanced technologies and a strategically distributed infrastructure. Assessment stations, equipped with state-of-the-art sensors and diagnostic tools, are strategically positioned across different locations. These stations continuously collect real-time data, offering a comprehensive assessment of battery health and performance. The decentralized nature of the system ensures widespread coverage, addressing the limitations of centralized approaches. This strategic distribution allows for efficient and timely assessments in diverse applications,ranging from electric vehicles to renewable energy storage facilities. The stations continuously monitor various parameters, including voltage, temperature, and charging cycles, providing a holistic view of battery conditions. Simultaneously, smart battery monitoring systems introduce intelligence to the framework. These systems enable remote tracking and analysis of battery parameters, facilitating proactive management. Through continuous monitoring, deviations from optimal performance can be detected early, allowing for timely interventions and maintenance. This not only extends the lifespan of batteries but also contributes to overall energy storage efficiency. The integration of decentralized assessment stations and smart monitoring solutions addresses critical challenges in battery management. Issues such as uneven usage patterns, temperature variations, and unexpected failures can be promptly identified and mitigated. This comprehensive approach significantly enhances the reliability,sustainability, and performance of battery systems. In conclusion, the proposed framework offers a holistic solution to the evolving demands of batter management. By combining decentralized assessment stations and smart monitoring technologies, the system establishes a robust foundation for optimizing battery health and efficiency across diverse applications. This approach represents a significant step forward in advancing the capabilities of battery systems in the context of the ever-evolving landscape of energy storage technologies.

ANTI THEFT SECURITY SYSTEM FOR VEHICLES USING FACE DETECTION

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Sathyabama Institute of Science and Technology

This project is about designing and make a Linear integration of circuit that can solve the Mannual turn ON and OFF of street light. Automatic Street Light Project, this can turning ON light at night time and OFF during day time the street lights automatically without human interference. By using the LM358 IC which compare the voltage coming from 10 K Potentiometer (RV1) and LDR (R2). The potentiometer is used to set a reference voltage at the inverting terminal (IC Pin 2) of the comparator-1, it is used to adjust the LDR sensitivity . Therefore, it Automatically turns ON the street light when the surrounding is Dark (Night) and it automatically turns OFF the street light when it receives light from the surroundings (Daylight). Thus, It can save electricity consumption and decrease human effort.

TRASH TO TREASURE : BIN REWARDS TRANSFORMING WASTE DISPOSAL INTO A REWARDING EXPERIENCE

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PANIMALAR ENGINEERING COLLEGE

This research paper delves into the creation and deployment of an innovative waste management system designed to incentivize responsible waste disposal behaviors. Leveraging advancements in technology such as AI-driven algorithms, smart sensors, and user-friendly interfaces, the system aims to streamline waste collection processes while fostering environmental consciousness among users. Through the implementation of diverse reward options and community engagement strategies, individuals are encouraged to actively participate in waste reduction initiatives. By integrating user feedback and continuously refining system functionalities, this approach seeks to promote sustainable waste management practices and contribute to the creation of cleaner, greener communities.

RENEWA - A SMART STREET LIGHTING SYSTEM

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Led lights consumes Electricity to illuminate , where 60% of input Electricity results in heat signature and only 40% of input Electricity is used for Light illumination , that 60% of Electricity will results in high heat signature , where the waste heat signature damages the Led light material and Reduces the lifetime of the Led Light. To Solve this problem , we are converting the Waste signature produced in the Led lights into useful Electricity using Seeback Effect , by converting the waste heat into Electricity , we can reduce the Damage of the Led light and can increase the lifetime of the Led Lights. (if a 20 Watts Led light produces 12 Watts of waste heat Energy , we can produce 6 watts of electricity from that 12 watts of Waste Heat Energy). Our Led light is unique than other Lights , because our Led light gives Light Illumination, free Electricity generation from the same Light itself and more efficient than other Lights.. It is also Patented (Application No: 202241076693A) and we raised a seed fund of Rs.11 Lakhs from Tamil Nadu Government .

OVERLOAD PREVENTION BY AUTO LOCK IGNITION SYSTEM

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Many accidents occur due to overloaded vehicle, risking lives and damaging roads. Current enforcement methods are not real-time or seamless, leading to unsafe conditions and unfair competition We need a solution to detect and prevent overloading instantly, ensuring road safety, fair play, and efficient transport. Our project, the Auto Lock Ignition System, using LoadCell and Micro-controller technology, aims to cut off power/ Turn off fuel power when a vehicle is overloaded and also alert driver by display and using buzzer alert, providing a proactive and effective solution.

SOLAR TRACTING SYSTEM

sailesh kumar singh ,subham pati
subhadeep baul, conrad justin ,anant goyal
SRM Institute of Science and Technology

The concern over the environment with respect to power and electricity, solar energy is used to orient various payloads towards the sun in order to the sun energy. Payload can be reflectors, photovoltaic cells, lenses or other optical devices. As the world population is increasing gradually the need for energy is increasing equally. Every day we depend on energy for the purpose of electricity, hot water and fuel for automobiles. Majority of this energy come from fossil fuels, such as coal, oil and natural gas. These area non-renewable energy source, which means that if we use them all up, we can never get more during our life time, so it is important that we use other energy sources, like renewable energy sources. These are energies that can be used again and again such as sunlight, water and wind. This project is aimed to obtain the highest efficiency of solar panel by moving it using solar tracking system. It consists of a DC motor connected to underneath of a solar module. By rotating solar module on single axis at optimum angle, we will get the maximum output as the solar radiation would change its direction throughout the day. According to that radiation, we would have to set our angle of rotation. A solar tracker is a device that orients a payload toward the Sun. Payloads are usually solar panels, parabolic troughs, Fresnel reflectors, mirrors or lenses. Sunlight has two components, the “direct beam” that carries about 90% of the solar energy, and the “diffuse sunlight” that carries the remainder – the diffuse portion is the blue sky on a clear day and increases proportionately on cloudy days. As the majority of the energy is in the direct beam, maximizing collection requires the Sun to be visible to the panels as long as possible. The Sun travels through 360 degrees east to west per day, but from the perspective of any fixed location the visible portion is 180 degrees during an average 1/2 day period (more in spring and summer; less, in fall and winter). Local horizon effects reduce this somewhat, making the effective motion about 150 degrees. A solar panel in a fixed orientation between the dawn and sunset extremes will see a motion of 75 degrees to either side, and thus, according to the table above, will lose 75% of the energy in the morning and evening. Rotating the panels to the east and west can help recapture those losses. A tracker rotating in the east–west direction is known as a single-axis tracker. The solar tracking works on the principal of astronomical equations. With the help of the equation it calculates the coordinates of the sun by calculating the elevation and azimuth angle given the latitude, longitude and time zone of a given place. The use of a tracking system greatly improves the power gain from solar radiation. The amount of current a PV panel produces has a direct correlation with the intensity of light the panel is absorbing. Here, the prospect plan of this task work has been demonstrated. The project is divided into two stages, which are hardware and software development. In hardware development, solar module would be attached to the dc motor by means of some mechanism. The motor shaft will attach to the solar panel. On the software part, we will send data from one lab view to another computer. First of all, we shall study the essential documents in order to understand how we are going to complete our task on time. Then, we are about to construct arduino program in arduino software. After that, we will formulate P MOSFET circuit to give the input voltage to arduino. Next, we will join that structure with a solar panel. And last, we will connect and check the output in other labview service. This how, we are going to fulfil the project.

WIFI- CONTROLLED DATA LOGGER FOR FOOD SAFETY

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Adaptive Software System can reduce food waste and improve food safety. Approximately 40% of the food produced in India is wasted every year. Our project aims to avoid this massive wastage. The device is built on Arduino UNO which is apopular prototype board.The proposed project has five sensors to detect the food spoilage . The sensors used are MQ-3 sensor ,an alcohol monitoring sensor used to sense ethanol in the food product.MQ-135gas sensors used to detect harmful gases like Ammonia, sulphur , Benzene and CO_2 which are produced before food spoilage. In addition to this ph-sensor ,temperature sensor and humidity sensor are used to check the acidity, and moisture of the stored food. This is an IoT device and sends the measured sensor data to an IoT platform. The ESP8266 Wi-Fi Modem is interfaced with the Arduino to connect it to the internet via Wi-Fi router. The sensor data is also displayed on a character LCD interfaced with the Arduino UNO. The IoT platform used for logging and monitoring of sensor data is Freeboard.io. The sensed data are communicated over bluetooth to monitor the risk of the wastage .Data analysis are to be done using machine learning (ML) to predict the food quality.Wifi – controlled data logger device for food safety are intelligent devices that use sensors and data processing systems to detect and prevent the spoilage of food. By continuously monitoring the conditions of food item sand alerting users when spoilage is detected, they contribute to maintaining food quality, safety, and reducing waste.

AUTOMATED LIFESUITS USING NAVIGATORS

S Sowmya, T Reshmi
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In recent times, Coastal regions face a critical issue as they lack an effective evacuation system for natural disasters. When storms or tsunamis threaten, people in these areas are at risk due to the absence of a well-organized plan. To address this, state officials often must mandate evacuations when a significant danger is predicted, particularly if it arises from the oceans and seas, highlighting the urgent need for a reliable and proactive evacuation and recovery strategy. Our project is a smart life suit with BLDC motors that allows the survivor to swim with out human efforts. With the motor being activated, the person moves to the desired place. GPS obtains the location coordinates of the survivor and long range communication systems allow the navigators to path towards the survivor. Heart rate and Blood Oxygen measurements are periodically updated by the communication system. This smart life suit project integrates BLDC motors, GPS, LoRa communication, andhealth monitoring to revolutionize water rescue operations. Addressing limitations of existing solutions, it enhances safety and survival, marking a significant leap in smart wearable technology for aquatic environments,promising to save lives and improve rescue efficiency.

OPTIMIZING COAL LOADING FOR EFFICIENT RAIL TRANSPORT: ADDRESSING OVERLOADING AND UNDERLOADING CHALLENGES

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A System of IOT devices to prevent Underloading or Overloading ofrailway wagons. The goal is to transcend conventional transportation models and design innovative systems that enhance the livability of cities while efficiently moving goods, whereas CIL has experienced significant financial losses due to difficulties in wagon loading, including fines foroverloading and additional expenses from under loading, which exceed the actual contract value of Rs. 593 Crores in 2021-2022. Installing load cell, under the surface of the track to continuously measure the weight of the wagon. Equipping wagon with IoT communication modules to transmit weight data in real-time to a centralized control system, ensuring immediate monitoring and signal is passed to servo motor once the maximum weight is reached. Integrating an alerting mechanism within the central control system to detect under-loading or overloading. When such conditions are identified, immediate alerts are generated and transmitted to Coal India Limited. As cities grow, the demand for efficient and sustainable urban mobility solutions rises. The market for innovative transportation systems that enhance urban liveability is expected to expand significantly. IoT-based solutions for railway wagon load monitoring and urban mobility align with this trend, presenting substantial market potential.

ZENZONE - COLLABORATIVE MENTAL HEALTH PLATFORM

Aditya Gurjale S Keerthi U

The project aims to understand the feasibility and efficacy of using an AI-enabled chatbot in the detection of depression using LLM, NLP, and Deep learning models. With social attributes to help users with mental health concerns, this web application provides self-assistance by examining their mental health conditions. The strategy behind this product design is to extend OPTIMISTIC PRESENCE through constant virtual AI therapy. To examine user traits, the web application directs the participants to complete the survey to collect information. Depending on the user's performance, incentives or rewards are provided for positive reinforcement. In some cases, if a user is likely to have an open conversation within a community, they can have an OPEN DISCUSSION on this integrated platform. Dashboard monitoring and reporting is crucial in terms of mood, activity and sleep tracking which gives insights about the certain triggers of mental health symptoms.

ATTENDANCE ON THE BASIS OF FACIAL RECOGNITION USING SECURITY CAMERA

VISHNU KUMAR A S
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Where fortune favors with atmospheric hurry, traditional forms of attendance tracking become more and more obsolete as they are prone to errors. In response to this challenge, this project proposes a cutting-edge solution: a Facial Recognition Identification System for Attendance (FRISA) which depends on Artificial Intelligence. Taking advantage of progress made in the field of computer v\/ision and machine learning, our system featurees an improved form of monitoring attendance, both cost- and time-saving, applicable to a range of settings including educational institutions, offices, and events. There is the heart of our system which contains a complex algorithms of facial recognition, allowing to identify people with the certain level of accuracy. A database of facial IDs combined with technology based on deep learning methods will help our system to do matching of the faces captured real-time with the ones that are on record fast and reliably and, as result, attendance tracking can become immediate and accurate. To put it another way, it this removes the need for manual attendance recording hence, which is not only saves time but also resources for the administrators and attendees. Not only that, it facilitates security procedures through its ability to -restrict advancing to sections with limited access or participating in certain activities. Moreover, our project predominantly dynamics on scalability and adaptability, allowing you to deploy infrastructures of the required capacity and tailor functionalities to address unique requirements. Additionally, we give due consideration to privacy and data security providing encryption procedures and means to help protecting personal information within the system.

INSIGHTS

PLACEMENTS INSIGHTS

Hello, I'm Sahil Dhanaji Zimal, a final year student from the Department of Electrical and Electronics Engineering. I would like to share my experience of finding the perfect job for me. I'm a core degree pursuing student, but I want to be placed in IT. Now, why is a core student going for IT? It's not that I disrespect my department; I have full respect for it, and I chose EEE because it's my passion to work with electrical and electronics. However, I also have good programming skills and I enjoy working with software. So, I chose an IT company to join. Yes, until now I haven't been placed in an IT company. I got selected in two Business Processing Outsourcing companies and one core company, but what I desired, I haven't achieved yet.

My first IT company campus interview was on November 5th. It was challenging; the aptitude tests were intermediate, but I still didn't pass. However, they mentioned that if we had a valid programming project, we would proceed to the next round. I cleared the GD round, but in the HR round, they asked technical questions in which I failed. Yes, it was my first setback. Later, I had an interview with Hexaware. The aptitude test was intermediate too, and I didn't pass that either. So, I decided to focus on improving my discipline in aptitude and technical skills. Many IT companies came afterward, but they were specific to departments like IT and CSE, so I couldn't apply. However, I'm still not giving up. I'm continuously improving my skills, compared to first interview on Nov. 5th now i have developed skills alot and with this improvement you guys will see me achieve what I dream of.

.....we fall , lot of times but then only we learn how to rise up and I will rise up and so will you.

SAHIL DHANAJI ZIMAL
IV YEAR

INTERNET OF THINGS (IOT) INTERNSHIP

During my third year in the Electrical and Electronics Engineering (EEE) department, I had the enriching opportunity to participate in a winter internship at the Centre for Internet of Things. This experience was transformative, providing hands-on training that reinforced qualities like responsibility and ambition. Exploring IoT concepts with tools like Arduino UNO and Node MCU ignited my creativity and honed my problem-solving abilities.

CENTRE FOR INTERNET OF THINGS (CIOT)

MIT Campus : Anna University
Chennai - 44

CERTIFICATE

OF PARTICIPATION

This is to certify that SAI BALAJI D (AU2110K300) of III Year, Department of EEE, NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING & TECHNOLOGY completed his/her TWO weeks Winter Internship/Project Work-2024 on IoT domain conducted by the Centre for Internet of Things, MIT Campus, Anna University, Chennai - 44 from 12.02.2024 to 23.02.2024

Deputy Director, CIoT | Founder Director, CIoT | Dean, MIT Campus

Moreover, this internship deepened my understanding of IoT and boosted my confidence to partake in hackathons and project expos. I owe a debt of gratitude to Meyyapan sir and his supportive team for their invaluable guidance throughout the internship. Interacting with peers from other colleges further broadened my perspective and enriched my learning journey. Overall, this internship served as a crucial stepping stone, equipping me with practical skills alongside my academic curriculum, and setting a strong foundation for my future endeavours in the field of Electrical and Electronics Engineering.

SAI BALAJI D
III YEAR

NAVIGATING THE STARTUP WORLD: INSIGHTS FROM THE RUSA STARTUP CAFE WORKSHOP

I'm Tharun Kumar S, an engineering student at New Prince Shri Bhavani College of Engineering and Technology. I recently attended the RUSA Startup Cafe workshop on March 27th and 28th, 2024, at Anna University in Guindy. During the workshop, I learned the fundamentals of starting a startup, gained insights into the importance of design thinking, and delved into the intricacies of problem-solving. Crafting a journey map to anticipate potential challenges and opportunities in our startup journey demonstrates proactive planning. This workshop undoubtedly provided valuable guidance for my future endeavors in entrepreneurship, equipping me with the necessary skills and knowledge to navigate the startup world effectively.

THARUN KUMAR S
III YEAR

MY FIRST PAPER PRESENTATION

The experience of delivering my first paper presentation was an exhilarating blend of nerves and excitement, underscored by a profound sense of accomplishment. Stepping onto the stage, I felt a surge of adrenaline coursing through my veins, a tangible manifestation of the anticipation that had built up within me. As I began to speak, the supportive atmosphere and encouraging nods from the audience filled me with a newfound confidence, propelling me forward with an unwavering determination to convey my ideas passionately.

The experience of presenting my first paper was a transformative journey filled with positive emotions and motivational energy. As I stood before the audience, nerves tingling and palms slightly sweaty, I took a deep breath and dove into my presentation. With each slide, I felt a growing sense of confidence and passion for my research bubbling to the surface. The supportive nods and engaged expressions from the audience fuelled my enthusiasm, propelling me forward with an infectious energy.

By the time I concluded, I was beaming with pride and a renewed sense of purpose. Walking away from the podium, I carried with me not only the satisfaction of a job well done but also a newfound belief in my ability to make a meaningful impact in my field.

-MADHAN KUMAR K
II YEAR

TECHNICAL ARTICLE

Advancements in Electric Propulsion

"The Future of Aviation: Advancements in Electric Propulsion" explores the transformative potential of electric propulsion systems in the aviation industry. By replacing traditional combustion engines with electric motors powered by batteries or fuel cells, these systems offer numerous advantages, including lower emissions, reduced noise, and improved efficiency.

-INDIRA S
II Year

Gyrobus: A Revolution in Public Transportation

The gyrobus, a ground breaking mode of public transportation, combines the efficiency of buses with the eco-friendliness of electric vehicles. Unlike traditional buses that rely on fossil fuels, gyrobus technology harnesses the power of gyroscopes to generate electricity, making it a sustainable alternative for urban transit systems.

With its quiet operation and smooth ride, the gyrobus provides passengers with a comfortable traveling experience while reducing noise pollution in urban areas.

-KAYASRI P
II YEAR

Shining Light on the Future: Infrared Solar Cell Innovation

The latest advancements in infrared plastic solar cell technology, revolutionize renewable energy production. these solar cells can harness infrared light, which is abundant even in low-light conditions, to generate electricity efficiently. Recent innovations that have significantly improved the efficiency, durability, and cost-effectiveness of infrared plastic solar cells.

It explores advancements in materials, manufacturing processes, and design strategies that have made these solar cells more competitive and appealing for widespread adoption. novel approaches, such as enhanced light absorption techniques and improved energy conversion efficiencies, as well as the potential future prospects for integrating these solar cells into various energy system.

-ELAVARASAN B
M
II YEAR

BLENDER

Blender's role extends beyond mere visualization; its powerful rendering engine facilitates the creation of photorealistic representations of electronic components and systems. Through Blender's animation tools, students can simulate the operation of electrical devices, from simple circuits to complex integrated systems, fostering a deeper understanding of their behaviour.

Blender's compatibility with various file formats, allows seamless integration with other software tools and its open-source nature encourages experimentation and innovation, providing researchers with the freedom to explore unconventional approaches to problem-solving . Blender transcends its role as a mere design tool, emerging as a cornerstone of hands-on learning and exploration within the EEE department.

-SASINDHAR R
II Year

PAPER BATTERY

In addition to their eco-friendliness and cost-effectiveness, paper batteries offer enhanced safety compared to traditional lithium-ion batteries, reducing the risk of fire or explosion. In the quest for sustainable energy solutions, researchers are continually innovating to develop eco-friendly alternatives. One such ground breaking advancement is the paper battery, poised to revolutionize portable electronics and beyond.

-DEEPIKA V
II YEAR

TRANSFORMING POWER DELIVERY: INNOVATIVE WIRELESS ELECTRICITY

An exploration of the advancements in innovative wireless electricity, from its inception to its current state. Delve into the evolution of technology, examining how concepts like inductive charging have paved the way for resonant wireless charging. Discover the impact of resonant magnetic fields on power transfer capabilities and their role in shaping a more flexible and convenient charging landscape .As we assess the advancements, envision the transformative potential of innovative wireless electricity technologies.

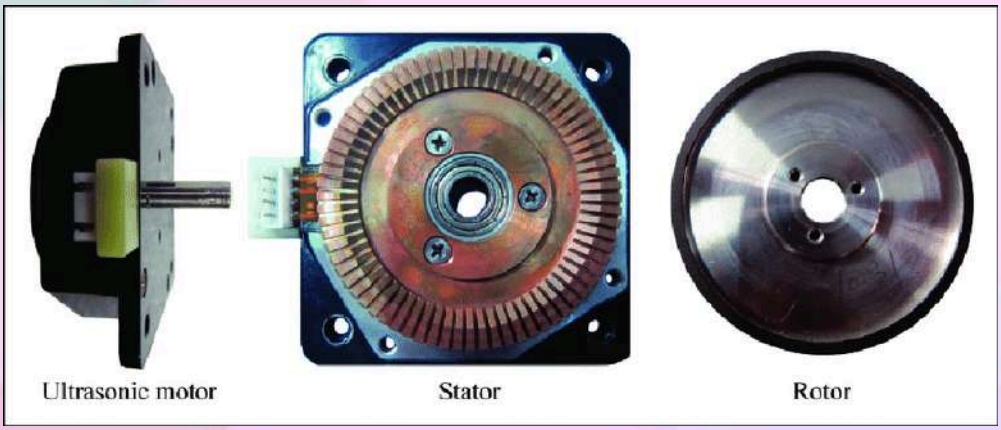
Imagine a future where electric vehicles seamlessly charge while parked, streetlights illuminate without traditional power cables, and electronic devices effortlessly draw power from their surroundings. Join us in evaluating the promise and possibilities of wireless electricity as we redefine the way we power our homes and cities.

"Unlock the Power of Tomorrow, Explore the Evolution of Wireless Electricity Today!"

-CHELLAKUTTY K
II YEAR

ULTRASONIC MOTOR

Engineers are working on making ultrasonic motors smaller and more compact, enabling their integration into a wider range of devices such as smartphones, cameras, and wearable devices. Efforts are being made to improve the efficiency of ultrasonic motors to reduce power consumption and heat generation, making them more suitable for battery-powered applications and increasing their overall reliability advanced control algorithms are being developed to optimize the performance of ultrasonic motors, including improved accuracy, faster response times, and smoother operation.



Researchers are exploring new applications for ultrasonic motors beyond traditional uses in robotics and consumer electronics, such as medical devices, automotive systems, and industrial automation. Advances in materials science are enabling the development of ultrasonic motors with improved durability, temperature resistance, and performance characteristics.

SANJAY B
II YEAR

RTV SILICONE COATING INSULATOR FOR THE CERAMIC INSULATOR IN LINE- LINE MAINTENANCE FOR UHV TRANSMISSION LINES

In the realm of high voltage transmission systems, ensuring the reliability and safety of infrastructure is paramount. One critical component of these systems is insulators, which play a crucial role in maintaining electrical insulation and structural integrity. Ceramic insulators have long been utilized for their excellent electrical properties and durability. However, to enhance their performance and longevity, insulators are often coated with Room Temperature Vulcanizing (RTV) silicone.

RTV silicone coatings offer numerous advantages, including improved resistance to pollution, enhanced electrical insulation properties, and increased resistance to tracking and surface degradation. These coatings are particularly vital in ultra-high voltage (UHV) transmission lines, where reliability and efficiency are of utmost importance. In this context, the investigation of RTV silicone coating on ceramic insulators for live line maintenance becomes essential. This investigation aims to assess the integrity, performance, and durability of the coating to ensure the continued safe and reliable operation of transmission lines.

By employing a comprehensive investigation procedure involving visual inspection, non-destructive testing, electrical testing, environmental exposure assessment, sample analysis, and follow-up actions, operators can identify any issues or deficiencies in the RTV silicone coating. Addressing these concerns promptly can help mitigate risks, prevent electrical failures, and prolong the service life of transmission line components.

Through diligent investigation and proactive maintenance, transmission line operators can uphold the integrity and reliability of their infrastructure, contributing to the uninterrupted supply of electricity and the safety of communities served by UHV transmission lines. Investigating the RTV silicone coating on ceramic insulators for ultra-high voltage (UHV) transmission lines involves thorough inspection, testing, and analysis to ensure the integrity and effectiveness of the coating.

-Dr. S. SENTHIL KUMAR, Ph.D,
Dean Research

SOME USEFUL WEBSITES

Website	Purpose
https://www.pdfdrive.com	To download any kind of Ebook (Approx. 7 crore books available) in different languages
https://www.edx.org/	video lectures and dynamic graphics to data visualizations
https://www.engineering.com	In-depth original content that excites and educates
https://interestingengineering.com	cover the mechanisms that make the developments possible, transforming how people see the world of today to ensure that today's engineers
https://www.engineergirl.org/	National attention to the exciting opportunities that engineering represents for girls and women.Service of the National Academy of Engineering (NAE)
https://www.indiabix.com/	For any kind of reasoning or aptitude questions
https://www.geeksforgeeks.org/	Courses at free of cost with practical example
https://gate.nptel.ac.in/	video lectures covering the entire GATE syllabus across Engineering and Science disciplines.
https://www.clearias.com/	For UPSC preparations
https://www.tnpscportal.in/	ForTNPSC Preparations
https://www.w3schools.com/	For learning any programming languages in detail from beginner to advance
https://formula.dog/	Generate excel formulae
https://sci-hub.se/	To download research article
https://playground.ai/	Create images with the help of prompt
https://app.yoodli.ai/	Helps to prepare for interview and presentations
ttps://gamma.app/	AI to generate cards, add images, refine content and more.
https://12ft.io/	to remove the popups, ads, and other visual distractions.

-MRS. B. THAMIZHKANI, M.E,
Asst Professor

NON TECHNICAL ARTICLE

ஆசிரியரின் பார்வையில் **NPSB** மாணவன்

கல்லூரி கால வாழ்க்கை என்பது ஒவ்வொரு மாணவ/மாணவியரின் இனிமையான மற்றும் இன்றியமையாத காலகட்டமாகும்

ஒரு மாணவனின் கல்வி என்பது பெற்றோருக்கு எவ்வளவு முக்கியமோ அதேபோல் எங்கள் கீழ் படிக்கும் மாணவர்களின் கல்வி ஆசிரியர்களான எங்களுக்கும் மிகவும் முக்கியமானதாக கருதப்படுகிறது மற்றும் அனைத்து மாணவர்களையும் ஒரே போல் நடத்துவதை வழக்கமாக வைத்துள்ளோம்

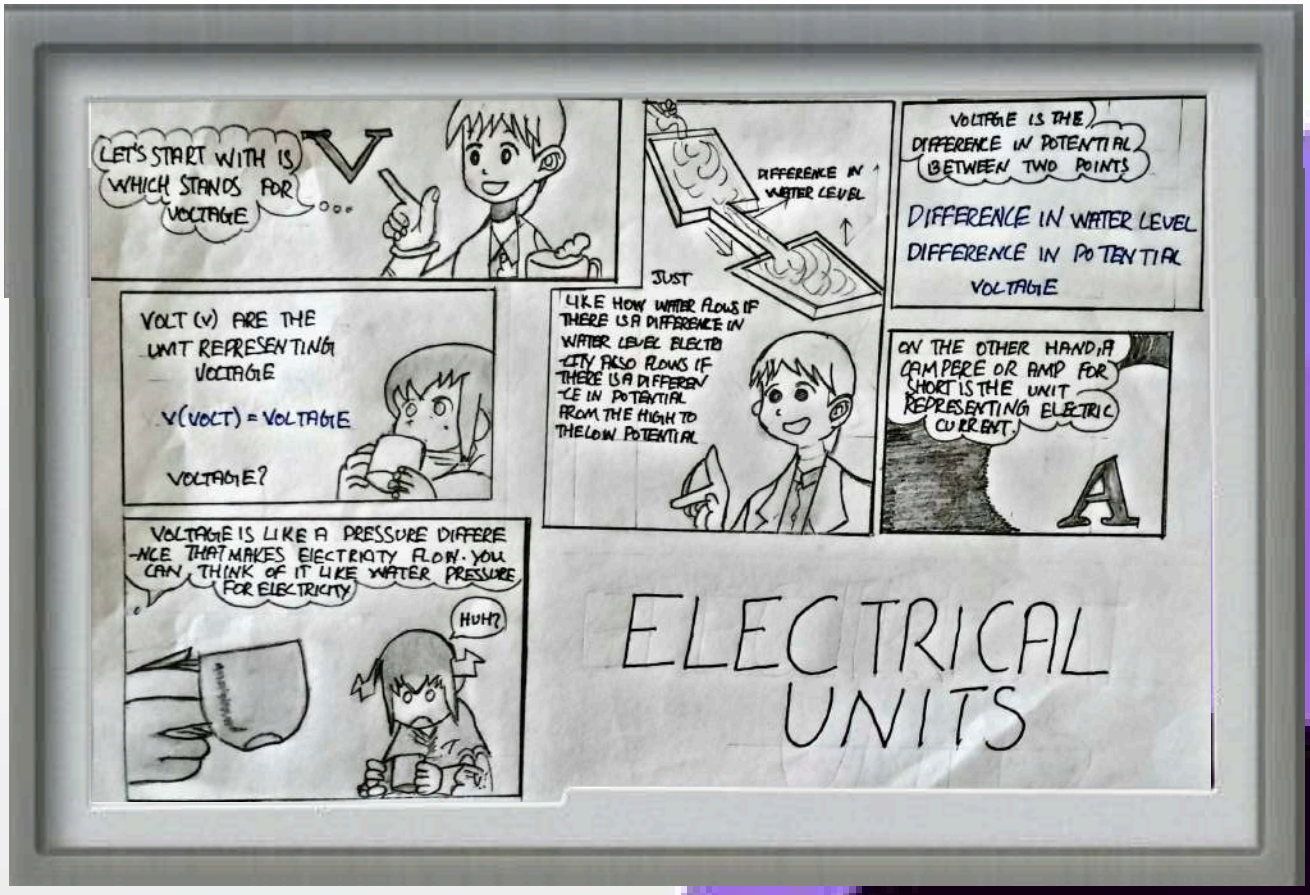
எங்கள் மாணவர்கள் சிலர் வறுமையான சூழ்நிலை, குடும்ப பொறுப்புகள் இவை அனைத்தையும் கடந்து கல்வி பயில வருகிறார்கள்.

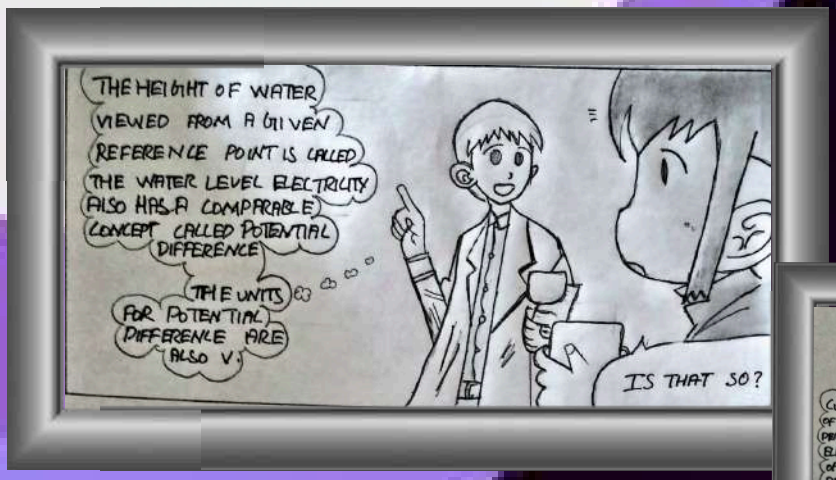
அதில் சிலர் படிப்பில் சுமாராக இருப்பார்கள் ஆனால் அவர்களுக்கென்று தனித்துவமான திறமை இருக்கும் அதனை அறிந்து அவர்களை அந்தத் துறையில் மிளிர செய்வதே எங்கள் கடமையாகும். இதை முடிந்தவரை செயல்படுத்துகிறோம் ஆகையால் எங்கள் மாணவர்கள் படிக்கும் இந்த நான்கு வருட படிப்பின் போது அவர்களது குறிக்கோளை அடைய இயன்ற அளவு ஆதரவளித்து வெற்றியடைய செய்கிறோம்

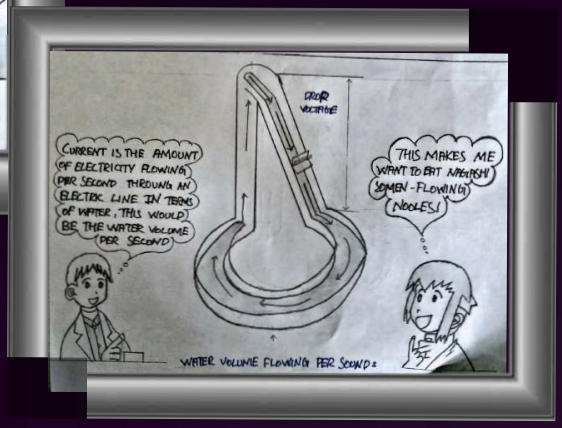
-Mrs. M. Devi, M.Tech,
Asst professor

ART GALLERY

-ARUN.S
III YEAR







-RAVICHANDRAN K
II YEAR

FINAL YEAR (2020-2024 BATCH)

2ndRow:Vignesh.S, Sathish.S, Vikraman.k, Vijaya Kumar A, Sivaramakrishnan K, Jayakumar S, Ambethkar P, Dinesh.v, Robinson R, Sahil Dhanaji Zimal, Gokulakrishnan R

1st Row:Miss.R.Revathi,Dr..R.Sasikala,Miss.M.Devi,Miss.S.Anandhi,Dr..R.Padmavathy,Dr..R.Venkatasubramanian(HOD),Dr..S.ParthasarathyMr.K.Sarathy,Dr..R.Dhilip kumar

THIRD YEAR (2021-2025 BATCH)

2ndRow:Suresh.D,Arun.S,Manish Kumar.R,Srinath.K,Gajalakshmi.S,Ramya.S,Priyanka.V,Thangalakshmi.R,Tharun kumar.S,Lakshmi Narayanan,Balagi.A,Sai balaji.D

1st Row:Miss.R.Revathi,Dr..R.Sasikala,Miss.M.Devi,Miss.S.Anandhi,Dr..R.Padmavathy,Dr..R.Venkatasubramanian(HOD),Dr..S.ParthasarathyMr.K.Sarathy,Dr..R.Dhilip kumar

SECOND YEAR (2022-2026 BATCH)

3Row; A.Arun, A.Akash jebakumar, MK.Sowndar, BM.Elavarasan, V.Deepak, S.Kathiresan, R.Sarveen, K.Chellakutty, A.Anto christofar, Bharath, R.Sasintharlakshmi.R,Tharun kumar.S,Lakshmi Narayanan,Balagi.A,Sai balaji.D

2nd Row; S.Gunamathi, V.Lavanya, V.Deepika, P.Kayasri, SA.Suhakauser, S.Indira
1st Row; Dr.R.Sasikala, Miss.R.Revathi, Dr.R.Padmavathy, Dr.R.Dhilipkumar, Dr.R.Venkat subramaniam(HOD), Mr.K.Sarathy,Dr..R.Padmavathy, MIss.M.Devi, Miss.S.Anathi, Mr.Prasadrao

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