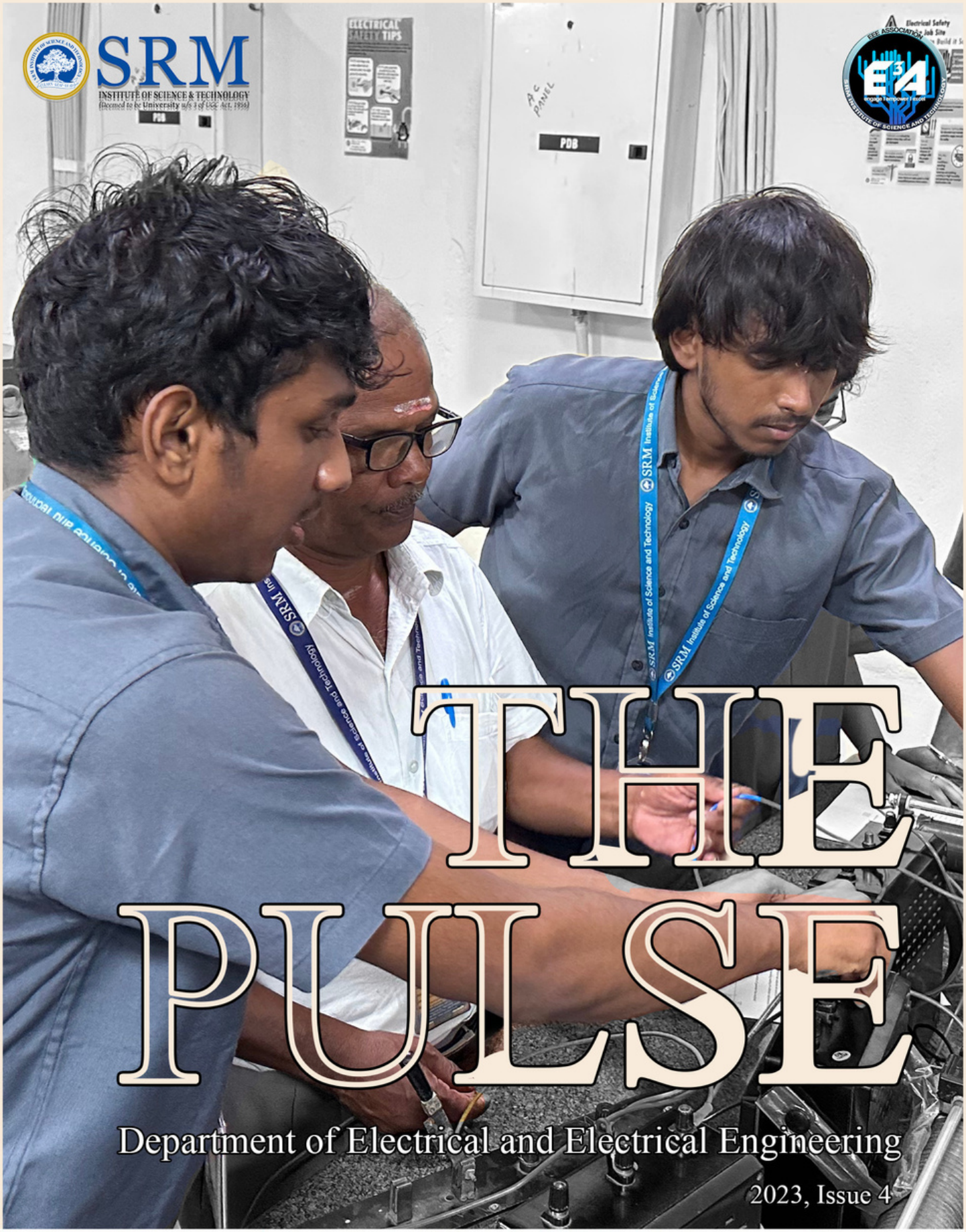
SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)



THE PULSE

Department of Electrical and Electrical Engineering

2023, Issue 4

NAAC A++ | Category 1 with 12B Status | nirf (2022) Ranked 19th University | QS (2023) World Ranking one among 41 Indian Universities | THE World University Rankings (2023) World Ranking one among 75 Indian Universities | ARIIA (2021) Ranked 4th | 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 Readers,

I feel excited to place my hearty New Year Wishes and Greetings to you all in this Oct 2023 to Dec 2023 issue of department newsletter. At the outset, I congratulate the editorial team of the News letter for sharing the electrifying updates and achievements of EEE department in every quarterly edition. I feel extremely happy to state the EEE department students' commitment and enthusiasm have not only earned them accolades but also secured them internships and placements. The EEE faculty members never fail to integrate their research findings into their class room teaching to amplify the learning experience of the students. My special message to the final year students who are currently doing their major project works/internships is that each one of you need to put sincere efforts and dedication in your work and am looking forward to witness your success and end your under graduate academic journey on a high note. I extend my heartfelt congratulations to faculties who have put outstanding efforts in securing research funding. My special congratulations to two of our proud alumni Mr. Saravana Manikandan and Rishabh Singh who have received Eminent Alumni awards in the recently concluded Alumni day of the university. My special mention to faculties and students who have involved themselves in conducting various department programmes and outreach activities. As we move forward, let us continue to boost the success of EEE department in various avenues.

Editorial Desk

Dr. PRADEEP V
Faculty Mentor

Dr. SURESH P
Faculty Mentor

DINESH KUMAR S
III Year, EEE

GIDEON STEVE B
II Year, EEE

AJAY AKSANTH J
III Year, EEE

NITHISH J
II Year, EEE

Dear Readers,

We are delighted to present the fourth issue of the first volume of THE PULSE, encapsulating the dynamic activities and noteworthy achievements of the students and faculty over the past three months (October 2023 - December 2023).

This magazine serves as a testament to the relentless dedication and excellence displayed by the students and faculty in various domains, including teaching, research, and other pivotal activities. Within these pages, a comprehensive overview of the contributions made by the members of the academic community is portrayed.

THE PULSE spotlights the myriad accomplishments of our department, showcasing achievements such as research article publications, successful grant acquisitions, fellowships, and advancements in patenting and intellectual property rights.

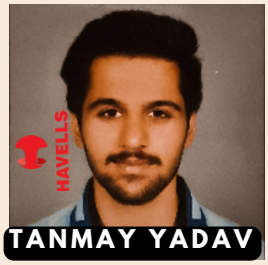
The team extend heartfelt gratitude to the Dean of the School of Electrical Engineering and the Head of the Department, along with the entire staff and student body of Electrical and Electronic Engineering department. The unwavering contributions and support have played a pivotal role in shaping the content and success of the magazine.

Thank you for your continued support, and we hope you enjoy this insightful journey through the vibrant tapestry of achievements within our academic community.

Sincerely,
Team Newsletter.

Students' Corner

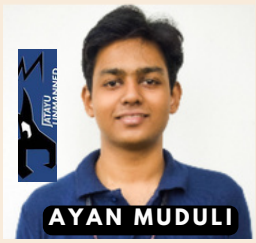
PLACEMENT RECORDS



CONGRATULATIONS

PLACEMENT RECORDS

CONGRATULATIONS



TOP RECRUITERS

AWARDS AND ACHIEVEMENTS

Sabrish and Swastik Panda, third year students have got first prize in the "DEI Bootcamp" organised by SIIC, SRM Institute of Science and Technology from 03-10-2023 to 07-10-2023.

Hethu, Selvashree, Ishangau, Subhadeeshvaran and Aditya, first year students have got first prize in the " Project Expo 2023" organised by EEE department, SRM Institute of Science and Technology held on 13-11-2023.

Harshil Gupta, first year student has received second prize in "Creative Ingenuity'23" organised by Mechanical department, SRM Institute of Science and Technology on 23-11-2023.

Project Title: Autonomous vehicle for smart society
Mentor: **Dr.J.Preetha Roselyn**
Students Team: **M.Sabarish & Swastik**
Funding agency: NEWGEN IEDC, SRMIST
Sanctioned Amount: 2 Lakhs

STUDENT PARTICIPATION

Swastik Panda, third year student has participated in the "Berkeley Method of Entrepreneurship Bootcamp" organised by SRMIST from 03-10-2023 to 07-10-2023.

Sabarish M, third year student has participated in the "Berkeley Method of Entrepreneurship Bootcamp" organised by SRMIST from 03-10-2023 to 07-10-2023.

Varshini V S, First year student participated in the Riddle Arcade at the National Level Technical Symposium ALTRUIX'23 at SRM Valliammai Engineering College on 7-10-2023.

Varshini V S, First year student participated in the Film Fiesta at National Level Technical Symposium ALTRUIX'23 at SRM Valliammai Engineering College on 7-10-2023

Padmapriya , First year student participated in the Project Exhibition & Competition -2023 conducted for 1st year students of EEE department held on November18, 2023 at SRM Institute of Science and Technology, Kattankulathur.

ONLINE COURSES

Sangeetha E, third year completed an online course "Cyber Security and Privacy" in NPTEL.

Abishek Gawali, third year completed an online course "Solar Energy Engineering and Technology" in NPTEL.

Syed Firoz Ahmed, third year completed an online course "Entrepreneurship" in NPTEL.

Polaki Kodanda Rama Sai, third year completed an online course "Design of Electric Motors" in NPTEL.

Rajeshwari P, third year completed an online course "Solar Energy Engineering and Technology" in NPTEL.

Vishwas Nigam, third year completed an online course "Data Analysis with Python" in freeCodeCamp on 01-10-2023.

Indraneela Das, third year completed an online course "The Complete Python Bootcamp From Zero to Hero in Python" in Udemy on 05-11-2023.

Vinotha Varsha Gajendran, third year completed an online course "What is Data Science?" in Coursera on 12-11-2023.

Faculty's Corner

Number of paper published in 2023 : **193**
Number of paper published from Oct to Dec 2023 : **32**
Total citations of the department : **20076**
H-Index of the department : **58**
i10-Index of the department: **520**
Number of patent published in 2023 : **13**
Number of patent granted in 2023 : **6**
Total project received in 2023 : **2.282 Crores**

FUNDED PROJECTS

Project Title: Digital Twin assisted operational decision support system for deep-ocean manned scientific submersible
PI: Dr.J.Preetha Roselyn
Co PI: Dr.U.Sowmmiya
Funding Agency: Ministry of Earth Sciences
Sanctioned Amount: 49.08 Lakhs

Project Title: Development of Indigenous High Performance Coupling- Resilient Wireless Power Charging Modules for Autonomous Underwater Vehicles
PI: Dr.R.Narayanamoorthi
Co PI : Dr.K.Vijayakumar
Funding Agency: Naval Research Board
Sanctioned Amount: 31.25 Lakhs

Project Title: Pilot Study on Demonstrating Deep Learning based Non-invasive Ultrasound Tool for Assessing Sexual Maturation of Asian Sea Bass Lates Calcarifer
PI: Dr.J.Preetha Roselyn
Funding Agency: Ministry of Earth Sciences
Sanctioned Amount: 30 Lakhs

Project Title: Development of Indigenous Retrofitted Smart Wireless Power Sharing Modules for Fast Recharging of Electric Vehicle/Taxi
PI: Dr.R.Narayanamoorthi
Co PI : Dr.K.Vijayakumar
Dr.A.Dominic Savio
Funding Agency: CSIR
Sanctioned Amount: 27.5 Lakhs

Project Title: Power resilient capability and intelligent finger print model for fault diagnosis and control of wind energy conversion system in a hybrid AC/DC microgrid
PI: Dr.U.Sowmmiya
Funding Agency: ASEAN-India S&T Development Fund
Sanctioned Amount: 24.7 Lakhs

Project Title: Energy Storage Integrated hybrid Brushless DC Fans and LED lighting systems with Efficient Non-isolated Synchronous Buck Converter aided Power Factor Unit
PI: Dr.R.C.Ilambirai
Co PI : Dr.R.Sridhar
Funding agency: SERI, SRMIST
Sanctioned Amount: 1.48 Lakhs


Dr.K.Vijayakumar


Dr.R.Sridhar


Dr.J.Preetha Roselyn


Dr.R.Narayanamoorthi


Dr.U.Sowmmiya


Dr.R.C.Ilambirai


Dr.A.Dominic Savio

PUBLICATIONS

- **Parimalasundar E, Senthilkumar R, Kumar BH, et al. Artificial Neural Network-Based Experimental Investigations for Sliding Mode Control of an Induction Motor in Power Steering Applications. Int J Intell Syst. 2023;2023. doi:10.1155/2023/9381915**

- Ravindran MA, Nallathambi K, Vishnuram P, et al. A Novel Technological Review on Fast Charging Infrastructure for Electrical Vehicles: Challenges, Solutions, and Future Research Directions. Alexandria Eng J. 2023;82:1110-0168. doi:10.1016/j.aej.2023.10.009

Alexandria Engineering Journal IF: 6.8

- **Anusuya K, Vijayakumar K, Manikandan S. From efficiency to eternity: A holistic review of photovoltaic panel degradation and End-of-Life management. Sol Energy. 2023;265:112135. doi:10.1016/J.SOLENER.2023.112135**

IEEE Journal of Emerging and Selected Topics in Power Electronics IF:6.5

- Deepak M, Janaki G, Bharatiraja C, Ojo JO. An Enhanced Model Predictive Direct Torque Control of SRM Drive Based on a Novel Modified Switching Strategy for Low Torque Ripple. IEEE J Emerg Sel Top Power Electron. Published online December 18, 2023:1-1. doi:10.1109/JESTPE.2023.3343732

IF:7 International Journal of Intelligent Systems

- Sathik MJ, Elmorshedy MF, Almakhles DJ. A New Boost Topology Seven-Level Inverter of High Voltage Gain Ability and Continuous Input Current With MPPT for PV Grid Integration. IEEE Access. 2023;11:139236-139248. doi:10.1109/ACCESS.2023.3339792

- **Ezhilarasan G, Mohanraj K, Vishnuram P, et al. An empirical survey of topologies, evolution, and current developments in multilevel inverters. Alexandria Eng J. 2023;83:148-194. doi:10.1016/J.AEJ.2023.10.049**

IF:6.7 Solar Energy

- **Purushothaman D, Narayanamoorthi R, Elrashidi A, Kotb H. A Comprehensive Review on Single-Stage WPT Converter Topologies and Power Factor Correction Methodologies in EV Charging. IEEE Access. 2023;11:135529-135555. doi:10.1109/ACCESS.2023.3338164**

- Chittoor PK, Chokkalingam B, Verma R, Mihet-Popa L. An Assessment of Shortest Prioritized Path-Based Bidirectional Wireless Charging Approach Toward Smart Agriculture. IEEE Access. 2023;11:123742-123755. doi:10.1109/ACCESS.2023.3329976

PUBLICATIONS

- Arun Noyal Doss M, Anuja TA, Eswar KNDVS, et al. Regenerative Braking of BLDC Motor applied to Electric Vehicles. Int J Veh Struct Syst. 2023;15(3):424-427. doi:10.4273/IJVSS.15.3.23
- Jagabar Sathik M, Khan AR, Gopinath NP, Prem P, Alamri FS, Bahaj SA. A 7L and 11L High Step-Up SCMLI Topology with Reduced Component Voltage Stress. IEEE Access. Published online 2023. doi:10.1109/ACCESS.2023.3333363
- Mahaadevan VC, Narayanamoorthi R, Gono R, Moldrik P. Automatic Identifier of Socket for Electrical Vehicles Using SWIN-Transformer and SimAM Attention Mechanism-Based EVS YOLO. IEEE Access. 2023;11:111238-111254. doi:10.1109/ACCESS.2023.3321290
- Kumar VM, Chokkalingam B, Mihet-Popa L. Mitigation of Complexity in Charging Station Allocation for EVs Using Chaotic Harris Hawks Optimization Charge Scheduling Algorithm. IEEE Access. 2023;11:130466-130482. doi:10.1109/ACCESS.2023.3334672
- Usha S, Geetha P, Palanisamy R, Kitmo, Jember YB. Analysis of torque controlling strategies of interior permanent magnet synchronous machine in hybrid electric vehicle. SN Appl Sci. 2023;5(12):1-11. doi:10.1007/S42452-023-05563-W/TABLES/4
- Sathyapriya G, Natarajan U, Sureshkumar B, Navaneethakrishnan G, Palanisamy R, Kitmo. Compliant damper development for vibration reduction in turning of aluminium. Multiscale Multidiscip Model Exp Des. Published online October 11, 2023:1-10. doi:10.1007/S41939-023-00253-X/METRICS
- Selvakumar K, Selvabharathi D, Palanisamy R, Thamizh Thentral TM. CO2 Emission-Constrained Short-Term Unit Commitment Problem Using Shuffled Frog Leaping Algorithm. J Electr Comput Eng. 2023;2023. doi:10.1155/2023/2336689
- Raqeeb A, Shah F, Alam Z, Choudhury S, Khan B, Palanisamy R. Data-Driven Bearing Fault Diagnosis for Induction Motor. J Electr Comput Eng. 2023;2023. doi:10.1155/2023/7173989
- Belkhier Y, Abdelyazid A, Oubelaid A, et al. Experimental analysis of passivity-based control theory for permanent magnet synchronous motor drive fed by grid power. IET Control Theory Appl. Published online 2023. doi:10.1049/CTH2.12574
- Balamurugan S, Palanisamy R, Karthikeyan B. Experimental Investigation of Modular Multilevel Converter Using Space Vector Pulse Width Modulation. J Electr Eng Technol. Published online December 23, 2023:1-20. doi:10.1007/S42835-023-01764-W/METRICS
- Kasim RK, Robert F. Performance analysis and losses comparison of 10 kW GaN HEMT-based T-type inverter for electric vehicle application. Sadhana - Acad Proc Eng Sci. 2024;49(1):1-11. doi:10.1007/S12046-023-02368-W/METRICS
- Rajarajeswari R, Praveena V, Suchitra D. Static Inductive Wireless Charging Station for Electric Vehicle. SAE Tech Pap. Published online 2023. doi:10.4271/2023-28-0102

PUBLICATIONS

- Gul SS, Suchitra D. A Multilevel Model of Energy Market Considering Coupon Incentive Based Demand Response with Wind Power Uncertainty. Electr Power Components Syst. Published online 2023. doi:10.1080/15325008.2023.2263920
- Venugopal A, Robert F. Electrical, thermal and electro-magnetic analyses of a 100 kHz interleaved power electronic transformer. Eng Rev Međunarodni časopis namijenjen Publ Orig istraživanja s aspekta Anal Konstr Mater i novih Tehnol u Pod Stroj Brodogr Temelj Teh Znan Elektroteh računarstva i građ. 2023;43(3):12-23. https://doi.org/10.30765/er.2121
- Praveena V, Stephen D, Rajarajeswari R, Phavan Kumaar JS. A Comprehensive Exergy Analysis of CI Engines with Hydrogen Injection for Enhanced Performance. SAE Tech Pap. Published online 2023. doi:10.4271/2023-28-0129
- Bharatiraja C, Kodandaramasai P, Deepak M. A Design on Rotor Flux Barrier for Line Start Synchronous Reluctance Motor for Enhancing Efficiency. Published online December 11, 2023:241-246. doi:10.1109/TEECCON59234.2023.10335769
- Nisha Rexline R, Rajarajeswari R. Comparative Analysis of Control Techniques for Electric Vehicle with PMSM Motor Drives for Voltage Selection Techniques and Torque-Flux Mitigation. SAE Tech Pap. Published online 2023. doi:10.4271/2023-28-0105
- Geetha A, Jeryal P, Trivedi S, Das SS. Configurations of enhanced DC-DC converters for efficient photovoltaic systems. In: AIP Conference Proceedings. Vol 2822. ; 2023. doi:10.1063/5.0173026
- Uthra R, Jena S, Majeed S, Agarwal J. Design of an Efficient Bidirectional Buck Boost Converter for V2G and G2V Operation in Electric Vehicles. SAE Tech Pap. Published online 2023. doi:10.4271/2023-28-0176
- Praveena V, Rajarajeswari R, Stephen D. Enhancing the Performance of DOC and SCR After-Treatment Devices Using Statistical Techniques and Heating Strategies. SAE Tech Pap. Published online 2023. doi:10.4271/2023-28-0128
- Junaid KAM, Sukhi Y, Jeyashree Y, Sivakumar S. IoT based life saving helmet for two-wheeler. AIP Conf Proc. 2023;2878(1). doi:10.1063/5.0170977/2924805
- Evangelin JJ, Suchitra D. Integration of Bi-Level Model and Mixed Integer Linear Programming for Optimization of Electric Vehicle Charging Stations with Distributed Energy Sources. SAE Tech Pap. Published online 2023. doi:10.4271/2023-28-0100
- Rajarajeswari R, Suchitra D, Praveena V, Karthik S. IoT Integrated Advanced Mor-Sockets for Smart Devices. SAE Tech Pap. Published online 2023. doi:10.4271/2023-28-0150
- Kalaiarasi N, Mohammed Abdullah R. Power Factor Enhancement Using a Modified Bridgeless Landsman Converter Driven EV Battery Charger. SAE Tech Pap. Published online 2023. doi:10.4271/2023-28-0098

PATENTS

GRANTED

- **Dr.C.Bharatiraja** received patent grant for the title, " A Solar Powered Smart Garbage Segregation Bin System and A Method Thereof ", Government of India, Grant number: 202241064275
- **Dr.C.Bharatiraja** received patent grant for the title, " System and Circuits for Eliminating Bearing Currents in Induction Motor Fed Inverters", Government of India, Grant number: 201841022521
- **Dr.M.Arun Noyal Doss** received patent grant for the title, "A Control System For A Propeller ", Government of India, Grant number: 458065

PUBLISHED

- **Dr.C.Bharatiraja** published patent title, "A system and A method for detecting faculty panels by logging and plotting photovoltaic data", Indian patent, Application Number: 202341066546A
- **Dr.C.Bharatiraja** published patent title, "System And Method For Static Wireless Charging Of Electrical Vehicles", Indian patent, Application Number: 202341029862A
- **Dr.P.Suresh**, **Dr.V.Pradeep**, **Dr.A.Sureshkumar** published patent title, "Advanced Diagnostic Algorithm For Battery And Motor Anomalies In Electric And Hybrid Vehicles" Indian patent, Application Number: 202341064056
- **Dr.S.Usha**, **Dr.A.Geetha**, **Dr.T.M.Thamizh Thentral** published patent title, "Advanced Inductive Charging System For Electric Vehicles With Adaptive Power Regulation" Indian patent, Application Number: 202341060074
- **Dr.R.Palanisamy**, **Dr.K.Selvakumar**, **Dr.D.Selvabharathi**, **Dr.D.Karthikeyan** published patent title, "Modular Battery Swapping Station with Intelligent Forecasting For Electric Vehicle Fleets" Indian patent, Application Number: 202341060075
- **Dr.C.S.Boopathi** published patent title, "A Novel System for Home Energy Monitoring and Theft Prevention Using Internet of Things (IOT)" Indian patent, Application Number: 202341068922A

ACHIEVEMENTS

Dr.A.Geetha

Received the best paper award in the International Conference on Intelligent Computing and Next Generation Wireless Networks organised by EAI on October 19-20, 2023

Dr.B.Vinothkumar

Title: Development of a Power Management System for Electric Vehicles by Implementing Power Conversion Systems
Date of viva : 19-10-2023
Insitutue: Periyar Ponnaiyah Ramajayam Institute of Science & Technology

Dr.S.Geethanjali

Title: Modelling, Analysis and Implementation of Bidirectional Converter For Electric Vehicle Application
Date of viva : 31-10-2023
Institute: SRM Institute of Science and Technology

Dr.D.Selvabharthi

Title: Battery Health and Performance Monitoring System
Date of viva : 15-11-2023
Institute: Periyar Maniammai Institute of Science and Technology (Deemed to be University), Vallam, Thanjavur

FACULTY FACILITATIONS

Dr.C.Bharatiraja delivered Guest of honour speech and presentation in Passenger Vehicle Expo 2023, at Chennai Trade Center on 16-12-2023.

Dr.Ravi Eswar K M delivered a lecture on the topic "Basics of Power Electronics: Design concepts of Power Electronic Converter with PSIM Simulation Study" at Rajeev Gandhi Memorial College of Engineering and Technology on 12-12-2023.

Dr.Phani Teja Bankupalli delivered a lecture on the workshop "Recent Trends on Power Electronics in Renewable Energy Applications" at Rajeev Gandhi Memorial College of Engineering on 14-12-2023.

Dr.U. Sowmmiya delivered a lecture on the topic "Various drivers for BLDC based Propellors" at Vellammal Engineering College, Chennai on 13-10-2023.

Dr.C.Balaji and Dr.A. Dominic Savio was invited as the Session Chair for the international conference by SAEIndia on 14-12-2023.

Dr.C.Bharatiraja was invited as the Session Chair for the international conference by SAEIndia on 15-12-2023.

Dr.A.Dominic Savio was invited as the Session Chair for the conference in SAIRAM Engineering College on 14-12-2023.

Dr.C.Bharatiraja was invited as the Jury member at the Grand Finale of the CII Puducherry Innovation Contest 2023 on 22-11-2023.

Dr.J.Preetha Roselyn delivered a special address at the International Workshop on Ocean Energy-Recent Trends at IIT Madras on 30-10-2023.

FACULTY PARTICIPATION

Dr.A.Geetha attended a faculty development program titled "Virtual Labs," from 16-10-2023 to 18-10-2023 organised by PALS VLAB.


CERTIFICATE OF PARTICIPATION

Dr. A. GEETHA

Assistant Professor of ELECTRICAL AND ELECTRONICS ENGINEERING Department from SRM INSTITUTE OF SCIENCE AND TECHNOLOGY-KATTANKULATHUR has attended the FACULTY DEVELOPMENT PROGRAM on VIRTUAL LABS, held virtually between 16th – 18th October 2023 as part of the PALS VLAB 2023 – 24 Initiative with NITK Surathkal.

Dr. K. V. Gangadharan
Participating Institute Coordinator
Virtual Lab, NITK Surathkal

P V Mohan
Chairman, PALS

8th NOV-PALSVLAB23-24_B2_062

Dr.V.Kubendran attended a faculty development program titled "Recent Advancements in Electric Vehicle Technologies" from 15-12-2023 to 29-12-2023 organised by SRM Institute of Science and Technology.

Dr.R.Femi attended a faculty development program titled "Remote sensing based data analytics in Agriculture," on 26-10-2023 organised by IIRS India.


INDIAN INSTITUTE OF REMOTE SENSING
INDIAN SPACE RESEARCH ORGANISATION
DEPARTMENT OF SPACE, GOVERNMENT OF INDIA

IIRS Outreach Programme

कार्यशाला में सहभागिता का प्रमाणपत्र/CERTIFICATE OF PARTICIPATION IN WORKSHOP

This is to certify that DR. FEMI R has participated in one day online workshop titled Remote sensing based data analytics in Agriculture , conducted by this institute on 26-10-2023.

(Concerned IIRS Nodal Centre- SRM Institute of Science and Technology) .

Dr.S.Shanmugapriya attended a workshop titled "Mentoring and Transformation Leadership," from 16-10-2023 to 18-10-2023 organised by SRM Institute of Science and Technology.

Dr.C.Anuradha attended a faculty development program titled "Futuristic cloud technologies & security tools" from 6-11-2023 to 10-11-2023 organised by Panimalar Engineering College.

Dr.R.Femi attended a faculty development program titled "Recent Advancement in Smart Materials for Sustainable Energy Applications," from 20-11-2023 to 25-11-2023 organised by Sathyabama Institute of Science and Technology.

Dr.Y.Jeyashree attended a workshop titled "Research Challenges and Opportunities in Sustainable Clean Energy Transition," from 11-12-2023 to 16-12-2023 organised by SRM Institute of Science and Technology.


SRM INSTITUTE OF SCIENCE & TECHNOLOGY

AACSB Education Alliance Member
FACULTY OF MANAGEMENT

CERTIFICATE OF PARTICIPATION

This certificate is proudly presented to

Dr.S.Shanmugapriya

Assistant Professor(Sr.G) - EEE

FOR HER TOTAL INVOLVEMENT AND PARTICIPATION IN
"MENTORING AND TRANSFORMATION LEADERSHIP"
HELD AT SRM INSTITUTE OF SCIENCE AND TECHNOLOGY , Kattankulathur
FROM 16/10/2023 TO 18/10/2023

Dr.R.Palanisamy completed an online course "Fundamentals of Electrical Engineering" in NPTEL SWAYAM.

Dr.P.U.Poornima completed an online course "Problem Solving Through Programming in C" in NPTEL SWAYAM.

Dr.T.M.Thamizh Thentral completed an online course "Transducers for Instrumentation" in NPTEL SWAYAM

Dr.K.Subha Sharmini completed an online course "Learning Analytics Tool" in NPTEL SWAYAM.


Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

PALANISAMY R

for successfully completing the course

Fundamentals of Electrical Engineering

with a consolidated score of 64 %

Online Assignments	13.91/25	Proctored Exam	50.25/75

Total number of candidates certified in this course: 162

Jul-Oct 2023

(12 week course)

Prof. Haimanti Banerji

Coordinator, NPTEL

IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL23EE116S638800970 To verify the certificate No. of credits recommended: 3 or 4


Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

GEETHA A

for successfully completing the course

Transducers for Instrumentation

with a consolidated score of 73 %

Online Assignments	25/25	Proctored Exam	47.81/75

Total number of candidates certified in this course: 415

Prof. Devendra Jalihal

Chairperson,

Centre for Outreach and Digital Education, IITM

Jul-Oct 2023

(12 week course)

Prof. Andrew Thangaraj

NPTEL Coordinator

IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL23EE105S83800691 To verify the certificate No. of credits recommended: 3 or 4

Dr.A.Geetha completed an online course "Transducers for Instrumentation" in NPTEL SWAYAM.

Dr.S.Usha completed an online course "Transducers for Instrumentation" in NPTEL SWAYAM.

The following faculty members have completed "Basic Certification Course in Artificial Intelligence" under Future Skills Prime program

- **Dr.N.Kalaiarasi**
- **Dr.D.Suchitra**
- **Dr.K.Selvakumar**
- **Dr.D.Anitha**
- **Dr.R.Uthra**
- **Dr.R.Rajarajeswari**
- **Dr.B.Vinothkumar**
- **Dr.R.Senthilkumar**


futureskills prime

A MeitY - NASSCOM Digital Skilling Initiative

Ministry of Electronics and Information Technology Government of India

सी डैक CDAC

रा.इ.सू.प्रौ.सं NIELIT

Course Completion Letter

It is certified that

Rajarajeswari R

Alpha Training and Consultancy Services, T.Nagar, Chennai

has successfully undergone the Bridge Course Training Program on

"BASIC CERTIFICATE COURSE IN ARTIFICIAL INTELLIGENCE"

under 'FutureSkills PRIME' Programme

from March 2023 to May 2023

Suresh Sikka

Gaur Sunder

Col. A. K. Nath (Retd.)

Shramdaan For Swachh Bharat

Unnat Bharat Abhiyan organized a Shramdaan for cleanliness drive at SRMIST, Kattankulathur on 01.10.2023. The event focused on Pattravakkam village and took place at the Government School in Pattaravakkam Village. The Department of Electrical and Electronics Engineering jointly organized the program, inaugurated by Dr. C. Muthamizhchelvan, Vice Chancellor, SRMIST, and Dr. V. Thirumurugan, Associate Director (CL) and Nodal Officer of UBA-SRMIST.

Faculty coordinators were Dr. R. Sridhar, Dr. A. Geetha, and Dr. S. Usha from SRMIST, Kattankulathur. Thirty students from various departments participated, cleaned the school by collecting degradable and non-degradable solid waste.

OUTREACH INITIATIVES

Children's Day Programme

SRM Muthucharam Community Radio in association with Electrical and Electronics Engineering Department-UBA SRMIST has conducted Children's Day Programme - Outreach to Rural School Student in Panchayat Union Middle School, Pattaravakkam village on 16-11-2023.

The Children's Day program started with the Welcome Address by Dr.V.Thirumurugan. Dr.Leenus Jesu Martin, presented a Motivational Talk on "Future of India". He emphasized the importance of thinking positive and eating healthy food in present scenarios.

Dr. Annapurani Panaiyappan's special address urged the school kids to be courage and have a fearless attitude in life. Dr.R.Sridhar Professor/EEE, UBA coordinator for the adopted village Patravakkam thanked the panchayat elected members and executive and school teachers for their cooperation in implementing the UBA schemes.

Faculty coordinators were Dr.S.Usha, Dr.A.Geetha,, Dr.R.Palanisamy and Dr.D.Karthikeyan.

Know About Your Packed Foods

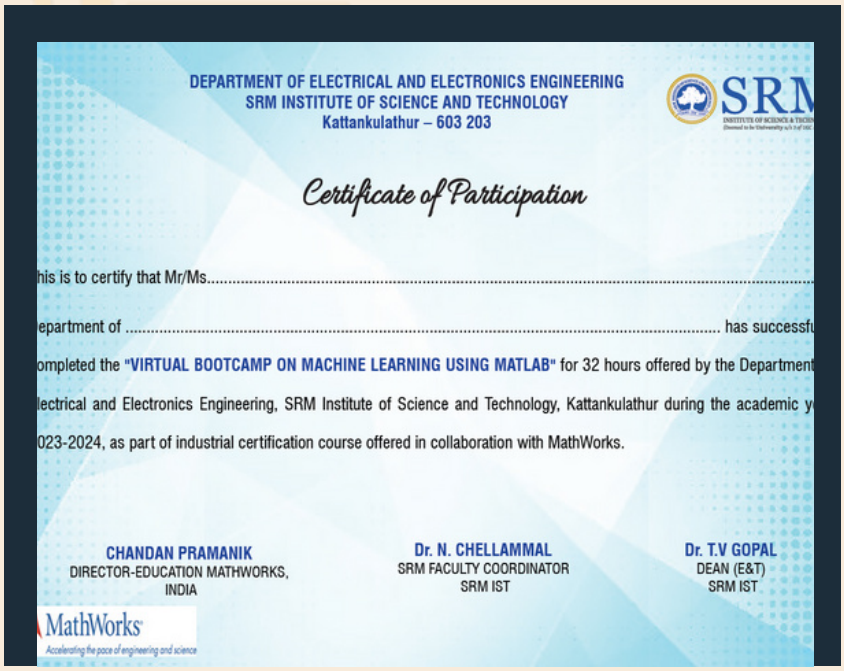
A seminar on, "Know About Your Packed Foods," was organized by the Department of Electrical and Electronics Engineering in association with the EEE Counselling Cell on 06-10-2023. This event aims to shed light on various aspects of packed foods. The seminar provides a platform for the participants to explore and understand the essentials of the food. Knowledge and awareness about the foods we consume daily. About 59 participants attended and get benefited.

EVENTS

Virtual Boot camp

The Virtual Boot camp on Machine Learning using MATLAB for SRMIST was rolled out to provide the importance of AI in Data Processing. The course was self –paced and was intended to improve proficiency in MATLAB skills in the Artificial intelligence domain.

Students from different branches across all campuses stepped forward to join this Virtual Boot camp. It was a fabulous beginning with an overwhelming and enthusiastic response.


DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
Kattankulathur – 603 203

SRM

Certificate of Participation

his is to certify that Mr/Ms.....

epartment of ..... has successfu

ompleted the **"VIRTUAL BOOTCAMP ON MACHINE LEARNING USING MATLAB"** for 32 hours offered by the Department

lectrical and Electronics Engineering, SRM Institute of Science and Technology, Kattankulathur during the academic y

023-2024, as part of industrial certification course offered in collaboration with MathWorks.

CHANDAN PRAMANIK
DIRECTOR-EDUCATION MATHWORKS, INDIA

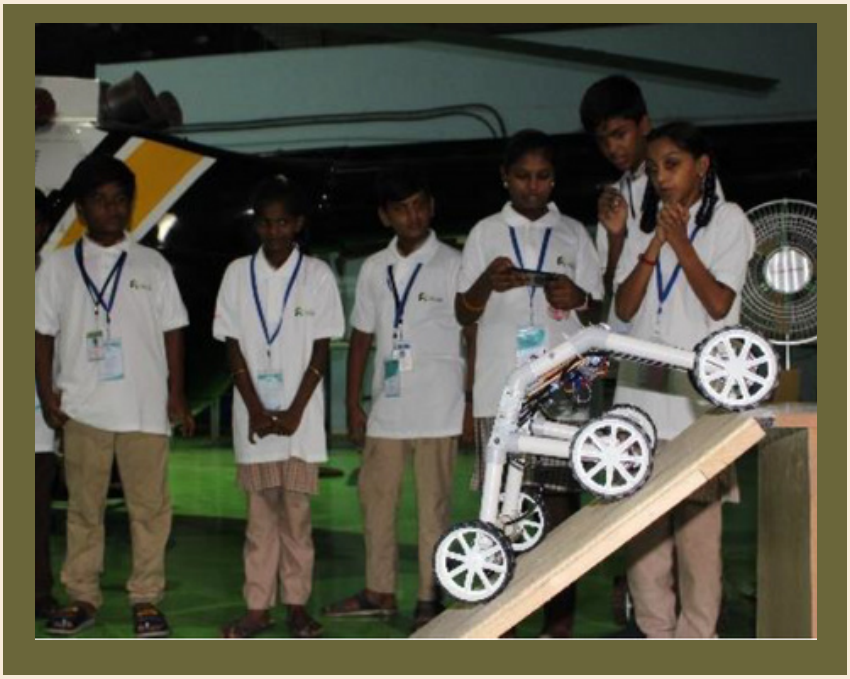
Dr. N. CHELLAMMAL
SRM FACULTY COORDINATOR
SRM IST

Dr. T.V GOPAL
DEAN (E&T)
SRM IST

MathWorks
Accelerating the pace of engineering and science

The course was started on 18-08-2023 and went on live for 60 days. Among the 151 students who completed all the modules and the Mini project assigned to them successfully were provided with a Joint certificate from SRMIST and MATLAB.

The course was coordinated by Dr.N.Chellammal, Associate Professor, Department of Electrical and Electronics Engineering, SRMIST, Kattankulathur.

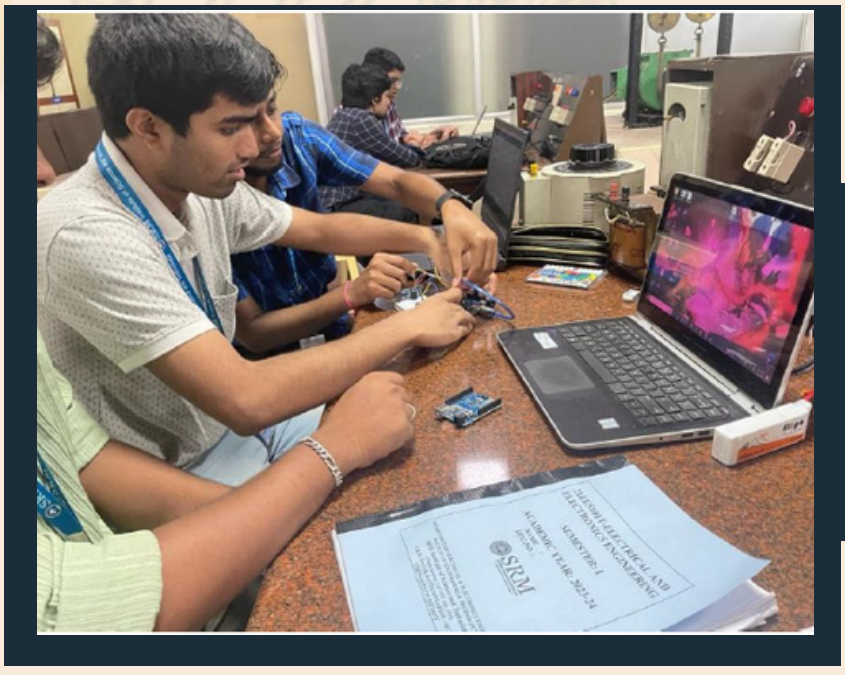


Xplore Pragyathon

The National level school student hackathon, Xplore Pragyathon, unfolded as a groundbreaking event held on 27-10-2023 and 28-10-2023. This innovative gathering aimed to fuel the passion for robotics and engineering among school students, promoting teamwork and innovation. Hosted at the ESB Block with sessions running from 9:30 to 8:00 PM. Dr. E. Balasubramanian from NITTTR, Chennai, inaugurated the event on 27-10-2023, while Mr. Karthikeyan Dhayalan, Partner - Cyber Security . Transformation, KPGM, India, graced the valedictory session on 28-10-2023 The hackathon not only showcased the enthusiasm of young minds but also brought together experts to inspire and guide them in their technological pursuits. This event was organised by Dr.C.Bharatiraja, Professor, EEE.

EVENTS

Project Expo 2023



The Project Expo 2023 at SRM Institute of Science and Technology, in collaboration with MTS India Section and MTS SRM Student Chapter, showcased innovative projects by 1st-year students from the EEE Department on 13.11.2023 at the Electrical Machines LAB. The event aimed to provide a platform for students to exhibit their skills, knowledge, and achievements across various fields. The expo's primary objective was to unleash students' potential by highlighting their innovative projects and offering a space for them to demonstrate their learning experiences.

The projects, mainly focused on Arduino applications, reflected the diverse talents and interests of the participating students. This program was organised by Dr.J.Preetha Roselyn, Dr.C.Nithya and Dr.U.Sowmmiya.

Research Challenges and Opportunities in Sustainable Clean Energy Transition

The Science and Engineering Research Board sponsored a six-day workshop on "Research Challenges and Opportunities in Sustainable Clean Energy Transition," held at the EEE Conference Hall from 11-12-2023 to 16-12-2023 Organized in association with DST PURSE and supported by the National Institute of Wind Energy, the workshop aimed to address crucial aspects of sustainable clean energy.

Distinguished keynote speakers from various domains, including Mr.V.Govindaraj, Deputy Director, MSME, Mr.Viknesh Kumar (L&T Construction, Bangalore), Dr.Joseph Peter (Government Engineering College, Palakkad), Dr. Vijayakumar K (IIITDM, Kancheepuram), Dr.Vignesh Kumar V (NIT Karnataka), and Dr. Venkadesan A (NIT Puducherry) shared their insights. The workshop also included a field visit to iTECINDIA2023 at the Chennai Trade Centre, providing participants with exposure to the latest advancements in sustainable energy. The event was coordinated by Dr.J.Divya Navamani and Dr.A.Lavanya, fostering a collaborative platform for knowledge exchange and innovation in the pursuit of a cleaner energy future

Watts and Beyond – A Road Map for Power Engineers

In a grand display of enthusiasm and foresight, the **iPowerE Student Chapter** at SRMIST held its inaugural event on 30-10-2023, marking the beginning of an exciting journey for electrical engineering enthusiasts.The keynote speaker, Dr. Balaji Venkatesan, Regional Product Manager at GE Vernova, graced the stage to share invaluable insights into the world of Electrical Power Engineering.

A highlight of the event was the interactive quiz, skillfully conducted by Koppola Gokul Sai, providing a platform for students to showcase their knowledge and enthusiasm. The winners, Nishant (RA2211005010009), Tharun (RA2211005010008), and Ram Singh (RA21110050100), were recognized for their exceptional performance and received gifts from the esteemed guest speaker. Faculty mentors, Dr.D.Suchitra, Dr.R.Rajarajeswari, Dr.K.Selvakumar, Dr.D.Anitha and Dr.R.Ramya playing a pivotal role in guiding and shaping the chapter's trajectory

Alumni's Corner

A two day conclave on "**Excelling in Entrepreneurship**" was conducted in the Department of Electrical and Electronics Engineering Department jointly organized by the Alumni Chapter and Placement Cell of the department on 02-11-2023 and 03-11-2023. This program was attended by the interested students of SRMIST and external participants from other institutions in and around Chennai. This program was aimed at honouring the Entrepreneurial attitude of the budding engineers. The speakers were our prominent alumni Mr. Chandru Rajendran, Co-founder and CEO of Airdonex, Mr. Rahul Dev Mandal, CEO of Nebskie Labs, Chennai, Mr. Anurag Atulya Co-founder of KREATOR-3D.

ALUMNI ENGAGEMENT

The Department of Electrical and Electronics Engineering at SRM IST conducted an exciting two-day event, **IDEATION AND HACKATHON-1.0** on 12-10-23 and 13-10-23. With a dedicated focus on the theme of SUSTAINABLE DEVELOPMENT GOALS, this hackathon promises to be an engaging platform for UG and PG students from various disciplines. Teams, comprised of up to three students each, are invited to register and participate in this collaborative pursuit of innovative solutions.


IDEATION & HACKATHON -1.0 போட்டியில் காளையார்கோவில் புனித மைக்கேல் பாலிடெக்னிக் கல்லூரி மாணவர்கள் மாநிலத்தில் முதலிடம்

A total of 120 teams from various engineering colleges across Tamil Nadu actively participated in the Technical Ideation and Hackathon 1.0 event. This widespread participation showcased the widespread enthusiasm and interest among students from different institutions

Our disguised alumni Mr. Nareshkumar A, Asst.Consultant, TCS, Mr.Vignesh Balaraman, Member Technical, Zoho Corporation, Mr.Subramaniyan.M, Manager, Product Development - Testing, Royal Enfield, Mr.Mohaideen Abdul Khadher, Managing Director, SWANS Enterprises are invited as juries. This program was organised by Dr.R.Narayamoothi and Dr.V.Pradeep.

The Alumni Day 2023, was organized by the directorate of alumni affairs on 23-12-2023. The alumni were greeted with a welcome kit and their present credentials with contact details were duly recorded. The alumni were so excited as they interacted with the faculty members and fellow batch mates. The grand event had a total of 80+ registrations from Electrical and Electronics Engineering Department.

ALUMNI DAY

The function had Alumni Award Ceremony where alumni were awarded under three categories, Distinguished Alumni Award, Eminent Alumni Award, and Young Achiever Award. From EEE department two of the alumni were honoured.

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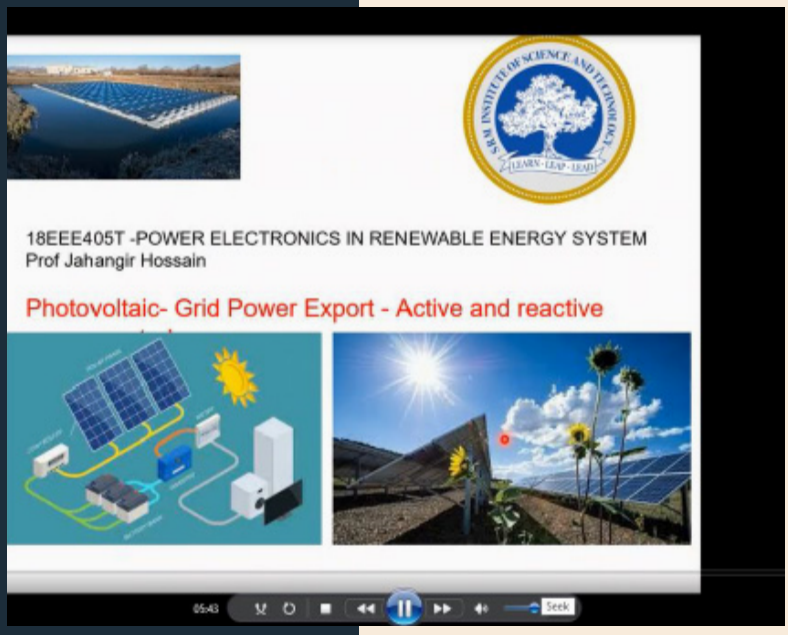
Mr. Rishabh Singh received Eminent Alumni Award (Industrial Sector) for 2023

and

Mr. Saravana Manikandan received Eminent Alumni Award (Social service) for 2023.

The alumni appraised the present department's achievements and its ranking-position globally and nationally. Dr.K.Vijayakumar expressed his happiness for the consistent association that alumni wish to have with the department. He explained how the department has grown in these years in terms of infrastructure and human resource.

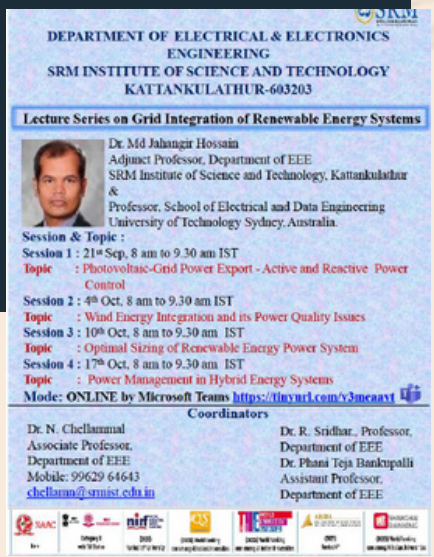


Grid Integration of Renewable Energy Systems

Energy is a vital input for the prosperity of a nation. As the population increases, the energy demand increases and reducing the energy demand–supply gap has become inevitable. The necessity of developing an alternative energy option (renewable energy resources) has led to significant R&D awareness in this area.

INTERNATIONAL INTERACTIONS

Taking into consideration of research and development in renewable energy resources, the Department of Electrical and Electronics Engineering, conducted four days lecture series on “Grid Integration of Renewable Energy Systems” from Thursday 21-09-2023 to 17-10-2023. The lecture series was coordinated by Dr.N.Chellammal, Dr.Sridhar and Dr.Phani Teja Bankupalli, EEE, SRMIST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SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
KATTANKULATHUR-603203

Lecture Series on Grid Integration of Renewable Energy Systems

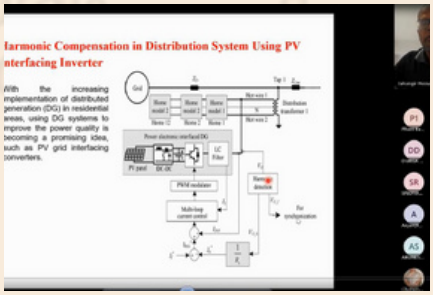
Dr. Md Jahangir Hossain
Adjunct Professor, Department of EEE
SRM Institute of Science and Technology, Kattankulathur
&
Professor, School of Electrical and Data Engineering
University of Technology Sydney, Australia.

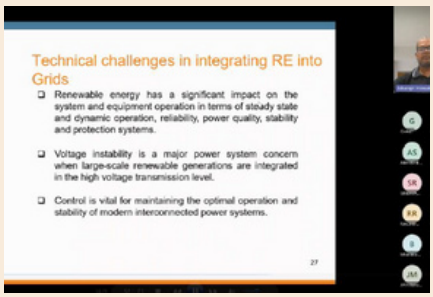
Session & Topic :
Session 1 : 21st Sep, 8 am to 9.30 am IST
Topic : Photovoltaic-Grid Power Export - Active and Reactive Power Control
Session 2 : 4th Oct, 8 am to 9.30 am IST
Topic : Wind Energy Integration and its Power Quality Issues
Session 3 : 10th Oct, 8 am to 9.30 am IST
Topic : Optimal Sizing of Renewable Energy Power System
Session 4 : 17th Oct, 8 am to 9.30 am IST
Topic : Power Management in Hybrid Energy Systems
Mode: ONLINE by Microsoft Teams https://tinyurl.com/y3mcaayt

Coordinators

Dr. N. Chellammal
Associate Professor,
Department of EEE
Mobile: 99629 64643
chellamn@srmist.edu.in

Dr. R. Sridhar., Professor,
Department of EEE
Dr. Phani Teja Bankupalli
Assistant Professor,
Department of EEE





Objectives of this lecture series is to disseminate and enrich the final year students / research scholars with the knowledge on several topics and technologies concerning renewable energy resources, issues related to grid integration of renewable energy resources and controllers for mitigating grid integration issues

This lecture series was conducted as a part of the B.Tech final year curriculum. **Dr.Jahnagir, Professor, School of Electrical and Data Engineering University of Technology Sydney, Australia** and Adjunct Professor, Department of EEE SRM Institute of Science and Technology, Kattankulathur delivered lectures and imparted knowledge.

PHOTO GALLERY

Giggles Corner

TIME OUT FOR HER

Dr.A.Geetha, Assistant Professor, EEE
Dr.T.M.Thamizh Thentral, Assistant Professor, EEE
Dr.S.Usha, Assistant Professor, EEE

Employed Women worldwide frequently struggle to find time for relaxation and are consistently burdened with stress and excessive workloads. Women encounter distinct obstacles in the workplace, primarily driven by factors such as parenting responsibilities and relationships. Working women not only have to fulfil their conventional responsibilities as daughters, wives, and mothers, but they also are dealing with the significant stress that comes from their professional responsibilities. According to a survey, 28% of males and 53% of females indicated experiencing work-family stress. Furthermore, it impairs their capacity to focus on the task at hand. The primary sources of work-related stress: i. Achieving a balance between work and personal life, ii. Interpersonal connections and bonds, and iii. The impact of technology. Strategies for Managing Stress: i. Engage in physical activity, ii. Prioritise sufficient rest, iii. Actively explore joy and iv. Cultivate a network of supportive relationships.

Sudoku Puzzles

Dr.A.Lavanya, Assistant Professor,EEE

			3
			2
3			
4			

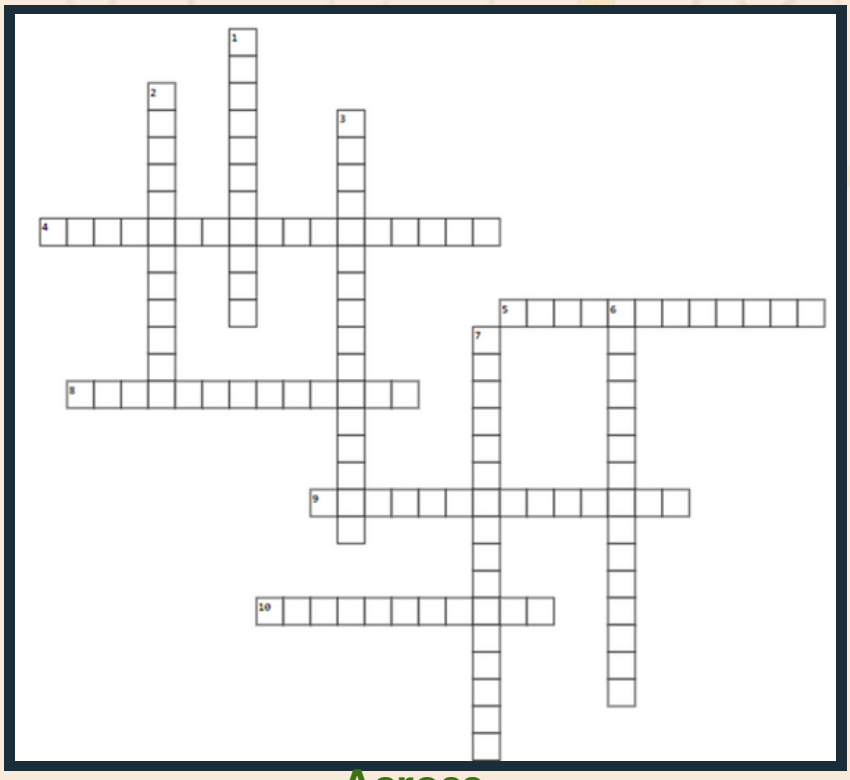
			2
	3		
4			
		2	

LeT Us KnOw

- Electricity travels at the speed of light, which is approximately 186,282 miles per second (299,792 kilometers per second). This makes it one of the fastest things in the universe.
- The human body produces a small amount of electricity. The nervous system uses electrical impulses to transmit signals between cells.
- Lightning can carry a voltage of up to one billion volts and reach temperatures of around 30,000 degrees Celsius (54,000 degrees Fahrenheit). It's a powerful force of nature.
- Certain species of fish, such as the electric catfish and electric eel, use electric fields for communication. They emit electric signals to navigate, locate prey, and communicate with other fish.
- It's been discovered that some people experience a metallic taste in their mouths when exposed to a strong electric field. This phenomenon is known as the "electro-gustatory effect."
- Human hair has electrical resistance, and it can generate static electricity. The resistance varies depending on factors such as hair thickness and moisture content.

Dr.V.Pradeep, Assistant Professor,EEE

Scientist to know



Across

4. Formulator of the modern electromagnetic theory
5. First user of the word electricity
8. Creator of working electric telegraph system
9. Father of electrical engineer
10. Founder of electric light

Down

1.Designer of electrical resonant transformer circuit (Also known as father of current)
2. Operator of the first commercial power plant in United States
3. Discoverer of electricity first
6.Inventor of the first source of continuous current
7. Developer of the idea of a radio or wireless telegraph

Dr.T.M.Thamizh Thentral, Assistant Professor, EEE
Dr.A.Geetha, Assistant Professor, EEE
Dr.S.Usha, Assistant Professor, EEE

Students skills

PAVAN SANJAY, (RA2211005010011), II year, EEE

Games were not just a diversion, I realized. Games could make you feel. It can also increase your Cognitive Skills, Social Interaction, Creativity, Stress Relief, Decision-Making Skills, Teamwork and Collaboration

No MoRe ConVersTionS

by Jithu Tomy, (RA2211005010036), II year, EEE

"Two days more to holidays" Joseph murmured. Excited to meet his cousins, to escape from the hardship of Senior year-The assignments, records, entrance and tuition classes. Waking daily, eyes tired, never having a good sleep (life was getting miserable day by day). The school has closed for a week. He loved to talk and hear from people it's his way to relive stress. At last, he reached the home, shouting "hey I'm home ". Surprisingly Nobody came to welcome him, he called out their name and they ambled out of their respective rooms with a phone in their hand and head bowing down.

His eyes wandered from one person to another, expecting somebody to talk. Everybody laughed at the screen though they never smiled at him. Hours passed by, nobody dared to utter a word. The joyous days before the invasion of phone just flashed through his mind, everyone liked to chat but they never like to talk now. Joseph proceeded to the neighborhood hoping to meet somebody but they were slaves of the tv. Their adorable dog seemed like inviting him to play with him. These days, dogs are more humane than emotionless humans. After the disastrous days, he chose to never visit there again

The later day, he received a phone as a gift. Slowly he was being transformed to the emotionless world where phones are ruling the people.

"When we move in and out of conversations with our friends in the room and all the people we can reach on our phones, we miss out on the kinds of conversations where empathy is born and intimacy thrives."-Sherry Turkle (Author of Reclaiming Conversation, MIT professor)

ROUNAK DAS,
(RA2211005010063), II year, EEE

HEMAVARSHINI VIDYASAGAR

HUMAN VALUES

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

Step 1: RIGHT UNDERSTANDING

The understanding about oneself with others, the understanding about continuous happiness and prosperity (ref: AICTE UHV online).

We have many friends and relatives, and face disagreements and misunderstandings leading to long-lasting effects on health and well-being. We have money but lack continuous happiness. There should be a RIGHT UNDERSTANDING on RELATIONSHIP and PHYSICAL FACILITY is the first step.

I am happy. Why do I need this value education along with technical education?

Though we are technically qualified, there is SOMETHING lacking. That SOMETHING is fulfilled by value education-based technical education to have a harmonious life.

Step 2 to be continued...

Dr.S.Shanmugapriya, Assistant Professor,EEE

அறிவோம் தமிழ்

(Arivom Tamil)

ஆத்திசூடி (Aathichoodi)

by Avvaiyar

அறம் செய விரும்பு	Have desire to do good deeds
ஆறுவது சினம்	Anger should be reduced / controlled
இயல்வது கரவேல்	Help to your best possible extent
ஈவது விலக்கேல்	Don't stop doing charity
உடையது விளம்பேல்	Do not boast about your possession
ஊக்கமது கைவிடேல்	Do not give up hope/self-confidence
எண் எழுத்து இகழேல்	Do not underestimate the power of learning
ஏற்பது இகழ்ச்சி	To accept alms is a shameful act
ஐயமிட்டு உண்	Before eating, share food with those who need
ஒப்புர வொழுகு	Act with high moral standards
ஓதுவது ஒழியேல்	Never stop learning
ஔவியம் பேசேல்	Never envy / talk bad about others
ஃகஞ் சுருக்கேல்	Do not be stingy in selling food grains

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