REDEEEM

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The Crew!

**FACULTY CHIEF EDITOR
DR. R. LEO**

"You can do anything you decide to do!"

"Be odd inorder to be number one!"

**CHIEF EDITOR
HARSHVARDHINI M**

"Make each day your masterpiece"

**CONTENT HEAD
PRANAV A**

"Design is intelligence made visible"

**DESIGN HEAD
ABHINAYA R**

The Crew!

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From the HOD Desk

I am delighted to bring the April 23 edition of REDEEM, the quarterly newsletter of the department of EEE.

Significant activities of the department are highlighted in this issue along with the achievements of the faculty from January to March 2023. I am very happy to see a plethora of activities in the department. Interestingly, two international conferences, many workshops, visits by Valeo & Sicame teams and a visit to Rane NSK which happened in this quarter are featured in this edition. My hearty congratulations to Dr.Mrunal Deshpande and Dr. Jayaparvathy for getting funding from UGC DAE and MoE.

My appreciation to all the students who have contributed various articles to this edition. My best wishes to the editorial team who have assimilated all these events. I hope you will enjoy reading this edition.

EDITORIAL

There are always three kinds of people in any given society. This threefold distinction has been noted and made by Greek philosophy, notable sociologists and public intellectuals. The first kind of people in any given society are the Idiots. The Idiot is not necessarily someone who is mentally deficient but someone who is a totally private person, a totally self-centered person, and a totally selfish person. He is always out for his personal gain and his personal interests. He has no knowledge, no skill, no character, and no virtues to be able to live and to be able to contribute to a flourishing society and community. The idiot was just an upgraded barbarian. The second kind of people are the tribe people who have tribalistic mentality which means that they are not able to think beyond their small groups. They are always afraid of things that are different that are a little alien to them. They are always suspicious and fearful, and they always deal with different people and difficult situations with intimidation, with force and with violence. Most of the first two categories of people are more influenced by basic instincts and pleasure. The higher order thinking, and joy are beyond their scope. The third kind of person was the ideal person. The ideal person is called the Citizen. The citizen is someone who has the skills and the knowledge to live a public life, who can live a life of civility. The citizen recognizes that they are part of society and not apart from it and thus strives for the common good. The citizen knows their rights in society but he or she also knows his or her responsibilities to society. The citizen can fight for his rights and experience the joy of being human. These make up a civilized society because citizens settle their differences with civility, so they produce a society with friendliness, love, and affection. Every individual, wherever he or she may be, has to make a choice to be a citizen of society.

People become shaky when the future is not secured. Sometime people find their new confidence and become livelier when their future is assured through various means or when they are given new responsibilities which they enjoy. There are people who merely exist, who live by chance and who live by choice. If we watch our daily activities, we come to know that we live compulsively most of the time than living consciously.

Sometimes we are not allowed to use mind of our own to take meaning full, worthy decisions, but we just follow the rules to escape from future consequences and blames, not serving the purpose. Merely following rules may reduce peoples connect with the purpose. We very easily get identified with whatever we are associated with and spend a lot of time thinking about it. Most of the sufferings are due to wrong use of memory and imaginations and eventually becoming a perceptional tragedy. If we learn to just observe our thinking and simply label it and let it go without reinforcing it and realize that we are not simply our thinking, and create gap between us and our thinking, most of our problem will go.

Only human beings have the capacity to decouple, create space and choose the response. All other creatures don't have this capacity, they merely react. When you get stuck in a traffic jam on the way to the airport, you feel bad. But when you are on the flight and look down and watch the traffic, you enjoy it. This is possible only when we learn to watch our thinking with distance and in slow motion like DRS replay in cricket. Everyone is human, remember that the people you think are 'cool' are really no different than you. But when you talk to them closely you come to know that they just manage better. Everyone has their own problems, insecurities, and doubts. From the long distance the mountain seems to be beautiful, but only when you go close to it, you understand its issues.

"Unusual perception of reality, acceptance, spontaneity, creativity, problem centered, not ego centered, autonomy, resistance to enculturation, solitude, fresh appreciation, peak experiences, human kinship, humility and respect, personal code of ethics and values are some of the qualities of self-actualized individuals mentioned by Abraham Maslow.

"Man sacrifices his health in order to make money, then he sacrifices money to recuperate his health. And then he is so anxious about the future that he does not enjoy the present, the result being that he does not live in the present or in future. He lives as if he is never going to die and, then dies having never really lived."

-Dalai Lama

FROM US TO YOU

Welcome to another vibrant edition of Redeeem!

This edition marks the end of a complete year for us, we started with the july'22 edition and now we are here with the april'22 edition, a full circle as one might call it! As we write this section for the fourth and last time this year, what flares through our minds is the tall standing notion of gratitude and thanksgiving for being able to work as the face of the department and bring forth its achievements and accomplishments through this opportunity we'll cherish and relish always! And what more a better time to bid adieu and welcome new beginnings than the season of spring!

"The deep roots never doubt spring will come" said Marty Rubin. One needs to imbibe a lot from that one saying, as to always put in your fullest of hardwork and perseverance and work diligently to justify that you deserve the chance you got to shine. The blossoms of result will eventually come your way and one must entrust his faith on the same! A positive sense of hopefulness whilst working towards your goal, greatly contributes to one's attitude and makes a significant effect on the result he or she is expecting. We must always learn to be grateful for getting the chance to express our capabilities, just like the deeply rooted plant here does on being able to grow and nurture into a beautiful element of nature! And just like how its vibrant and positive surrounding helps its growth, a similar mindset helps us humans greatly too!

So my friends, believe! Believe that the spring will come and along with it will the blossomed pearls of victory bearing the fruits of success! And suddenly then, our sleepless nights and anxious days will all make sense! Till then lets all trust the process, stay happy while we make efforts and most importantly enjoy the journey because,

Only if we believe will the flowers of color bloom,
Only is we rejoice will the flowers of joy overflow the branches , and
only if we manifest will the flowers of brightness light our garden of life!

Live everday like its the spring, you'll eventually feel it come to life one day!
Onwards and upwards!

Regards
Student Editorial Team
Redeeem

FACULTY ACTIVITIES

External Recognition

(Invited lectures, keynote speech, invited for meetings by professional bodies etc)

Dr.Ramaprabha attended the Panel discussion "SheIgnite" on the theme 'Bringing everyone forward' on 14/02/2023 organized by St. Joseph's College of Engineering, OMR, Chennai - 600 119 under IEEE-WiE student Chapter

Dr.K.Murugesan delivered a Guest Lecture at World Sustainable Energy Day Celebration organized by Shiv Nadar University, Chennai on 27/02/2023.

Dr.V.Rajini delivered a lecture on "Smart transformer for EV charging infrastructure" in EV workshop organized by dept of EEE on 03/03/2023

Dr. R. Seyezhai delivered a Guest Lecture titled Design and Fabrication of Electric Vehicle on 09/03/2023 organized by IEEE-PELS, Madras Section in association with St.Josephs College of Engineering,Chennai

Dr. R. Seyezhai delivered a Guest Lecture titled Design Aspects of Electric Vehicle on 28/03/2023 organized by Webinar on Women in Engineering organized by Amritha Vishwa Vidhyapeedam, Bangalore Campus

Dr.M.Senthil Kumaran delivered a Workshop Presentation titled Control Systems and Mathematics for Robots on 21/03/2023 organized by SSN College of Engineering, Mechanical Department

Dr.P.Saravanan delivered a Guest Lecture titled Motor Choices & Selection on 13/03/2023 organized by HCL technologies

Dr.R.Arun delivered a Guest Lecture titled High Level Understanding of Modelling and Control Loop on 27/03/2023 organized by HCL

Research Activity

(National / International journal papers published)

SS. Devi, Dr. Seyezhai Ramalingam, Harshad. S.S, Harish. N, Bharath Vishal. R and Barath. V, "Design and Analysis of Split Source Inverter for Photovoltaic Systems" Taylor and Francis Journal, February 2023.

Sasikala PanneerSelvam, Susanta Kumar Pal, Premanand Venkatesh Chandramani, Srinivasan Raj , "Single event performance of FED based SRAMs using numerical simulation" International Journal of Microelectronics Reliability, Elsevier, March 2023, Volume 142, pp 114930, ISSN 262714, DOI https://doi.org/10.1016/j.microrel.2023.114930, Impact factor 1.589 indexed in WOS/TR/SD

Daphin Lilda S, Jayaparvathy R and A.Balaji, "An efficient Machine Learning based Ventricular Late Potential detection and classification technique for cardiac healthcare", International Journal of Concurrency and Computation Practical experience, September 2022, Volume 34, pp 44940, DOI: 10.1002/cpe.7279, indexed in WOS/TR/SD

R.Seyezhai, N.B.Muthuselvan & J.Bhuvana ,"A Study and Review of Classical, Machine Learning and Deep Learning Methods of Software Reliability Estimation for Safety-Critical Systems" Indian Journal of Natural Sciences Feburary 2023, Volume 13, pp 52452, ISSN 0976–0997, indexed in WOS/TR/SD

R.Seyezhai & D.Umarani , "Application of Quasi Z-source Multilevel Inverter for Stand-alone PV system", International Journal of AMA Agricultural Mechanization in Asia, Africa and Latin America, March 2023, Volume 54, pp 11411, ISSN 84584.

E. Fantin Irudaya Raj & M. Balaji, "Shape Feature Extraction Techniques for Computer Vision Applications", Book titled Smart Computer Vision. EAI/Springer Innovations in Communication and Computing. Springer Feburary 2023, pp 81–102, ISSN 2522-8595, indexed in Scopus

Vidhya Sivaramakrishnan, Balaji Mahadevan, and Kamaraj Vijayarajan, "Power Quality Data Mining Using Hybrid Feature Extraction Technique" in book titled: Smart Sensors Measurement and Instrumentation, Lecture Notes in Electrical Engineering, vol 957 March 2023, pp 491-502, ISSN 1876-1100, DOI https://doi.org/10.1007/978-981-19-6913-3_34, indexed in Scopus.

S. Vidhya, M. Balaji, E. Fantin Irudaya Raj, V. Kamaraj ," Differential evolution algorithm supported random forest classifier for effective feature selection and classification of power quality disturbances",International Journal of U.P.B. Scientific Bulletin, Series C- Electrical Engineering and Computer Science, March 2023, Volume 85, pp 131-142, ISSN 2286-3540,indexed in WOS/TR/SD

M.Ramya, K K Nagarajan,"Investigation of Single Event Transients on RingFET using 3D TCAD Simulations", International Journal of Silicon Feburary 2023, Volume 15, pp 875886, ISSN 18769918, DOI https://doi.org/10.1007/s12633-022-02055-1, Impact factor 2.941 indexed in WOS/TR/SD

Nalina, B.S., Chilambarasan, M., Tamilselvi, S., Al Alahmadi, A.A., Alwetaishi, M., Mujtaba, M.A. and Kalam, M.A," Design and Implementation of Embedded Controller-Based Energy Storage and Management System for Remote Telecom", International Journal of Electronics MDPI January 2023, Volume 12, pp 341, ISSN 2079-9292, DOI https://doi.org/10.3390/electronics12020341, Impact factor 2.69 indexed in WOS/TR/SD

Aravindan M, Chilambuchelvan A & Tamilselvi S," A Supervised Model of Multivariable Control in Quadruple Tank System", International Journal of Applied Artificial Intelligence, Taylor and Francis Feburary 2023, Volume 37, pp , ISSN 0883-9514, DOI https://doi.org/10.1080/08839514.2023.2175107, Impact factor 2.777 indexed in WOS/TR/SD

V. Thiyagarajan," A novel 7-Level symmetric inverter module with less circuit components", in International Journal of Materials Today March 2023, Volume 62, pp 944, ISSN 2214-7853, DOI https://doi.org/10.1016/j.matpr.2022.04.078, Impact factor 0.355 indexed in Scopus

Devesh Raj, Thiyagarajan Venkatraman, Muthuselvan Balasubramanian & Dishore Shunmugham Vanaja ," Design and Development of a B-Type Inverter for Harmonic Mitigation in a Grid Integrated System Using Whale Optimization Algorithm", International Journal of Electric Power Components and Systems March2023,Volume.51,pp151,ISSN15325008,DOIhttps://doi.org/10.1080/15325008.2022.2158500, Impact factor 1.276 indexed in WOS/TR/SD

Conference Activity

(National / International conferences presented)

R. Ramaprabha, A. Harish, M. Karthic Thangam and A. Muthukumar, "Implementation of Data Transmission through Li-Fi for Intelligent Transportation System" in 4th International Conference on Power and Embedded Drive Control (ICPEDC 2023) conducted by Department of EEE, SSN College of Engineering, Chennai in Online mode on 25/01/2023.

R. Ramaprabha, S. A. Akash Raj, F. Agilbert Sesu Felick and S.Aravind, "Simulation of PV Fed Multilevel Inverter for Low Power Applications" in 4th International Conference on Power and Embedded Drive Control (ICPEDC 2023) conducted by Department of EEE, SSN College of Engineering, Chennai in Online mode on 25/01/2023.

R. Ramaprabha, R. Ajay Kumar, M. Balaji, S. Charan and P. Surya, "Implementation of Super Lift Multilevel Inverter for PV Interfacing" in 4th International Conference on Power and Embedded Drive Control (ICPEDC 2023) conducted by Department of EEE, SSN College of Engineering, Chennai in Online mode on 25/01/2023.

R. Ramaprabha, G. Brindha, P. Gunasekaran and C. Stuward Candy Mohan, "Simulation of Integrated Boost Zeta Converter for PV Interfacing" in 4th International Conference on Power and Embedded Drive Control (ICPEDC 2023) conducted by Department of EEE, SSN College of Engineering, Chennai in Online mode on 25/01/2023.

R. Gowri Manohari, K. Kavitha, R. Arun,"Design of Metamaterial Inspired Antenna Using Machine Learning and Optimization Techniques" in 2023 International Conference on Computer Communication and Informatics (ICCCI) conducted by Sri Shakthi Institute of Engineering & Technology. in Sri Shakthi Institute of Engineering & Technology, Coimbatore, India. on 23/01/2023.

R.Seyezhai & V.Vidhupriya, "Simulation and Comparative Analysis of Four Stage Interleaved Step-up Converter for Electric vehicle" in Interdisciplinary Conference on Energy, Nanotechnology, Internet of Things conducted by NIT,Pudhucherry in Online/India on 04/02/2023.

R.Seyezhai & N.Chitrapavai, "Comparative study of voltage source inverter topologies for induction motor based electric Vehicle" in Interdisciplinary Conference on Energy, Nanotechnology, Internet of Things conducted by NIT,Pudhucherry in Online/India on 04/02/2023.

S. Devi, Dr. Seyezhai Ramalingam, Harshad. S.S, Harish.N, Bharath Vishal. R and Barath. V, "99-Investigation of Modulation Strategies for Split Source Inverter in PV Systems" in Interdisciplinary Conference on Energy, Nanotechnology, Internet of Things conducted by NIT,Pudhucherry in Online/India on 05/02/2023.

Arun Changotra, Mrunal Deshpande, "Automation of Green house Monitoring and Controlling System" in RTPEE 2023 conducted by SSN in SSN Chennai on 24/02/2023.

Dr Mrunal Deshpande, Suhitha K, Aprajita Jaiswal, Harshavardhan J, "DC-DC Converters for Power Monitoring and Control" in RTPEE 2024 conducted by SSN in SSN Chennai on 24/02/2023.

Amrutha.S , Raghavendra.V , Sethuram Gautham.R, K.Usha, "Health Care Monitoring System Using Light Fidelity in Recent Trends in Power and Energy Engineering" (RTPEE 2023) conducted by Department of EEE, SSN College of Engineering in Online on 24/02/2023.

Sethuram Gautham.R , K.Usha, "Analysis of Electromagnetic Forces and Deformations in Transformer Winding in Recent Trends in Power and Energy Engineering" (RTPEE 2023) conducted by Department of EEE, SSN College of Engineering in Online on 24/02/2023.

Harshad.S.S, S.Devi, Dr. R. Seyezhai, Harish.N, Bharath Vishal.R and Barath.V, "Design and Analysis of Modified Split Source Inverter for PV Systems" in DST-SERB Sponsored Second International Conference on 'Signal Processing and Communication Systems' - ICSPCS 2023 conducted by M.Kumarasamy College of Engineering,Karur in Online/India on 07/03/2023

Ayshvarya lakshmi,K.R.Mahalakshmi,S.Jayashree,R.Seyezhai & A.Bharathi Sankar, "Development of Eco-Friendly Solar PV Based DC DC Triple Lift Luo Power Converter for Water Pumping Applications" in 1 st International Conference on Advanced Materials, Manufacturing and Industrial Engineering – AMMIE 2023,March 23-24,2023 conducted by VIT University, Chennai in Online/India on 23/03/2023

R.Seyezhai, V.Vidhupriya & Lakshmiprabha, "Comprehensive Study And Analysis Of Cuk Led Drivers" in International Conference 2023 conducted by M.Kumarasamy College of Engineering,Karur in Online/India on 31/03/2023

Anjana Ethirajan, R. Ramaprabha, K. Avinash, Mujahith Thameem, A. Muthiah and Y. Varun Vignesh, "Implementation of DC Charging Station using Hybrid System" in International Conference on Recent Trends in Science, Technology, Engineering & Mathematics (ICSTEM 2023) conducted by Department of EEE, RRASE College of Engineering, Chennai in Department of EEE, RRASE College of Engineering, Chennai on 03/03/2023

R. Ramaprabha, G. Brindha, P. Gunasekaran and C. Stuward Candy Mohan, "Implementation of Boost Zeta Converter for Photovoltaic applications" in International Conference on Recent Trends in Science, Technology, Engineering & Mathematics (ICSTEM 2023) conducted by Department of EEE, RRASE College of Engineering, Chennai in Department of EEE, RRASE College of Engineering, Chennai on 04/03/2023

M.Varshini, V. Annapoorna, S.S. Priyadharshini and R. Ramaprabha, "Analysis and Development of Monitoring System for Fault Detection in Photovoltaic Array" in International Conference on Recent Trends in Science, Technology, Engineering & Mathematics (ICSTEM 2023) conducted by Department of EEE, RRASE College of Engineering, Chennai in Department of EEE, RRASE College of Engineering, Chennai on 04/03/2023

Deekshitha Sriraman and R. Ramaprabha, "Application of Machine Learning and Convolutional Neural Networks for the Fault Detection and Classification Monitoring System in PV Plants" in 9th International Conference on Electrical Energy Systems (ICEES - 2023) conducted by Department of EEE, SSN College of Engineering, Chennai in Department of EEE, SSN College of Engineering, Chennai on 25/03/2023

Uthira Ramya Bala K K, Dr. S. Krishnaveni, "Comparative analysis of SPWM techniques for single phase inverter", in the 4 th INTERNATIONAL CONFERENCE ON POWER AND EMBEDDED DRIVE CONTROL (ICPEDC 2023) organized by the Department of Electrical and Electronics Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai during 24th & 25th January 2023.

S. Keerthna, M. Marutham Rathna Valli, A.D. Kaviya malar (UG Final Year), Dr. S. Krishnaveni, "Energy meter Bill Alert on handset at predetermined energy consumption using Arduino uno and GSM module", in the 4 th INTERNATIONAL CONFERENCE ON POWER AND EMBEDDED DRIVE CONTROL (ICPEDC 2023) organized by the Department of Electrical and Electronics Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai during 24th & 25th January 2023.

B. Ayswarya, V. Vaishnavi(UG Final Year), Dr.S.Krishnaveni, "Two stage converter topology for solar energy application", in the 4 th INTERNATIONAL CONFERENCE ON POWER AND EMBEDDED DRIVE CONTROL (ICPEDC 2023) organized by the Department of Electrical and Electronics Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai during 24th & 25th January 2023.

Jothika B and Dr Mrunal Deshpande, "Recent Trends For Materials Used In Development Of Perovskite Solar Cells: A Review" in International Conference on Processing and Performance of Materials (ICPPM-2023) conducted by Mech SSN in SSN Chennai on 02/03/2023

S. Benisha, J. Anitha Roseline, K. Murugesan, D. Lakshmi, G. Ezhilarasi, P. Muthukumar, "Enrichment in power quality using Power Factor Correction Cuk converter fed BLDC Motor Drive" in 9th International Conference on Electrical Energy Systems ICEES - 2023. from March 23-25, 2023 conducted by SSNCE in SSNCE, Kalavakkam. India on 25/03/2023

Dr Leo Raju, "Advanced Automation and Energy Management using IOT" in ICEES 2023 conducted by IEEE in SSN College of Engineering, Chennai on 23/03/2023

Project News

(List project applied as well as project sanctioned)

Dr. R. Ramaprabha as PI applied for a Internal funded project titled "Development of Hybrid System Based EV Charging Station with IoT Application" on 08/02/2023 to the funding agency SSNCE for a duration of 3 years for a funding amount of 6.93 lakhs Rupees.

Dr Mrunal Deshpande SSNCE (PI)/ Dr Govindaraj R, SSNRC (co- PI) applied for a Internal funded project titled "Implementation of vacuum-flash assisted solution process for high-performance hybrid perovskite solar cells" on 09/02/2023 to the funding agency SSN Trust for a duration of 3 years for a funding amount of 40.5 lakhs rupees.

Dr. R. Ramaprabha as PI and Dr. M. Balaji as Co-PI applied for a External funded project titled "Implementation of IoT based EV Charging Station using PVWind System" on 06/01/2023 to the funding agency DST for a duration of 3 Years for a funding amount of 29.92 lakhs Rupees.

Dr. Mrunal Deshpande as PI and Dr. R Govindaraj as Co PI applied for a External funded project titled "Implementation of Novel Materials and Machine Learning Techniques for Transparent Counter Electrodes for Improving the Performance of Bi-facial Dye Sensitized Solar Cells" on 06/01/2023 to the funding agency DST for a duration of 3 Years for a funding amount of 28.91 lakhs Rupees.

Two Batches of UG under the guidance of Dr. R. Ramaprabha received funding under SSN Internally funded student project (IFSP 2023) on March 02, 2023:

- Batch 1: S. A. Akash Raj, F. Agilbert Sesu Felick and S. Aravind (III year), "Development of PV fed multilevel inverter for low level power applications" for 18 months Rs. 26, 000/- (Guide – Dr. R. Ramaprabha)

- Batch 2: M. Thanga Sheriff, N.S. Vishwajith and S. J. Raghul (III year), "Design and implementation of solar tracking system" for 1-year Rs. 30000/- (Guide Dr. M. Balaji; Co-guide – Dr. R. Ramaprabha)

Dr. Jayaparvathy, **"Human Reliability Assessment and in-situ health monitoring for manned submersible crew"**- funding from Ministry of Earth sciences , Amount : **Rs. 46,36,272/-**

Dr. R. Arun; Co-PI - Dr. P. Saravanan applied for a Internal funded project titled "Design and Development of IoT Enabled 2DOF PID-Dead-time Compensating Controller" on 31/01/2023 to the funding agency SSN Trust for a duration of 2 years for a funding amount of 295000 Rupees.

Dr. M. Senthil Kumaran & Dr. R. Leo , EEE, SSNCE applied for an External funded project titled Advanced Automation and Energy Conservation in Smart Campus on 10/03/2023 to the funding agency SERB - Core research grant for a duration of 3 years for a funding amount of 43,26,640 Rupees

Dr.S.Krishnaveni/EEE/SSNCE, Dr.V.Rajini/EEE/SSNCE applied for a External funded project titled Mutielectrode excited by different voltage profile to extend the shelf life of orange juice by PEF technology on 15/03/2023 to the funding agency SERB for a duration of 3 years for a funding amount of 4500000 Rupees

Dr Mrunal Deshpande SSNCE (PI)/ Dr Govindaraj R, SSNRC (co- PI) received an External funded project titled Development of black phase Formamidinium lead triiodide-based hybrid perovskite light absorber with improve thermal stability for solar cell applications on 22/03/2023 under the funding agency UGC DAE CSR

Webinar Attended

Dr. M.Senthil Kumaran attended 2 Day workshop titled "Active Learning in the Classroom Course Design" by Dr.Praveen Garimella during 19/1/2023 to 20/1/2023 organized by SSN School of Advanced Career Education.

Dr. K. Murugesan attended 2 Day workshop titled "Active Learning in the Classroom Course Design" by Dr.Praveen Garimella during 19/1/2023 to 20/1/2023 organized by SSN School of Advanced Career Education.

Dr. K.Nagarajan attended 2 Day workshop titled "Active Learning in the Classroom Course Design" by Dr.Praveen Garimella during 19/1/2023 to 20/1/2023 organized by SSN School of Advanced Career Education.

Dr.K.Usha attended 2 Day Workshop titled "Sensors on Industrial IoT" on 10/02/2023 organized by Department of ECE, SSNCE at Virtual.

Dr.R.Leo attended 2 Day Workshop titled "Sensors for Industrial IoT" on 11/02/2023 organized by SSN College of Engineering at Chennai.

Dr. R. Ramaprabha participated in the one-day workshop on "Electric Vehicles: Old Technology with New Reformation" during January 27, 2023 at Department of EEE, Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam - 603 110.

Dr. R. Ramaprabha attended Department Advisory Board (DAB) meeting of Department of EEE, Sri Sairam Engineering College in the capacity of Academic Expert on 28.01.2023 through online.

Dr.R.Arun attended 5 Day Faculty Development Program titled Introductory Universal Human Values on 03/02/2023 organized by AICTE at Online.

Dr.R.Arun attended 4 Day Workshop titled GDC I-NITIATE Program on 21/02/2023 organized by SSN iFound at IITM, SSN College of Engineering.

Dr. R. Seyezhai attended 2 Day Workshop titled Discovery Workshop on Active Learning on 18/03/2023 organized by SSN College of Engineering at SASE SSNCE

Dr.K.Murugesan attended 2 Day Workshop titled Discovery Workshop on 17th and 18th March 2023 on 17/03/2023 organized by Prof. Praveen Garimella, IIIT, Hydrabath at SASE, SSNCE

Dr.R. Leo attended 3 Day Faculty Development Program titled Exploring Next Generation Smart Solutions on 06/03/2023 organized by SSN College of Engineering at Chennai

Dr.R.Arun attended 6 Day Faculty Development Program titled 6 days FDP on Universal Human Value - II on 20/03/2023 organized by AICTE at Online

Industry Collaboration
(List all interactions, visits, MoUs etc with industries)

Dr.V.Rajini attended the meeting with IIT Incubation cell on bahalf of E Samarp Technologies on 02/02/2023.

Dr.V.Rajini, Dr. V S Nagarajan along with KRA Nair met virtually in G meet and discussed the progress of E Saarp Technologies on 02/02/2023.

Dr. V.Rajini Visited Rane NSK at Guduvancheri and presented the research capabilities of EEE on 10/02/2023. This meeting was to explore research collaboration and internship opportunities with Rane NSK.

Dr.V.Rajini arranged an interaction with M/S Sicame industries. Mr. Pierre Williams, executive director visited SSN.Dr.V.Rajini presented the research capabilities of EEE to Mr. Pierre Williams and his team visited all the labs on 21.2.23.

Dr.V.Rajini facilitated the purchase of battery operated buggy vehicle for SSN.

Dr Mrunal Deshpande and Dr Sajjan Kumar visited IITM and had discussion with Dr Ramachandran Narayanan, Senior Project Advisor, IEAC and Prof. Satyanarayanan Seshadri (Prof, Mech, IITM) regarding formal collaboration with IEAC Cell, ITM. They briefed the IITM team regarding EEE Department through power point presentation. They also visited their energy audit lab at Taramani and had discussion with the Energy audit team on 10/03/2023

Dr.R.Rengaraj received a consultancy grant on 01/03/2023 for providing solution in Performance Improvement of High Speed Extrusion and Rewinding Lines for a period of 3 years in the area of Wires and Cables.

Events Conducted

Events and workshops Conducted by the department

Dr. V. Rajini, Dr. T. Abhilash, Dr. K.K. Nagarajan organized a one day workshop in Electric Vehicles: Old Technology with new Reformation on 27-Jan-2023.

Dr. R. Ramaprabha organized a Invited Guest Lecture titled "Derived Power Converters for Solar Photovoltaic Applications" at M.E. I Year Classroom on 24/01/2023.

Dr.R.Seyezhai, Dr.R.Ramaprabha, Dr.M.Balaji organized a Workshop titled "Entrepreneurship and Innovation as Career Opportunity" at EEE Department, Seminar Hall on 20/02/2023.

Dr.R.Seyezhai,P/EEE & Dr.V.Thiyagarajan, ASSP/EEE organized a Workshop titled International Womens day Celebrations, Felicitation of EEE Shaktis at SSN EEE Seminar Hall event on 08/03/2023

Dr. V Rajini, Dr. Sajjan Kumar, Dr. R Arun organized a Workshop titled
Recent Trends in Electric Vehicle Technology and Research Opportunities at Online on 01/03/2023 to 03/03/2023

Dr.K.Murugesan, ASP/SSNCE organized a Invited Guest Lecture titled Instinct- Pattimandram Tamil Club events at Main Auditorium on 11/03/2023
Dr.K.Murugesan, ASP/SSNCE organized a Invited Guest Lecture titled Tamizh Thiruvizha (தமிழ்த்திருவிழா) at Main Auditorium on 01/03/2023

Dr.Muthuselvan, Dr. Thiyagarajan and Dr. Devesh Raj organized a 3 Day Conference titled 9th International Conference on Electrical Energy Systems (ICEES2023) at SSNCE from 23/03/2023 to 25/03/2023

Other Items

Dr.V.Rajini , Dr.S.Tamilselvi along with Dr. Balajibhargav, Dr Balaji and Dr Nafees on 06/01/2023 presented their project on Fabrication of high-performance LiBs using novel TMD-based anode materials and estimation of their remaining useful life for underwater to NRB board.

Dr.V.Rajini on 11/01/2023 attended the meeting with Goplakrshna Deshpande cell of IITM about startup eco system

Dr.V.Rajini on 10/01/2023 presented the details of Center of excellence- Smart Systems for the year 21-22 to the President , SSN.

Dr.V.Rajini on 10/01/2023 attended a meeting with the president about the battery car discussion. The battery car developed by Dr. saravanan is also showcased to her.

Dr.V.Rajini on 13/01/2023 reveiwed the NBA EEE PPT along with Dr. Jayaparvathy and Dr. R Seyezhai.

Dr. R. Ramaprabha, Asso. Prof./EEE along with NIRF team submitted the data for NIRF 2023 on Jan 17, 2023

Dr.V.Rajini on 23/01/2023 reviewed the 24 no of internal funded student projects at Dean office.

Dr.V.Rajini on 24/01/2023 as the convenor, welcomed and presented the details of the department at the inaugural function of ICEPDC23.

Dr.R.Ramaprabha, participated in SSN President meeting on Jan 05 and Jan 12,2023 regarding the data preparations for NIRF 2023

Dr.R.Ramaprabha reviewed three Journal papers on 24/01/2023. One in International Journal of Ambient Energy (T &F), one in Indian Journal of Science and Technology and the other in International Journal of Electrical Power and Energy Systems.

Dr.R.Arun partcipated in the Lean Model Canvas Contest Conducted by SSN ifound.on 18/01/2023.

Dr.R.Seyezhai & Dr.D.Umarani, Directors, Shrimitha Energy solutions presented the review of the proof of concept of their project titled, " Eco-Friendly Solar Photovoltaic Pole for Multi-utility" to the NLC team and also presented the budget for prototype development on 02/02/2023.

Dr. R. Ramaprabha demonstrated the research and facilities in Solar Energy Research lab to Mr. Pierre Williams, Director Global Innovation and a member of Sicame India Executive Committee during his visit to EEE department on Feb 21, 2023.

Dr. P. Saravanan attended a meeting with the President on 10/01/2023, with Dr. V. Rajini, and exhibited the "Electric Vehicle (EV) developed, as a part of DST-SERB funded project". The President suggested certain modifications for refurbishing the existing vehicle. As an outcome of the discussion, the structural modification of the EV was carried out. The EV has been retrofitted with a new electric drive system at the speed of 30Kmph, for the campus tour. The developed EV has been effectively utilized during the Shiv Nadar Foundation Leadership Conclave (17-18 February 2023).

Dr.V.Rajini attended the Hods meeting for tech enabled learning meeting on 02/03/2023

Dr.V.Rajini received the sanction letters for IFSP23 projects from the president on 02/03/2023

Dr.V.Rajini as maghadarshak, evaluated the NBA SAR crit 1 and 2 of AMS college of Engg meeting on 10/03/2023

Dr.V. Rajini attended the Nonteaching staff interview at principal's office on 13/03/2023

Dr.R.Seyezhai,P/EEE demonstrated the working of LED driver, Quasi Z-source MLI and relibaility prediction using machine learning for PV inverters to the Valeo Team who visited the Renewable Energy Conversion Laboratory for research colloboration. On 16/03/2023

Dr.R.Seyezhai ,P/EEE demonstrated the working of E-Bicycle, solar tricycle and Fuel Cell trainer to Mr.Biju, Head, Incubation & Digital Solutions, L&T, Chennai on 25/03/2023

S.Harika, a full time research scholar under the guidance of Dr.R.Seyezhai,P/EEE submitted her Ph.D thesis incorporating the comments given by the scrutiny team to Anna University, Chennai on 28/03/2023

Dr.R.Seyezhai,P/EEE interacted with the learning Engineer Mr.Moorthy regarding the introduction of active learning methods for the course on Power Electronics in online mode on 30/03/2023

Dr. R. Ramaprabha demonstrated the research facilities in Solar Energy Research lab to Ms. Valeo team, Chennai during the team visit to EEE department on March 16, 2023

Dr. M. Balaji Served as academic expert in Critical Design Review (CDR) committee constituted by CVRDE, Chennai to review the design and development of engine speed switches and vehicle speed indicator on 09/03/2023

Department EEEvents

INDUSTRY INTERACTION

Dr. V.Rajini Visited Rane NSK at Guduvancheri and presented the research capabilities of EEE. This meeting is to explore research collaboration and internship opportunities with Rane NSK on Feb 7th 2023

Mr. Pierre Williams, Director Global Innovation and a member of Sicame India Executive Committee has visited our department on Feb 21 at 1.00 PM along with his team and interacted with EEE HOD Dr V Rajini regarding industrial collaboration

Mini Technical Tour - M.E. Power Electronics and drives II-year students along with research scholars doing coursework for the subject Solar and Energy Storage systems have been taken for mini-technical tour for 2 hours to get exposure on physical visualization & working of rooftop on/off-grid solar systems, laboratory set-ups for carrying out additional experiments/research facilities available at Solar Energy research lab, RES Lab & SSNRC fabrication Lab. Dr. Balaji Bhargav explained the fabrication procedures with modern equipment available in SSNRC Lab. Mr. G. Sowrirajan & Mr. S. Pradeep Kumar (Lab technicians/EEE) explained the additional facilities in RES, APE & REC Labs. This was arranged and accompanied by Dr. R. Ramaprabha, Associate Professor/EEE who handled the subject on Jan 23, 2023.

Dr. R. Ramaprabha, Asso.Prof./EEE arranged an invited guest lecture on "Derived Power Converters for Solar Photovoltaic Applications" on 24.01.2023 during 10.00 a.m. to 11.30 a.m. for PG students. The lecture is delivered by Dr. M. Prabhakar, Professor, SELECT, VIT-Chennai. He also explained the fabrication of DC converters with demo models which was appreciated by 12 students including research scholars attended this lecture.

Dr. R. Ramaprabha demonstrated the research and facilities in Solar Energy Research lab to Mr. Pierre Williams, Director Global Innovation and a member of Sicame India Executive Committee during his visit to EEE department on Feb 21, 2023.

Dr. R. Ramaprabha acted as one of the panellists in the Panel discussion "SheIgnite" on the theme 'Bringing everyone forward' held on 14th February 2023 at St. Joseph's College of Engineering, OMR, Chennai - 600 119 under IEEE-WiE student Chapter.

SSN-IIC and Department of EEE organizes a Workshop on, "Entrepreneurship and Innovation as Career opportunity" on Feb 20, 2023. The resource person was Dr. N. M. Jothi Swaroopan, Professor & Innovation Ambassador, RMK Engineering College, Chennai. The event was conducted at EEE seminar hall in offline mode. The event coordinators are Dr. R. Seyezhai, Dr. R. Ramaprabha and Dr. M. Balaji. The objectives of this program is to motivate the students towards entrepreneurial ventures and to illustrate the scope of innovation in entrepreneurship. The speaker discussed the background of some the successful entrepreneurs and motivated the students towards entrepreneurial ventures. He highlighted the importance of entrepreneurship.

He highlighted the difference between invention and innovation and discussed the types of innovation. The speaker discussed how to convert an idea into a product. The process involved in patent filing was also briefed to the students. The participants interacted with the speaker and the session was well received. 110 students and 10 faculty members participated in this event.

4th International Conference on Power and Embedded Drive Control
(ICPEDC – 2023), January 24 – 25, 2023

Conference Chair: Dr. V. Rajini, Professor and Head

Organizing Chairs: Dr. P Saravanan Associate Professor
                Dr. R.Leo, Associate Professor
                Dr. M.Pandikumar Associate Professor

Department of EEE organized 4th International Conference on "Power and Embedded Drive Control (ICPEDC – 2023)", January 24 – 25, 2023. The Chief Guest for the conference was Dr Dr. Kenneth E. Okedu Fellow MIT, U.S.A., National University of Science and Technology, Sultanate of Oman. The main objective of ICPEDC - 2023 is to discuss the latest developments and research results in all aspects of the design, modeling, application of devices, circuits and systems related to power and embedded drive control. The conference brings together academicians, manufacturers, scientists, researchers from industries and students to exchange their research results and address the recent technologies The theme of the conference attracted 40 submissions including 2 papers from foreign universities. Four paper presentation sessions were held for two days. The feed back from participants were good.

Keynote speakers for the conference were:

1. Dr. Kenneth E. Okedu, National University of Science and Technology, Sultanate of Oman
2. Dr. Chandrasekar Viswam, KONE Elevator India Ltd
3. Dr. M. A. Bhagyaveni, Director CIPR, College of Engineering, Guindy
4. Dr.S.N.Deepa, National Institute of Technology Arunachal Pradesh
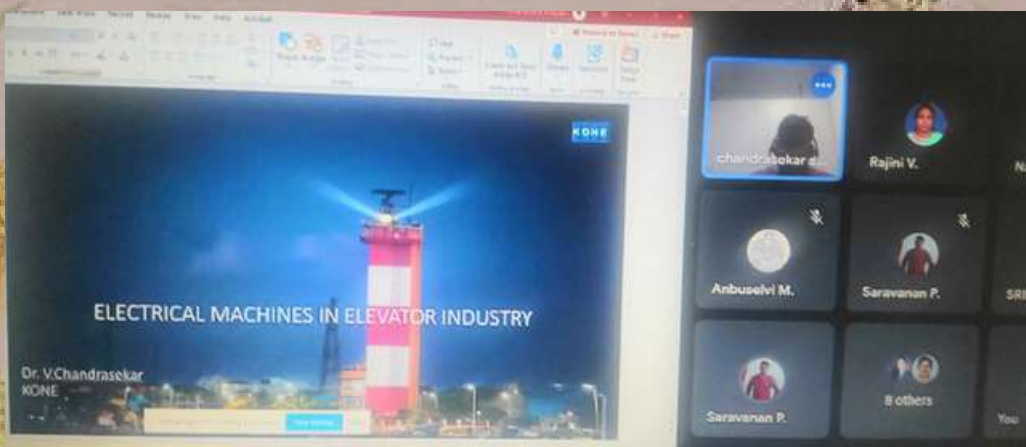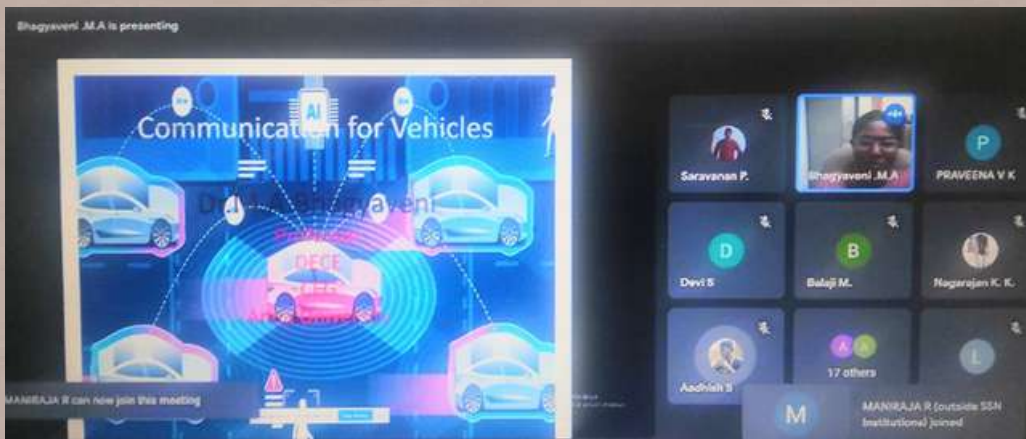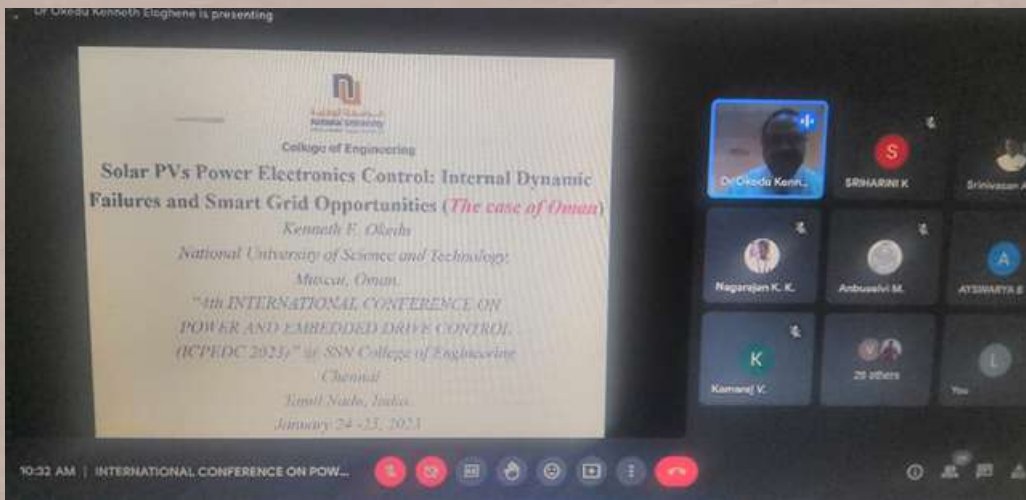
National Workshop on Electric Vehicles: Old Technology with New Reformation

CONVENER
Dr. V. Rajini, Professor & Head, EEE,
COORDINATORS
Dr. T. Abhilash, AP
Dr. K. K. Nagarajan, ASP

Department of Electrical and Electronics Engineering (EEE) conducted a workshop on Electric Vehicles: Old Technology with New Reformation On January 27th, which focused on Electric Vehicle technology and Battery Management Systems. The workshop was open to public and approximately 50 people were in attendance. Dr. V. Rajini was on hand to open the workshop by introducing about the SSN College and Dr. T. Abhilash introduced about the keynote speaker.

The keynote speaker was Dr. Sidharth Sabyasachi, Post-doctoral researcher, Yeungnam University, South korea. Dr. Sidharth spoke about variety of issues in Electric Vehicles and Battery Management Systems. He had shown simulation models and prototypes of Electric vehicles and battery chargers. During the workshop, speaker interacted with the attendees to clarify their queries. Attendees also shared their opinions, thoughts, and suggestions for consideration during the upcoming workshops. A quiz test was conducted to the participants based on the topics discussed in the workshop. Finally, Dr. K. K. Nagarajan had given the vote of thanks.

Guest Lecture and Review of M.E.Project -Phase-1

Mr.S.Bharath Kumar(Department of EEE, ,M.E.PED,2014-16),Senior Analyst-Electrification, Caterpillar, Chennai delivered a Guest Lecture titled, "Industry Expectations from Postgraduate Engineers" on 11.02.2023 for PG students. Dr.V.Rajini, Prof. & Head delivered the welcome address and talked about the significance of industry involvement in the review of PG projects. This event was coordinated by Dr.R.Seyezhai, Prof/EEE.

Mr.Bharath Kumar, discussed about the opportunities and skill sets required for getting placed in a core company. He pointed out the important aspects of industry expectations for power electronics engineers and narrated about the communication skills, learning beyond the text book, ability to lead, updating with the latest technology and multi-tasking required for post graduate engineers. He shared his experience about the internship which he completed during his PG course and emphasized the students to undergo internship which will be useful for their career. He discussed about the latest software related to power electronics and drives which will be helpful to start their career in the areas of renewable energy systems, electric vehicle and other domains. He interacted with the PG students and answered their queries regarding their placement opportunities in core companies. He also reviewed all PG projects -Phase-1 and provided suggestions for further improvement and advised them to implement those ideas for phase-2.

SHORT TERM TRAINING PROGRAM on 'Hands-on Training for Inverter Fabrication

Cordinators:
Dr.V.Rajini,
Dr.S.Tamilselvi,

Department of Electrical and Electronics Engineering has conducted Three Days- Short Term Training Program (STTP) on 'Hands-on Training for Inverter Fabrication' for faculty, UG/PG students, research scholars, industry persons. Dr.V.Rajini, and Dr.S.Tamilselvi, Organized and coordinated this Three Days- SHORT TERM TRAINING PROGRAM during 13 - 15th Feb 2023, in the Department of EEE. Number of participants was limited to 25 in order to provide the hands on to every individual effectively. FN and AN sessions of 3 Days were handled by the experts from Industry, Mr.S.V.Sreeraj, The Director Emcog solutions, and two other associates Ms.Aadhirai and Mr.GS.Akshay.

About the workshop:

DAY 1 :

S.No.	Topic
1	Inverter Design (Square wave & Sinewave), Modular design, preparing schematic & Bill of Material
2	Verification of BoM, Schematic and Component selection
3	Inverter Circuit Fabrication in PCB

DAY 2 :

S.No.	Topic
1	Transformer calculation for sinewave and square wave inverter
2	Inverter firmware development techniques
3	Sine Pulse Width Modulation technique
4	Continuation of Inverter circuit fabrication in PCB & Transformer winding

DAY 2 :

S.No.	Topic
1	Continuation of Inverter circuit fabrication in PCB & Transformer winding
2	Testing & Troubleshooting of Inverter
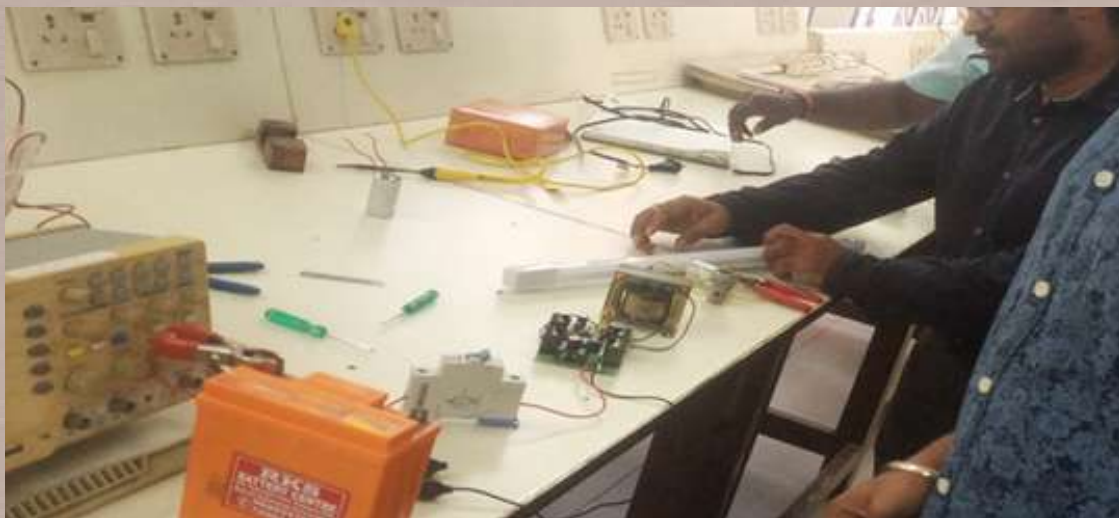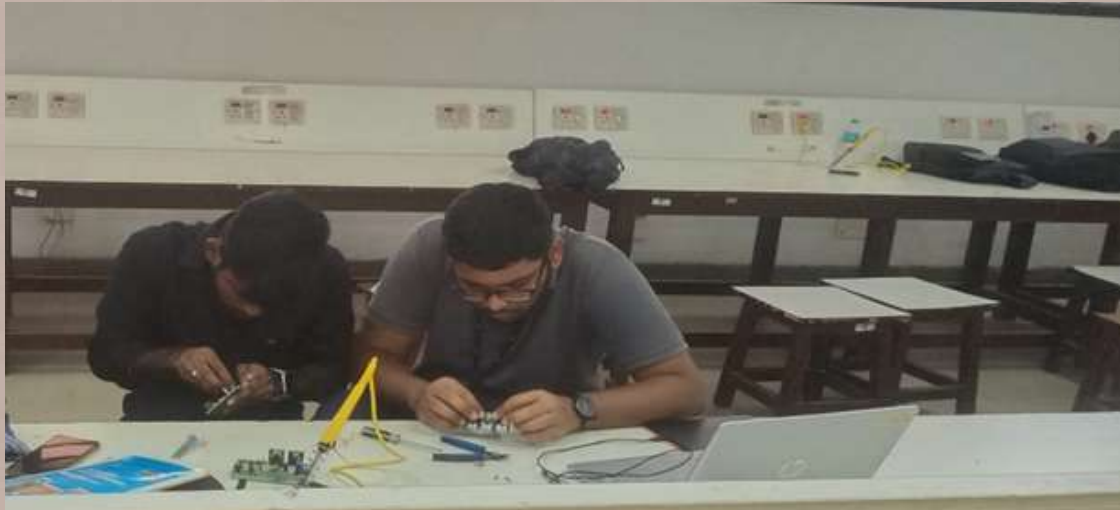
Development of Campus tour EV- a Step on Greener campus

As a part of DST-SERB funded project, an electric vehicle has been developed with the electric power drive of 11 KW. With the suggestions from the President, the electric vehicle has been refurbished, to utilize the vehicle during Shiv Nadar Foundation Leadership Conclave (17-18 February 2023), for campus tour.

The proposed requirement of the vehicle for the campus tour vehicle were analysed, and formulated as follows:

 The improved visibility of the outer environment for the passengers

 Maximum speed limit of 20kmph.

 Easy to handle (power steering, No gears etc.)

 Minimum passenger's body role during different trajectories

Proposed structural modifications of the vehicle are the removal of 'B' pillar and also maintaining the strength of the roof-rail. The complete power train is replaced for the required performance.

With Real Time Operating System (RTOS), the Intelligent Control Module (ICM) is configured to control the complete functioning of all the subsystems of the vehicle. The significant modules of the vehicles are shown below:

The networking among ICM and all the subsystems are established through Control Area Network (CAN) protocol.

To develop the proposed vehicle, the electric drive system is replaced with a 2KW motor with controller. The existing motor housing set up is modified to hold the same. To couple the shaft of the motor and existing differential gear set-up, a coupler is designed with CAD techniques and fabricated. The ICM module is configured with the new electric drive train

Drive housing with differential gear set up and positioned drive

Drive housing with differential gear set up and positioned drive

The developed electric vehicle has been effectively utilized for the campus tour during the SSN-SNU conclave.

Dr. P. SaravanaN,
Associate Professor/EEE,

National Conference on
Recent Trends on Power and Energy Engineering
(RTPEE)
23rd and 24th February, 2023

Dr.G.R.Venkatakrishnan
Associate Professor

Dr. R. Rengaraj
Associate Professor

Dr. Mrunal Deshpande
Associate Professor

RTPEE-2023 is the premier interdisciplinary platform to deliver the latest developments and innovative research results in the area of power and energy engineering for all professionals, researchers and engineers. This conference aims to foster interaction in the area of power and energy engineering with a specific focus to smart grid, IOT, renewable energy, cyber security in power system and its applications among researchers from both academia and industry. The technical committee received approximately 60 technical papers, and 33 of them were shortlisted for presentation after a rigorous peer review process.

During the conference, three keynote speeches werev delivered by renowned speakers. Our esteemed chief guest, Dr. Karunamoorthy Neethimani, Managing Director of Windplus, Coimbatore, delivered the keynote speech after the Inaugural Function. Shri Nitin Patwardhan, Head of Operations (Industrial & Commercial) at UPSPL Integrated Services Pvt. Ltd. Pune, delivered the second keynote speech in the afternoon. while the third keynote speech was delivered by Dr. V.S. Sri Raja Balaguru, Executive Engineer at TANGEDCO, Chennai, on February 24th.

The conference has been scheduled in four virtual sessions for the authors to present their papers virtually. RTPEE – 2023 provides the platform for researchers, to exchange their ideas as well widen professional contact, and create new opportunities, including establishing future collaborations.

Dr. G. R. Venkatakrishnan
Dr. R. Rengaraj
Dr. Mrunal Deshpande

Keynote Speakers

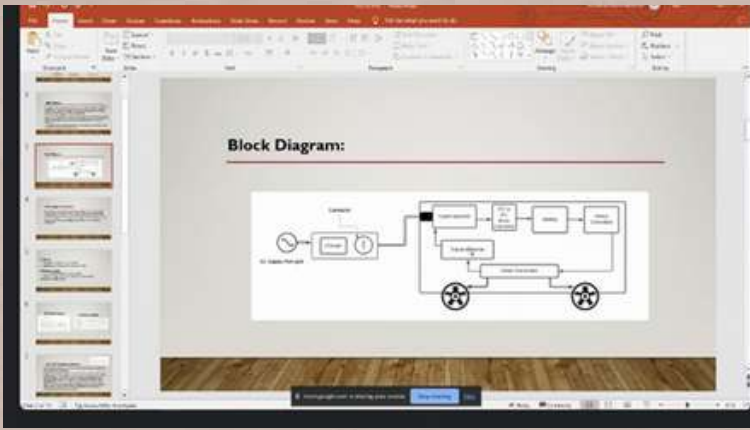**Dr. Karunamoorthy Neethimani**
(Managing Director, Windplus, Coimbatore)

Shri Nitin Patwardhan
(Head - Operations (Industrial & Commercial),
UPSPL Integrated Services Pvt. Ltd. Pune

Dr. V. S. Sri Raja Balaguru
Executive Engineer,
TANGEDCO, Chennai

Workshop on "Recent Trends in Electric Vehicle Technology and Research Opportunities"

Convenor: Dr V. Rajini, Prof. & HoD, EEE
Coordinator: Dr. Sajjan Kumar, AP/EEE and Dr. R. Arun AP/EEE

The department of EEE conducted Five days Workshop on "Recent Trends in Electric Vehicle Technology and Research Opportunities" from 27th February – 03rd March 2023. This workshop was equipped with 10 technical sessions by 9 different eminent speakers from different reputed national/international institutions/Industries. Total 333 participants from India & abroad had registered for this workshop and out of 333 registered participants, 285 was external participants from other national/international Institutions/Industries.

Resource Persons:
• Dr. Pradip Kumar Sadhu, Professor (HAG) and Ex-Head, Department of Electrical Engineering, IIT Dhanbad.
 • Dr. Marta Zurek Mortka, Senior Researcher, Instytut Technologii Eksploatacji, Radom, Poland.
 • Dr. Shankar M. Venugopal, Vice President, Technology Innovation & KM - Dean, Mahindra & Mahindra, Mahindra Research Valley, Chennai.
 • Dr. Avik Bhattacharya, Asso. Prof., Department of Electrical Engineering, IIT Roorkee.
 • Dr. V. Rajini, Professor & Head, Department of Electrical & Electronics Engineering, SSN College of Engineering, TN.
 • Mr. Satyendra Pal, Founder & MD of Jeetsons Electric Vehicles Pvt Ltd (JEVPL), Noida.
 • Dr. V.S. Nagarajan, Asso. Prof., Department of Electrical & Electronics Engineering, SSN College of Engineering, TN.
 • Dr. Kaushik Halder, Asst. Prof., School of Computer & Electrical Engineering, IIT Mandi.
 • Dr. P. Saravanan, Asso. Prof., Department of Electrical & Electronics Engineering, SSN College of Engineering, TN

INAUGURATION OF POWER AND ENERGY SOCIETY(PES) & POWER ELECTRONICS SOCIETY (PELS) AT SSN COLLEGE OF ENGINEERING"

CHIEF GUESTS
DR.R.SARATHI
VICE-CHAIRMAN OF IEEE-PES MADRAS CHAPTER
PROFESSOR, DEPT. OF ELECTRICAL ENGINEERING, IIT MADRAS
AND
DR.V.T.SREEDEVI
TREASURER OF IEEE-PELS MADRAS CHAPTER
PROFESSOR,SCHOOL OF ELECTRICAL ENGINEERING, VIT UNIVERSITY, CHENNAI

REPORT

On February 28th, 2023, an inaugural event was held at SSN College of Engineering to mark the establishment of the Power and Energy Society and Power Electronics Society Student Branch Chapters. The event aimed to promote the study and research of power and energy systems & power electronics systems among students and faculty members of the college.

The event began at 10:30 AM with a welcome speech by the Professor and Head of the Electrical and Electronics Engineering Department, Dr.V.Rajini, who introduced the chief guest for the day and also gave us insights to the importance of the IEEE Societies.

Our respected principal, Dr.V.E.Annamalai, addressed the gathering and mentioned the importance of diversifying our knowledge by participating in various technical festivals. Dr.Shree Sharmila, the student counselor of IEEE-SSN and Associate Professor in the Department of Information Technology, gave us insights on various IEEE activities held at SSN so far.

Our distinguished chief guest, Dr.R.Sarathi, was then introduced by Dr.V.Thiyagarajan, IEEE-PES Student Branch Chapter Advisor and Associate Professor in the Department of Electrical and Electronics Engineering. Dr.R.Sarathi is the Vice-Chairman of IEEE-PES Madras Chapter and Professor in the Department of Electrical Engineering at IIT Madras. The Chief Guest congratulated the college on its initiative to establish the society and emphasized the importance of research and development in the field of power and energy systems.

Dr.R.Sarathi is the Vice-Chairman of IEEE-PES Madras Chapter and Professor in the Department of Electrical Engineering at IIT Madras. The Chief Guest congratulated the college on its initiative to establish the society and emphasized the importance of research and development in the field of power and energy systems.

Our honorable chief guest, Dr.V.T.Sreedevi, was introduced by Dr.R.Seyezhai, the Chair person of IEEE-PELS Madras Chapter and Professor in the department of Electrical & Electronics Engineering.
Dr.V.T.Sreedevi is the Treasurer of IEEE-PELS Madras Chapter and Professor in School of Electrical Engineering at VIT University, Chennai. She graced the occasion with her speech on the significance of power electronics and the need for more initiative towards innovation.

The Chair of the Power and Energy Society and Power Electronics Society Student Branch Chapter at SSN College of Engineering, P Sai Krishna Karthik, outlined the society's vision and mission and encouraged the audience to join the society and actively contribute to its activities. He also introduced the office bearers of the Power and Energy Society & Power Electronics Society Student Branch Chapter.
The event ended with a vote of thanks by Swathi, Vice-Chair of the Power and Energy Society, who thanked the management, faculty members, and students for their support and participation in the event.

Overall, the inauguration event of the Power and Energy Society & Power Electronics Society at SSN College of Engineering was a great success, with 120 members in the audience and inspiring speeches. The event laid the foundation for the society's activities and provided a platform for students and faculty members to network and exchange ideas in the field of power and energy & power electronics.

CHIEF GUESTS
DR.R.SARATHI ,VICE-CHAIR OF IEEE-PES MADRAS CHAPTER
DR.V.T.SREEDEVI, TREASURER OF IEEE-PELS MADRAS CHAPTER

DR.V.E.ANNAMALAI
PRINCIPAL
SSN COLLEGE OF ENGINEERING

DR.V.T.SREEDEVI
TREASURER OF IEEE-PELS MADRAS
CHAPTER
PROFESSOR, SCHOOL OF ELECTRICAL
ENGINEERING
VIT UNIVERSITY, CHENNAI

DR. R.SARATHI
VICE-CHAIR OF IEEE-PES MADRAS CHAPTER
PROFESSOR, ELECTRICAL ENGINEERING
IIT MADRAS

DR.SHREE SHARMILA
STUDENT COUNSELOR OF IEEE-SSN
ASSOCIATE PROFESSOR, IT DEPARTMENT

DR. V.THIYAGARAJAN
ADVISOR OF IEEE-PES STUDENT BRANCH CHAPTER
ASSOCIATE PROFESSOR, EEE DEPARTMENT
SSN COLLEGE OF ENGINEERING
DR.R.SEYEZHAI

DR.R.SEYEZHAI
CHAIR OF IEEE-PELS MADRAS CHAPTER
PROFESSOR, DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING

OFFICE BEARERS OF POWER & ENERGY SOCIETY STUDENT BRANCH CHAPTER

VICE - CHAIR : SWATHI G
SECRETARY : MOUKTHIKA G
TREASURER : AKILESHWAR G
JOINT SECRETARY : SMITHAA M

OFFICE BEARERS OF POWER ELECTRONICS SOCIETY STUDENT BRANCH CHAPTER

VICE-CHAIR : SUHITHA K
SECRETARY : DEEPTI KARTHIKEYAN
TREASURER : RAGHUL SJ
JOINT SECRETARY : SAI LIKITHA

IEEE- PELS & PES STUDENT BRANCH CHAPTERS IN ASSOCIATION WITH THE EEE DEPARTMENT

ORGANIZES

"FELICITATION OF EEE SHAKTIS"

REPORT

On March 8th, 2023, the IEEE-PELS & PES Student Branch Chapters in association with the Electrical and Electronics Department at SSN College of Engineering, celebrated the INTERNATIONAL WOMEN'S DAY.

The event began at 11:00 AM with a welcome address by the Vice Chair of Power Electronics Society (PELS) Student Branch Chapter, K.Suhitha, who introduced the Female Faculty and Staff of the EEE Department. This event aimed at celebrating the achievements of women in the EEE department. The Shaktis of the department were felicitated by the EEE faculty members. They were also presented with a token of appreciation for their contribution to the society.

The event consisted of a discussion where the faculty members were asked several questions about their successful journeys and the hardships they faced to get to the position they are in right now. After the insightful discussion, a fun game was conducted where they had to guess the word from a series of pictures. The faculty members and the students actively participated in the event.

The event ended with a vote of thanks by P.Sai Krishna Karthik, Chair of the Power and Energy Society (PES) and Power Electronics Society (PELS) Student Branch Chapters, who thanked the management, faculty members, and students for their support and participation in the event.

Overall, the celebration of the International Women's Day which was organized by the IEEE-PELS & PES Student Branch Chapters in association with the Electrical and Electronics Department at SSN College of Engineering was very commendable, with 70 members in the audience . The event played a significant role in empowering the women among the faculty members.

Officials from career cab visited EEE department and talked to third year EEE students on March 17, 2023

Valeo Company officials visited EEE Department labs for possible collabarations on March 16th

IEEE YESIST HACKATHON PRELIMS - FINALE

On March 17th, we, Manojshyaam (III Year, EEE), Abdulraahman(III Year, EEE), Sindhu (II Year, EEE) and Mahalakshmi (II Year, EEE), a team of four mentored by Dr Rengaraj from the Department of Electrical and Electronics Engineering, participated in the IEEE YESIST HACKATHON - PRELIMS FINALE. Our objective was to develop a prototype named " Watch Buddy ", which incorporates Embedded Machine Learning and IoT is a TinyMLpowered Portable Intruder Alert Camera.

Although the competition only required a 50 percent completed prototype, we decided to go the extra mile and completed the entire prototype for the competition. We understood the significance of this YESIST HACKATHON as an opportunity provided by IEEE and were determined to make the most of it. The event aimed to empower us with novice skills in the C-programming language, along with the basic fundamentals and core concepts of electrical and electronics. We submitted our abstracts online, explaining the working principle and concept of our Watch Buddy.

The second round of the competition involved presenting our core concept and showcasing the working model with a detailed explanation of the principles behind it. We were thrilled to receive an IEEE-recognized achievement certificate and an internship opportunity at
"Curious Wings" a software startup.

We have been informed that the finale round will be held in Egypt in August 2023, and we are eager to present our finale model on the big stage.

The event provided us with great exposure to a highly positive community of participants from various colleges across diverse regions of India in hybrid. Attending such an event was a truly transformative experience that left us feeling inspired and empowered. We were enveloped in an atmosphere of innovation, collaboration, and intellectual curiosity.

CONCEPT BEHIND THE PROPOSED SOLUTION :
PROBLEM STATEMENT:

Conventional security systems are not always feasible in locations such as outdoor areas, temporary installations, or places where it is difficult to run power and network lines. Therefore, a low-cost, portable, and reliable solution is needed to detect intruders in these areas and take prompt actions. To address this issue, an intruder-based alert portable camera using object detection technology is developed.

EXPLANATION :

The objective of this project is to develop a portable intruder detection system that can be easily set up in different settings where traditional security systems are not feasible or can be used. The proposed solution uses an ESP32-CAM module with Embedded Machine Learning (TinyML) technology that can identify specific objects such as people, cars, faces. When an intruder is detected, the device can send an alert along with the photo to a monitoring station or the owner's phone using IoT technology. This will allow for prompt action to be taken.

USABILITY :

This intruder detection system using object detection technology provides a cost-effective, portable, and dependable security solution for challenging environments, with alerts sent to monitoring stations or the owner's phone for prompt action.

The techniques and technology used in creative solutions to reach a specific goal:

The development of an intruder detection system using Embedded ML (TinyML) addresses the challenge of providing a cost-effective, portable, and dependable solution for security purposes in locations where conventional security systems may not be viable.
This technology is particularly useful in outdoor areas, temporary installations, or places where installing power and network lines is not feasible. By using an ESP32-CAM module embedded with a Machine Learning Model to detect face of person or detect any motion. A small and portable device is built , which can be easily deployed in various environments. When an intruder is detected, the algorithm can recognize specific objects such as vehicles or people, and send out an alert. This alert can be received by a monitoring station or the owner's phone through IoT technology along with the photo captured by the ESP Module, enabling prompt response and action.

The project aims to achieve the following goals:

•Develop a small and portable device using the ESP32-CAM module that can be easily set up in various settings, including outdoor areas, temporary installations, or places where it is not possible to run power and network lines.

•Incorporate Embedded ML technology into the device to identify specific objects such as people or cars and send out an alert when an intruder is detected.

•Establish a communication system using IoT technology that enables the device to send alerts and pictures to a monitoring station or the owner's phone, allowing for prompt action to be taken.

•Overall, the purpose of this project is to provide a practical solution to the problem of offering security in locations where conventional security systems are not feasible. By achieving these goals, the project aims to contribute to enhancing security measures in various settings, including outdoor areas, temporary installations, or places with limited resources.

VALUE PROPOSITION :
Advantages:
•Cost-effective and portable solution for security purposes.
• Prompt action can be taken as soon as there is some abnormalities detected.
•Suitable for outdoor areas, temporary installations, or places where installing power and network lines is not feasible.
•Uses object detection technology to recognize specific objects, such as vehicles or people.
•Can send out an alert to a monitoring station or the owner's phone through IoT technology, enabling prompt response and action.

CONCLUSION :
In conclusion, the development of an intruder detection system using Embedded ML (TinyML) technology provides a cost-effective, portable, and dependable reflex solution for security purposes in locations where conventional security systems may not be viable. This project offers the advantage of being easily deployable in various environments, particularly in outdoor areas, temporary installations, or places where installing power and network lines is not feasible. The system's object detection algorithm can recognize specific objects such as vehicles or people, and send out an alert that can be received by a monitoring station or the owner's phone through IoT technology, enabling prompt response and action. This project offers a promising and scalable solution for enhancing security and safety in various settings.

9th International conference on Electrical Energy Systems (ICEES 2023) Hybrid Mode, 23-25 March, 2023

Conference Chair: Dr. V. Rajini, Professor and Head

Organizing Chairs: Dr. N.B.Muthuselvan Associate Professor
            Dr. V. Thiyagarajan, Associate Professor
            Dr. M.Deveshraj Associate Professor

Department of EEE organized 9th International Conference on Electrical Energy Systems (ICEES 2023) In Hybrid Mode during 23-25 March, 2023

Chief Guest : Dr Cheng Chin, Associate Professor, Intelligent Systems Modelling & Design
Newcastle University, Singapore
Guest of Honor : Dr. Umashankar Subramaniam, Associate Professor, Renewable Energy Lab, Prince Sultan University, Saudi Arabia.
Keynote Speaker details :

1. Dr Cheng Chin, Associate Professor, Intelligent Systems Modelling & Design Newcastle University, Singapore delivered keynote talk on "Low-Carbon Energy Deployment Strategies and Challenges in Singapore".
2. Professor Akhtar Kalam, Leader – Smart Energy Research Unit College of Engineering and Science, Victoria University, Australia delivered keynote talk on "Data-Centric Evolving Smart Power Grid".
3. Mr Biju P K, Head of Idea & Incubation Office Power Transmission & Distribution L&T, Chennai, delivered keynote talk on "Importance of Core Engineering in Industry 4.0".
4. Dr. Umashankar Subramaniam, Associate Professor, Renewable Energy Lab, Prince Sultan University, Saudi Arabia delivered keynote talk on "Microgrid Energy Management System".

Target audience : Research Scholar, Faculty Members and Industrial Persons
Attendance : 225 participants

Brief Description : The 9th International Conference on Electrical Energy Systems (ICEES 2023) was conducted as Hybrid mode by Department of Electrical and Electronics Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai, in association with Renewable Energy Laboratory, Prince Sultan University, Saudi Arabia and technically co-sponsored by IEEE Madras Section. Dr. V. Rajini, Prof and Head, Department of EEE, SSNCE and Dr. Umashankar Subramaniam, Associate Professor, Prince Sultan University were the Chair and Co-chair for the conference respectively. Dr. V. Thiyagarajan, Dr. N.B Muthu Selvan, and Dr. M. Devesh Raj, Associate Professors from Department of EEE were the conveners for ICEES-2023.

Paper Submission & Selection Details:
• Number of submitted papers: 415
• Number of accepted papers: 150
• Number of registered papers: 132
Paper Presentation Sessions:
132 papers were presented in 13 Sessions spread over three days out of which the session 1 was conducted at Seminar hall of EEE department. The other 12 sessions of paper were presented in online mode. In each session, maximum of 10 research papers were presented by the authors. The session chairs were subject experts from reputed Government Educational Institution and leading private institution and industry.

Inaugural Function
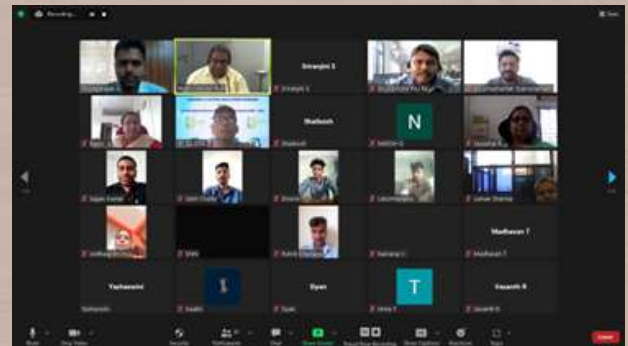
Keynote Session

Paper Presentation Session

தமிழ்

உரையாடலின் போதே சுவையூட்டுவதாக
தோன்றும்
மொழியே எமது தமிழ் மொழி
முத்தமிழான இயல் இசை நாடகமான
கூத்தும்
இனிமையிலேயே தொடங்கும்.
எமது மானிட வாழ்வின் இரு அங்கமான
அகம் புறமும்
எம்மொழியிலேயே அடங்கும்.
தமிழின் ஆகப்பெரிய வடிவமே
தஞ்சையின் பெருமை
மலைபோன்ற ஒற்றைக்கல்
உணர்த்துகிறது -
ராஜராஜ சோழனின் அருமை
தமிழின் சிறப்பை அறிவது நமது கடமை
மனிதன் உயிரோடு வாழ்வதை விட
மொழியோடு
வாழும்போதுதான் முழுமையடைகிறான்.

ஆர்த்தி

ஆசிரியர்

நாம் முன்னேற முதுகெலும்பாகவும் - நல்
வழிகாட்டியாகவும் உள்ள நல் உள்ளம்!
நாம் எவ்வளவு உயரத்தை அடைந்தாலும்
நம்மீது
பொறாமை படாமல் வாழ்த்துகிற
நல்லுள்ளம்!
நமக்கே தெரியாமல் நம்மை உள்ளிருக்கும்
திறமையை
வெளி கொண்டுவருகிற அதீத மா
மனிதர்கள்!
தலை எழுத்து என்ற இரண்டு எழுத்து
வார்த்தையை
மாற்றுகிற இரு எழுத்து - குரு
உலகில் உள்ள அனைத்தையும் - நமக்கு
தெரியப்படுத்துகிற அறிவுடையவர்கள் -
ஆசிரியர்களே!
ஆசிரியர் பணி அறப்பணி அதற்கே -
உன்னை
அர்ப்பணி என்பது மாறி - இப்போது

ஆசிரியர் பணி ஒரு அன்பான பணி
அதற்கே உன்னை அர்ப்பணி என்பார் போல்
இன்றுள்ள ஆசிரியர்கள் வாழ்ந்து கொண்டிருக்கிறார்கள்
அக்கார்களுக்கு நாம் மரியாதை செலுத்தி - அவர்களை
நான் பெருமை படுத்த வேண்டும்!
நம்மை நன்றாக வழிநடத்திய ஆசிரியரை
நாம் என்றும் மனதில் வைத்திருக்க வேண்டும்
இதுவரை என்னை வழிநடத்திய அனைத்து
ஆசிரியருக்கும் இத்திருதினத்தில்,
நன்றி செலுத்துகிறேன்.

ஆர்த்தி

STUDENT'S CORNER

The Writers Point

Literary Treasure Troves

-Deepti, 2nd year

129,864,880, That's how many books we have in the world. You'll perhaps only read a few of them and fewer of them will stick with you. In that regard, Books are like people. Sometimes, you are lucky enough to feel a connection so strong, you can never get over them and sometimes, you are extremely disappointed. But either way, you learn and grow, that much is beyond dispute.

I vividly remember the first time my mom gave me a book when I was six and made me read every day before going to bed. It very soon became a habit, a habit I hold dear even today.

I read books, especially fiction for various reasons, to think, to feel, to cry, to be transported to a fantasy world, and to be absorbed so much that I forget where I am. It seems to me that the world of books is the only place where I connect with myself in a way that is profound.

It's fascinating what books can do to a person. Books can and have changed the world in ways we can't fathom.

I remember the time I was reading 'The prodigal daughter' by Jeffrey Archer. I Have always wondered whether a fictional character could affect someone so deeply, Florentyna did it for me. I was deeply influenced by the iron-willed, headstrong, industrious young woman that Florentyna was. The book was a beacon of hope and inspiration for a fourteen-year-old girl, who had and still has dreams as vast as the ocean.

From there on, every book I've read kept twisting my thoughts, molding the person I am. Every book is a journey that you can only hope never ends, when I read 'A Thousand Splendid Suns', I remember forgetting the world around me momentarily, I was in Afghanistan, I cried with Mariam, and I felt the terror. Maybe I'll never visit the

historical towns of Herat and Kabul, never meet women like Mariam and Laila, never live a life like theirs, But I felt it all. That is why Books were and will continue to be a very powerful weapon in the history of mankind.

Books are a ticket to escape the world even for a short time. From a wizarding world to Nazi Germany, a chance to visit worlds and places I'll never see. It's baffling how I find comfort and solace in all those strange places.

I believe reading a lot of books has helped me develop an ability to feel from my heart and understand and accept the world through the eyes of people around me. I've come to realize that growing up with books can do that to a person.

I can't begin to imagine a life without the company of books. Nothing can ever soothe my nerves as words do. It is within the pages of these literary wonders that I often find peace.

Emily Dickinson once described books as, "The dearest ones of time, the strongest friends of the soul", No one can ever describe the magic of books any better. As I turn the final pages of a book, there's this feeling I get, A sense of loss, almost as if I'm saying goodbye to a dear friend, for a book is truly the best companion one can find.

Doomed
–Sindhu, 2nd year

He should have listened! He should have listened when they told him there was nothing but gloom and horror surrounding this forest. He chastised himself as he walked through the quiet forest. He could hear his own breathing very loudly. When he first entered the forest, the silence didn't bother him, but as time went on, the silence was starting to stifle him. He shouldn't have accepted the dare! He felt exhausted as he reached the same tree he had been coming back to for the past four days. That's right! He had been trapped in this godforsaken forest for a solid four days without food and water! He couldn't take it anymore. He kept coming back to the same place again and again. Was this forest really cursed? He was confined in a cursed forest, and it was all his fault. He shouldn't have been so cocky and declined when one of his friends wanted to accompany him. He felt himself slipping down, and he didn't have any energy to care anymore.

As he laid on the ground, he felt it. A vibration! He sat up quickly and whipped his head in that direction. He felt dread and anxiety crippling under his skin. He prayed with all his terrified heart that it was just the stupid wind blowing through the trees. But he got a glimpse of something that would haunt him in his nightmares throughout his life if he survived today. There stood a tall monster, whose face opened up as it screamed. It wasn't a big lizard or a big bear, though it closely resembled them. It was something that didn't belong to their world, or at least that's what he told himself, because he couldn't possibly bring himself to accept that such a creature existed in his world. The creature had a long tail that had spikes all over it. Though it had no eyes and ears, it turned towards his direction as it screeched again.

"Run!" He could feel his brain telling him to run. He wanted to run, but he couldn't. He was thoroughly frozen with crippling fear. And just when it was a foot away from him, his body finally caught up to his brain, and he ran. As if he was on steroids, he ran so fast without stopping to even catch his breath. This was the fastest he had ever run. He didn't know where he got this much energy since he hadn't eaten in days. He bolted through the trees and kept running.

Suddenly, he tripped through a branch and fell down. He lost the monster. He gasped for air loudly and sighed in relief. And there was something disturbing his eyesight. There was something dazzling a few feet away from him. Light! He finally found the exit. He ran towards it. He felt his perseverance kicking in when his legs wobbled. He ran without stopping as tears of joy ran down his face. He was finally going home. Unfortunately, what he didn't see was the creature he thought he had lost following behind him quietly.

MY INTERNSHIP EXPERIENCE at IIT-M :
REFLECTIONS OF MY TRANSFORMATIONAL JOURNEY

-Mahalakshmi.K, 2nd year

Hey guys! I'm Mahalakshmi K, and I am delighted to have the opportunity to share my internship experience at IIT-M with you all. Throughout the internship, I have had the privilege of working with Dr. Raghavendra Rao [Dept. of. CSE – IITM] and I have been fortunate enough to be part of some truly remarkable courses and projects under him.

As a student who is enthusiastic about emerging technologies, my interest in the field of CS was sparked by my exposure to programming languages such as Python and Java during my college coursework, and since then, being passionate about both EE and CS engineering, I am thrilled about the prospect of combining the two fields in my work. With the vision of creating cutting-edge technologies that can transform industries and improve lives, I am a candidate who is eager to put knowledge and skills from both disciplines to use. I also have a unique perspective that I believe will be invaluable in bridging the gap between the two disciplines.

After well assessing my CV and a short writeup of my interests in emerging technologies, I was selected for the internship. Throughout my internship at IIT-Madras, I had the privilege of collaborating with a team of adept and accomplished professionals in the Department of CS and EE. From the very outset, I was graciously welcomed and actively engaged in the team's work, which expedited my comprehension of the campus culture and processes.

During my tenure, I tackled various tasks that provided me with extensive practical exposure to the knowledge of programming languages for developing software, effective communication, and collaboration skills to work with cross-functional teams including the ability to present technical information in a clear and concise manner.

One of the most valuable aspects was working on consequential real-world projects and Navigating through real-world challenges. Additionally, it helped me enhance my soft skills such as teamwork, communication, and problem-solving. These attributes are vital for professional success, and I am appreciative of the opportunity to hone these skills during my tenure.

Overall, my experience was extraordinarily positive, and I am confident that the knowledge and skills, acquired in new proficiencies will undoubtedly prove beneficial in my future endeavors. I extend my heartfelt gratitude to Dr. Raghavendra Rao [Dept. of CSE -IITM] for his unwavering support, guidance, and encouragement throughout my internship.

A CORNER TO PONDER

-Pranav A, 3rd year

Ep- 5: Acceptance

Hey all! Before I start with all the technicalities, I would like to welcome all of you to another section of the 'A Corner to Ponder' series. Taking the lesson from the previous installment about gratitude to heart, I am immensely grateful that you all have stayed with me for about a year now. I hope and wish for this section and its readers to stick together for a long time to come. As always, let's derive a useful take-away from this section, together.

Grief. This term is not new to us. We've always had to say goodbye to a life that we once knew and move on to a new reality. It is a journey we can't avoid. Given that, I assure you that this phase can be dealt with strength, courage and grace. It is not something to be afraid of. Nor is it something that can be dealt with in an instant. Grief demands time. It requires us to feel and heal- in your own capacity. Agreed, it is a tough journey but an extremely important and necessary one. Beyond the past is the capacity to open up to new feelings in the present, some will mimic the one from the past, but some are so beautiful that you will never want to move past that moment. The wide spectrum of instances are sure to surprise you. But it is always important to remember one thing at the end of the day- "This too shall pass".

It is perfectly okay to grieve the loss of something. Everyone loses something they hold close to their heart. If we get everything that we desire, is there a thrill to living life on uncertain terms? Bouncing back after falling is a journey of transformation and finding new strength. The feelings of love, loss and longing are not exclusive for one alone. All humans in the world go through this phase at least once. Methods of coping with said feelings are unique to each individual and at the end of path, one is more compassionate and hopeful. But to truly heal, "feel the feelings".

We commonly see people avoiding the entire situation by justifying to themselves why it isn't a loss at all. This only delays the feelings that lay buried in one's life and are bound to come out some day. Refusing to accept what has happened isn't the best way to deal with a situation. You tend to swing away from the normal pace of life and live in a land of your own 'what-if's. It might protect you at that moment but is never going to help you in the long run. The situation has happened, probably a long time ago and you're just stuck there replaying the scenarios and how else it could have played out over and over again. The world around you has changed magnanimously and might take you by surprise when you attempt to rejoin it.

We do all sorts of things to minimize the pain the event causes- we blame people around us for not doing something to change the outcome. We even bargain with life to have another go at the situation in hopes of changing the end result. As I said before, life freezes at that moment and one doesn't realize the fact while in denial. It is human nature to hope to have done something better when we look back at the past. Bargaining is not a way to change the past. It is important to walk through the pain of the loss in order to truly heal.

Acceptance is not one destination. It is a journey filled with hurdles- including ones that will push you to go back. It requires a whole load of effort and self care to get through the traumatic events that life throws at us. Acceptance is a process that must go on parallelly as life goes on. It is important to continue to honor the memory of what has been lost, while also finding ways to live fully in the present moment. Ultimately, the journey is about finding a way to live with an open heart, to embrace the joys and challenges of life, and to find hope and meaning in even the most difficult moments. Acceptance also involves forgiveness and reconciliation. In order to heal and move forward, it is important to work through these emotions and find a way to forgive. This can involve forgiving ourselves for any mistakes we may have made, or forgiving others who may have contributed to the loss. It can be a difficult and painful process, but it is also a necessary step towards healing and finding peace.

Life is always beautiful no matter what it throws at us. One always finds new ways to connect with people and to explore new passions and achieve all that they've wanted to achieve. Grief deepens our feeling-reserves and allows us to feel more freely and let down our barriers to experience life at its fullest. But to come out of it is the true measure of strength of character and the grit one possesses. It is a reminder that even in the face of loss and pain, we have the capacity to heal, grow, and thrive. Life after a significant loss can be filled with many emotions and challenges, but it can also be a time of growth, resilience, and new possibilities. After acceptance, life can take on a new perspective and meaning.

A person who uses this pain to fuel their growth, discovers new ways to make a positive impact on the world around them. Their loss has given them a unique perspective and empathy that they use to help others who are going through similar experiences. Holding on to the past only hurts oneself. They are rendered incapable of connecting with the present and are distanced from reality. Such a person is difficult to relate with and is often reluctant to make unprecedented bold moves.

I never realized while writing that this article connects all the installments of the 'A corner to Ponder' series. We've spoken about the 'drive'(Ep-1) to move past situations that hold us back and to show the world the strength of your character and forge your own 'identity'(Ep-2). 'The art of rejuvenating and regenerating'(Ep-3) plays a vital role in showing the world that you're not shaken easily, but you're still vulnerable enough to empathize with others and offer help whenever they require it. And when it is you who receives help, it goes without saying that we say, or rather, feel a thank you,(Ep-4) from the bottom of our hearts.

Concluding, I realize that each one of us fights our own battles and reacts differently to the situations around us. But the end goal is to move past such sour moments in life and embrace the beautiful moments that happen to us everyday. The simplest way to enjoy life is to practice gratitude and to find joy in the simplest of pleasures in life. It is important to get back up, dust yourself off and stand face to face with life and let it know that you aren't afraid of it and that no matter what it throws at you, you would stand by your character and face everything with a smile on your face. No matter how difficult it gets, make sure that you help those around you as no smallest gesture goes un-returned. It is never too late to sort out your life and stand unfazed but still empathetic enough to embrace the smallest wonders in life.

Vantage Of Verses

Academic Burden

Endless days of stress and strain,
My mind a tangled mess of pain,
Homework, exams, and deadlines loom,
I feel like I'm stuck in a never-ending gloom.
I try to study and focus my mind,
But my thoughts keep slipping and falling behind,
I'm overwhelmed and drowning in fear,
I wish I could just disappear.
The weight of expectation feels too much to bear,
My heart feels heavy with the burden I must wear,
I long for a moment of peace and rest,
To escape this endless cycle of academic tests.

Sindhu, 2nd year

Perfectly imperfect

Ethical evening with an orange sky,
Sleepy eyes with a busy mind,
Spiritless sky,
I, sitting with a blank paper
In my hand-reading, I am alarmed by life
I am anxious of my dream
The shadow in the dingy area whispered
"Who am I?"
My soul pleads to ask me "Who am I?"
"I am the undivulged person in this world,
I am the ill-favored person,
I am beautifully broken,
Perfectly imperfect but beautiful in my flaws"
But it's okay, till I can,
It's okay to do what's best for me,
I'm going to cherish my imperfection.

Akshaya, 2nd year

Mystic Lenses 📷
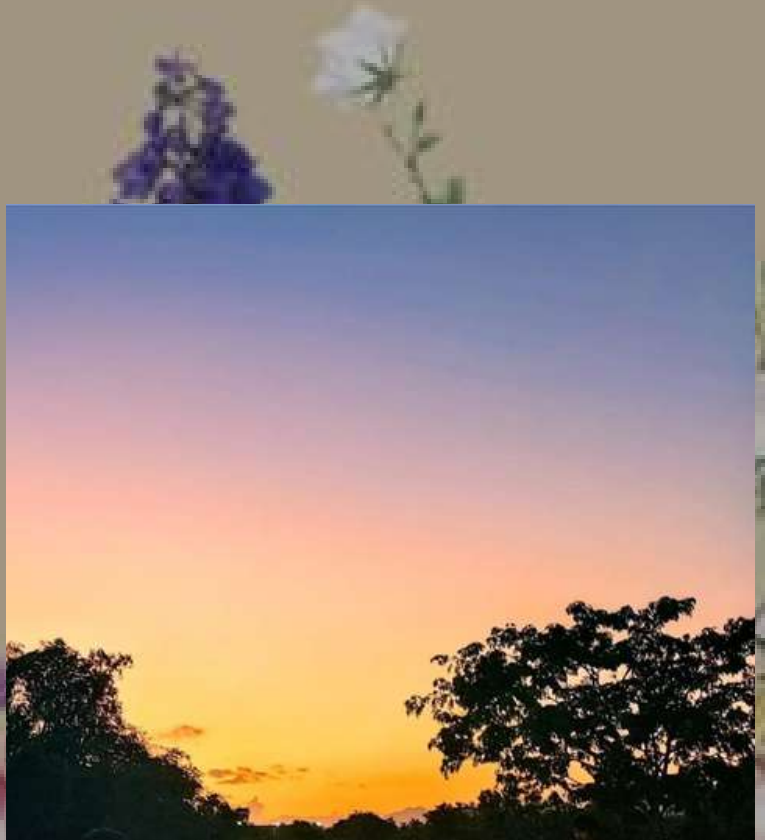
Manasa, 2nd year

Mystic Lenses 📷

-Benita Sharma, 2nd year

Mystic Lenses 📷

-Alfred, 2nd year

Mystic Lenses 📷

- Akash, 2nd year

SWIRLING INK!

-Anusha, 2nd year

SWIRLING INK!

-Anusha, 2nd year

THE DEGREE AFTERMATH

Placement Experience

-Harshini

Company: NATWEST
Role: SDE
Category: SUPER DREAM
Type: IT
Description: FTE
CTC: 13 LPA
Name: HARSHINI J
Mail ID: harshini193001042@eee.ssn.edu.in

Back in August 2022, when the placements season began, anxiety had its strongest grip on all of us. We had a lot on our plate. From keeping up with the classes, preparing for the coding interviews, having second thoughts on working in a Software company despite the core background, and cluelessly brushing up on most of the core concepts in the 11th hour, the phase was exacting. The most important thing that a student needs to do as an applicant is to analyze all the pros and cons while deciding to sit for the recruitment process of a company. Apply for the companies that you are genuinely interested in. You need to wait for your turn. No matter what happens, stay optimistic and never stop preparing for interviews.

From whatever I experienced, here are a few suggestions. It would be ideal to start practicing coding three to five months before the placements. If the software is your forte, it would be enough to practice for around two months. We must know the basics of our core well, so be prepared. Projects and research papers make us stand out among the other candidates. Relevant skills that fit the job requirements are an added feather to the hat.

The entire process comprised of two rounds.

Round 1: As a customary process, the first round was a coding round. We had to answer two coding questions. We were given the liberty of choosing to code in the programming language of our choice. We also had a few aptitude questions. They were of moderate level difficulty.

Round 2: The shortlists were very few from the voluminous number of applicants. Two of us from our department got selected. We had a virtual interview round. The interview was a combination of technical and HR questions. The technical questions were based on the basics of programming languages like python, C, and C++. They also tested our knowledge of Machine Learning. We had to explain our projects and the novelty of the project. HR questions were pretty simple. Overall, it is enough if we are thorough with programming basics.

After the interview, we got the results announced on the same day. One bonus tip, when the interviewers give you time to ask questions, make sure your question amuses them and make it as creative and thoughtful as possible. That might increase your chances of landing the job. Make sure to give your best. You got this!!

Placement Experience

–Sukumari

Company Name: Technip Energies
Role: Graduate Engineer Trainee
Category: Dream
Type: Core
Description: FTE
CTC: 6.1 LPA

Technip Energies is a leading provider of consulting, engineering services and technologies for the low-carbon energy market. The group discussion and interviews were held offline in Sathyabama University. They began with the pre placement talk to introduce about their company and elaborated on the job roles they were offering.

Online Test Experience:
The test was conducted in AMCAT-SHL platform (virtual). There were four sections in total and all the questions were of MCQ type. The first section consisted of Verbal Reasoning questions which was followed by Quantitative Aptitude and Logical reasoning type questions. Then for the technical section, questions were from Electric Machines, Control System, Transmission and Distribution, Power Electronics and Power System Analysis. At last, there was personality test for 15 minutes.

Group Discussion: Discussion started with the panel members asking us to introduce ourselves. Then the topic of discussion "Should Healthcare be commercialised?" was given. Try to either start the discussion or give a conclusion since it leaves good impression. Adding valuable points and listening to your fellow mates helps in clearing this round.

Interview Experience:

Round 1 - Technical Interview:

 The interview started with the question "Why did I choose EEE as my mainstream?". Then the interview proceeded with questions being asked based upon electrical and electronics engineering concepts. I would strongly suggest you to revise the previous semester subjects. Questions were also asked from the pre placement talk given by the company. At last, they asked me to explain any laboratory experiment that took place during the recent semester. Good understanding of EEE concepts and being calm during the process will help you ace this round.

Round 2 – Technical & HR Interview:

 In this round I was questioned about my in-plant training and final year project as mentioned in my resume. So, I would suggest you keep a proper resume and state actual facts. Further questions were asked from my resume about my previous leadership roles and achievements. Later he asked about my family, hobbies and interests and some HR questions like "Why do you want to join Technip?", "How do you see Technip?", etc. He also asked whether I am going to do masters. Overall experience was pretty smooth.

For any queries feel free to contact me. All the best for your career

Mail-Id: sukumari19300111@eee.ssn.edu.in
Contact No: 9566170200

Alumni Interaction

(Any activity involving Alumnus)

Mr.C.Karuppuswamy (B.E.,Department of EEE,2001-05),Senior Technical Lead, Ametek Instruments Pvt Ltd, Bangalore delivered a course module titled, "Design of Reactive Elements in Power Converters" on 4.03.2023 for PG students and UG students. This event was coordinated by Dr.V.Rajini, Professor,EEE and Nagarajan V S, Associate Professor, EEE.

He is in close interaction with the department and has come forward to offer continuous guidance for students of BE(EEE) and is planning to continue his mentorship for the future.

ALUMNI SPEAKS

-Gomathi V

Over the last 3 years of my career I've had a lot of different experiences which I've been trying to abstract for a long time now. I've heard a lot of people say, once I find my passion, I will be successful but here's the problem, most successful people don't pick a passion out of a shelf, they create it. Usually it's a fusion of 2 or 3 things they're passionate about and are extremely good at. This is the journey I'm on as well and there are and will be certain principles you will live by and in this piece, I wanted to share what my principles are -

1.Deep Belief in the Red Queen Effect

We all know about the classic book 'Alice in Wonderland' written by Lewis Carroll. A character, Red Queen in it says "now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!". We are in an extremely competitive world and everyone is growing as fast as we are. Speed and agility are key tenets to be successful fast and it is essential for all of you to understand this innately, and keep striving to stay ahead.

2.Being tied by a Ulysses Contract

"Take courage, my heart: you have been through worse than this. Be strong, saith my heart; I am a soldier; I have seen worse sights than this."— Homer Odyssey is an epic poem written by Homer and is considered as one of the oldest works of literature. Odysseus, one of the characters, makes a pact called the Ulysses Contract on his journey homewards after a long war to survive the alluring songs of the Sirens, which if followed, lead to certain death. Knowing the threat of temptation, he prepared his crew by plugging their ears with wax, and because he wanted to listen to the songs without dying, he asked his crew to tie him up to a mast to avoid following the music into the sea. Odysseus's foresightedness and anticipation helped their survival.

What is a Ulysses Contract?

It is a way of forcing oneself to accomplish a goal by anticipating the potential temptations and establishing rules, so you don't give up when it gets hard. This is the hardest one to follow. As going gets tough, we all tend to give up but the ones who emerge out of it win. Ensure you create your own Ulysses contracts to ensure that we work with dedication and commitment and reach our goals by tackling challenges.

3. Keep it simple like Ockham's Razor

The Ockham's Razor is a principle attributed to William of Ockham, a philosopher and theologian which states that 'entities should not be multiplied unnecessarily.' In other words, the answers which require the fewest assumptions are mostly the correct ones. Believe firmly in keeping it simple. It helps reach a lot more people and your ability to simplify comes from the immense knowledge you have on it. Next time you find yourself giving someone a complicated answer, go back to your book and learn more about it.

4. Functioning like Insecure Overachievers

Do you remember that person in the class who always shot the hand up to any question? Always be ready to answer the next question and take on the next challenge while at the same time remaining insecure about what we can do. This is somewhat akin to Andy Grove's – 'Only the Paranoid Survive'. That is the time-tested approach of the leaders-in-the-making, and operate that way.

5. Decide with Measured Fallibilism

The word Fallibilism was coined by an American Philosopher named Charles Sanders Pierce in the 19th century. It states that 'no belief (theory, view, thesis, and so on) can ever be rationally supported or justified in a conclusive way.' There will always be a possible doubt as to the truth of the belief.

Likewise, hold strong opinions, but hold them loosely and remain open to changing them. This, I believe, is the correct way to approach the complex world of today where anything can be thought of and viewed through multiple lenses and perspectives. We all have opinions, but we are also willing to reconsider them, and make amends if needed.

So, these are principles that I live by which have helped me set myself apart in everything I do. I hope this served as a starting point to introspect and define what yours can be!

Wishing you the best in all your endeavors!

Placement Report

S.No.	Name	Company Placed	Category	Role
1	Adhi Shankar N	Enquero - A Genpact company	Super Dream	Software Engineer
2	Ahamed Raja A	Oracle	Super Dream	Associate Consultant
3	Akash P	Everstage	Dream	Solution Specialist
4	Akshaya priya T	Citi Bank	Super Dream	Software Development Analyst
5	V N Amritha Rao	Wood PLC	Core	Graduate Engineer Trainee
6	Anirudh Sethuraman	Amadeus Software Labs	Super Dream	Software Engineer (Development)
7	Annapoorna V	Deloitte USI	Dream	Analyst
8	Ansheela Sahoo	Microchip Technology	Super Dream	Application engineer
9	Arivazhagan J	Enquero - A genpact company	Super Dream	Software Engineer
10	Arun changotra	Crayon data	Super Dream	Associate engineer
11	Aswin Kumar J	Mastech Infotrellis	Dream	Associate
12	Ayswarya B	Shell	Dream	Process data engineer
13	Ayush V A	Cognizant	Regular	Programmer Analyst Trainee
14	Balaji S	Mastech Infotrellis	Dream	Associate
15	Barath V	Microchip Technology	Super Dream	Engineer I - Corporate Applications
16	Bharath Raj V	Comcast	Core	Development Engineer I
17	Bharath Vishal R	Microchip Technology	Super Dream	Engineer I - Software
18	Bhargav Bussa	Everstage	Dream	Solution Specialist
19	Bineshkumar B	Comcast	Core	Development Engineer I
20	Dhinesh S	Comcast	Core	Development Engineer I
21	Dhivya Shri A	Optum	Super Dream	Full Stack Engineer
22	Dinesh P	Daimler India Commercial Vehicles Limited	Core	Graduate Engineer Trainee
23	Gaddam Jyothsna	Shop Up	Super Dream	Automation Engineer
24	Ganesh M	Wood PLC	Core	Graduate Engineer Trainee
25	Gokul Raghavan AR	Cognizant	Regular	Programmer Analyst Trainee
26	Gunasekaran P	Mastech Infotrellis	Dream	Associate
27	Hari P R	Mbit Wireless	Core	Development engineer-1
28	Hariharasudhan KK	MRF Tyres	Core	Electrical (Maintenance) Engineer
29	Harish N	Citi Bank	Super Dream	Software Development Analyst
30	Harish Shankar J	Mbit Wireless	Core	Associate Engineer
31	Harshini J	Natwest	Super Dream	SDE

32	Hema Nandini R	Daimler India Commercial Vehicles Limited	Core	Graduate Engineer Trainee
33	Infantselva	Comcast	Core	Development Engineer I
34	Iniyavan B	Tekion	Dream	Quality Analyst
35	Jaya Abhinaya G	Wood PLC	Core	Graduate Engineer Trainee
36	Jayasurya G	Comcast	Core	Development Engineer I
37	Jazlyn C	Comcast	Core	Development Engineer I
38	Jerry Rinaldo S	Optum	Super Dream	Full Stack Engineer
39	Kaviya Malar AD	Tekion	Super Dream	Associate Software Engineer
40	Keerthana S	Deloitte USI	Dream	Analyst
41	Madhangi G	Comcast	Core	Development Engineer I
42	Mageshwari N	Mr. Cooper	Dream	Data Support Engineer
43	Manish K S	TCS	Regular	Trainee
44	Manoj Balaji S	Comcast	Core	Development Engineer I
45	Marutham Rathna Valli M	Optum	Super Dream	Full Stack Developer
46	R.Mirdula	Optum	Super Dream	Full Stack Engineer
47	Mirudini Vijayakumar	Citi Bank	Super Dream	Technology Analyst
48	Mohamed Ismail M	Innova Solutions	Regular	Software Developer
49	T U Nehadhruwa	Eurofins IT Solutions	Super Dream	Associate Software Engineer
50	Nishal Varshan G K	Innova Solutions	Regular	SDE
51	Nishath Afroza A J	Eurofins IT Solutions	Super Dream	Associate Software Engineer
52	Pooja S	Optum	Super Dream	Full Stack Engineer
53	Pradeep Kumar M	Citi Bank	Super Dream	SDE
54	Praveen Kumar S	Microchip Technology	Super Dream	Engineer 1
55	Praveena V K	Optum	Super Dream	Full Stack Engineer
56	Priyadharshini S S	Comcast	Core	Development Engineer I
57	Radha Bai C P	Optum	Super Dream	Full Stack Developer
58	Rahul H	Microchip Technology	Super Dream	Engineer 1
59	Rajadurai.S	MBit Wireless	Core	Development Engineer-I
60	Rajeshwari R	Comcast	Core	Development Engineer I
61	Raman Gopal Chirania	JSW	Dream	GET
62	S Rohit Kumar	Comcast	Core	Development Engineer I
63	Roshan Darran R	Comcast	Core	Development Engineer I
64	Sai Akash A.S	Mastech infotrellis	Dream	Associate
65	Sam Alan Antony M	Comcast	Core	Development Engineer I
66	M.Sanjana	Citi Bank	Super Dream	Software Development Analyst
67	Sarangantth K	Comcast	Core	Development Engineer I
68	Sarayyu M K	Technip Energies	Core	Graduate Engineer Trainee
69	Sathyapriyaa R	Optum	Super Dream	Full Stack Developer
70	Sathyabharathi K	Ramboll	Core	GET

71	Shakti Venkatramanan	Oracle	Super Dream	Associate Consultant
72	Shalinie S	Optum	Super Dream	Full Stack Developer
73	Shree Vishnu P	Comcast	Core	Development Engineer I
74	Sriganesh.R	Transunion	Dream	Analyst
75	Sriharini K	Optum	Super Dream	Full Stack Developer
76	Srikanth S	Natwest	Super Dream	Software Engineer
77	Sukumari Madhavan	Technip Energies	Core	Graduate Engineer Trainee
78	Tahoor Ahmad Mir	Amadeus Software Labs	Super Dream	Software Engineer (Development)
79	Usha V	Yubi credavenue private limited	Dream	Data Analyst
80	Vaishnavi V	Citi Bank	Super Dream	Software Development Analyst
81	Vaisshnavi PA	Mastech Infotrellis	Dream	Associate
82	Vaitheesvaran.B	Microchip Technology	Super Dream	Engineer 1
83	Vallaba Gurunath	Comcast	Core	Development Engineer I
84	Varshini Muralidharan	Citi Bank	Super Dream	Software Development Analyst
85	M Veeravaagu	TCS	Regular	Assistant System Engineer-Trainee
86	Vishnu	Comcast	Core	Development Engineer I
87	Ajay Kumar R	Ramboll	Core	GET
88	Brindha G	Hyundai Motor India Limited (HMIL)	Core	Graduate Engineer Trainee
89	Guru Prasath S	Nidec	Core	GET
90	Jaysurya RA	Renault Nissan Technology and Business Centre India	Core	Graduate Engineer Trainee
91	Manigandan G	TCS	Regular	Ninja
92	Suresh Kumar J	McDermott	Core	GET
76	Srikanth S	Natwest	Super Dream	Software Engineer
77	Sukumari Madhavan	Technip Energies	Core	Graduate Engineer Trainee
78	Tahoor Ahmad Mir	Amadeus Software Labs	Super Dream	Software Engineer (Development)
79	Usha V	Yubi credavenue private limited	Dream	Data Analyst
80	Vaishnavi V	Citi Bank	Super Dream	Software Development Analyst
81	Vaisshnavi PA	Mastech Infotrellis	Dream	Associate
82	Vaitheesvaran.B	Microchip Technology	Super Dream	Engineer 1
83	Vallaba Gurunath	Comcast	Core	Development Engineer I
84	Varshini Muralidharan	Citi Bank	Super Dream	Software Development Analyst

IELTS

What is IELTS?

The International English Language Testing System is an international standardized test of English language proficiency for non-native English language speakers.

Why should one give the IELTS Test?

IELTS is accepted by most Australian, British, Canadian, European, Irish and New Zealand academic institutions, by over 3,000 academic institutions in the United States, and by various professional organisations across the world.

What is the Qualifying criteria or the optimum marks one should Secure?

No minimum score is required to pass the test. An IELTS result or Test Report Form is issued to all test takers with a score from "band 1" ("non-user") to "band 9" ("expert user") and each institution sets a different threshold.

Is there a Validity for the test marks?

Institutions are advised not to consider a report older than two years to be valid, unless the user proves that they have worked to maintain their level.

Pattern of IELTS Exam
The IELTS test Consist of four Parts,
Listening: 30 minutes (plus 10 minutes' transfer time)[17]
Reading: 60 minutes
Writing: 60 minutes
Speaking: 11–14 minutes

The total test time is: 2 hours and 45 minutes.
Listening, Reading and Writing are completed in one sitting. The Speaking test may be taken on the same day or up to seven days before or after the other tests.

Listening:

This module comprises four sections, with ten questions in each section.It takes 40 minutes: 30 marks for testing, plus 10 for transferring the answers to an answer sheet.

Sections 1 and 2 are about everyday, social situations.

Section 1 has a conversation between two speakers (for example, a conversation about travel arrangements)

Section 2 has one person speaking (for example, a speech about local facilities).

Sections 3 and 4 are about educational and training situations

Section 3 is a conversation between two main speakers (for example, a discussion between two university students, perhaps guided by a tutor)

Section 4 has one person speaking about an academic subject.

Reading:

The Reading paper has three sections and texts totalling 2,150-2,750 words. There will be a variety of question types, such as multiple-choice, short-answer questions, identifying information, identifying writer's views, labelling diagrams, completing a summary using words taken from the text and matching information/headings/features in the text/sentence endings. Test takers should be careful when writing down their answers as they will lose marks for incorrect spelling and grammar.

Section 1 contains two or three short texts or several shorter texts, which deal with everyday topics. For example, timetables or notices – things a person would need to understand when living in an English-speaking country.

Section 2 contains two texts, which deal with work. For example, job descriptions, contracts, training materials.

Section 3 contains one long text about a topic of general interest. The text is generally descriptive, longer and more complex than the texts in Sections 1 and 2. The text will be taken from a newspaper, magazine, book or online resource

Writing:

The Writing paper has two tasks which must both be completed. In task 1 test takers write at least 150 words in about 20 minutes. In task 2 test takers write at least 250 words in about 40 minutes. Test takers will be penalised if their answer is too short or does not relate to the topic. Answers should be written in full sentences (test takers must not use notes or bullet points).

Task 1: test takers describe a graph, table, chart, map, process, pie chart or diagram in their own words.

Task 2: test takers discuss a point of view, argument, or problem. Depending on the task, test takers may be required to present a solution to a problem, present and justify an opinion, compare and contrast evidence, opinions and implications, and evaluate and challenge ideas, evidence or an argument.

Speaking:

The speaking test is a face-to-face interview between the test taker and an examiner.

The speaking test contains three sections.

Section 1: introduction and interview (4–5 minutes). Test takers may be asked about their home, family, work, studies, hobbies, interests, reasons for taking IELTS exam, and other general topics such as clothing, free time, computers, and the Internet.

Section 2: long turn (3–4 minutes). Test takers are given a task card about a particular topic. Test takers have one minute to prepare to talk about this topic. The task card states the points that should be included in the talk and one aspect of the topic which must be explained during the talk. Test takers are then expected to talk about the topic for one to two minutes, after which the examiner may ask one or two questions.

Section 3: discussions (4–5 minutes). The third section involves a discussion between the examiner and the test taker, generally on questions relating to the theme which they have already spoken about in Section 2.[25] These questions usually consist of two sets of four or five questions.

Test takers receive a score for each test component – Listening, Reading, Writing, and Speaking. The individual scores are then averaged and rounded to produce an Overall Band Score.

Resources:

Books:
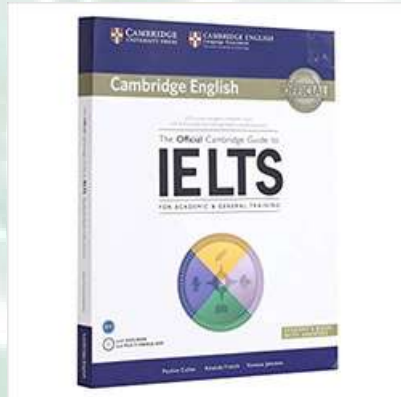
Website:
https://www.ielts.org/
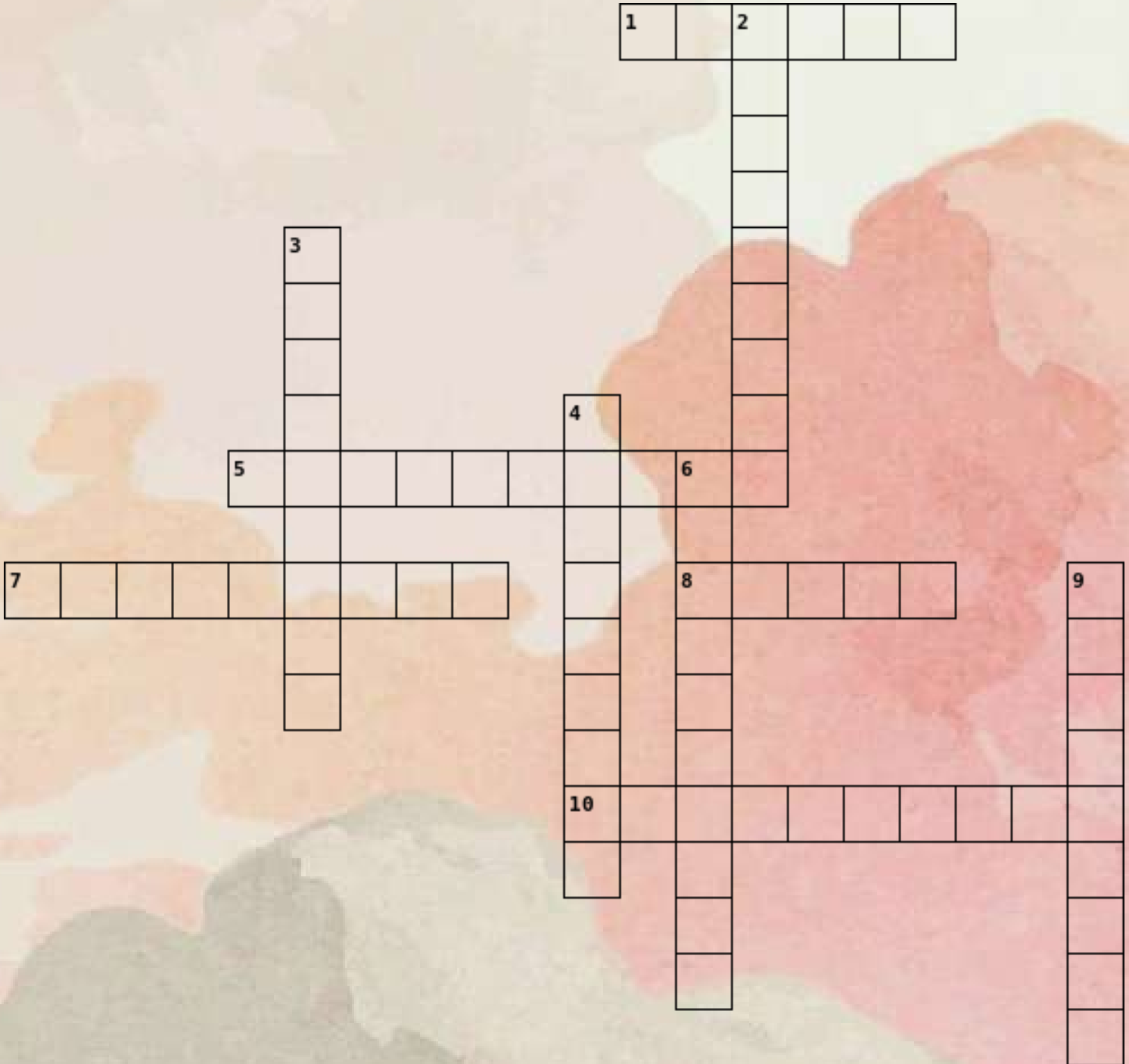
This is the Official Website of IELTS Exam where various free materials for the exams can be found. One can also get a clear idea on the format of the test by attending a mock test from this website.

The REDEEEM Team hopes you find this useful, and we wish you all the best in your future endeavours.
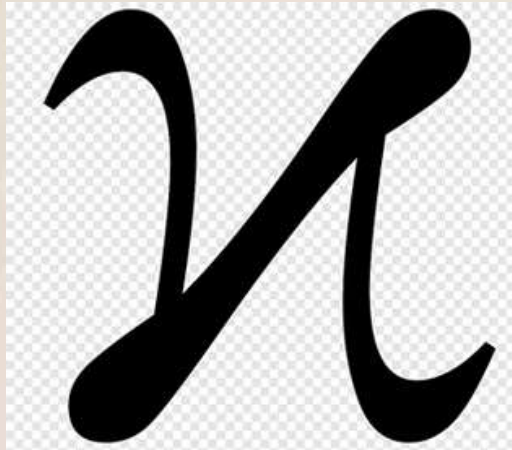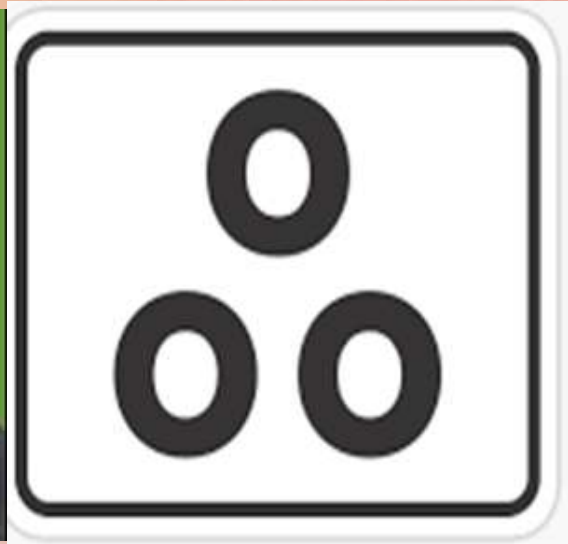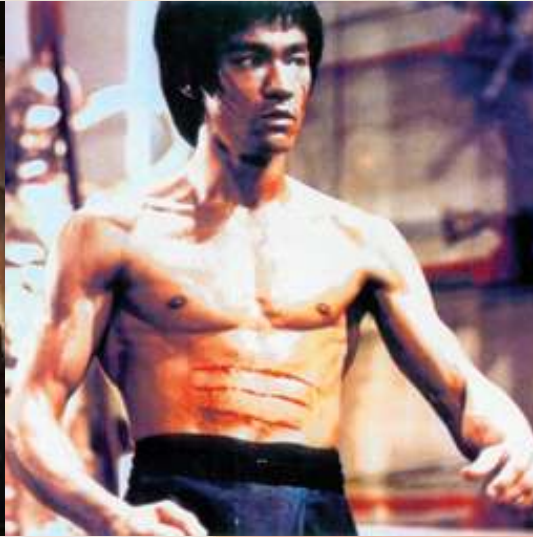
CROSSWORD

Clues 🔍

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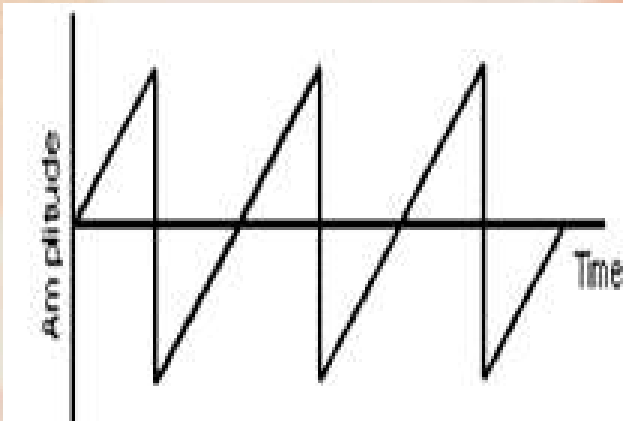
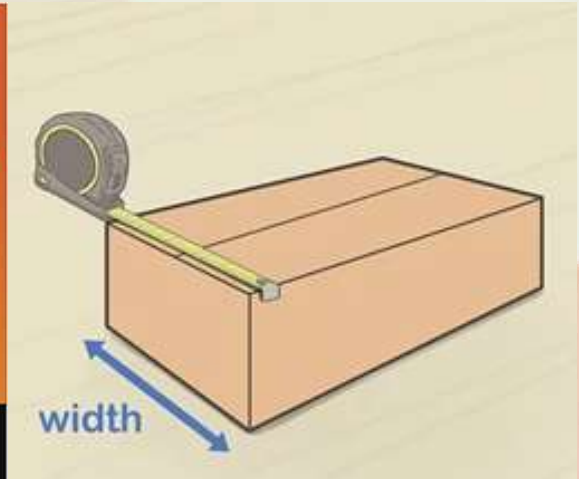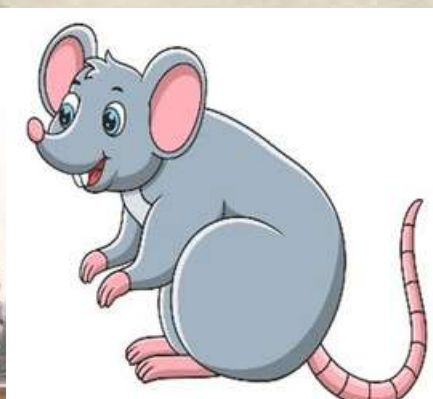"Spring is the promise that in the darkest times of life, light seeks to shine; in the most despairing moments of our lives, hope strives to pop out. It comes and reminds us that there is always the possibility of new life"