

REDEEEM

Vol. 10 Issue 1 2021

WHATS INSIDE? **PLACEMENT TALK**

INTERNSHIP AT FINTECH

Monthly updates
Research Activity
ICRES Publication

GRE CRACK

Tips and tricks!

BOTS IN SPACE!

HAGRID'S BIKE

Now a reality?

ELECTRIC VEHICLES VS
THE ENTHUSIASTS!

FLOWERY ZINDAGI

BEATIFIC

DIVE IN TO KNOW MORE!



THE CREW

*No one can whistle
a symphony.
It takes a whole
orchestra to play it!*

CHIEF EDITOR : DR. R. LEO

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EEE B: SARAYYU M K



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MESSAGE FROM HOD

I feel delighted that the students and faculty members are very active and dynamic in the Department of EEE. The number of project proposals requesting technical and financial support from various agencies is on the increase.

The modernization of Renewable Energy Lab with equipment's like fuel cell, micro wind generator, battery impedance analyser, solar PV simulator single-phase PQ analyser solar irradiance measurement kit, Li-ion battery charging and discharging controller kit, supercapacitor made possible with the effort of Dr Seyezhai with the support of AICTE scheme.

The research scholars schemes are attractive and resulted in the joining of 3 research scholars under various schemes. Dr. S.Tamilselvi, Dr. R. Rengaraj, and Dr. G. R. Venkatakrishnan have completed the project "Setup for Fault Analysis, Real-Time Monitoring and Data Logging of Rooftop Grid Connected PV farms."

The ICRES 2020 organizers have successfully edited and published "Springer Proceedings in Energy" in two volumes, following the Springer guidelines. The two volumes are now available on the website (<https://www.springer.com/gp/book/9789811606687>)

In this newsletter, student achievements are reported under various headings.

I thank all the student and faculty members who have contributed to the department!

A close-up photograph of a fountain pen's nib writing on a piece of lined paper. The pen is dark and has some text on it, including 'E' and 'RO'. The paper has horizontal lines, and some cursive handwriting is visible. A dark blue rectangular box is overlaid on the left side of the image, containing the title text.

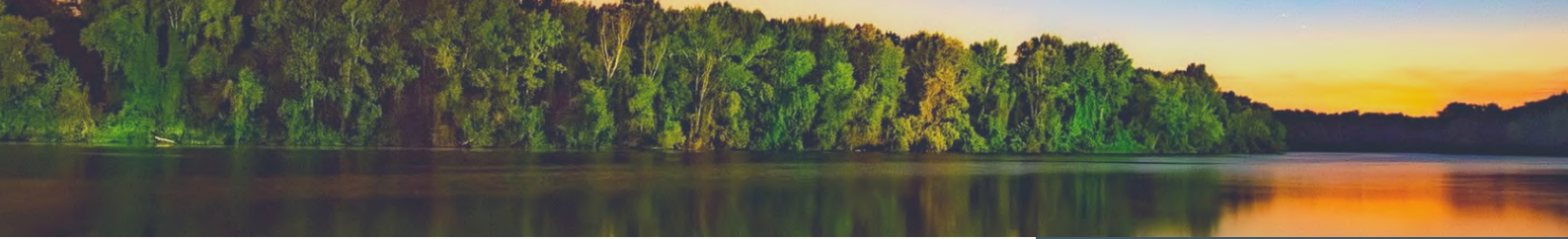
MESSAGE FROM THE EDITORIAL TEAM

Everybody gets excited when they hear or see touching information. But the excitement fades away with passage of time. We find some WhatsApp messages really lifting our spirit for some time, but it fades away eventually, and we become just normal and not new normal again. The constancy of purpose requires some practice. We do not know the value of our being unless we are put to some pain. We need to visit hospitals to get enthusiasm about our wellbeing. The scenes you see in hospitals motivates you to be consistent in keeping a healthy lifestyle. Fear is the major force to promote good habits, as it is a natural tendency for people to fall for soft options.

The fear of examination makes students to study than the joy of learning. How this Corona fear changed people's perspectives of live-in recent times. It's like a speed breaker in our life. We stopped rate race and a bit slower and more contemplative about our life, The good habits many years people tried and unsuccessful in following has now become successful out of fear. Fear of survival is the main driver for many things in life. But the better and consistent drivers are love and passion. Better things can be done by taking initiatives to inspire and motivate peoples to love their job than by driving through fear.

A photograph of a dark chalkboard. The words 'THINK' and 'DREAM' are written in white chalk on the left. To their right, the word 'BIG' is written in a much larger, bolder white chalk font. Two arrows point from 'THINK' and 'DREAM' towards 'BIG'. Below the word 'BIG', there are two horizontal strokes of chalk, one in blue and one in pink/purple.

THINK → BIG
DREAM → BIG



Someone who knows his desires and works with purpose to achieve them is a person whose feelings, thoughts, and actions are congruent with one another, and is therefore a person who has achieved inner harmony. Someone who is in harmony no matter what he does, no matter what is happening to him, knows that his psychic energy is not being wasted on doubt, regret, middle class guilt, comparison, and fear, but is always usefully employed. Complexity requires investing psychic energy in goals that are new, that are relatively challenging. Competition can be stimulating and enjoyable. But when beating the opponent takes precedence in the mind over performing as well as possible, enjoyment tends to disappear.

Competition is enjoyable only when it is a means to perfect one's skills; when it becomes an end, it ceases to be fun. Inner congruence ultimately leads to that inner strength and serenity we admire in people who seem to have come to terms with themselves. Purpose, resolution, and harmony unify life and give it meaning by transforming it into a seamless flow experience. Whoever achieves this state will never really lack anything else. A person whose consciousness is so ordered that he need not fear unexpected events, or even death. Every living moment will make sense, and most of it will be enjoyable.

As per Maslow theory, life is tantamount to survival, comfort, and pleasure. When the safety of the physical self is no longer in doubt, the person may expand the horizon of his or her meaning system to embrace the values of a community—the family, the neighbourhood, a religious or ethnic group. This step leads to a greater complexity of the self, even though it usually implies conformity to conventional norms and standards. Many may not reach here as they struggle to manage their basic responsibilities. The next step in development involves reflective individualism.

*"Your
purpose is
greater than
the fear
that limits
you"*



"Life - it goes on"
Robert Frost



The person again turns inward, finding new grounds for authority and value within the self. He or she is no longer blindly conforming but develops an autonomous conscience. At this point the main goal in life becomes the desire for growth, improvement, the actualization of potential. The final step, which builds on all the previous ones, is a final turning away from the self, back toward an integration with other people and with the universe.

One can forget all the unpleasant aspects of life when he is in full flow with life. This feature of flow is an important by-product of the fact that enjoyable activities require a complete focusing of attention on the task at hand—thus leaving no room in the mind for irrelevant information. In normal everyday existence, we are the prey of thoughts and worries intruding unwanted in consciousness. Because most jobs, and home life in general, lack the pressing demands of flow experiences, concentration is rarely so intense that preoccupations and anxieties can be automatically ruled out.

Consequently, the ordinary state of mind involves unexpected and frequent episodes of entropy, interfering with the smooth run of psychic energy. This is one reason why flow improves the quality of experience: the clearly structured demands of the activity impose order and exclude the interference of disorder in consciousness.

Sometimes we wonder why people behave like this but for them the way they behave and speak feeds them confidence so, it is good for them though it is embarrassing for others. So, we must learn to accept them as they are and respect them. Nature is perfect and life is always good, but it depends on how you perceive based on your limited knowledge, experience, exposure, and maturity. Cell phone will give good sound effect always based on its quality, but the quality of headset matters to receive the original quality sound. We should learn to change the headset rather than complaining.

"To hate others is to acknowledge inferiority."





FROM US TO YOU!!

-Student Editorial Board



Greetings everyone!!

There are lot of choices which are presented to you and you have the liberty to choose. There's no such thing called as perfect choices. Anything when done with utmost dedication and compassion will definitely end up being perfect or who knows may be something which is beyond what we call as perfection.

Not all that glows will get us glory. Sometimes the paths which we decide to pursue may be bleak in the beginning but will eventually fathom into something which would turn out to be really beautiful. Settling for something less is not what we wished for. We can alter what the future has in store for us by choosing what we really want and not something which we were force-fed.

It is quite natural to have this feeling that our choices may turn out to be unpropitious, but just think there's also an equal probability of tasting success. Unfortunately, most of us don't have an atmosphere which would bolster our choices. Despite all the hurdles, if we just try and make the right choices, it would undoubtedly end up in a positive outcome. As rightly pointed out by our all-time favourite author, J.K. Rowling, 'It is our choices that show what we truly are, far more than our abilities.'

So, we have put in our best efforts in creating this edition of the newsletter with exquisite content from various domains, because it was our choice to bring to you the finest details of the recent advancements in the field out there. The REDEEEM team is back at it again with yet another amazing edition of the newsletter. With exclusive articles by our friends which relate to various technical disruptions in progress and some thought-provoking words from them as well, we are glad to present to you the first issue of the newsletter in its tenth year!! Happy reading folks!!

"Life is a matter of choices, every choice you make makes you"

Research

MONTHLY UPDATES

APRIL
MAY
JUNE

External recognition

- *Dr. V. Thiagarajan, ASSP/EEE has acted as an external auditor for the academic audit conducted at Sri Sairam Engineering College, Chennai on 24/04/2021.*
- *Dr. Mrunal Deshpande ASSP/EEE chaired a session at virtual International Conference on Recent Trends in Electrical Energy, Artificial Intelligence, Internet of Things and Nanomaterials (IVC-RTEAIN'21, 29-30th April 2021 organised by M.Kumarasamy College of Engineering Karur on 29.4.2021*
- *V.Rajini attended the project viva voce for BE EEE at SRM University, Ramapuram Campus on 25,27-05/2021 in virtual mode.*
- *Dr.R.Seyezhai,ASSP/EEE as subject expert offered suggestions for the curriculum for the EEE department, Kongu College of Engineering (Autonomous), Coimbatore on 13.05.2021.*
- *Dr. V. Thiagarajan, ASSP/EEE has been appointed as a program committee member for the IEEE sponsored International Conference on “Computing, Communication and Control” (IC4) organised by Kings College of Engineering, Punalkulam, Tamil Nadu during April 2022.*
- *Dr.R. Seyezhai,ASSP/EEE acted as a Jury/evaluator (Round-1 &2) for Toycathon-2021 held during 23.06.2021 – 24.06.2021 and acted a chairperson for the final power judging round on 25.06.2021 for Toycathon.*

- 
- *Dr. V. Thiagarajan, ASSP/EEE has been appointed as a program committee member for the International Conference on Soft Computing organized by Baseline Mathews II College of Engineering, Kollam, Kerala.*
 - *Dr.R.Seyezhai, ASSP/EEE attended a DC meeting for the Scholar Mr.Bupathi at VIT University, Vellore on 26.06.2021.*
 - *U.Shajith Ali, attended AICTE Training And Learning (ATAL) Academy Online FDP on "Global Warming & Impacts of Power Electronics Towards Green Technology" from 24-5-2021 to 28-5-2021 at SRM Valliammai Engineering College.*
 - *Shajith Ali, attended an International Faculty Development Programme "Research Innovations and Emerging Advances in Electrical Engineering" from 14.06.2021 to 19.06.2021 organized by the Department of Electrical and Electronics Engineering, Easwari Engineering College, Chennai.*
 - *.Dr. V. Thiagarajan, ASSP/EEE, has attended the online Faculty Development Programme on " Recent Advances in Electrical Energy Management, Control and Automation", organized by Lakireddy Bali Reddy College of Engineering, Andhra Pradesh from 08/06/2021 - 12/06/2021.*
 - *.Dr. V. Thiagarajan, ASSP/EEE, has attended the International Faculty Development Programme on "Research Innovations and Emerging Advances in Electrical Engineering", organized by Easwari Engineering College, Chennai from 14/06/2021 - 19/06/2021.*

"When you want to know how things really work, study them when they are coming apart ."

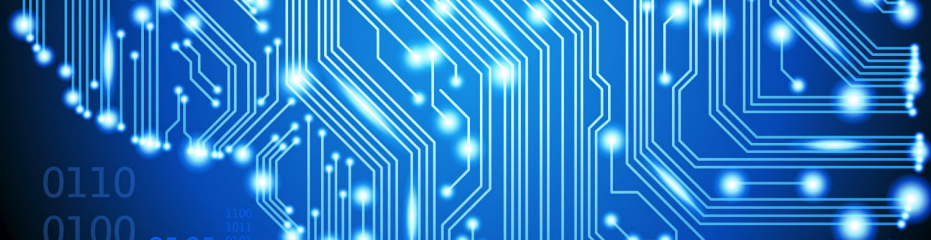


Research Activity:


- G. R. Venkatakrishnan (ASSP/EEE), R. Rengaraj (ASSP/EEE), V. Arvindswamy (Head of New Initiatives at Power Economy Middle East, Chennai) published a paper titled “An Experimental Setup for Monitoring Distribution Transformer Health” in Distributed Generation & Alternative Energy Journal. (Scopus indexed, Impact Factor: 0.396)
- Sathish Kumar K (ASSP/Chem), Rengaraj R (ASSP/EEE), Venkatakrishnan G.R (ASSP/EEE), Chandramohan A (SRF/Chem) published a paper titled “Polymeric materials for electromagnetic shielding - A review”, in Material Today: Proceedings Journal, Elsevier (Scopus indexed, Impact factor: 0.576)
- R Rengaraj (ASSP/EEE), G R Venkatakrishnan (ASSP/EEE), Adithya Pillai R (Student/EEE), Abinandhan R (Student/EEE), Dev Ganesh S (Student/EEE), Aravind K(Student/EEE) published a paper titled “Identification of Underground Faults using Internet of Things (IoT)” in Journal of Physics: Conference Series Journal (Scopus indexed, Impact Factor: 0.574)
- R. Rengaraj (ASSP/EEE), G. R. Venkatakrishnan (ASSP/EEE), Pranav Moorthy (Student/EEE), Ravi Pratyusha(Student/EEE), K. Veena (Student/EEE) published a paper titled “ Implementation of Controller for Self-Balancing Robot” in Lecture Notes in Networks and Systems Journal, Springer (Scopus Indexed, Impact factor: 0.125)
- R. Rengaraj (ASSP/EEE), G. R. Venkatakrishnan (ASSP/EEE), Pranav Moorthy (Student/EEE), Ravi Pratyusha(Student/EEE), K. Veena (Student/EEE) published a paper titled “ Implementation of Controller for Self-Balancing Robot” in Lecture Notes in Networks and Systems Journal, Springer (Scopus Indexed, Impact factor: 0.125)
- R.Deepalaxmi Associate Professor/EEE, R.Arthi, E.Malini, M.Raghul (Final year EEE students) published a paper titled " Arduino Based automatic Vehicle Control" in International Journal of Scientific Research and Management (IJSRM) ||Volume||09||Issue||03||Pages573-580||EC-2021-573-580||2021// ISSN (e): 2321-3418 DOI: 10.18535 (indexed in crossref)

- Ramya V., Ramaprabha R., Balaji M. (2021) Differential Evolution Based Design Optimization of Flywheel with Different Materials. In: Kamaraj V., Ravishankar J., Jeevananthan S. (eds) *Emerging Solutions for e-Mobility and Smart Grids*. Springer Proceedings in Energy. Springer, Singapore. pp. 61-68, Print ISBN: 978-981-16-0718-9; Online ISBN 978-981-16-0719-6. https://doi.org/10.1007/978-981-16-0719-6_6
- Nandha Gopal J and Muthuselvan N B, published a paper titled, “Educational tool for analysis of proportional integral and fractional order proportional integral controlled quadratic boost converter system using MATLAB/Simulink” in *International Journal of Electrical Engineering & Education* First Published April 28, 2021 (SAGE publication) <https://doi.org/10.1177/00207209211013435> Indexed in Clarivate Analytics and Scopus with 2year Impact factor of 0.938
- R. Ramaprabha, T. Tamilselvi and V. Kowsalya, “Implementation of Simple Low Cost PV Panel Characterization Kit using Arduino” Vol. 12. No. 10, PP. 6991-7003, *Turkish Journal of Computer and Mathematics Education*, Print ISSN : 1309-4653, Online ISSN : 1309-4653. Indexed in Scopus – IF -0.15.
- Ramaprabha R., Malathy S. (2021) Enhancement Techniques to Design a Standalone PV System for Residential Application. In: Motahhir S., Eltamaly A.M. (eds) *Advanced Technologies for Solar Photovoltaics Energy Systems*. Green Energy and Technology. Springer, Cham. https://doi.org/10.1007/978-3-030-64565-6_10 Scopus indexed – Available online on April 27.
- R. Ramaprabha, V. Aadhavan, K. Arun, V. Arun, “Development of 15 Level Cascaded H-H-T Multilevel Inverter”, *International Journal of Scientific Research in Science and Technology (IJSRST)*, Print ISSN: 2395-6011, Online ISSN: 2395-602X, Volume 9, Issue 1, pp.340-345, March-April-2021. DOI: 10.32628/IJSRST219145.
- Dheeban S, Muthu Selvan N B, & Umashankar Subramaniam, published a paper titled, “Artificial Neural Network based Solar Energy Integrated Unified Power Quality Conditioner” in *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, Published online: 25 May 2021, (Taylor and Francis) <https://doi.org/10.1080/15567036.2021.1919247> Indexed in Clarivate Analytics and Scopus with 5year Impact factor of 0.893
- Dr.R.Seyezhai, ASSP/EEE, S.Harika (Full-time scholar) and A.Jawahar P/(ECE SSNCE), published a paper titled “Investigation of Switched Capacitor Quasi-Z-Source DC-DC Converter for E-Trike Battery Charger”, *Lecture Notes in Electrical Engineering*, 2021.(SJR Factor:0.138).SCOPUS INDEXED.

- Leo Raju, A Swetha, C K Shruthi and J Shruthi presented a paper titled "Implementation of Demand Response Management in Microgrids using IoT and Machine learning" in the Virtual International Conference on Intelligent Computing and Control Systems (ICICCS-2021), held at Vaigai College of Engineering, Madurai, during 6-8, May, 2021.
- Sai Eswari.G , Pratig Ram.R , Vinay Joseph Goliad, Shakti Praneetha , V. Rajini, presented a paper titled " Comparison of transformerless inverters for photo voltaic applications, " international conference on emerging electrical system and control, 2021, Sethu institute of technology on may 7 2021
- R Rengaraj (ASSP/EEE), G R Venkatakrishnan (ASSP/EEE), K. Sabarai Viswanth (Student/EEE), M. Praveen Kumar (Student/EEE), V. Sivaraman (Student/EEE) and S. Pavas Krishnan (Student/EEE) presented a paper titled "Real Time Dynamic Home Surveillance Using Raspberry Node" in the International Virtual Conference on Power, Information and Communication (ICPIC 2021) held at PSN College of Engineering & Technology, on May 12, 2021.
- Dr.R.Seyezhai, ASSP/EEE, A.Bharathi Sankar (AP/VIT, Chennai) R.Ramya, R.Swetha & Shanmughapriya (IV Year EEE B) presented a paper titled, "Simulation and Analysis of AC-DC PFC Power Converter Topologies for PHEV", International Conference on "Innovations and Technological Developments in Electronics, Computers, and Communication (ITDECC- 2021) ,SRM Institute of Science and Technology, Ramapuram Campus, Chennai during May 17-18, 2021.
- Dr.R.Seyezhai, ASSP/EEE, Dr.N.Hemalatha, AP/Saveetha University, "Analysis and Simulation of Control Strategies of Modified Capacitor assisted Extended Boost QZSI", presented a paper titled ,International Conference on "Innovations and Technological Developments in Electronics, Computers, and Communication (ITDECC- 2021) ,SRM Institute of Science and Technology, Ramapuram Campus, Chennai during May 17-18, 2021.
- Dr.R.Seyezhai, ASSP/EEE, S.Devi(Full-time research scholar), N.Harish, S.S.Harshad, V.Bharath & V.Bharath Vishal (II Year EEE, B) presented a paper titled, "Study of split source inverter for Photovoltaic systems", International Conference on "Innovations and Technological Developments in Electronics, Computers, and Communication (ITDECC- 2021) ,SRM Institute of Science and Technology, Ramapuram Campus, Chennai during May 17-18, 2021.



- Ms.M.Shanthi, part-time scholar under the guidance of Dr.R.Seyezhai, ASSP/EEE submitted her PhD thesis after the scrutiny report on 03.05.2021.
- V.Rajini reviewed a paper titled , " Hybrid Energy System for University Campus in India- A feasibility analysis " for international journal of ambient energy, Taylor and Francis publishers.
- Dr. V. Thiyagarajan, ASSP/EEE has reviewed the paper submitted for the International Journal of Renewable Energy Research (IJRER).
- Dr. S. Krishnaveni, ASSP/EEE " Implementation of Mathematical Models of Buck Converter using MatLab/Simulink ", International Journal of Scientific Research in Science and Technology (IJSRST) (ISSN / eISSN: 2395-6011/2395-602X), Vol. 8, 3, pp. 516–520, Jun 2021.
- V.Rajini, Magdalene Anand, " Investigations on Interleaved and Coupled Split-Pi DC-DC Converter for Hybrid Electric Vehicle Applications", International journal of renewable energy research, Vol 11, No 2 (2021): June, PP 808-817. Wos indexed, IF 5.127
- Dr.R.Seyezhai, ASSP/EEE & M.Tamilarasi (passed out Full-time scholar) published a paper titled "Implementation of Chaotic PWM method for Four phase Interleaved Boost Converter" Journal of Physics: Conference Series, IOP Publishing, 1921 (2021) 012059. Indexed in TR(SJR factor : 0.21).
- Dr.R.Seyezhai,ASSP/EEE, Dr.D.Umarani,ASSP/EEE, S.T.Pavithraa , S. Nandhini Priya, V.K.Meenapriya , "Design and implementation of solar docking station for smartphones/laptops", Springer Materials Today: Proceedings, ISSN 22147853, <https://doi.org/10.1016/j.matpr.2021.06.069>, pp. 1-6, SJR impact factor (2020): 0.34
- Preethishri R. S and Dr J Anitha Roseline, published a paper titled “ Switched Reluctance Motor Driven by Push-Pull Topology for Automotive Applications”, Journal of Green Engineering (JGE), Scopus indexed , Volume-10, Issue-11, November 2020.
- Dr. R Deepalaxmi, R Priyavasini, J.B. Shivani, N.Srija presented their paper titled "Microcontroller Based Condition Monitoring System for Induction Motor" at 20th National Conference on Science, Engineering and Technology "Innovations and SMART Technologies" at Vellore Institute of Technology ,Chennai on 07-06-2021. They received the best paper award.
- Dr. V. Thiyagarajan, ASSP/EEE has reviewed the paper submitted for Journal of Energy Research and Reviews.

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- Dr. V. Thiagarajan, ASSP/EEE, "New Asymmetric 75-Level Inverter Topology with Minimum Circuit Components", in the International Virtual Conference on Innovations and Research in Marine Electrical and Electronics Engineering (ICIRMEEE 2021) organized by AMET Deemed to be University, Chennai during 17/06/2021 - 18/06/2021 (Received BEST PAPER AWARD).
 - R. Ramaprabha, ASSP/EEE , J. Kalpesh, C. Karthik Rajan and R. Niranjana (UG students), "Design, Modelling and Testing of Flywheel Energy Storage System for Microgrid Applications" 1st International Green Energy Mobility Conference, May 30-31, 2021, Department of Automobile Engineering, SRM Institute of Science and Technology, Kattankulathur, Tamilnadu, India – Presented by all on May 30, 2021.- Updated on June 01, 2021.
 - Balaji.M (Associate Professor/EEE) , Senthil V ,Pathmasanker P K ,Sathish
 - Kumar S (UG Students) presented a paper titled "Condition Monitoring of BLDC motor drive" in International Green Energy Mobility Conference organised by Department of Automobile Engineering, SRM Institute of Science and Technology, Kattankulathur, Chennai during 30 May -1 June 2021.
 - Venkatakrishnan Sutharsan, Alagappan Swaminathan, Saisrinivasan Ramachandran Madan Kumar Lakshamanan, Balaji M (Associate Professor/EEE) presented a paper titled "Electroencephalogram Signal Processing with Independent Component Analysis and Cognitive Stress Classification using Convolutional Neural Networks" in 9th International Conference on Recent Trends in Computing organized by Department of Computer Science and Engineering, SRM Institute of Science and Technology, Ghaziabad, Uttar Pradesh on 5th June 2021
 - Dr.R.Seyezhai, ASSP/EEE , Dr.M.Tamilarasi, AP/AMITY University, Chennai & Mr.M.Vimalraj, AP/EEE, Adhiparasakthi College of Engineering, Kalavai presented a paper titled, "FLC Implementation on Four Switch Three-phase Inverter fed IM drives" in the International Conference on Innovations and Research in Marine Electrical & Electronics Engineering, ICIMREEE -2021 during 17.06.2021 to 18.06.2021
 - Dr.R.Seyezhai, ASSP/EEE, M.Sridhar, (Full-time research scholar), S.Sridhar, Swetha R & Srikirithi (IV Year EEE B) , presented a paper titled , "Investigation on Single-stage AC-DC PFC converter for Solid State Lighting", in the National Conference on Emerging Trends in Smart Grids & Electric Vehicle Technologies KLN University during June 28-29, 2021.

- Dr.R.Seyezhai, ASSP/EEE submitted a project proposal titled, “ Eco-Friendly Solar Photovoltaic Powered Utility Poles”, to the AU-NLCIL Innovation Hub for Energy, Environment & Sustainability (ANIHEES) on 28.06.2021.
- Dr Mrunal Deshpande reviewed four papers for IEEE Madras Section International Conference (MASCON) which will be held during 27-28th Aug 2021 Chennai
- Dr.R.Leo Reviewed a paper titled “Agent-Based Modeling of a Decentralized Transactive Energy Management Framework Using Blockchain Technology” in the Elsevier journal” International Journal of Electrical Power and Energy Systems “
- Dr.R.Leo Reviewed a paper titled “A systematic review of Energy Management System based on various adaptive controller with optimization algorithm on a Distributed hybrid micro-grid” in the Chinese journal titled” International Transactions of Electrical Energy System”
- Dr.S.Tamilselvi (Associate Prof/EEE), P.PonRagothamaPriya, S.Baskar, K.Mala, M.MohamedUmarRaja, PRESENTED the research paper entitled “OPTIMAL STORAGE PLANNING IN ACTIVE DISTRIBUTION NETWORK CONSIDERING UNCERTAINTY OF WIND ENERGY SYSTEM” in the SCOPUS INDEXED 2nd International SPRINGER Conference on "Data Science and Applications" (ICDSA 2021) Tamil Nadu, India during 10th - 11th, April 2021 in FULL VIRTUAL FORMAT. The after-conference proceeding of the ICDSA2021 will be published in SCOPUS Indexed Springer LNNS - LECTURE NOTES IN NETWORKS AND SYSTEMS.
- Dr.S.Tamilselvi (Associate Prof/EEE), Alagappan Swaminathan (IV year EEE), Venkatakrishnan Sutharsan (IV year EEE) PRESENTED the research paper entitled “Wind Power Projection using Weather Forecasts by Novel Deep Neural Networks” in 9th International Conference on “Contemporary Engineering and Technology – 2021” (ICCET – 2021) Tamil Nadu, India during 10th - 11th, April 2021 in FULL VIRTUAL FORMAT.
- Dr.S.Tamilselvi (Associate Prof/EEE), Madhusudan Saranathan (III year EEE), Pa Hari Krishna Achuthan, (III year EEE), R Abhishek (IV year Chemical), Adhitya Ravi (III year EEE), PRESENTED the research paper entitled “Study of properties and analysis of impurities in aged transformer oil” in the SCOPUS INDEXED Third International Conference on "Materials Science and Manufacturing Technology 2021" (ICMSMT 2021) held at Hotel Aloft, Coimbatore, Tamil Nadu, India during 15 - 16, April 2021. FULL VIRTUAL MODE. - (Internally Funded Student Project).

- Dr.S.Tamilselvi (Associate Prof/EEE), Pon Ragothama Priya P, Baskar S, Tamilselvi S, Neythra Jayaprakash, (III year EEE) PRESENTED the research paper entitled "Evolutionary Algorithm Based Optimal Allocation Of DG Units" in SCOPUS Indexed International Springer Conference "2nd Electric Power and Renewable Energy Conference" (EPREC-2021), Tamil Nadu, India during 28th - 30th, May 2021 in FULL VIRTUAL FORMAT. The after-conference proceeding of the EPREC 2021 will be published in Springer LNEE - Lecture Notes In Electrical Engineering.
- Dr.S.Tamilselvi (Associate Prof/EEE), N.Karuppiah, P.T.NandhKishore, VishnuAjith, M.K.Akshaya (IV year EEE) PRESENTED the research paper entitled "Design of a High Frequency transformer using Genetic Algorithm" in SCOPUS Indexed International Springer Conference "Computational Intelligence in Machine Learning 2021"-(ICCIML 2021), Tamil Nadu, India during 1st - 2nd, June 2021 in FULL VIRTUAL FORMAT. The after-conference proceeding of the EPREC 2021 will be published in Springer LNEE - Lecture Notes In Electrical Engineering.
- Dr. V. Thiyagarajan, ASSP/EEE, Roshan Darran R, (II Year/EEE), Vallabagurunath M, (II Year/EEE) and Rufus Derrick R (II Year/MECH) has presented the paper titled "Utilization of Arduino Based System in developing Smart Street Light" in the National Conference & Exhibition "NCEEITET 2021" organized by Government College of Engineeirng & Technology, Jammu in technical collaboration with Indian Institute of Technology, Kharagpur during 23/04/2021 - 24/04/2021.
- R Rengaraj (ASSP/EEE), G R Venkatakrishnan (ASSP/EEE), S Shalini (Student/EEE), R Subitsha (Student/EEE), S Suganthi (Student/EEE) and S Sushmita Carolyn (Student/EEE) presented a paper titled "Identification and classification of faults in underground cables – A review" in the third International Conference on Materials Science and Manufacturing Technology (ICMSMT 2021) held at Coimbatore, during April 15 – 16, 2021.
- Balaji.M (Associate Professor/EEE) , Senthil V ,Pathmasanker P K ,Sathish Kumar S (UG Students) presented a paper titled "Fault Analysis and Reconfiguration of BLDC Motor Drive" in International Conference on Advances in Materials, Computing and Communication Technologies organised byAnnai Vailankanni College of Engineering on 10.4.2021
- Dr. R. Ramaprabha, ASSP/EEE reviewed a paper for ICCCS, 2021 conducted by IT department, SSNCE.



- *Dr Mrunal Deshpande presented a paper titled "Renewable energy and reluctance motor for farming" in International Conference on Advances in Materials, Computing and Communication Technologies organised by Annai Vailankanni College of Engineering on 10.4.2021*
- *R. Ramaprabha, V. Aadhavan, K. Arun, V. Arun, "Development of 15 Level Cascaded H-H-T Multilevel Inverter", International Conference on Advances in Materials, Computing and Communication Technologies (ICAMCCT 2021) on April 10, 2021, Annai Vailankanni College of Engineering (AVCE), AVK Nagar, India – Presented by all*
- *R. Ramaprabha, T. Tamilselvi and V. Kowsalya, "Implementation of Simple Low Cost PV Panel Characterization Kit using Arduino" International Conference on Advances in Materials, Computing and Communication Technologies (ICAMCCT 2021) on April 10, 2021, Annai Vailankanni College of Engineering (AVCE), AVK Nagar, India –Presented by all*
- *Dr R Rengaraj Conducted Viva Voce Examination for his scholar Mr. Hithuanand on 19.04.2021*
- *Ms.S.Vijayalakshmi, full time research scholar of Dr.R.Deepalaxmi, Asso.Prof/EEE submitted her PhD thesis at Centre For Research, Anna University on 26-03-2021.*
- *Dr. V. Thiyagarajan, ASSP/EEE has reviewed the paper submitted for the International Journal of Renewable Energy Research (IJRER).*
- *Dr. V. Thiyagarajan, ASSP/EEE has reviewed the paper submitted for the 4th International Conference on Mechanical, Electric and Industrial Engineering (MEIE2021) organized in China during May 22-24, 2021.*
- *Dr.R.Deepalaxmi, Asso.Prof/EEE, presented the progress of the sanctioned and completed internally funded faculty project titled " Identification of Cable Insulation Material for Nuclear Power Plants " on 03-03-2021 in SSN Research Centre.*
- *Dr. R. Ramaprabha, ASSP/EEE reviewed the following papers: 2 papers for IJEPES (Elsevier Publications) – Apr 07, 2021; 1 paper for ICCCSP2021 (IT department/SSNCE).*

CONFERENCE ACTIVITY

- *Dr. R Leo ASSP/EEE, has participated in the AICTE - AQIS Sponsored Five Days online STTP on “Be the Change -Teaching Learning Process” Organized by HR & Faculty Training Academy BS Abdul Rahman Crescent Institute of Science and Technology, Chennai, Tamil Nadu from 05/04/2021 – 10/04/2021*
- *Dr. R Leo ASSP/EEE, has participated in the AICTE & ISTE Sponsored Online One Week FDP Induction / Refresher Program on “CYBER SECURITY WITH BLOCKCHAIN TECHNOLOGY” conducting by ‘KKR & KSR INSTITUTE OF TECHNOLOGY & SCIENCES’, Guntur. From 22nd April, 2021 to 28th April, 2021*
- *Dr. V. Thiyagarajan, ASSP/EEE, has attended the AICTE-ISTE Sponsored Refresher Programme on “Solar PV System Design Using IoT” organized by Sri Venkateswara College of Engineering, Chennai from 31/03/2021 - 08/04/2021.*
- *Dr. R. Ramaprabha, Asso.Prof./EEE and Dr. M. Balaji, Asso.Prof./EEE arranged an invited guest lecture (online mode) on “Awareness about DRDO Labs & Projects” UG & PG (II year EEE) students on 19.04.2021 between 11.00 am to 12.30 pm. The lecture is delivered by Shri. S. Madivaanan, Scientist ‘G’, Additional Director (Ret), CVRDE/DRDO, Avadi, Chennai.*
- *Dr.R.Deepalaxmi, Asso.Prof/EEE, has been appointed as one among the 12 members in Domain Expert Committee constituted in order to finalize CO-PO mapping and attainment for UG NBA SAR preparation.*
- *Dr. R. Ramaprabha, ASSP/EEE convened Second Class Committee meeting for I Year M.E. Power Electronics & Drives as a Multiple Course Class Committee Chairman on April 19, 2021 through online between 02.30 PM to 03.30 PM.*



- Dr. R. Ramaprabha, ASSP/EEE discussed with department NBA coordinator regarding CO-PO mapping and attainment as DEC member on April 12 & 19, 2021 and completed.
- Dr. R. Ramaprabha, ASSP/EEE attended EEE department BoS meeting on April 12, 2021.
- Dr. R. Ramaprabha, ASSP/EEE and Dr. S. Krishnaveni, ASSP/EEE submitted the revised syllabus for Electronics Group as suggested in BoS on April 21, 2021.
- Dr. R. Ramaprabha, ASSP/EEE had a continuous discussion with Ms. Bhuvaneshwari, Accounts section and HoD/EEE to work out Section 10 of NBA SAR to freeze the department accounts part during April 15 to April 23.
- Dr. R. Ramaprabha, ASSP/EEE attended department meeting to discuss on finalizing subjects for Autonomous Syllabus (Post BoS meeting) with Dr. Ganesh Samudra as representing Electronics Group on April 24, 2021.
- Dr. R. Ramaprabha, ASSP/EEE delivered an Expert talk on “Solar PV in E-Mobility” on May 06, 2021 in the AICTE sponsored Short Term Training Program titled “Electric Mobility: Development, Integration and Design Challenges (Phase-III)” during May 03-08, 2021 organized by the Department of Electrical and Electronics Engineering, Jerusalem College of Engineering, Narayanapuram, Pallikaranai, Chennai 600100
- Dr Mrunal Deshpande delivered a webinar on “AC machines and its performance, How to prepare for open book university Examination” for Karpagam Institute of Technology, Coimbatore on 3.5.2021
- Dr Mrunal Deshpande delivered a webinar on “Time domain and Compensators”, How to prepare for open book university Examination” for Karpagam Institute of Technology, Coimbatore on 11.5.2021
- Dr.R.Seyezhai,ASSP/EEE delivered a guest lecture titled,”Building an Innovation/Product to fit into market” organized by IIC of Karpagam Institute of Technology, Coimbatore on 10.05.2021.

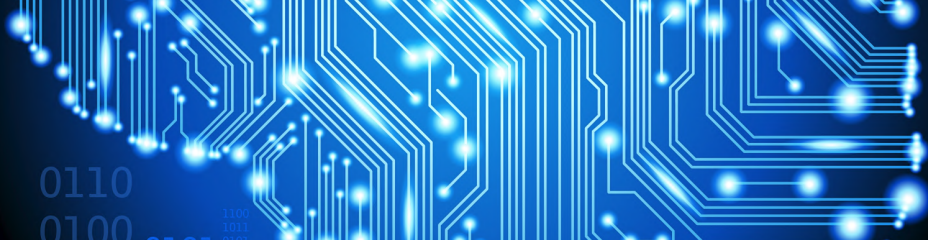


- *Dr.R.Seyezhai,ASSP/EEE as subject expert offered suggestions for the curriculum for the EEE department, Kongu College of Engineering (Autonomous), Coimbatore on 13.05.2021.*
- *Dr. N.B. Muthu Selvan successfully conducted Viva-Voce Examination for Part-Time Research Scholar of Mr. Karthikeyan B. (Reg. No. 1214399779) on Wednesday, 5th May, 2021, through online mode. The title of thesis is, "A Heuristic approach of using FACTS devices in renewable energy incorporated power system".*
- *Dr Mrunal Deshpande attended a webinar on 'Restore our earth, what we can do' arranged by EEE Department SSNCE on 25.4.2021*
- *Dr. R.Leo, ASSP,EEE attended One Week online FDP on “Internet of Things for Futuristic Smart Systems” conducted by Bharati Vidyapeeth Deemed to be University College of Engineering, Pune from 17.05.2021 to 21.05.2021.*
- *Dr. R.Leo, ASSP,EEE attended 5 Days Online ATAL FDP on INTERNET OF THINGS (IOT) IN 5G TECHNOLOGY Conducted by SILICON INSTITUTE OF TECHNOLOGY, ODISHA from 24th May to 28th May, 2021.*
- *Dr. V. Thiyagarajan, ASSP/EEE, has attended the one week Faculty Development Programme on "Future and Challenges in Engineering and Technology", organized by Krishna Engineering College, Ghaziabad from 14/05/2021 - 18/05/2021.*
- *Dr. V. Thiyagarajan, ASSP/EEE, has attended the one week International Workshop on "Recent Advancement on Electronics and Computer Intelligence (RAECI 2021)", organized by Sambalpur University Institute of Information Technology (SUIIT), Odisha from 26/04/2021 - 30/04/2021.*
- *Dr. V. Thiyagarajan, ASSP/EEE, has attended the one week online short-term course on "Artificial Intelligence" organized by Sanskrithi School of Engineering, Andhra Pradesh from 24/05/2021 - 28/05/2021.*
- *Dr.M.Balaji/Associate professor attended 5 day webinar on “Electric Vehicle Design using MATLAB” organised by Pantech solutions during 3-7 May 2021.*
- *Dr.S.Tamilselvi (ASP) DC member attended a virtual Confirmation DC meeting of Mr. Veeraraghavulu Vemula from Sathyabama Institute of Science and Technology (Reg No. 2018193109) held on 05.06.2021 through Zoom Meet. Research Title: Optimal Placement and sizing of DG by using Intelligent Techniques.*



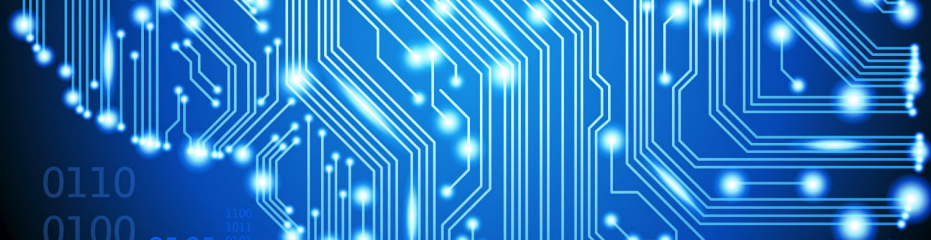
- Dr.M.Balaji/Associate professor attended a webinar on “Introduction to Intellectual Property Rights (IPR), Types and Examples” organized by the Institution’s Innovation Council of Sri Sivasubramaniya Nadar College of Engineering on May 19, 2021.
- Dr. M Pandikumar, Asso Prof/EEE, attended the workshop on Problem Solving Through Optimization Techniques - A Research Perspective conducted by Kongu Engineering College on 17th May 2021.
- Dr. M Pandikumar, Asso Prof/EEE, attended the workshop on Recent Trends in Photonic Devices and its Applications (RTPDA 21) conducted by Vellore Institute of Technology -Chennai during 10th May 2021 & 11th May 2021.
- Dr. M Pandikumar, Asso. Prof/EEE, attended the Webinar on "Effects of Moisture in Transformers" on 10th May 2021.
- Dr. N.B Muthu Selvan attended a National Level Five-day Faculty Development Programme on “Perspectives of Teaching Power Systems” under AICTE Margadarshan Scheme conducted by Department of Electrical and Electronics Engineering, National Institute of Technology Tiruchirappalli, during 17th – 21st May, 2021
- Dr. N.B Muthu Selvan attended Faculty Development Programme on “Creative and Innovative Teaching Strategies for the New Normal” conducted by SSN- Institution’s Innovation Council (IIC) during May 24-31, 2021
- Dr. P. Saravanan attending a 5-day ATAL FDP on “Productivity Enhancement through Meditation”, during May 24-28, 2021, conducted by JECRC, Jaipur.
- Dr Mrunal Deshpande attended 2021 IEEE VIC Summit and Honours Ceremony, conducted by IEEE (online)
- Dr. R. Ramaprabha, ASSP/EEE participated & Completed successfully AICTE Training and Learning (ATAL) Academy online FDP on “Applied Machine Learning and Data Science” during May 17 -21, 2021. The event was conducted by Indian Institute of Information Technology, Dharwad.

- Dr. M Pandikumar, Asso Prof/EEE, participated in the MATLAB Expo 2021 held during May 4th & May 5th 2021.
- Dr. P. Saravanan attended a 5-day Master Class on “Electrical Vehicle Design”, during May 3-7, 2021, conducted by Pantech Solutions Pvt. Ltd.
- Dr. P. Saravanan attended an orientation session on "Introduction to Intellectual Property Rights (IPR), Types and Examples" on May 19, 2021, organized by SSN-IIC.
- Dr.R.Seyezhai, ASSP/EEE attended the National webinar on, “Renewable Energy -Smart Grids” organized by Mandsaur University on 15.05.2021.
- Dr.R.Seyezhai, ASSP/EEE attended the National webinar on, ‘Practical challenges in integrating RES in the grid” organized by Nehru Institute of Technology,Coimbatore on 15.05.2021.
- Webinar was delivered by Mr Rajeev Shevgaonkar, Managing partner North Star Pune on the topic: Effects of moisture on Transformers on 10th May 2021. Organizers: Dr. V. Kamaraj, Dr Mrunal Deshpande, Dr R Rengaraj and Dr G Venkatakrishnan.
- Dr.V.S.Nagarajan, Associate Professor, EEE, Incharge Association of Electrical and Electronics Engineers (AEEE) and Dr.R.Seyezhai, Associate Professor, EEE of SSN Institution’s Innovation Council (SSN - IIC) organized a Webinar Session on “Electrical machines and drives - current application trends” on 26th May 2021, in which the lecture was delivered by Mr. Dinesh.N, Lead Engineer R&D at Planys Technologies, Chennai.
- Mr. Balamurali G, Executive Engineer, TANTRANSCO delivered a webinar on "Restore Our Earth: What we can do" on April 25, 2021. Co-ordinators: Dr. S. TamilSelvi, Dr. R.Rengaraj, Dr. G.R.Venkatakkrishnan
- Mr. Dinesh Ram Kumar M, Northeastern University and Mr. Nishanth T, Boston University delivered a webinar on “ Pursue Overseas Dreams” on May 17, 2021. Co-ordinators: Dr. D. Umarani, Dr. G.R. Venkatakrishnan
- Dr.R.Seyezhai,ASSP/EEE, Dr.S.Sureshkumar, ASSP/Mechanical organized a webinar on, “Orientation session by Innovation Ambassador on Patents” under SSN-IIC3.0 on 19.05.2021.



- *Dr. Mrunal Deshpande, ASSP/EEE, Dr.R. Seyezhai, ASSP/EEE and Dr.S. Sureshkumar, ASSP/Mechanical organized Faculty development program on “Creative And Innovative Teaching Strategies For The New Normal” under SSN Institution’s Innovation Council (SSN – IIC 3.0) from May 24-31, 2021*
- *V.Rajini attended the academic council meeting on 24/5/2021*
- *Dr. R. Seyezhai, Dr. R. Ramaprabha & Dr. M. Balaji ASSPs/EEE met through Zoom platform (online) to plan the events to be conducted this semester by them on May 20, 2021 between 10 AM to 11 AM.*
- *Dr.R.Deepalaxmi, Asso.Prof/EEE, has been assigned to do "Activity for Institution Development-Students not eligible for placement tracking" on April 28, 2021.*
- *Dr.R.Deepalaxmi, Asso.Prof/EEE had contacted her mentoring students of IV year EEE-A (Reg Nos: 61-64 and 301-310) and collected the data which is required for student support group for COVID-19 on May18. 2021.*
- *Dr.R.Deepalaxmi, Asso.Prof/EEE had contacted the students of III year EEE-A (Class-in-charge) and collected the data which is required for student support group for COVID-19 on May18. 2021.*
- *Dr.R.Deepalaxmi, Asso.Prof/EEE has done the online proctoring duty for SNU entrance on May 24. 2021.*
- *Dr. Mrunal Deshpande, Asso.Prof/EEE had contacted her mentoring students of II year EEE-B and collected the data which is required for student support group for COVID-19 on May18. 2021.*
- *Dr. Mrunal Deshpande, discussed with her internally funded students batch regarding modifications in their manuscript.*
- *Dr. N. B. Muthu Selvan along with Dr. M. Balaji prepared and submitted Self-Assessment Report for EEE Department for NBA Accreditation Process on 17th May 2021.*
- *Dr. N. B. Muthu Selvan prepared and submitted Data Required for DoTE regarding KRA for EEE Department on 25th May 2021.*

- *Dr.R.Seyezhai,ASSP/EEE, Dr.S.Sureshkumar, ASSP/Mech and Dr.M.Balaji,ASSP/EEE conducted the Third Council meeting for SSN -IIC3.0 on 14.05.2021 to discuss about the activities conducted for quarter-3 and plan for Q4 activities and ARIIA-2022 ranking.*
- *Dr.R.Seyezhai, ASSP/EEE and Dr.S.Sureshkumar/ASSP/Mechanical submitted the IIC Mandate form in the MHRD website on 15.05.2021.*
- *Dr.R.Seyezhai, ASSP/EEE has been nominated as evaluator for TOYCATHON on 21.05.2021*
- *Dr.R.Seyezhai, ASSP/EEE attended the online meeting regarding the Design thinking workshop laboratory convened by HOD/EEE on 09.05.2021.*
- *Dr.R.Seyezhai, ASSP/EEE attended the dry run meeting regarding the conduct of interview for SNU, Chennai on 13.05.2021.*
- *Dr.R.Seyezhai, ASSP/EEE acted as interview panel member for the admission of B.E./B.Tech for SNU, Chennai on 28.05.2021.*
- *Dr.V.S.Nagarajan, Associate Professor, EEE delivered a lecture on “App Development in Electric Circuit Analysis” in the Faculty Development Program on “Creative and Innovative Teaching Strategies for the New Normal” on May 24, 2021 Organized by SSN –Institute Innovation Council (IIC3.0).*
- *Dr.U.Shajith Ali, ASSP/EEE delivered a webinar titled, “Artificial Intelligence Techniques for Power Electronics’ organized by Department of Electrical and Electronics Engineering, Sri Ramakrishna Engineering College, Coimbatore, on 02.06.2021.*
- *Dr.R.Seyezhai, ASSP/EEE delivered a guest lecture titled, “Reliability of Power Converters”, organized by Panimalar Institute of Technology, IEEE Power Electronics Society Student Branch Chapter in association with IEEE-PELS, Madras Chapter on 20.06.2021.*
- *Dr.R.Seyezhai, ASSP/EEE made a presentation to the Virtual Call Assessment held on 10.06.2021 headed by experts for the project submitted to Atal Community Innovation Centre with a funding of 2.5 Crores.*



- *Dr.R.Seyezhai, ASSP/EEE attended a DC meeting for the Scholar Mr.Bupathi at VIT University, Vellore on 26.06.2021.*
- *U.Shajith Ali, attended AICTE Training And Learning (ATAL) Academy Online FDP on "Global Warming & Impacts of Power Electronics Towards Green Technology" from 24-5-2021 to 28-5-2021 at SRM Valliammai Engineering College.*
- *Shajith Ali, attended an International Faculty Development Program "Research Innovations and Emerging Advances in Electrical Engineering" from 14.06.2021 to 19.06.2021 organized by the Department of Electrical and Electronics Engineering, Easwari Engineering College, Chennai.*
- *Dr. V. Thiagarajan, ASSP/EEE, has attended the online Faculty Development Programme on " Recent Advances in Electrical Energy Management, Control and Automation", organized by Lakireddy Bali Reddy College of Engineering, Andhra Pradesh from 08/06/2021 - 12/06/2021.*
- *Dr. V. Thiagarajan, ASSP/EEE, has attended the International Faculty Development Programme on "Research Innovations and Emerging Advances in Electrical Engineering", organized by Easwari Engineering College, Chennai from 14/06/2021 - 19/06/2021.*
- *Dr. V. Thiagarajan, ASSP/EEE, has participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Distributed Energy System Modelling and Control" organized by Government Engineering College, Bharuch from 21/06/2021 – 25/06/2021.*
- *Dr.M.Balaji/Associate professor attended AICTE Training And Learning (ATAL) Academy Online FDP on "Current Trends of Power Electronics Applications in Electric Vehicles" from 07-06-2021 to 11-06-2021 organized by Government Engineering College Valsad.*
- *Dr.M.Balaji/Associate professor attended AICTE Training And Learning (ATAL) Academy Online FDP on " Design Thinking" from 21-06-2021 to 25-06-2021 organised by Bharati Vidyapeeth College of Engineering, Navi Mumbai.*



- Dr. P. Saravanan attended a 5-day ATAL FDP on “Quantum Computing and Quantum Cryptography” from 7 June 2021 to 11 June 2021, conducted by National Institute of Technology Karnataka
- Dr.D.Umarani,ASSP/EEE, attended an FDP on “Creative and Innovative Teaching Strategies for the New Normal” organised by the Institution’s Innovation Council of Sri Sivasubramaniya Nadar College of Engineering during May 24-31,2021.
- Dr.D.Umarani,ASSP/EEE, attended an international FDP on “Research Innovations and Emerging Advances in Electrical Engineering” organised by Department of Electrical and Electronics Engineering, Easwari Engineering College during June 14-19,2021.
- Dr.M Pandikumar, AsP/EEE, attended & successfully completed the ATAL - FDP – Emerging Technological Challenges in Electrical Vehicle – organised by Annapoorna Engineering College, Salem during 7th June to 11 June 2021.
- Dr.M Pandikumar, AsP/EEE, attended & successfully completed the ATAL - FDP – Cutting Edge Technologies in Energy Storage System for E-Mobility– organized by KPR Institute of Engineering and Technology, Coimbatore during 14th June 2021 to 18th June 2021.
- Dr.R.Seyezhai, ASSP/EEE attended the AICTE-ATAL FDP on, “Recent Trends in Electric Vehicle and Renewable Energy Systems” organized by Arasu Engineering College, Kumbakonam during 21.06.2021- 25.06.2021.
- Dr.R.Deepalaxmi, Asso.Prof/EEE attended the First Session of the Online Interactive Lecture Series by Professor Prem Vrat, AICTE Distinguished Chair Professor on the topic "Assessing research productivity and quality through citation analysis" on June 10. 2021.
- Dr.R.Deepalaxmi, Asso.Prof/EEE attended second Session of the Online Interactive Lecture Series by Professor Prem Vrat, AICTE Distinguished Chair Professor on the topic "Measuring and Enhancing Employability of Graduates of Engineering and Management Programmes" June 17. 2021.
- Dr. P. Saravanan attended an orientation session on “ Prototype Validation – Converting Prototype into a Startup”, on June 16, 2021, organized by SSN-IIC.



- *Dr. M Pandikumar, attended a webinar on Advanced Instrumentation in Thermal Power Plants at Electronics and Instrumentation Engineering Department , Easwari Engineering College on 12th June 2021.*
- *Dr. M Pandikumar, attended a Webinar on Smart Manufacturing through Machine Vision and Artificial Intelligence - Department of Mechanical Engineering, Madanapalle Institute of Technology and Sciences, Madanapalle – 17th June 2021.*
- *Dr. R. Ramaprabha, ASSP/EEE participated & Completed successfully ATAL Academy online FDP on “Current Trends of Power Electronics Applications in Electric Vehicles” during June 07-11, 2021. The event was conducted by Government Engineering College, Valsad.*
- *Dr.R.Seyezhai, ASSP/EEE attended the National webinar on, “Virtual Labs for effective tools for teaching and learning ” organized by G.H.Raisoni Institute of Technology ,Nagpur in association with NIT, Surathkal on 19.06.2021.*
- *Dr.R.Seyezhai, ASSP/EEE attended the orientation session for IIC coordinators by MHRD Innovation cell on 03.06.2021.*
- *Dr.R.Seyezhai, ASSP/EEE attended the training session for the evaluator for Toycathon-2021 on 21.06.2021.*
- *Dr.R.Seyezhai, ASSP/EEE attended the IQAC session Expert talk on “Quality Enhancement in Higher Educational Institutions” by Dr. Prashant R. Nair, Vice-Chairman, Internal Quality Assurance Cell (IQAC), Associate Professor, Dept. of CSE, Amrita Vishwa Vidyapeetham, Coimbatore on 18.06.2021.*
- *Dr. M Pandikumar, AsP/EEE, attended the AICTE sponsored online STTP on Recent Advances in EV Technologies - Series C, organized by Department of Electrical and Electronics Engineering, Matrusri Engineering College during June 2021.*
- *Dr.K.T.Selvan , Professor, ECE , Dr.R.Seyezhai,ASSP/EEE &Dr.S.Sureshkumar, ASSP/Mech organized the first session of the online Interactive Lecture Series by Prof.Prem Vrat, AICTE Distinguished Professor on the topic, “Assessing research productivity and quality through citation analysis”, on 10.06.2021.*

- Dr.K.T.Selvan , Professor, ECE , Dr.R.Seyezhai,ASSP/EEE &Dr.S.Sureshkumar, ASSP/Mech organized the first session of the online Interactive Lecture Series by Prof.Prem Vrat, AICTE Distinguished Professor on the topic, “Measuring and Enhancing Employability of Graduates of Engineering and Management Programmes”, on 17.06.2021.
- Dr Mrunal Deshpande attended interactive session on "Measuring and Enhancing Employability of Graduates of Engineering and Management Programmes" with Professor Prem Vrat, AICTE Distinguished Chair Professor on 17.06.2021.
- Dr. R. Ramaprabha, ASSP/EEE coordinate for the selection of internship students along with Dr. R. Seyezhai, ASSP/EEE for EEE department on June 14 & 15, 2021.
- Dr. R. Ramaprabha, ASSP/EEE conducted Class Committee meeting for II Semester M.E. Power Electronics & Drives students on June 14, 2021.
- Dr. R. Ramaprabha, ASSP/EEE started the internship orientation for the students (3 students) opted under her mentorship on June 17, 2021 through online.
- Dr. R. Ramaprabha, ASSP/EEE conducted online discussion/progress tracking meeting for the internship students (3 students) opted under her mentorship on the dates June 18, 21, 24 & 29, 2021 through online.
- Dr. R. Ramaprabha, ASSP/EEE reviewed 5 papers for IEEE- MASCON, International Conference which will be held during Aug 27-28, 2021, which will be conducted by IEEE Madras Section on June 20, 2021.
- Dr. R. Ramaprabha, ASSP/EEE discussed regarding the initiation of the final year project (4 batches of UG students) after their exams through online on June 26 & 28, 2021.
- Dr. Mrunal Deshpande, ASSP/EEE started the internship orientation for the students (2 students) opted under her mentorship on June 17, 2021 through online.



- Dr. Mrunal Deshpande, ASSP/EEE discussed and guided through online discussion the internship students who are allotted to her under internship orientation on the dates June 21, 24 & 25, 2021
- Dr.R.Seyezhai, ASSP/EEE attended the class committee meeting for II Sem. M.E.PED on 11.06.2021.
- Dr.R.Seyezhai, ASSP/EEE convened an online meeting to assess the progress of fulltime research scholars on 11.06.2021.
- Dr.R.Seyezhai, ASSP/EEE started the guidance for the virtual research internship of two students namely Mr.Dhandapani, Pondicherry Engineering College and Mr.Anmol Agarwal, NIT, Goa on 21.06.2021.
- Dr.Mrunal Deshpande, ASSP/EEE attended the class committee meeting for II Sem. M.E.PED on 11.06.2021.
- Dr Mrunal Deshpande, Dr R Rengaraj, Dr V Thiyagarajan and Dr G R Venkatkrishnan had zoom meeting to discuss regarding upcoming International conference ICPEDC 2021 to be held during August 2021.
- Dr.R.Deepalaxmi, Asso.Prof/EEE, has prepared the data related to "Activity for Institution Development-Students not eligible for placement tracking" for first year of 2020-2024 batch and submitted the documents to the principal sir from June 5, June 8, June 10, June 12, June 16- 2021.
- Dr.R.Deepalaxmi, Asso.Prof/ supervised Santhosh Chakkaravarthy S of St.Joseph's College of Engineering for the project titled "Identification of efficient controller for Servomotor" under SSN- Research Internship Scheme -online mode. Duration of 6 weeks (from June 17, 2021).
- Dr.R .Leo Started guiding Research internship project titled" IOT based Energy Management of smart micro-grid." for an External student from RMK Engineering College from 16th June 2021
- Ms. Nithya George, II year Student of Mount Carmel College (Autonomous), Bengaluru, Karnataka applied for INTERNSHIP with the title "Identifying Super Spreaders in Electrical Circuits using Heatmap Centrality" under the guidance of Dr. M Pandikumar on 10th June 2021.



FACULTY ACTIVITY

- *Dr. V. Thiagarajan, ASSP/EEE, has successfully completed the NPTEL course titled “Power Quality Improvement Technique”. This is an eight week course and the course instructor is Dr Avik Bhattacharya, Assistant Professor, IIT Roorkee.*
- *Dr. V. Thiagarajan, ASSP/EEE, has successfully completed the online course titled "ET3034x : Solar Energy" with a grade of 94% offered by DelftX, an online learning initiative of Delft University of Technology. It was a eight week course and the instructor for the course is Dr. Arno Smets, Professor, Delft University of Technology.*
- *Dr. M Pandikumar, Asso Prof/EEE, successfully completed & participated in the Guinness World Record Event for Most Users to take an Online Computer Programming Event in 24 Hours on April 24th 2021 to April 25th 2021.*
- *Dr.R.Seyezhai, ASSP/EEE registered the course on, : "Wind energy systems" in Coursera on 20.05.2021.*
- *Dr.R.Seyezhai, ASSP/EEE completed the online course titled, “Automotive Sensor & Actuator Technology “ on Udemy on 6.06.2021.*
- *Dr.R.Seyezhai, ASSP/EEE completed the online course titled, “Electric and Hybrid Vehicle Technology -A Complete Course” on Udemy on 05.06.2021.*
- *Dr.R.Seyezhai, ASSP/EEE completed the Coursera course titled, “ Wind Energy” on 15.06.2021.*
- *Dr.R.Deepalaxmi, Asso.Prof/EEE registered for course titled " Introduction to Solar Cells" offered by Technical University of Denmark (DTU) under coursera for campus basic plan at SSN College of Engineering. (5 weeks course starting from June 12, 2021).*
- *Dr.R.Leo Completed one coursera course on English for Effective Business Speaking.*

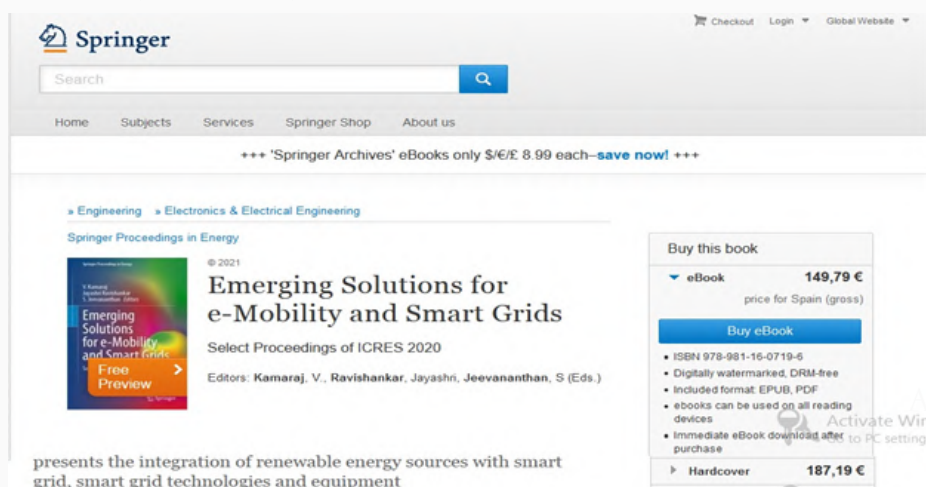


The Department of Electrical and Electronics Engineering organized the First Virtual International Conference on Renewable Energy Systems (ICRES-2020) during Aug 26-28, 2020. The organizers committed to publish the presented and peer reviewed conference papers in “Springer Proceedings in Energy” as two volumes following the Springer guidelines. The two volumes have been published now. The details are:

Volume 1: *Recent Trends in Renewable Energy Sources and Power Conversion* (<https://www.springer.com/gp/book/9789811606687>)



Volume 2: *Emerging Solutions for e-Mobility and Smart Grids* (<https://www.springer.com/gp/book/9789811607189>)



The organizers Dr. V. Kamaraj, Dr. R. Seyezhai, Dr. R. Ramaprabha, Dr. M. Balaji and Dr. M. Pandiumar thank the department faculty members for their kind cooperation for the successful completion of the conference.

11.5KWhr Lithium-Iron Battery procured for the Faculty Project



A research project funded by DST-SERB, involves the design and development of an electric vehicle using Axial Flux Switched Reluctance Motor (AFSRM). The significant contribution of this research work is the design and fabrication of AFSRM. With the successful completion of the challenging fabrication process, testing of the designed motor is in progress.

The experimental validation of the proposed research project involves the integration of motor with power converter and battery pack, in vehicle set-up. To meet out the motor specifications, 11.5KWhr Lithium-Iron, especially Lithium Ferro Phosphate (LiFePO_4) battery is procured with the specifications of 116V and 102A maximum current.

C-type cell based on Lithium Ferro Phosphate with the specifications of 3.2V and 5000mAh is used to build the battery pack. An array combination of 36 x 21 cells was used to make the battery pack with the desired specification. The battery charger with the implemented CAN protocol, to communicate with the Battery Management System (BMS) module in the battery pack, has been designed. The customized charger and BMS for 102A is designed and developed. Following are the snapshots of the battery and charger.





The performance metrics of the battery like, State of Health (SoH) and State of Charge (SoC) could be observed, with the help of a specialized software, through the USB connectivity provided in the battery pack.



Experimental set-up for battery validation

For the quality check of the battery, the battery pack is sourced to DC shunt motor with load. At the end of the successful experimentation, the healthy state of the battery is confirmed.

***-Dr. P. Saravanan, Associate Professor,
Department of EEE, SSNCE.***

TAKING HAGRID'S BIKE AND TURNING IT INTO REALITY!

TEJASWINI.V
III YEAR



Rubeus Hagrid, the much-loved character in the Harry Potter franchise, dropped baby Harry in Privet Drive with the Dursley only to carry him back to the Burrow when the magical realm arched towards a war to gear up. In the events that unfolded from the first book to the end, one that bowled readers across the globe must be Hagrid's magical bike!

Trust this fact for one, as Rowling gave us hints on a new invention a long time ago. Fascinating, isn't it?

And now, many have embraced this change close, and are planning in hand to make this a well blown reality. Believe us or not, but here comes the Hover Bike!

This unique vehicle carries within it the freedom of a helicopter, and the thrill your vroomers give you, flaunting your hair, and sealing the helmet, to breathe in the fresh zephyr those long roads have to offer.

Ehem, after the lockdowns get their keys to unlatch, of course.

Hover bikes fly like a quadcopter, in a way that you can sail across the azures in both, the manned and the unmanned levels. With the wind falling behind, and an adventure to take on, needless to say, these splendiferous characters of the hover bike has indeed grabbed the eyeballs of the military, to begin with.

The troop hopes high in the belief that this innovative invention in the right hands, to be precise, can do wonders that mesmerize the very human eye.

To begin with, it flies with two mini helicopter blades in the front and back. With a figurine that stays a carbon copy, a lot like a chopper, it will have propellers to hover, but it will also be able to have wheels, if wanted.



Motorcycles are known to have two wheels. The hover bike, well, it will have a chopper, and may use thrusters to hover. The best part is yet to come her, ya know! Interestingly enough, the hover bike may change back into the system of wheels it was originally!

Now do they get interesting, hmm, as say, Bruce Wayne's bike from the Batman Trilogy!!!

Ideally, such a vehicle would be able to allow people to navigate the earth in a new and unique way. A well-designed hovercraft would be able to take off and land vertically, manoeuvre slowly through tight spaces, and hover in place. To date, no commercially viable hover bike has been built, though some test prototypes do exist and are in development.

To select engines, it is always advisable to go with electric motors and brushless motors. Well, to start with, electric motors have always been in the run in this country and in addition to that, they are known for their quite runs, and not causing much racket as and on. A motor is a prime part in here because we require the device to run both clockwise and anticlockwise.

Researchers have proposed three phases in construing the frame for the hover bike. And adding to this, it is important to have in hand a control system, circuit board and an automatic speed controller.

For now, the small-scale hover bike targeted may have a whole span of applications in capturing photos, surveillance in borders, traffic spotting, coverage of matches (that too in a magnitude greater than the drone! Spiffing, right?), disaster and crisis management and environmental monitoring.

Once the proposed structure achieves heights, and gets a build of its own, to, let us say take a form as Hagrid's very bike, then it would be capable of shifting weights from one point to the other in an easier span, and can even turn into the poor man's private jet!

Imagine, lesser pollution, noiseless aircraft, all in one package! What more do we need to ask for?

Hesitate not, for technology's best, the Hover Bike is here. All we need is some minutes to wait, and moments that ride high on what patience is worth, and experience the magic unfold within our very eyes.

Hurrah to Hover Bikes!

"A motor is a prime part in here because we require the device to run both clockwise and anticlockwise".



THE 'CROWD AND MASK' MONITORING SYSTEM

SAKTHI .V
III YEAR

Researchers at the Indian Institute of Science Education and Research (IISER), Bhopal have developed a low-cost 'Crowd and Mask' Monitoring System, to prevent the spread of COVID-19. This one-of-its-kind low cost AI-enabled device is portable and easy to deploy across various locations. Now that educational institutions are slowly opening up for offline classes, The IISER Bhopal team plans on using this AI-powered system on its campus as it commences the process of bringing students back in phases.



The team included Mitradip Bhattacharjee and Santanu Talukdar who were assistant professors, Venkateshwar Rao, an assistant professor of chemical engineering and student Kasi Viswanath. The team developed a monitoring system which works on the principles of Artificial Intelligence and Machine Learning in a high definition camera attached to a microchip computer and a 5V battery in a 3D printed case. The device sounds an alert if the mounted camera detects that social distancing and mask norms are not being followed by students or in a gathering.



According to the chief of the team, Mr. Sujit, the image recognition software recognizes people and draws a rectangle on each person. The system then takes the center of each rectangle and checks if the distance between two rectangles is less than 1 metre. If it is less than 1 metre, then a signal is given to the speaker to play the alert for 3 seconds. Similarly, the image recognition software is trained with people wearing masks and not wearing masks. If it detects a face without mask, it sends out an alarm.

The researchers claim that after the deployment of this system, people have become sensitive to social distancing violation and are following safety protocol with more caution. The team says it feels that given the opportunity, this device can be deployed at various crowded public places to ensure that the basic Covid safety rules are not violated.



Prototype of the "Crowd and Mask" Monitoring System





**SOMETIMES THE HEART
SEES WHAT'S INVISIBLE
TO THE EYES!**

**"Don't be pushed around by the fears in your mind.
Be led by the dreams in your heart!"**

- Roy.T.Bennett

**-JAZLYN C III
YEAR**

Among all the vital organs of our body, we have got only one organ that can beat and provide life, the only thing which can define us, and equally make us self-reliant in its own way is our heart.

The heart basically carries blood but just like the oxygen in it, which we can't be seen through our naked eyes which certainly does not imply it's absent, rather there are indeed a few things that we can't see, yet our hearts can simply feel it. Like emotions love, friendship, the faith, hope, warmth of nature we have never seen but were felt by the heart.

"The best and most beautiful things in the world cannot be seen or even touched - they must be felt with the heart. " -Helen Keller

No one has ever seen God, but they believe he endures from his beautiful creation. A heart can determine what lies beneath a wide smile, where our eyes are out of the league.

Heart identifies the solemnness and obedience of an individual.

Eyes look for appearance, attitude and behavior, but the heart sees for an individual's reflection, morale and loyalty.



Eyes notice the actions but could not truly discover the reason behind their occurrence. The heart recognizes it as it cares for it.

Eyes seize the physical acts that take place in time, but is unable to reciprocate the state until the brain does. When a person is accused with false shreds of evidence, the eyes tend to declare him guilty, however, the heart senses the truth.

Open roads take us anywhere. It is our choice to pick the right route. Similarly, our eyes are capable of seizing every single moment, regardless of whether it's good or bad. It is our duty to follow our hearts. A true affiliation would never ever be embittered unless and until it's unfaithful.

Rain dew radiates calmness as the heart does.

Beauty is greeted by our eyes, but personality is acknowledged by heart.

Tears from the eyes are never really from the eyes. It may be the source of tears, but they are just an outcome of what you feel from the heart.

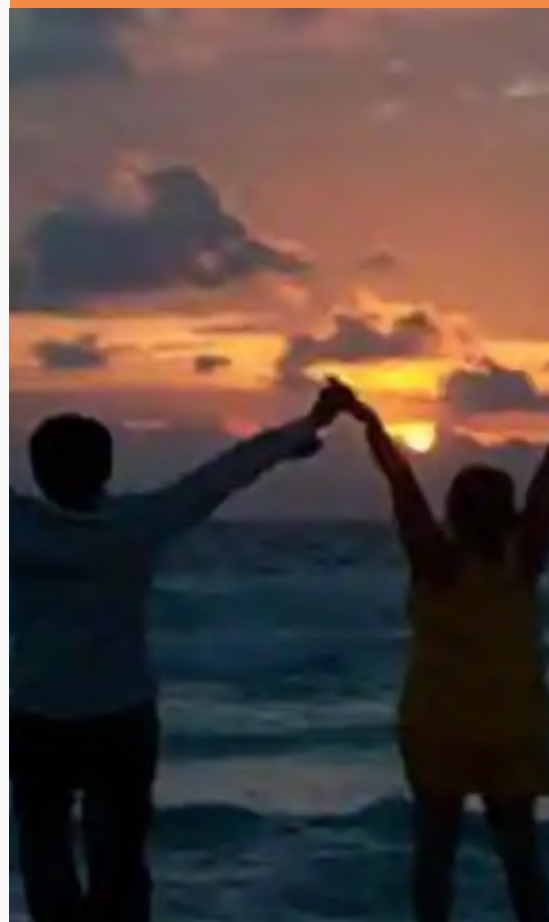
Sometimes the eyes do not bother to improve the situation due to the person's ego even when their heart wants to.

Heart feels the most painful emotions, like loneliness, makes an individual furious and desolate.

Heart winces in pain when people don't respect others by means of their eyes. Eyes may lie, but the heart can never.

Being separated from your loved one is unbearable, breaks our hearts into pieces. Eyes could just watch it and never feel it.

FRIENDSHIP, a special and blissful bond doesn't necessarily require eyes, besides the heart is efficient enough to understand each other. So is love. When we experience fear, anger, frustration, the eyes try to find conceal themselves while the heart tries to heal.



INFRARED IMAGING TO SCREEN TEMPERATURE (BTD THERMAL SCREENING)

Sanjana M
III B

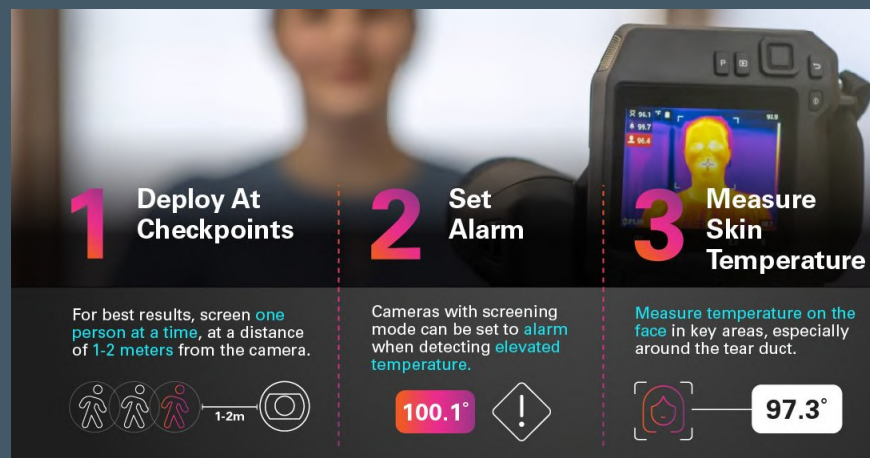
In a year when COVID-19 threatens the health and well-being of everyone on the planet, demands have been created like never before. Covid-19 may have left a devastating impact on normal lives, but it resulted in a new era of innovation and technology. One among them was the urge to check temperatures of people in public space.

Scylla, a US company, specializes in making detection tools to track possession of ammunition by entrants in universities and cafés. But the onset of the pandemic provided an opportunity to use the technology in a new way. They upgraded their software in such a way that it checks human temperature. This idea was very well-received by public and private organizations

It works with thermal cameras meeting the tech specifications and uses infrared imaging technology and artificial intelligence algorithms to deliver highly accurate temperature measurements. As individuals pass in front of the high-resolution, thermal imaging camera, dozens of multiple images are captured simultaneously with conventional and thermal imaging technology, looking for elevated temperature, facial mask usage, and proper social distancing.

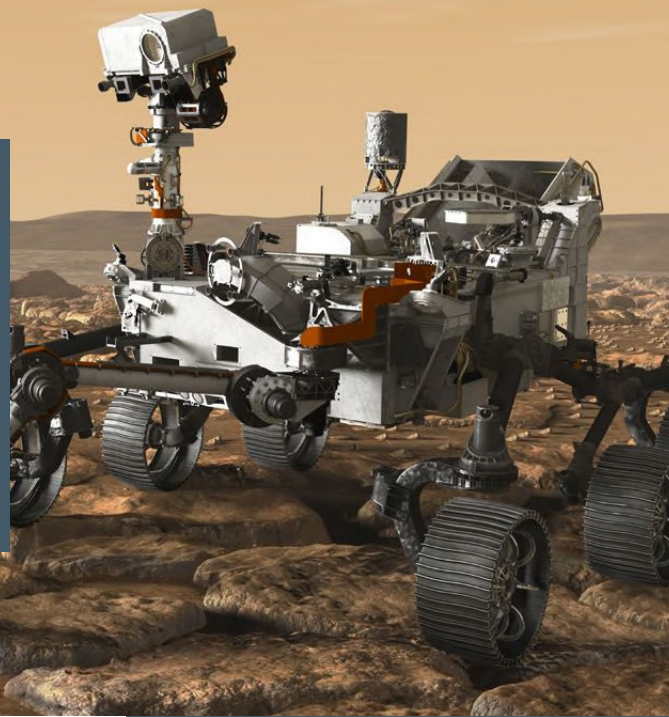
When an abnormal temperature is detected, a voice alarm is activated providing local notification while simultaneously sending alerts to mobile devices or the notification method of choice. This allows security or designated staff the ability to immediately identify, locate, mitigate non-compliant incidents, and isolate the identified person for additional screening. It should be noted that proper usage of Infrared thermal imaging is an absolutely safe, non-contact imaging modality.

Airports, factories, businesses, schools and event venues can use this temperature monitoring solution to conduct non-invasive, real-time screening of people passing through a designated entry point. It is used by customers at ports of entries and high-traffic locations in several countries, including the US, China, Oman, Mexico, Hong Kong, South Korea, Thailand, Philippines, and Malaysia.



SPACE ROBOTICS- HELLO FROM OUTER SPACE!

Jerry Rinaldo S
III A



Humans have an innate tendency to explore and understand the things around them. This urge fuelled them to explore space and the universe. The space age which began with the launch of Sputnik 1 in 1957 has seen a lot of advancements with the help of technology. New ideas like colonization of Mars and Space Tourism has started a new era of space exploration. Before sending Humans safely to another celestial body like Mars, we need a thorough understanding of that place. This is where robots come into play. Robotics has a major role in space exploration. They do not require high maintenance and budget like manned space missions, and the work effectiveness is also very high. Unlike astronauts, Robots can withstand harsh environments, extreme temperatures and radiation

"They are tasked to collect information about the terrain, and to take crust samples such as dust, soil, rocks, and even liquids"

Rovers are one of the common types of robots used in space exploration. They are autonomous robots which move on the surface of the planet. They are tasked to collect information about the terrain, and to take crust samples such as dust, soil, rocks, and even liquids. They generally have wheels, although non-wheeled designs like robotic arms and legs are also considered. They are designed to be autonomous machines due to the communication delay. For example, sending a signal from Mars to Earth takes around 3 to 21 minutes. But they do require certain instructions from humans. They have a strong outer body to withstand physical conditions. Computers and electronics are safely placed inside the rover body. The rover has cameras and necessary sensors to survive and to learn about its environment in the planet. Communication devices are present to maintain contact and receive instructions from earth. NASA's Curiosity Rover is a notable rover used in the exploration of Mars.

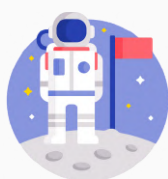
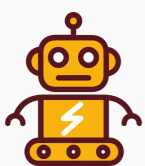


Hedgehog robots are another type of space robots used for an interesting application. Asteroids and comets are smaller celestial bodies when compared to large planets. Rovers can't be used to explore them as these bodies have harsh surface and less gravitational force, and rovers cannot operate upside down. Traditional driving does not work on asteroids and comets. This led to the design of Hedgehog robots, which can hop and tumble on the surface instead of moving on wheels. A hedgehog robot has a cube with spikes that moves by spinning and braking internal flywheels. The spikes protect the robot's body from the terrain and act as feet while hopping and tumbling. The spikes could also house instruments such as thermal probes to take the temperature of the surface as the robot tumbles.

Humanoid robots are used in functions where a human-like action needs to be performed. They are used to simulating human actions and behaviour on a distant planet. They can be used to help humans prepare for a future settlement on Mars.

Many more new technologies are emerging in the field of Space robotics which helps achieve new advancements in space exploration thereby pushing mankind to the next level.

"Traditional driving does not work on asteroids and comets. This led to the design of Hedgehog robots which can hop and tumble on the surface instead of moving on wheels."



FLOWERY ZINDAGI

Saffron penetrates a baby in womb enhancing it's fairness

It's around a flowery garden with the sibling that he meanders!!

Flowers do envelope the fantasy as he builds into dreamer

Bouquets become a symbol of love as he proposes his soulmate!!

It's in botanicals with her that he ponders

Garland which couples the minds of couples!!!

As a solitary reaper around garden that he wanders as the old age wraps

To the burial ground as he reaches the death bed where it ends

But it's the same flower that welcomes one here which clings as garland at the end!!!

-Sathya Priyaa R III YEAR



BEATIFIC

THE DREAM

- SRIHARINI K
III YEAR

*There's this stretch of green grass
Where the wind blows
I run carefree across
To a river beyond that flows.*

*Sun kissed, I can't recall
For I know it's a dream
Where I could run till I fall
Into the glowing water's gleam!*

EUPHORIA

- HARSHINI.J
III YEAR

*Not all that I see makes me wonder
Not all that I feel lets me dream
Only you give me a glimpse of sublime
For you are my euphoria!*

*The world is
yours to
EXPLORE!!*





ARE ELECTRIC VEHICLES KILLING THE ENTHUSIAST IN US?

SIVAN SRIMAN P C
III YEAR

Yes. We can hear the purist screaming at the top of his lungs trying to save the Combustion engine from its imminent death. He tries doing everything possible to sway the crowd back to the CI engine realm, with his pleas of Electric Vehicles lacking the soul, the emotion, and most importantly, the sound that every enthusiast loves. However, he isn't completely wrong. The soul and character of a machine are intertwined with its behavior, its capabilities, its limits and more. Character reaches us through mechanical components and grabs our heart. Character is why we yearn for the CI engine and its emotions.

*" Had it not been for
Elon Musk's
persistence, America
still wouldn't have a
proper
infrastructure for
EVs. "*

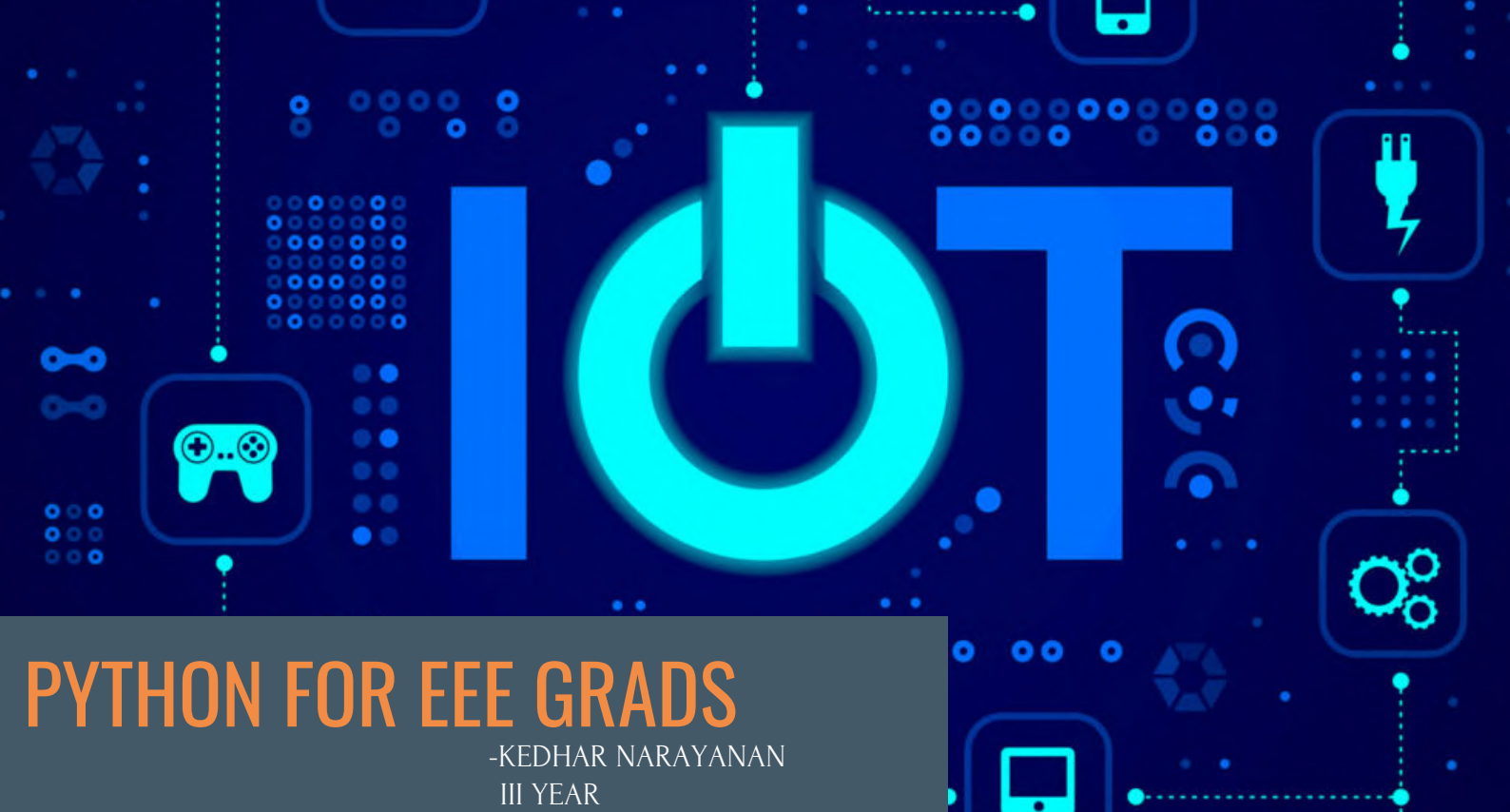
We as the enthusiasts, are spoiled for choice. We not only have our Porsches, Lamborghinis and Ferraris, but also budget cars with adequate performance and wonderful character. Not to mention the modifying scene that runs deep in the community. There are countless permutations of just a single car and every owner always modifies his ride with his signature flair and emotion. But I think this is the root cause of why we as enthusiasts struggle to come to terms with the idea of an Electric Vehicle powered future. Unlike the current CI engine powered cars, which can be modified in a million ways, EVs have an indisputable way to be engineered and improved upon, which means that everyone will fundamentally end up with the same vehicle with little to distinguish them. Every EVs have instant acceleration, can produce unbelievable power, have software support for various driving conditions. These stats are amazing and breathtaking. But that's it. They don't have much to cater to the enthusiast beyond that.



Be that as it may, that can't take away from the fact that EVs are the future. Countless electrical engineers have worked hard and did their absolute best to keep these projects alive at a time when it was speculated to not have a future at all. Case in point Tesla Inc. Had it not been for Elon Musk's persistence, America still wouldn't have a proper infrastructure for EVs.

So, for the EVs to be well and truly accepted by the purists and enthusiasts, I don't think they should focus on absolute stats and specs alone. Rather, they should focus on why we liked the cars in the first place. Engineers should revisit why legendary cars like the Honda NSX or the BMW E30 M3 were so loved by people all over the world. With that understanding, I believe that EV manufacturers can come up with the most amazing cars we will witness in our lifetime.





PYTHON FOR EEE GRADS

-KEDHAR NARAYANAN
III YEAR

Python, a programming language which has consistently ranked one among the most popular programming language has gone up to the extent where no one remembers python the snake whenever they hear this word. Almost all of us know the varied applications of python from web development to machine learning and artificial intelligence, software development etc.

But little do we know about the applications or the impact of python in the field of electrical engineering or electronics engineering.

So let us see the importance and applications of Python in Electrical and Electronics engineering:-

IOT (Internet of Things);-

Many people are familiar with the term IOT, but very few know the importance and its role in the future. IOT is basically when a system of sensors, controllers and software function in an orderly way to automate anything from industries to households.

IOT is used in home automation systems where the main aim is to improve the efficiency and lifestyle of the entire living experience. IOT uses this automation to control the functioning of different electrical appliances throughout the household and try to minimize the consumption of electricity. Other applications of IOT in a home automation system might include smart door locks, controlling of appliances like Air Conditioners, LEDs etcetra from your mobile phone.



So IOT basically requires software which is highly efficient and stores data generated and thus python being highly efficient and with its simple structure and having the vast library, python is one of the favourite languages of the IoT developers.

Raspberry Pi:-

For those of you who don't know what is Raspberry Pi , Raspberry Pi is a series of single board powerful computers built by a charitable foundation from the United Kingdom. Raspberry Pi is used by students, engineers and faculty from all over the world to learn programming skills, build hardware projects and do automation and even use them in industrial applications.

So python being an easy to learn programming language has its applications in Raspberry Pi industries varied from automation to machine learning.

MicroPython:-
Micro Python is an efficient way of implementing Python 3 in constrained environments and microcontrollers. The Micro Python pyboard is a compact electronic circuit board that runs Micro Python on the board and enables it to operate and control different electronic equipments. The pyboard is very similar to arduino.

PyPSA:-

PyPSA stands for Python for Power System Analysis .PyPSA is a free software toolbox used for simulations and optimizations of modern power systems. This project is maintained by the Energy System Modelling group at the Institute for Automation and Applied Informatics at the Karlsruhe Institute of Technology.



The above listed are just few of the lot of the applications of python just to show us a little peek into what the future of python and our industry will be. With python being such a powerful language and with the fast growing nature of its applications branching out through different industries, it is a huge plus point for engineers to understand and know the basic working principles of any coding language, particularly python.

KNOW YOUR ENTRANCE EXAM

GRADUATE RECORD EXAM

The Graduate Record Examination or GRE is one of the most widely accepted graduate tests across universities worldwide. The exam is conducted by ETS to provide the universities across the world with a common scale to measure candidate's preparedness for the rigours of the graduate programs.

Most of the universities across US, Canada accept GRE scores. Many universities across the world too accept scores from GRE. You can check the list of universities that accept GRE by scanning the QR code provided. The GRE General Test measures your verbal reasoning, quantitative reasoning, critical thinking and analytical writing skills — skills that have been developed over a long period of time and are not related to a specific field of study but are important for all.



Format of the test:

Verbal Reasoning:

(Verbal) Two sections, each 30 minutes long, with 20 questions per section, Scoring Range 130–170.

Quantitative Reasoning:

Two sections, each 35 minutes long, with 20 questions per section, Scoring Range 130–170.

Analytical Writing:

Assessment (AWA) One hour, split into two 30-minute tasks, Scoring Range 0–6, in half-point increments.

GRE Vocabulary

Equivocal

adj. – not easily understood or explained
Politicians have been known to provide equivocal answers to reporters' questions.

Ephemeral

adj. – lasting for a very short time.
An ephemeral moment of victory may last mere seconds, but it can remain as a triumphant memory for decades.

Laconic adj. – using few words.

The student's laconic response suggested that she did not know very much about the topic the professor was discussing.

GRE Analytical Writing:

The syllabus for GRE Analytical Writing includes two separately timed analytical writing tasks of thirty minutes each:

- Analyse an Issue
- Analyse an Argument

FEE:

\$213 (15800 PLUS
CONVERSION COST)

GRE verbal syllabus include:

- Basic Sentence structure: Nouns, Pronouns, Adjectives
- Verb Tense
- Idioms & Idiomatic Expressions

- Pronoun Agreement
- Subject-Verb Agreement
- Modifiers
- Parallelism

Quantitative Reasoning:

- | | | |
|--------------------------------|---------------------------|-------------------------------|
| • Ratio and proportion | • Lines and angles | • Profit and loss |
| • Simple and compound interest | • Polygon | • Speed, distance and time |
| • Permutation, combination | • Circles | • Linear equations |
| • Quadratic equations | • Order of operations | • Sets Theory |
| • Statistics | • Percentage | • Powers and roots |
| • Probability | • Lines and angles | • Pipes, cisterns, work, time |
| • Quadrilateral | • Volume and surface area | • Triangles |
| • Coordinate geometry | • Number properties | • Profit and loss |

Mode and Frequency:

Candidates can appear for the GRE General Test once every 21 days, up to five times within any continuous rolling 12-month period.

The GRE General Test at home is available around the clock, seven days a week, with appointments available as early as 24 hours after you register. To be able to take the test at home, you must meet the Equipment and Environment Requirements.

The GRE General Test is offered year-round at Prometric test centers, and on specific dates at additional testing locations outside of the Prometric test center network.

A DIVE INTO THE SOFTWARE DEVELOPER WORLD!

-DEEKSHITHA SRIRAMAN

It gives me immense pleasure to share my internship experience with Citibank. Let me give a brief description of how I landed this opportunity. Career Development Centre (CDC) notified us about Citi on-campus hiring. I had to give an online aptitude+coding test. After which I had 1 technical and 1 HR interview. The role for which they hired me was “Technology Analyst”. Hence, they tested my proficiency in Data Structures and Algorithms and Object-Oriented Programming concepts. They also gave huge importance to the various extra-curricular activities and the posts I had held in college.

Moving on to the experience, when it comes to technical learning, I was involved in experimenting with Java, AWS and backend development with microservices architecture. Being from an EEE background, it was a bit hard to catch hold of all the technical jargon that was thrown around and to start working on the project itself. After a few days, my team guided me on the right path to finish the project. Since this is my first corporate experience, I had learnt a lot about networking with people, how the fintech industry works on a very large scale, how to solve real-world problems with the help of emerging technologies, how to present myself and how I can develop myself from here.

This internship put a lot of things into perspective. My biggest challenge was to handle my semester exams along with my internship work. I learnt the art of multitasking and how to handle stress. I would say this intern was just a trailer to the real corporate world outside. The takeaways from this opportunity were “don’t be afraid to ask for help” and “always be ready to learn, unlearn and relearn”.

I wish all my batch mates and juniors who are appearing for on-campus drives to grab various job offers!



PLACEMENT TALK

**Sreemugi R, now a full time technology analyst at citibank gives us an insight into the placement process that takes place in our campus.
Read through to find out how she cleared all the rounds and her experience with on-campus placement!**

THE PROCESS!

In general, when it comes to any company, there are screening tests which test your general aptitude, logical reasoning, English and basic concepts of your core subject. Citibank had the same for my first round but in addition I also had two coding questions for the languages C, C++ and java. At that time, I 'll admit, I only had limited level of proficiency in java and not much. So, it 's better that you are equipped at one of these languages and gain some level of expertise. I know we are taught Python and that we are all more comfortable with it but when it comes to interviews, many companies rather look for proficiency in java.

The second round is generally, an interview which mainly tests your communication skills and some basic concepts on programming like OOPS and data structures. Confidence and the way you present does matter here. Especially when you don't know something, it better to actually admit that you don't know rather than beating around the bush.

The third round was a HR round which was pretty much easy but it is a round where you have to be yourself. The interview is different for everyone and depends on what the hiring company is looking for!



SKILL SETS REQUIRED? PREPARATION?

Strong basic concepts are much required for both core and non core companies that you apply for. For core companies, coding experience is not required per se. But for any other company, it does. You don't need to be a pro-coder, but you have to know your basics. General Aptitude also matters. Working on speed would work rather help than learning a lot of concepts. These two are the major things you have to be strong at and prepare.

It does majorly depend on the position and company you are applying for.

When it comes to coding experience, I would advise you to practice at your own pace. But people with no background in coding may take more time to get familiar with it. But when you are familiar, its just a matter of time.

It also matters on the day how you perform, how you present yourself and how much you can share. So stick to your basics and stay calm!

A WORD FOR THE READERS?

It may sound cliché, "Don't stress much about placements but work on learning!" because stressing doesn't really help. Everything is bound to work out some or the other way, so never lose hope. You never know how things might work out. A lot of things may go wrong and still you might end up getting the job. You might panic and feel you didn't do well but the recruiters will always see something in you that you don't see in yourself. Just trust that you are good enough and you will pretty much land wherever you want!

*"The
recruiters will
always see
something in
you that you
don't see in
yourself.."*



ALUMNA TALK

-a piece of guidance from our alumna
SAJNA GOKULAKRISHNAN

I'm currently pursuing my Post Graduate Program in Management (MBA) from the Indian Institute of Management, Bangalore. Prior to this, I was working as an Electrical Design Engineer at DOW Inc. for three years. Having landed a core job right out of college, I had the opportunity to gain in depth knowledge in the working of the manufacturing industry. My experience from interactions with key stakeholders and leaders taught me that technical know-how solves only one part of the puzzle and a lot more goes into assessing cost-benefit aspects, operational strategies and understanding market needs.

Though I have been in the driver's seat for many technical projects, I was intrigued by how project leaders and business heads make impactful managerial decisions under risk and uncertainty. It is the business aspect that gives technology its direction and functionality and with my education and experience set in place, I was certain that an MBA will be the ideal stepping stone to upskill myself to enter management.

I begin my CAT Journey around January 2020. MBA or not, the CAT preparation journey itself is an amazing learning experience. I can vouch for the fact it completely changes you as a person. Juggling full time work along with a competitive exam preparation teaches you time management, resilience, diligence and the art of doing smart work. But most importantly, It teaches you to accept failure. You are competing with some of the smartest minds of the country, and it is absolutely normal to fail. What's more important is how you pick yourself up and give a stronger fight the next time.

SAJNA
GOKULAKRISHNAN
2014-2018 EEE

PRESENT MBA
FROM IIM
BANGALORE



With ten months of very serious preparation sometimes lasting up to six hours a day, I had mastered the art of time management, working under pressure and accepting harsh realities, all of which are essential traits of a future business leader. After having aced the CAT Examination, is another round of extremely strenuous and vigorous rounds of interviews from all the top B-Schools. I was one of the fortunate ones to have interviews from all the 20 IIMs and a few other top B-schools in the country from the two lakh MBA aspirants giving the CAT Exam.

Every interview, every question, every group discussion and every Written Ability test was eye-opening and emphasized the fact that business leaders not only have to know themselves but have to be cognizant of the world around them. After an intense three months of interviews, I secured Admission to the Holy Trinity (IIM Ahmedabad, Bangalore and Calcutta) and all other IIMs, FMS, SP Jain and a few IITs. Having taken the next step in my career, I can look back to a wonderful journey that brought me here today and looking forward, I see an even more consuming and profound learning experience that will make me a better person and a better leader of tomorrow!

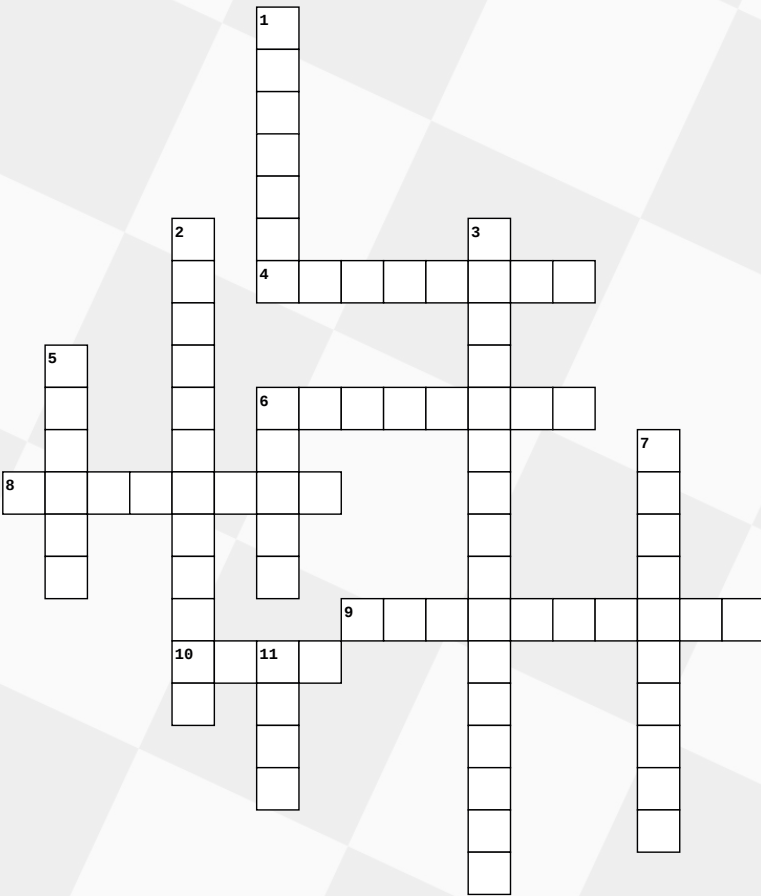


"It's a beautiful day to go after your dreams"

CAT

Common Admission Test

CROSSWORD



Down:

1. First female engineer of India. Ayyalasomayajula _____
2. Alternate name for Hopkinson's Test
3. Electric polarization in a substance resulting from the application of mechanical stress.
5. mathematical function that extracts the sign of a real number.
6. _____ converter, DC-to-DC power converter that steps up voltage.
7. _____ Circuit. Dependent on previous input.
11. Integral of a step function.

Across:

4. The maximum amount of electric current a conductor or device can carry before sustaining immediate or progressive deterioration.
6. Another name for gas relay or sudden pressure relay.
8. AC bridge used to measure self inductance of the coil, Modification of Maxwell's Wein Bridge
9. The combination of electrical disconnect switches, fuses or circuit breakers.
10. A unit of measure of reactive power.

Answer
Scan Here

