# REDEEM

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## The crew

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STUDENT ASSOCIATE EDITOR
VINU VARSHATH S

# The crew

### STUDENT REPRESENTATIVES

III YEAR EEE A: DINESH P III YEAR EEE B: SARAYUU MK

II YEAR EEE A: DAAWOOD HARSHAWARDHINI II YEAR EEE B: RANGANATH RAHUL HEMASAI

tro one can whistle a symphony. It takes a whole orchestra to play it!

### From Bur Mew HBM Dr. V. Rojini

I am much delighted to bring the January '22 edition of REDEEM, the quarterly newsletter of the department of EEE. The new year stands before us like a chapter to be written with a renewed sense of hope. Let's write the story by setting goals.



Significant activities of the department are highlighted in this issue along with the achievements of the faculty from October to December 2021. Though 2021 has undeniably been tough. I am very happy to see a plethora of activities in the department. My appreciations to the editorial team who have assimilated all these events. The placement record also is very impressive. My best wishes to all the students who have got placements and congratulations to those who have got dream /super dream offers.

Let us hope that the new year brings us lots of new and exciting opportunities in our lives. Greetings to all the readers for a new beginning!!!

Best wishes!!

# From Us To You

New Year's Greetings!

Every year, don't you think is a new chapter? A new tale? An unknown ending await in this journey of life? And with every new beginning, we wish nothing but courage to turn the page and live to conquer that chapter.

The past year has been a wild read folks, but now, as we turn the page to 2022, we do know that it will have its own new challenges. But that doesn't mean one shouldn't stop, smell the roses and analyze all the things that worked for us. There might be many things that we want to keep and improve on for the better but also some that we may want to leave behind. Because while 2020 was all about keeping our head afloat, online classes, staying safe and 2021 about getting on our footing and adjusting to the new norm of offline exams and what not; 2022 we think, is about strengthening our roots and coming up with plans for ourselves for the next couple of years.

New Year's is the time we should all take as a chance to reflect back and look forward. It is not just expecting, hoping and wishing every season, but more of doing, being and becoming. People make resolutions to become a better version of themselves, some break them to move forward and some just keep their old ones to the next year.

This new year, the editorial team of REDEEEM also has a resolution it intends to keep. We promise you to bring in intriguing news from around this everevolving world of technology, mind blowing write-ups, informative articles and brain-teasing crosswords. We are excited for this year's new beginning and you to check out our team's collective effort in bringing you some fresh and amazing editions.

Cheers to the first edition of this year!

## Editorial

Wish all the readers a happy new year. Of all human emotions, fear is the most devious, most powerful. Once you get traumatized, fear acquires a power to twist your mind into acting in strange ways for the rest of your life. Your fears expanded into monsters inside your head. Monsters that somehow remained in the shadows even after you grew up and gained control of your life. By the time you gain a mastery over them you will be well into your middle age, where a new fear of disease and dying will take over. The panic emotion of dying is by far the worst. Once it catches you in its tangled web, you are literally finished and there is no escape till you breathe your last. Human mind has huge negative power and a very tiny amount of positive power. That was not the way it was designed but that's the way we have made it over the years. That is the way our society, culture and nature shaped it over generations.

Most of your everyday actions and decisions are ordered by your hidden fears. It's not hard to get them. You just need to calm yourself down long enough to become comfortable with the world that exists within. As you guieten your mind and hush the turbulent waves inside, you slowly begin to see the lucid depths below - all the way to the bottom where your fears lurk. Pull out that fear audit and start. You begin to notice how a worry rises like a bubble, twirling and growing in size, how it winks on the surface and suddenly pops into a thought or a decision.



As you watch, pop, another worry breaks. You see yourself unconsciously thinking the same old worn-out thoughts you just finished thinking a while back. Flash! A sword appears from nowhere and cuts that thought off and throws it away - or reverses that decision and resets your mind that's right, you are a glowing fragment of consciousness floating on the sea of the mind. You can no more control the mind than a boat can control the ocean. The boat and ocean analogy holds true only at rare moments of calm and clarity. It's not true at all other times. That's because your so-called boat has capsized in the ocean, and you no longer have the faintest idea as to who 'you' might possibly be.

Ninety-nine per cent of the time you and your mind seem as one entity. That's because of a long history of dependence. You have been using the mind to get things done for you. You have no direct experience of a higher power inside that could be greater — far greater than what your mind can ever be. Since the mind is your only gateway to dealing with the world, you fill it every day with a wish list. Over the years, you and your mind have got interlocked into each other so much that you tend to identify yourself with it. You have become dependent on it. Like all one-sided relationships based on dependence, you tend to start submitting to your mind's whims and fancies.

It's like having a millionaire friend who gives you all the fancy goodies you want now when he asks for something perverted in return, you can't possibly refuse. So, when the mind loads up long buried fears into you — you cannot say 'get lost'. You have accepted a subservient position to your mind and you have no choice but to bend to its command. So, a hundred times a day your mind throws its secret perversion on to you and makes you submit like a slave.



That's the secret reason you cannot get rid of your fears, because you have no idea what they are, where they are lodged, who is making you feel them or why. You have given away your most precious freedom — your independence from your mind. Now you have no alternative but to suffer. Something traumatic happened Long back, coloring your decision, your thought, your action. Today, that fear is preventing you from living and enjoying this sacred moment in time. Today, that fear has wrapped its tendrils around you and is choking your spirit into submission. And you have no idea how to overcome.

The ultimate power to feel any particular emotion or thought should be up to 'you' — the mind should just think it all through and present 'you' what's available. However, it doesn't happen that way. Mostly the mind takes over the entire kingdom of 'your' being and randomly calls the shots, makes 'you' its slave and subjects 'you' to a persistent torture that can range from mild and infrequent low moods to stronger ones. Thinking clearly is just a half step away from acting decisively. Crown yourself as the king immediately. State that all emotions will be felt only if you permit it to be felt.

Tell the mind to get back to its original role as advisor and counsellor. Pass a decree that henceforth all fears will present themselves stark and bare in front of you for inspection. Each time you inspect a fear, embrace it and calm it down. Like all rulers, stay aware of potential threats to your sovereignty at all times. When threatened, act positively and instantly. In time, the mind will settle down as the super smart and capable counsellor it always was and allow you to rule freely. That's as easy as it sounds. Just as we use wiper to see the way clearly while driving car, let us use our deeper insights to see things clearly and try be emperor of mind than subservient.



"Courage is not absence of fear, but conquering it".
-Nelson Mandela

## EXTERNAL RECOGNITION





DR. R. RAMAPRABHA, ASSOCIATE PROFESSOR

- Attended DC meeting for PhD candidate (registered in Anna University) at Department of EEE, St. Joseph's College of Engineering, Chennai as DC member on 08.10.2021 through online.
- Attended DC meeting for PhD candidate (registered in SRM University) at Department of EEE, SRM Institute of Science and Technology, Chennai as DC member on 20.10.2021 through online.
- Attended Examiner Evaluation meeting as DC member for PhD candidate (registered in Anna University) at Department of EEE, SSN College of Engineering, Chennai as DC member on 28.10.2021 through online.

- - Attended DC meeting for PhD candidate (registered in Anna University) at Department of EEE, Sri Venkateswara College of Engineering, Chennai as DC member on 28.10.2021 through online.
  - Reviewed the research progress for the 3 Ph.D. candidates of Electrical & Electronics Engineering, School of Engineering & Technology, GIET University, Gunupur-765022, Odisha, (India) as External Expert (DRC member) on November 18, November 27 & November 30, 2021 respectively.
  - Delivered an invited talk on "Integration of Distributed Energy Sources for Smart Grid" on November 11, 2021 in IET Sponsored event "Two days Online workshop on Design And Simulation Of Hybrid Smart Grid For Smart City Application" conducted by Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Chennai during Nov 11-12, 2021.
  - Reviewed the research progress for the 3 Ph.D. candidates of Electrical & Electronics Engineering, School of Engineering & Technology, GIET University, Gunupur-765022, Odisha, (India) as External Expert (DRC member) on November 18, November 27 & November 30, 2021 respectively.
  - Delivered an invited talk on "Photovoltaic for E-mobility System" on December 08, 2021 in an Online Faculty Development Program on Emerging Opportunities in Power Electronics and Drives during 6 -10, Dec 2021 Organized by IEEE PELS, MADRAS SECTION in association with School of Electrical Engineering, VIT, Chennai Campus
  - Reviewed the research progress for the 1 Ph.D. candidate of Electrical & Electronics Engineering, School of Engineering & Technology, GIET University, Gunupur-765022, Odisha, (India) as External Expert (DRC member) on Dec 14, 2021.



### DR.R.SEYEZHAI, PROFESSOR

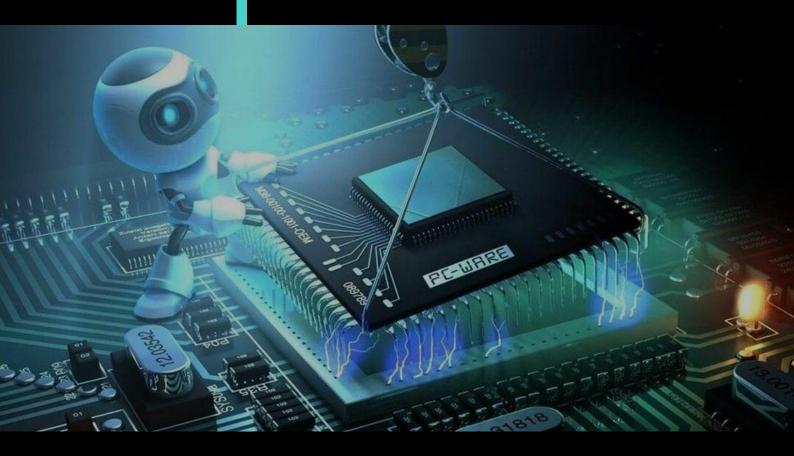
- Inaugurated the Faculty Development Program on, "Online FDP on Emerging Opportunities in Power Electronics and Drives" organized by IEEE-PELS, Madras Chapter in association with VIT University, Chennai on 06.12.2021 and delivered the inaugural address.
- Delivered the lecture on, "Field /Exposure visit to Pre-incubation units" at Karpagam Institute of Technology, Coimbatore on 23.12.2021.
- Dr.R.Seyezhai, Prof/EEE & Dr.D.Umarani, ASSP/EEE received the Antia Memorial Prize for their paper titled, "Evaluation of Modulation Strategies for Single-Phase Quasi-Z-Source Inverter" in the Prize Distribution Ceremony of the 36th Indian Engineering Congress to be held at Vigyan Bhawan, Maulana Azad Road, New Delhi 110003 on December 26, 2021.
- Dr. R. Leo delivered a lecture on DST-ICPS Sponsored Online National Level workshop on "Multi Agent System for Microgrid operation and control" on Dec 11, 2021 organized by Department of Electrical and Electronics Engineering, Annamacharya Institute of Technology and Science, Rajempet, Andhra Pradesh,



### DR. V. THIYAGARAJAN, ASSOCIATE PROFESSOR

- Lecture on DST-ICPS Sponsored Online National Level workshop on "Multi Agent System for Microgrid operation and control" on Dec 11, 2021 organized by Department of Electrical and Electronics Engineering, Annamacharya Institute of Technology and Science, Rajempet, Andhra Pradesh,
- Has been appointed as a session chair for the Virtual International Technical Conference on Control in Electric vehicles and Smart grid with Renewable Energy Synergies (VIT-CES-RES 2021), organized by VIT University, Chennai on 08/10/2021.
- Chaired the technical paper presentation session for the AHI EVRAN International Conference on Scientific Research, organized by Kırsehir Ahi Evran University, Turkey on 30/11/2021.
- Chaired the technical paper presentation session for the 7th International Mardin Artuklu Scientific Researches Conference, organized by IKSAD Institute, Turkey on 11/12/2021.
- Chaired the technical paper presentation session for the International Cappadocia Scientific Research Congress, at Cappadocia, Turkey on 17/12/2021.
- Chaired the technical paper presentation session for the ISPEC 12th International Conference on Engineering & Natural Sciences at Bingol, Turkey on 25/12/2021.

### RESEARCH ACTIVITY



- Dr.R.Seyezhai, Prof/EEE, M.Sridhar (Full-time research scholar) & S.Devi (Full-time research scholar) published a paper titled, "Estimation of Switching Loss for Boost DC-DC Converter using Neural Networks" AMA Agricultural Mechanization in Asia, Africa and Latin America, November 2021, ISSN: 00845841, Vol.52, Issue 01, pp.2745-2753, WOS Indexed.
- Poovizhi Mani, Senthil Kumaran Mahadevan, Anitha Roseline Johnson & Murugesan Kullan (2022) "An optimized design modelling of PV integrated SEPIC-based four-switch inverter for sensorless PMBLDC motor control", Automatika, Vol: 63 Issue: 1, pp: 90- 101, DOI:10.1080/00051144.2021.2008621
- V Gowthambabu, M Deshpande, R Govindaraj, VK Nithesh Krishna, M Leela Charumathi, J Manish Kumar, MS Dhilip Vignesh, R Isaac Daniel, P Ramasamy, "Synthesis of anatase TiO2 microspheres and their efficient performance in dyesensitized solar cell", Journal of Materials Science: Materials in Electronics (2021), Volume 32, pp. 26306, October 2021. [Clarivate Analytics-ISSN:0957-4522 – Impact factor: 2.220]

- - Rama S.T., Rajini V. (2022) Mathematical Model of Alternate Arm Converter. In: Kumar A., Senatore S., Gunjan V.K. (eds) ICDSMLA 2020. Lecture Notes in Electrical Engineering, vol 783. Springer, Singapore. https://doi.org/10.1007/978-981-16-3690-5\_141)
  - Dr.R.Seyezhai, Prof/EEE and Ms.S.Devi, full-time research scholar published a paper titled, "Impedance Source Inverter Topologies for Photovoltaic Applications A Review," International Journal of Electrical Engineering and Technology (IJEET), Volume 12, Issue 11, November 2021, pp. 73-85, ISSN Online: 0976-6553 DOI: https://doi.org/10.34218/IJEET, 2021.(SCOPUS INDEXED)
- S. Anbuchandran, R. Rengaraj (ASSP/EEE), A. Bhuvanesh, M. Karuppasamypandiyan," A Multi-objective Optimum Distributed Generation Placement Using Firefy Algorithm, "Journal of Electrical Engineering & Technology, https://doi.org/10.1007/s42835-021-00946-8

### CONFERENCE PRESENTATION



- Preetha.C (M.E Student) and M.Balaji presented a paper titled "Design and Analysis of Permanent Magnet Synchronous Motor" in 2nd International econference on Challenges and Opportunities in Renewable Energy, Smart systems and E- mobility (ICCORSE-2021), on 07.10.2021 organised by Easwari Engineering College
- R. Ramaprabha, ASSP/EEE, Harini C, Krithika R, Mythili M and Nithishri B (IV Year UG Students), "MatLab Implementation of Single-Phase Grid-Connected PV system", Proceedings of 2nd International E-Conference on Challenges and Opportunities in Renewable Energy, Smart Systems and E- Mobility (ICCORSE-2021- ISBN Number: 978 93 5566 573 7), Oct 07-08, 2021, Department of Electrical and Electronics Engineering, Easwari Engineering College, Chennai, Tamilandu, India.-Presented by all on Oct 07, 2021
- Dr. V. Thiyagarajan, ASSP/EEE, has presented the paper titled "Extendable Type Multilevel Inverter Topology with Reduction in Circuit Components and Voltage Stress" in the 1st International Architectural Sciences and Application Symposium, organized by Isparta University from 27/10/2021 29/10/2021.

- Rajini V Nagarajan V Bharath Kumar S Barathkumar M Balaji R Manoishyaam
  - Rajini V, Nagarajan V, Bharath Kumar S, Barathkumar M, Balaji R, Manojshyaam presented a paper titled, "Comparative analysis of Synchronous Reluctance Motor with different Permanent Magnet Materials" IC on Energy Materials Metallurgy and Manufacturing ICEMMM22 on dec 17 organised by Dept of Mechanical Engg, SSNCE
  - Dr.R.Leo and, T Thivagar, presented a paper titled, Performance Evaluation for Multiple Input Multiple Output systems with Lattice Reduction Aided Techniques in Second International Conference on Advances in Computational Science and Engineering (ICACSE 2021) during December 20-22 at live4research institute, Thirupur.
  - Dr. V. Thiyagarajan, ASSP/EEE, has presented the paper titled "Analysis of Quasi Y Source DC-DC Converter for Renewable Energy Applications" in the 7th International Mardin Artuklu Scientific Researches Conference, organized by IKSAD Institute, Turkey on 11/12/2021.
  - Sriram TS (IV Year / EEE), Tharun Prakash R (IV Year / EEE), Vignesh N (IV Year / EEE), Dr. V Thiyagarajan, ASSP/EEE, has presented the paper titled "Modified Symmetric Type Multilevel Inverter Topology with New Modulation Method" in the 7th International Mardin Artuklu Scientific Researches Conference, organized by IKSAD Institute, Turkey on 11/12/2021.
  - Dr. V. Thiyagarajan, ASSP/EEE, has presented the paper titled "Symmetric Type 7-Level Inverter Module with Reduced Number of Circuit Components" in the 2nd International Conference on Engineering Materials, Metallurgy And Manufacturing ICEMMM 2021, organized by SSN College of Engineering, Chennai on 16/12/2021.
  - D. Ragul (Research Scholar / EEE), Dr. V. Thiyagarajan, ASSP/EEE, presented the paper titled "Fault Tolerant NPC Multilevel Inverter Using Improved Modulation Strategy and Machine Learning Techniques for Dynamic Conditions" in the International Cappadocia Scientific Research Congress, at Cappadocia, Turkey on 17/12/2021.
  - Dr. V. Thiyagarajan, ASSP/EEE, has presented the paper titled "Analysis of Z-Source based High Step up DC-DC Converters for Renewable Energy Applications" in the ISPEC 12th International Conference on Engineering & Natural Sciences at Bingol, Turkey on 25/12/2021.

- - Dr. V. Thiyagarajan, ASSP/EEE, has presented the paper titled "Comparative Analysis between Quasi-Z-Source and Quasi-Y-Source DC-DC Converter Topologies for Renewable Energy Applications" in the International Modern Scientific Research Congress -II at Istanbul, Turkey on 25/12/202
  - Dr.R.Seyezhai, Prof/EEE and Ms.S.Devi, Full-time research scholar presented a paper titled, "Comparative Analysis of Si, SiC and GaN based Quasi Impedance Source Inverter" in Second International Conference on Engineering Materials, Metallurgy And Manufacturing (ICEMMM 2021) organised by Department of Mechanical Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai on 16th December, 2021 and 17th December, 2021.
  - Dr.R.Seyezhai, Prof/EEE and Mr.A.Bharathi Sankar/AP/VIT, Chennai presented a
    paper titled, "Simulation and Analysis of AC-DC PFC Converter for PHEV" in
    Second International Conference on Engineering Materials, Metallurgy And
    Manufacturing (ICEMMM2021) organised by Department of Mechanical
    Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai on 16th
    December, 2021 and 17th December, 2021.

#### **WORKSHOP ATTENDEE**



- Dr. R. Ramaprabha, ASSP/EEE participated & Completed successfully AICTE
   Training and Learning (ATAL) Academy online FDP on "Applications of IoT in Smart
   grid systems" during Oct 04-08, 2021. The event was conducted by Misrimal
   Navajee Munoth Jain Engineering College, Chennai
- Dr. V. Thiyagarajan, ASSP/EEE, has attended the Three days Faculty Development Program on "Renewable Energy Systems", organized by RVS College of Engineering and Technology from 28/09/2021 - 30/09/2021.
- Dr. V. Thiyagarajan, ASSP/EEE, has attended the IEEE Region 10 sponsored online Faculty Development Program on "Artificial Intelligence for Electrical Engineering", organized by Rajarambapu Institute of Technology, Maharashtra from 04/10/2021 - 08/10/2021.
- Dr. V. Thiyagarajan, ASSP/EEE, has participated & completed successfully AICTE
  Training And Learning (ATAL) Academy Online FDP on "Emerging Trends and
  Developments in Electric Vehicles" organized by National Institute of Technology
  Manipur from 25/10/2021 29/10/2021.

- Dr.P. Lee has participated 3 days EDP on "Knime for Statistics and Data Analytics"
- Dr R. Leo has participated 3 days FDP on "Knime for Statistics and Data Analytics", organized by VIT Chennai during 17-11-2021 to 19-11-2021
- Dr. R. Leo has participated in 5 days FDP on "Design Thinking " during October/November 2021 in week end Saturdays organized by Satyabhama University Chennai
- Dr.R.Seyezhai, Prof/EEE attended the webinar on, "Micro Grid Systems" organized by IEEE-PES, Madras Section on 16.11.2021.
- Dr R. Leo has participated 5days FDP on "Incorporating Universal Human Values in Education (UHV)", organized by AICTE New Delhi, during Dec 6 to 10, 2021
- Dr. V. Thiyagarajan, ASSP/EEE, has attended the online Faculty Development Programme on "Emerging Opportunities in Power Electronics and Drives", organized by IEEE PELS, Madras Section in association with School of Electrical Engineering, VIT University Chennai from 06/12/2021 - 10/12/2021.
- Dr. V. Thiyagarajan, ASSP/EEE, has attended the AICTE-ISTE Induction-Refresher Program on "Big Data Analytics for Smart Grid", organized by Sri Krishna College of Engineering and Technology, Coimbatore from 14/12/2021 - 20/12/2021.
- R.Leo has participated in AICTE Sponsored 5 days STTP on "Industrial Automation and Control for Industry 4.0 (IACI-2021)" during 20th - 24th December 2021 organized by Department of EIE, Silicon Institute of Technology College Bhubaneswar, Odisha-
- Dr. R. Ramaprabha, ASSP/EEE attended Webinar on Machine Learning Dec 17, 2021 - Dr. Kenneth Eloghene Okedu, Visiting Professor, Department of Electrical and Communication Engineering, National University of Science and Technology, Muscat, Sultanate of Oman conducted by Department of EEE, SSNCE.
- Dr.M.Balaji attended a Webinar on Machine Learning organized by the Department of Electrical and Electronics Engineering, Sri Sivasubramaniya Nadar College of Engineering, on 17th December 2021.
- Dr.R.Seyezhai, Prof/EEE attended the webinar on, "Machine learning" on 17.12.2021.

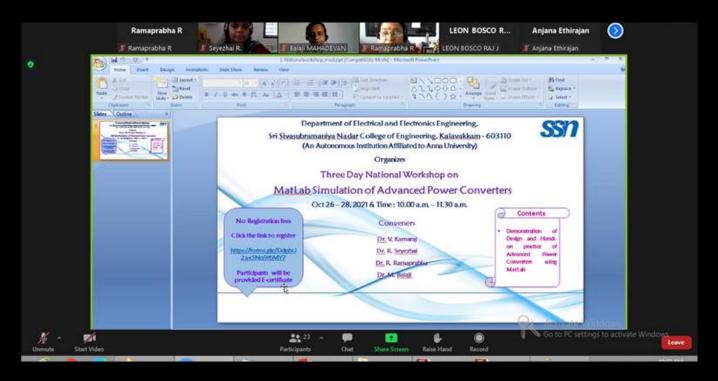
- Dr Mrunal Deshpande attended workshop on Solid State Transformers conducted by EEE Department SSNCE on 8th Dec 2021
- EEE/2021-22/WS/10 Dr Mrunal Deshpande attended workshop on Machine Learning and its applications conducted by SSNCE on 9th and 10th Dec 2021
- EEE/2021-22/WS/11 Dr.R.Deepalaxmi, ASSP/EEE attended the Workshop on "CO-PO Mapping using PI-CC & Attainment Calculation" Organized by Department of ECE, SSN College of Engineering on 4th December, 2021.
- EEE/2021-22/WS/12 Dr.R.Deepalaxmi, ASSP/EEE attended the one day virtual workshop on "Solid State transformer" held on 8 December 2021, conducted by the Department of Electrical and Electronics Engineering, SSN College of Engineering in association with IEEE Power & Energy Society- Madras chapter.
- EEE/2021-22/WS/13 Dr.Mrunal Deshpande, ASSP/EEE attended the Workshop on "CO-PO Mapping using PI-CC & Attainment Calculation" Organized by Department of ECE, SSN College of Engineering on 4th December, 2021.
- EEE/2021-22/WS/14 Dr.R.Seyezhai, Prof/EEE attended the Workshop on Machine Learning & Its Applications during 9.12.2021-10.12.2021
- Dr.V.Rajini, Dr. V.Kamaraj, conducted a workshop on "solid state Transformers" with IEEE PES on 8-12-2021. Dr.V.Rajini delivered a lecture on "solid state transformer". Dr.K.Usha, Dr. Alagudheeraj and Dr.S. Krishnaveni are the co ordinators
- Dr.V.Rajini, Dr. V.Kamaraj, conducted a workshop on "Design optimization of High frequency transformers and inductors" on 28-12-2021. ". Dr.K.Usha, Dr. Alagudheeraj and Dr.S. Krishnaveni are the co ordinators
- Dr.R.Seyezhai (Professor, EEE), Dr.M.Balaji (Associate Professor, EEE) and Dr.S.Suresh kumar(Associate Professor, Mechanical) organised "Problem solving and Ideation workshop" on December 23,2021.
- Dr.R.Seyezhai, P/EEE and Dr.D.Umarani, ASSP/EEE conducted the workshop on "Successful Entrepreneurship and Start-up Foundation" under SSN-IIC on 16/12/2021. The resource person for the workshop is Mr.Pradeepkumar, CEO (Neil Patel Digital India), Founder and CEO (Stan ventures).

• Invited guest lecture (online mode) was delivered by Shri. Sthithapragyan Patnaik, Scientist Officer 'D', RMD, FBTR, Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam on "Overview of Nuclear Power Plants" for UG (II year EEE) students on 20.11.2021 between 09.45 am to 12.00 noon. The guest lecture was arranged by Dr. R. Ramaprabha, ASSP/EEE and Dr. R. Seyezhai, ASSP/EEE. Around 120 participants attended the event.

### EVENTS CONDUCTED

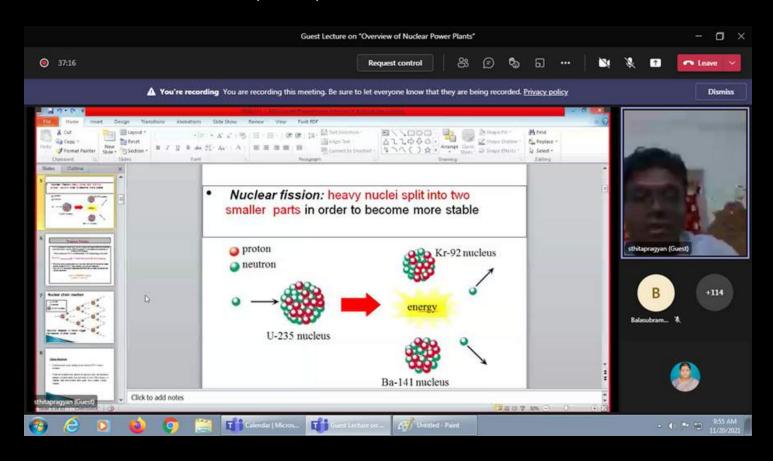


Department of EEE conducted Three day National workshop on "MatLab Simulation of Advanced Power Converters" during Oct 26-28, 2021. It was convened and organised by Dr. V. Kamaraj (Prof. & Head/EEE), Dr. R. Seyezhai (Prof.), Dr. R. Ramaprabha, Dr. M. Balaji (ASSPs/EEE). A total of 60 registered participants took part in the workshop.



On day one Dr Ramaprabha presented on "Design of SEPIC/ZETA dc-dc Converters & Demonstration of SEPIC/ZETA Uni/Bi directional dc-dc converters using MATLAB". The next day "Design and Simulation of Quasi Z-source Inverter & Simulation of Hybrid Multilevel Inverter" was discussed by Dr. R. Seyezhai. The last day Dr M Balaji discussed "Power Converters for Electric Drive Applications"

- Dr.R.Seyezhai, Prof/EEE and Dr.S.Sureshkuar, ASSP/Mech conducted the workshop on, "Approaches to Patenting in the field of Computer Science" on behalf of SSN-IIC on 20.11.2021.
- Invited guest lecture (online mode) was delivered by Shri. Sthithapragyan
  Patnaik, Scientist Officer 'D', RMD, FBTR, Indira Gandhi Centre for Atomic
  Research (IGCAR), Kalpakkam on "Overview of Nuclear Power Plants" for UG (II
  year EEE) students on 20.11.2021 between 09.45 am to 12.00 noon. The guest
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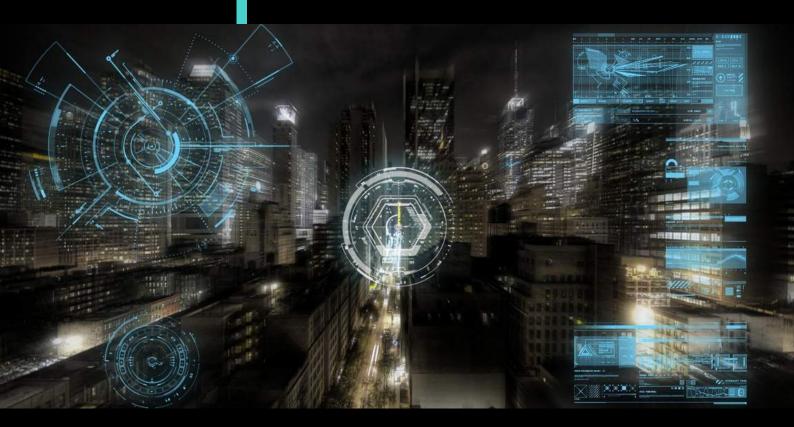


### INDUSTRY COLLABORATION



- Dr.V.Rajini interacted with M/S Scnieder Electric for possible research collaboration and internship opportunities for students on 27-12-2021
- Dr. R. Rengaraj (ASSP/EEE) has generated a revenue of Rs. 18000 from Siechem Wires & Cablesfor the consultancy work titled "Performance Improvement of High Speed Extrusion and Rewinding Lines"

### **PROJECT NEWS**



- Adhi Shankar, Gunasekaran, Manoj Balaji(Third year UG EEE students) submitted a proposal titled "Design and implementation of bidirectional buck-boost converter for electric bike" for internally funded student project.
- T.U.Nehadhruwa,S.Rohit Kumar,K.Srihari,S.Srikanth (Third year UG EEE students) submitted a proposal titled "Design and implementation of smart Street lighting system using Raspberry PI" for internally funded student project.
- V.A.Ayush,S.Balaji,B.BineshKumar,Harish Shanksr (Third year UG EEE students) submitted a proposal titled "Design and implementation of vehicle theft and fuel theft detection system" for internally funded student project.
- Dr.V.Rajini, Dr.S.Krishnaveni, submitted a preliminary application for a project titled," Development of Indigenous cost-effective Novel Pulsed Electric Field (PEF) Food Processor and Investigating Its Effectiveness on the extension of shelf life of coconut water and other native Indian pumpable foods" to Eat Right India Grant
- Dr.V.Rajini, Dr.V.S Nagarajan, applied a project titled,"Design and Development of Energy Efficient Synchronous Reluctance Motor Drive for solar pump application: Scheme for Young Scientists and Technologists. PI: Dr.V.S.Nagarajan, Mentor; Dr.V.Rajini, Amount: 30 lakhs

### SCHOLAR RELATED



- Dr.M.Balaji conducted first doctoral committee meeting of part time research scholar Mr. Veerasundaram on 21.10.2021
- Dr.M.Balaji conducted doctoral committee meeting of part time research scholar Mr. S.Vinod on 28.10.2021 to suggest panel of subject experts for Ph.D Viva-Voce examination
- Dr. R. Rengaraj Conducted first Doctoral Committee Meeting for Ms. Hemalatha, Assistant Professor, Sai Ram Engineering College, Chennai, on 27th October 2021.
- Dr. R. Rengaraj Conducted first Doctoral Committee Meeting for Ms. Shalini Priya, Assistant Professor, Sai Ram Engineering College, Chennai, on 27th October 2021.
- Dr.R.Seyezhai, Prof/EEE conducted the fourth DC Meeting for the Part-time scholar Ms.Shanthi Murugan to finalize the panel of examiners for Viva-voce at SSNCE on 23.11.2021.
- Dr.R.Seyezhai, Prof/EEE attended the comprehension meeting as an external expert member at SRM University, Chennai on 27.11.2021.

- - Dr.M.Balaji attended the doctoral committee meeting of Ms. Olivia, full time research scholar, VIT university on December 03,2021.
  - Dr.M.Balaji attended the doctoral committee meeting of Ms. R Sasikala, part time research scholar, Sathyabama university on December 23,2021.
  - Dr.R.Seyezhai, Prof/EEE conducted the DC confirmation meeting for the full-time scholar Mr.M.Sridhar on 21.12.2021.
  - Dr.R.Seyezhai, Prof/EEE attended the first DC meeting for the scholar Ms.Manimegalai on 20.12.2021 at SRM university, Chennai.
  - Dr.R.Seyezhai, Prof/EEE attended the synopsis meeting for the scholar on 22.12.2021 at Hindustan University, Padur.
  - Dr.R.Seyezhai, Prof/EEE conducted the DC synopsis meeting for the part-time scholar Ms.R.Sasikalaon 23.12.2021.
  - Dr. R. Rengaraj (ASSP/EEE) has conducted the synopsis meeting for his part time scholar Mr. S. Anbuchandran on 04.12.2021.

### **OTHER**

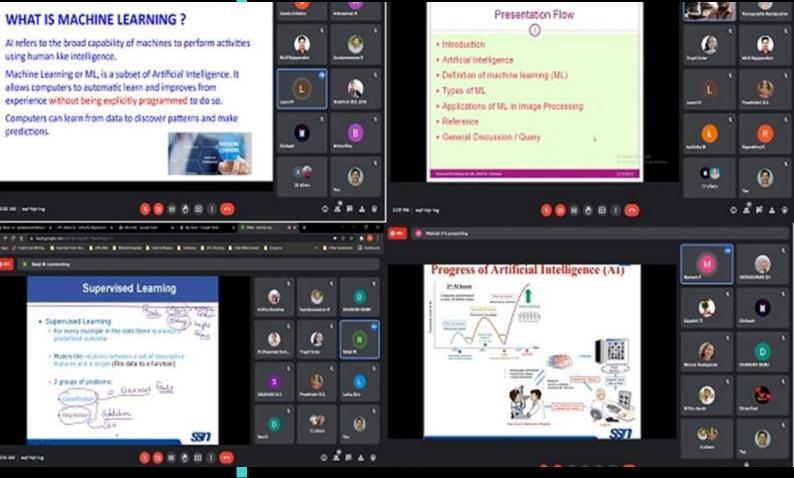


- Dr. V. Thiyagarajan, ASSP/EEE has been appointed as a review committee member for the International conference on Wireless Communications, Signal Processing and Networking (WiSPNET 2022) organized by Sri Sivasubramaniya Nadar College of Engineering, Chennai during 24/03/2021-26/03/2021.
- Dr. R.Leo , ASSP/EEE has reviewed one paper for Energy Reports ,titled "Multiagent system with an optimized heuristic algorithm for energy management solutions" during November , 2021
- Dr.R. Seyezhai, Prof/EEE and J.Anton Sheeba (Part-time scholar) published a book chapter, "Examination of Current control strategies for AC-DC Integarted Flyback PFC Converter for LED Applications" in the book titled, Recent Trends in Renewable Energy Sources and Power Conversion, Select Proceedings of ICRES 2020,2021.
- Dr.R.Seyezhai, Prof/EEE acted as interview panel member for B.E/B.Tech admission at SSNCE on 13.11.2021.

- Mr.Pradeepkumar (2009 Batch), CEO of Neil Patel Digital India and CEO of Stan ventures interacted with the second year UG students on 16/12/2021 and provided clear ideas of how to achieve their goals as an entrepreneur.
- Dr.V.Rajini reviewed two papers for springer -ICEMT21
- Dr.M.Balaji delivered a lecture on "Applications of Machine Learning to Electrical Engineering" in National Workshop on Machine Learning and Its Applications on Dec 10, 2021 organized by Department of Electrical and Electronics Engineering, Sri Sivasubramaniya Nadar College of Engineering on December 10, 2021.
- Dr.R.Leo, ASSP/EEE has reviewed two Elsevier journal papers one paper on Journal of Cleaner Production and other in International Journal of Electrical Power & Energy Systems
- Dr. V. Thiyagarajan, ASSP/EEE has reviewed the papers submitted for the International Journal of Renewable Energy Research (IJRER).
- Dr. V. Thiyagarajan, ASSP/EEE has reviewed the papers submitted for the ECS Journal of Solid State Science and Technology
- Dr.R Deepalaxmi, ASSP/EEE attended the Domain Expert Committee meeting on 20 th December, 2021 at Department of EEE, SSNCE in order to discuss about the CO-PO mapping through performance indicators.
- Dr.R.Seyezhai, Prof/EEE presented about the SSN-IIC activities in the IQAC meeting held on 24.12.2021.

**DECEMEBR 09&10 2021** 

#### WORKSHOP ONMACHINE LEARNING AND ITS APPLICATIONS



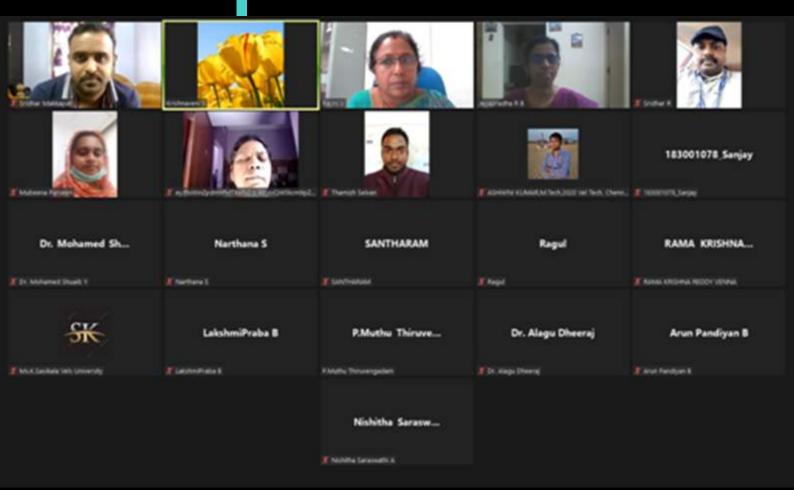
• Department of EEE conducted Two day National workshop on "Machine Learning and Its Applications" during Dec 09-10, 2021. It was organized by Dr. V. Kamaraj (Prof. & Head/EEE), Dr. R. Ramaprabha, Dr. M. Pandikumar (ASSPs/EEE) & Dr. R. Sundareswaran (AP/Maths). There were 35 registered participants.

The first session of day one was handled by Ms. N. Laxmi, Software Engineer-AIML, Chennai on the Basics of Machine Learning. In the following session Machine Learning and its Application was discussed by Dr. N. B. Prakash, Associate Professor, National Engineering College, Kovilpatti.

On the second day, Dr M Balaji Associate Professor, Department of EEE, SSNCE. shed light on Applications of Machine Learning to Electrical Engineering. It was followed by Dr. V. Mahesh, Associate Professor, Department of BME, SSNCE, who discussed the Applications of Machine Learning in Health Care

**DECEMBER 27, 2021** 

#### WORKSHOP ON DESIGN OPTIMIZATION OF HIGH FREQUENCY TRANSFORMERS AND INDUCTORS



Department of Electrical and Electronics Engineering conducted a One day Workshop on Design optimization of High Frequency Transformers and Inductors on December 27, 2021 through virtual mode. It was organised by Dr. V. Kamaraj and Dr. V. Rajini and coordinated by Dr.K.Usha, Dr.AlaguDheeraj and Dr.S.Krishnaveni. There were a total of 35 participants.

Dr. R.B. Jeyapradha presented the topics on Conventional design of transformers and inductors, Core geometry based optimization, Optimization of High Frequency transformer for DC-DC converter and concluded the session with experimental validation.

**DECEMBER 15, 2021** 

### MINI-TECHNICAL TOUR



M.E. Power Electronics and drives II year students along with research scholars doing coursework for the subject Solar and Energy Storage systems have been taken for mini-technical tour for 2 hours to get exposure on physical visualization & working of rooftop on/off-grid solar systems, laboratory set-ups for carrying out additional experiments/research facilities available at Solar Energy research lab. This was arranged and accompanied by Dr. R. Ramaprabha, Associate Professor/EEE who handled the subject on Dec 15, 2021.



# ALL ABOUT "LEARNING GOOGLE CLOUD WITH QWIKLABS"

Akash P 3rd Year

What comes in your mind when I say the word "Cloud storage"? Obviously, It would be Google Drive, Google Photos or Drobox or any other Cloud Related Stuffs. Now, the question is "What is Cloud Storage?". As Standard definitions says: Cloud storage offers a simple way to store and/or move data in a secure and safe manner. It allows individuals and businesses to keep their files stored with the cloud services provider for ondemand access on any of their devices. Now we gained some insights about Cloud Storage. What if we want to learn a bit deeper about it? What happens in the backdrop of Cloud Storage? What is Kubernetes, Dockers, Pub/Sub Topic, APIs?? Are These really useful? Where do I use them?

CLOUD
STORAGE
OFFERS A
SIMPLE WAY
TO STORE
AND/OR
MOVE DATA
IN A SECURE
AND SAFE
MANNER







To Answer all these queries, we have something known as Google's "30 Days of Google Cloud" program where we can learn about What exactly happens in Cloud Storage. It is an annual program. Here Google has partnered with Qwiklabs and it helps us to work hand in hand along with theoretical knowledge.

Usually, they have 2 tracks namely 1. CLOUD ENGINEERING track and 2. DATA SCIENCE and MACHINE LEARNING track. Each lab is self-paced and upon completing each lab with full 100% score is considered for final evaluation. Apart from these labs, we are in need to complete SKILL BADGES where the skills learnt through labs are experienced Hands On. To make learning more interesting, Google Cloud has announced swags for each milestone. Cool Right!! For completing either of the track, we are entitled for a Tee and Water Bottle. For completing both the tracks, we get Tee, Water Bottle, Stickers, Bag and Badges.

All these are OK? But where can I enroll man? If this is your question, Here is it.

"https://www.googlecloudcommunity.com/gc/Learning -Forums/bd-p/cloud-learning-certification" Follow this link for more instruction. Apart from swags and labs, We also get an opportunity to connect with various cloud engineers around the world where they share their JOURNEY to cloud.

So, why are you waiting?? Enroll yourself in the google cloud program!! Happy CLOUD days!!



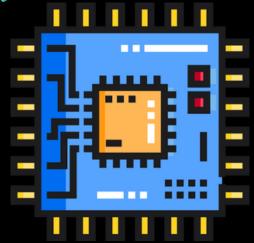
K. Sendilvel, a B.Tech Electronics Graduate from Madras Institute of Technology in the year of 1990 is an entrepreneur in biomedical electronics and IoT in medical instrumentation.

#### Please share with us a little about your career path that has led you here.

Immediately after completing my course, I started working at a company in the design section. I was there for around eight months, and I couldn't continue beyond that as my entrepreneurship calling got stronger and stronger, and thus, I quit that company. And today, it's been thirty years since the decision and since the start of Malar Electronics, my very own company.

### Congrats on reaching that milestone! Can you elaborate on your current line of work and how it led to where it is today?

My core area is embedded systems. I started off with product designing, and from 1998 onwards I started working on Microcontroller based product design, which was very early back in my day, where internet wasn't available to everyone and we had to go from shop to shop to source parts. Simply put, in the early days, I used to design almost every kind of product which involved electronics and embedded applications, some include renewable energy



systems, automotive sector, industrial automation, etc. But currently, our focus here is medical systems and IoT. We've designed a lot of products for the medical industry, and our progress so far is something we are very proud of.

You stated that you specialize in medical electronics. A common misconception among all of us, not just our generation, is that the medicine field and engineering field are two separate worlds. And you and your company act as a bridge that connects these worlds together. So how did that come about?

There are two aspects to the medicine field, one being the aspect of medicine composition which involves chemistry and biology. But the second aspect comes into the picture when we take into picture the modern medical practices, especially diagnostic tools such as CT scans, X-rays, MRI scans, just to name a few. And its in this aspect that the engineering field has lent a helping hand to the medicine field. The medical



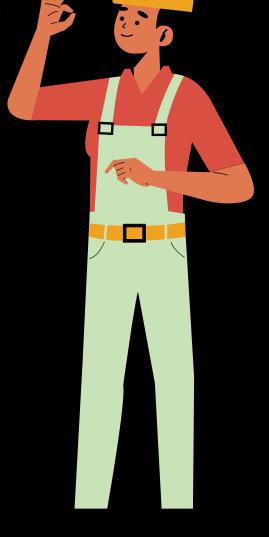
fields improvement and advancement to where it is today wouldn't be possible without engineering! For decades, the medical treatment and prescription has remained the same, only the method of procedure has advanced exponentially. This collaboration between the two entities has helped with the betterment of medical standards for the world for which we are all thankful.

In these trying times amid the pandemic, every organization had to make the shift to the work-from-home situation. How did you adapt to this change, and do you think this is a sustainable lifestyle?

In our field, we cannot do the critical work from the comfort of our homes. This is a hardware-oriented field. Whatever simulations and calculations are carried out in software need to be prototyped and tested immediately to fix errors and reiterate. And even more so in this delicate and detail-oriented field where we need to test the pressure sensing, valve actuation, and so on, the work-from-home lifestyle will just not cut it. Sure, some aspects of the job such as simulations and diagnostics are suitable for that, but at the end of the say, this is a hardware-oriented field and it needs live interaction and collaboration which only a proper workplace can offer.

As time goes on, trends change, and so does the dynamic of the youth generation. And so does the dynamic of the youth. What is one notable thing that's being done differently in terms of their thinking, academics and industry training?

If we take the current crop of engineers that pass out of their college every year, there are 80% decent students and 20% extremely talented engineers. But this 20% of the crowd, they are over-smart(laughs). They come with very good talent, have their fields chosen and fixed right from their college days and have already done the necessary ground work required for it. All this is thanks to the power of the internet in the palm of our hands. So, these 20%, they come with all the necessary research, colleges provide support and utilize all the resources available. But something that has never changed throughout the time is that, no matter how good or bad someone is at their work, progress is never made unless they show interest and are ready to invest their time into the work. But something that these 20% lack is the patience to learn and completely master new concepts and areas. They want to gain knowledge completely within a short period of time without the complete effort, which is definitely a problem. But once they figure out a way to overcome that mental obstacle, their efforts will pay rich dividends.



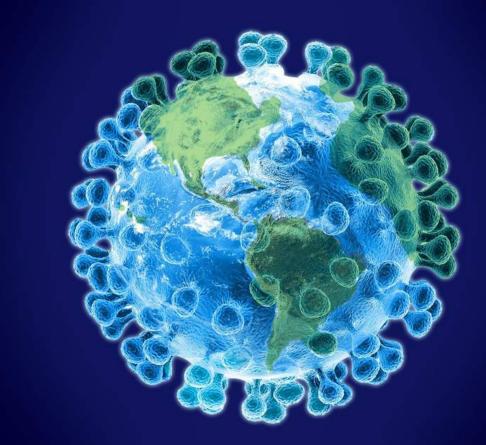
In your several years in the industry, you must have come across many energetic and confident students who have an idea that they want to put into action and start up their own company. What's the one advice you will give the entrepreneur inside all of us that you wish you knew before you started out?

Everyone has amazing ideas, some of which had potential to be huge winners! But something that I would like to share as my advice to everyone is that, before starting your own business, work in a company for three to four years. This is not to improve your core knowledge, but rather, to actually have a first-person experience of how everything else functions in the company, right from organization to accountancy.

A person who starts their own business who has a background of work for around 3-4 years will be able to achieve so much more in a given timeline when compared with someone who lacks that work experience. That is the single most crucial piece of advice I'd like to share to the budding entrepreneurs everywhere.

Thank you for your time! We'd like to close out this interview with a few words of advice and wisdom for all of us.

Follow your passion. Don't go after the money. In the long run, your passion will bring you money. When you work, you must love and appreciate the work you do. Only then will you be able to learn and advance in your field. Hard work and patience too go hand in hand with passion, and if you keep this in mind, you will see great success in life! I wish you all the best!



# A NEW KIND OF PANDEMIC

Vinu Varshath S 3rd Year

When people thought about the internet, it was always seen as a different life. The place where people went to escape the demons of real life. People went there, took up a different online persona, to forget the hard and rough day they just had, or they went there to find new friends with similar interests. What ever happened there, it did not affect their day-to-day life in any significant way.

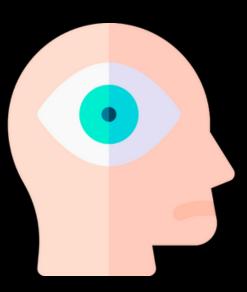


In recent times, however, that's not the case.

I was listening to a recent episode of the podcast "Dear Hank and John". For those who don't know, it is a comedy podcast where 2 brothers answer your questions, give dubious advice and bring you all the news from Mars and AFC Wimbledon (a third tier English Football team with a fascinating and encouraging backstory). One of the listeners asked a question. According to her physician, it's not normal to sneeze. Even once. She asked if that was true. I know for a fact that it's not true. 95% of humans sneeze, on an average of 4 times a day. It seems pretty normal to me.

Now the interesting part is that how many people became sceptical after just listening to that. Even after the hosts cleared that it was normal to sneeze a few times a day. Even one of the hosts said in a later episode that he thinks about it every time he sneezes. Real life and online life are no more different.

With the huge and incredible developments in the world of technology and engineering, there is a huge outburst in the amount of internet users. Which sounded like a great thing at first, but the large number of users also meant that there was going to be a large amount of information. With large amounts of information, there is bound to be a very significant amount of misinformation. And with a very significant amount of misinformation comes a tremendous amount of responsibility.



There are people on the internet who post videos on how to convert charcoal into diamonds. Apparently, the answer is peanut butter! The best part is that it takes only a couple of hours. Life is that simple, Y'all!

These people thrive on the secretion of Serotonin, Dopamine, Oxytocin and Endorphins in our body that make us feel motivational, happy, relaxed, love, trust, bonding. They get their happiness through see others believe them, no matter how ridiculous the thing they say is. People are affected by this Dopamine inducing, so-called "news". As users of internet, the responsibility falls on our shoulders. I sincerely request you that do not share anything unless or otherwise you are 100% certain that the information is true.

When I read/hear/watch a new or any piece of information, I first notice how I feel about it. Do I feel happy? Do I feel sad? Are u feeling incredibly overwhelmed by emotions? Noticing this can be a huge aid in identifying misinformation. Always double check everything you share. If you share a piece of news that is not true, it will affect someone for whom the news meant a lot. The disappointment will be immeasurable. Always understand the context in which the information was said. Context is important. Without knowing the situation surrounding the news, the news in itself is moot.

Vaccinating the internet, to free it from the "misinformation pandemic" is a colossal task. It surely will take generations to come. But a start is as good as anything!

# TVS INTERNSHIP

With all our oil reserves depleting, the fossil fuels reaching maximum consumption, the world is in dire need for a different energy source- one that is economically feasible, accessible by the masses and easy to produce- Electricity. This energy source has been in use for over two centuries though the efficiency is far from optimal. Scientific breakthroughs in this field are scarce-until recent times.

Assessing the latest trend, motor vehicles powered by conventional diesel/petrol engines are a large contributor to fossil fuel depletion along with major effects on the environment like unbreathable, polluted air, chemically infected water, acid rain, Global warming- causing melting of polar ice caps, altering the face of the world as we now know it. As a result, automobile manufacturers have shifted to a more energy efficient, modern method of commuting, the electrical motor.

Tesla, the name of a trillion dollar company is synonymous with the term 'electrical vehicle'.

They strive to achieve a similar performance a diesel/petrol engine gives with an electric motor. Another trillion dollar company, Apple, currently a tech-giant, is also predicted to join the race in electric vehicles by 2025. Many automobile manufacturers like TVS, Mahindra, TATA, Toyota have also released their entries into the EV segment. At present, the market has started to flood with a surge in electric vehicles awareness and production. Both the two and four wheeler electric vehicles are now creating a huge impact towards both conserving the remaining fossil fuel and for the betterment of the pollution levels.



In connection to this, students at Sri Sivasubramaniya Nadar College of Engineering (SSNCE) were given a fabulous opportunity to attend a five-day training/internship program at TVS Training and Services (TVSTS), Ambattur, Chennai, on Electric Vehicles. This program aimed at giving young minds a detailed insight into the systems of an electric vehicle and a hands-on approach with each component of the modern transportation method.

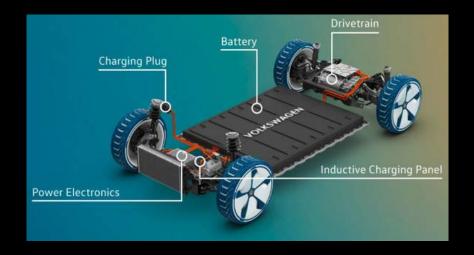
TVS is a major player in the automobile segment in India. The faculty at TVSTS have vast knowledge in the said field. This was proved on the first day when the students were welcomed into the TVSTS factory.

The infrastructure at the site was up to the standards and definitely exceeded the students' expectations. A lot of happy, awed faces could be seen in the classroom on the first day of the internship. The lecturer gave a small introduction to the course and we all dived right into the learning program.

The first two days dealt extensively with the conventional diesel/petrol engine where we all experienced first hand what the difference between a diesel and petrol engine is, along with the differentiating factors in a two-stroke and four-stroke engine. The most exciting part of this day was a peek into an actual Royal-Enfield engine. The engine was removed from one of thirty-or-so Royal-Enfield bikes, provided to TVS by the company itself to help students and young job-seekers, get a detailed view into the making and maintenance of an engine.

The lecturer pointed out all the parts of the engine and explained the different mechanisms of a running engine- the clutch, gear systems along with all safeguards in place.

The second day had an in-depth study and a wrap of the diesel/petrol engine study. The highlight of the day was when the students were asked to completely tear down two engines and build it from scratch. The students were buzzing with excitement when they got to touch every small part in the build.



The next three days saw an adventure into the electric side of automobiles. The lecturer took

the aid of powerpoint slides that focused on every minute detail to make the class fun and

knowledge-filled at the same time.

The curriculum was very carefully designed to accommodate a learner with no previous knowledge in the field. Starting with the conventional present-day engine, progressing step-by-step into various components of an electric vehicle and finally finishing up with an

overview of the pros and cons of the present day electric field. Well done, TVS!

The lectures over the last three days focused extensively on Electric vehicles and components. We went through various systems- lighting, battery, controllers, motors, generators, Indicators. The students worked in groups and got to assemble their own Battery-powered bicycle! On the last day of the course, similar to the second, we were asked to tear down a TVS-made electric two-wheeler. That solidified the knowledge of electric vehicles we learnt over the duration of the course.

On to a more fun topic, TVSTS, known for the good quality of food, was kind enough to provide all the students with two tea breaks per day and lunch for all five days. The quality of food lived up to the name it had all over Tamil Nadu. The classrooms were well equipped with modern teaching methods enabled using a projector. All classrooms were AC-fitted ensuring maximum comfort to all the students... maybe a bit too much;)

Overall, it was a fun-filled learning experience and for that I, Pranay, on behalf of all the students who attended the program, would like to thank the TVSTS management for conducting such a program for the benefit of college-going students pursuing their professional course. I also take this opportunity to thank the SSN College management for enabling us to attend this course and taking all the necessary steps to ensure that the students are well-equipped to face the ever evolving future.

Fill your life with experience. Inot things. Have stories to tell, not things to show!

#### ELECTRIC VEHICLE RETROFITTING IN DELHI



Sriganesh. R 3rd Year



Earlier, the National Green Tribunal (NGT) has imposed a complete ban on all 10 years or older diesel and 15 years or older petrol vehicles in the Delhi-NCR region. Delhi alone has about 38 lakh vehicles that are technically ineligible to be used on the roads as per the NGT's order. Recently, the Delhi government has announced that people can continue to use their overaged cars, but there's a catch. You will be allowed to use these cars only if you convert them to electric engines. In fact, the transport department of Delhi has empanelled a list of 5 electric car conversion kit manufacturers. This list is likely to include more manufacturers in the coming days.

Now we gained some insights about Cloud Storage. What if we want to learn a bit deeper about it? What happens in the backdrop of Cloud Storage? What is Kubernetes, Dockers, Pub/Sub Topic, APIs?? Are These really useful? Where do I use them?

But why is it always Delhi that makes the first move in entire India when it comes to EVs? We all know that air pollution in Delhi is rising unbelievably. The Delhi government has come up with several plans to control air pollution and curb carbon emissions.

One such plan is the no-entry hours. For the people wondering what no-entry hours are, it is the time during which the movement of commercial vehicles is restricted in over 250 major roads during rush hours. The no-entry hours extend from 7 to 11 in the morning and from 5 to 9 in the evening. But fewer commercial vehicles will make people use more personal ones, especially when people must travel to offices and schools. Also, more than 50% of households have personal vehicles in Delhi.



Here comes the master plan, the Delhi government has permitted the movement of light commercial vehicles that are electric during these no-entry hours. This move will force not just common people but also taxi drivers and auto-rickshaw drivers to switch to EVs. Electric retrofitting will be a boon to the people who wish to use their overaged cars as well as help in the government's plan to reduce carbon emissions.

# Pitch a poem!



#### Damn Seasonne

What could a season do more than this?

What not if the days waking up too late turning sluggish the entire day?

What not without the days watching movies pretending torpid and actually not??

With winter fatigues preventing baths, haha!!

Gazing up the scenes of stars hanging lighted out there

With night time rides amidst them is definitely a great feel!!

As it's Christmas eve

Convincing hard to realize the new year's up sooner

With not really girded mindset leaving up this

Now people can proclaim my madness stating this as pre-winter bla bla...

Nevertheless no winter would surpass this that would hold off until new year!!

In any sense one should agree me on this, do you?

Better to enjoy laziness at times!! Shouldn't we?



## Surpass

In this rotating jam of scrutiny

I am on my own

Amidst a wandering clan of doubt

I stand alone,

Loud echoes calling out incompetence, saying

I am nothing but another clone,

Tall standing cues of dejection and deniance, still

I am not to groan

Over pouring voices of so-called aid, yet

I am hardly known,

A evolved floret, now stuck to it's stalk

I wait to be blown!

Where to? Now I ask

As I see all of it slowly caving into the dark,

Where to hide?

Or, if there's somewhere I can confide,

Where to run?

So that I don't have to look back or turn,

Where to scream?

For not every moment here is a dream,

Where to cry?

When you are tied down, powerless to fly,

Where to seek?

If there are only noises claiming me weak!

But there's this resurrecting soul inside that yells,

Watch me..

You say this is steady

Watch me ripple,

you feel it's all boxed up

watch me unravel,

You are sure this all feels that's known

watch me discover,

You call it a wrap

watch me reboot,

You think this is all I can?

Watch me surpass!



-Harshavardhini Madhiazhagan

II Year

### PLACEMENT REPORT

Name	Company	Category	Туре	CTC (in	Job	Job Role
2000 A 20	Placed Latentview			LPA)	Description	
A Muthiah	Analytics [1]	Dream [2]	IT :-	6.5 [3]	FTE	Data Analyst [4]
Aishwarya Srinivasan	Deloitte	Dream	IT	7.6	FTE	Analyst
Arjun.S	Comcast	Dream	IT	6	Intern+FTE	SDE
Cathirvel Balamurugan	Amadeus Software Labs	Dream	IT	9.32	Intern+FTE	Software Engineer - Development
Deekshitha S	Citibank	Super Dream	IT IT	13.81	FTE	Technical Analyst
Dhivyadharshini S	Cognizant	Dream	IT	6.75	Intern+FTE	Programmer Analyst [5]
DINESHKUMAR.S	O9 Solutions [6]	Dream [7]	Management [8]	9.11 [9]	FTE	Functional Consultant/Technical consultant
Divyashree D	Optum	Super Dream	IT	13.81	FTE	Software Engineer
Hari prasath.S	TCS Digital	Dream	IT	7.2	FTE	Systems Engineer
Harini C	ComCast	Dream	Core	6	Intern+FTE	CPE
Kaavyaa Shri S	Comcast	Dream	Core	6	Intern+FTE	Cyber security team
Keerthi Chidhamparanath	Accenture [11]	Dream [12]	IT [13]	9 [14]	FTE	Advanced Engineer [15]
Koupendra D B	Salesforce [16]	Super Dream [17]	IT	11.9 [18]	Intern+FTE	Associate Technical Consultant [19]
Koupendra D B	Salesforce	Super Dream	IT	11.9	Intern+FTE	Associate Technical Consultant
Mohammed Ashik S	MBit Wireless [20]	Dream [21]	Core [22]	7.5 [23]	Intern+FTE	Development Engineer [24]
Navinsai Kaarthik T Y	Deloitte	Dream	IT	7.6	FTE	DAS
Neythra Jayaprakash	Optum	Super Dream	ΙΤ	13.8	FTE	Software Engineer
Parithi R	Mbit Wireless	Dream	Core	7.5	FTE	Development Engineer
Pavan Kumar Reddy N	Temenos [25]	Dream [26]	IT	6.3 [27]	Intern+FTE [28]	Software developer [29]
Prasanna Kumar T	McKinsey [30]	Super Dream [31]	Management [32]	10 [33]	Intern+FTE	Junior Data Analyst [34]
Ramya S	Accolite	Super Dream	IT	11	Intern+FTE	Software Engineer
Reshmika Janani M	Mbit Wireless	Dream	Core	7.5	FTE	Development Engineer
Retika M.K.	ComCast	Dream	Core	6	Intern+FTE	GET
Sai Arun V	Deloitte	Dream	IT	7.6	FTE	USI consultant
Saikrishna S	Deloitte	Dream	IT	7.6	FTE	Deloitte Application Studio
Saiprasath R	Comcast	Dream	Core	6	Intern+FTE	XRE
Shruthi C K	Optum	Super Dream	IT	13.8	FTE	Software Engineer
Siddarth M	Deloitte	Dream	IT	7.6	FTE	USI Consulting analyst
Siddharthan A	Mbit Wireless [35]	Dream [36]	Core [37]	7.5 [38]	FTE [39]	Development Engineer [40]
Soorya S	Optum	Super Dream	IT	13.81	FTE	Software Engineer
Sowmya G	Deloitte	Dream	IT	7.6	FTE	DAS (Digital Application Studio)
Srividhya S	Comcast [41]	Dream [42]	Core [43]	6 [44]	Intern+FTE [45]	CPE - Developer [46]
Surabhi S	Citibank	Super Dream	ΙΤ	13.75	FTÉ	Software Developer
T.V.Rajalakshmi	Optum	Super Dream	ΙΤ	13.81	Intern+FTE	Software Engineer
Tanguturu Venkata	Oracle	Dream	IT	6.55	FTE	Associate Consultant
Vignesh N	Deloitte	Dream	IT	7.6	Intern+FTE [47]	Global Digital Application Studio
Vignesh S	TransUnion [48]	Dream [49]	IT [50]	8 [51]	FTE [52]	GET [53]
Vimalan K M	TCS (Digital)	Dream	IT	7.2	FTE	System Engineer
Vishalini Maiswari S	Cognizant	Dream	ΙΤ	6.75	Intern+FTE	Programer Analyst [54]
Vishwa Raj V	Deloitte	Dream	ΙΤ	7.6	FTE	Deloitte Application Studio
Akalya A	Cognizant	Regular	IT	4	Intern+FTE [55]	Programmer analyst trainee [56]
Sriram TS	Cognizant	Regular	IT	4.5	Intern+FTE	Software Developer

### PLACEMENT REPORT

Mythili M	O9 solutions	Dream	ΙΤ	9.1	FTE	Functional/Technical consultant
Yashwanth Praksh Kuma	TCS	Regular	IT	3.9	FTE	Computer consultancy
Medarametla Venkata Sa	O9 Solutions	Dream	Management	9.11	FTE	Consultant
Reshab S	Latentview analytics [57]	Dream [58]	IT	6.5 [59]	FTE [60]	Analyst [61]
Varun Vignesh Y	Cognizant	Regular	ΙΤ	4.5	Intern+FTE	Programmer Analyst Trainee
Vinoth S	TCS	Regular	IT	3.36	FTE	Assistant System Engineer
Abitha R	Cognizant	Regular	IT	4	Intern+FTE [62]	Programmer Analyst Trainee
Anusha Vasanthi V	Cognizant	Regular	IT	4	Intern+FTE [63]	Programmer Analyst Trainee
Usha K V	CTS	Regular	IT	4	Intern+FTE	Genc
Sri Raghu Vishal M	TCS	Regular	IT	3.36	FTE	Assistant System Engineer
Ragavan	O9 solutions	Dream	Management	9.11	FTE	Technical/Functional consultant
Abhinaya R	стѕ	Regular	IT	4.5	Intern+FTE	Programmer Analyst Trainee
A Swetha	Cognizant- elevate	Regular	IT	4	FTE	Software
Rishikumar S	Cognizant	Regular	ΙΤ	4	Intern+FTE	Programmer Analyst trainee
Shaherudeen S	O9 Solutions	Dream	Management	9.11	FTE	Functional Consultant
Jayapriya S	Cognizant (Gen C)	Regular	IT	4	Intern+FTE	Programmer Analyst Trainee
Shalini S	Optum	Super Dream	IT	13.81	FTE	Software Engineer
Shrruthy Laya C	Temenos [64]	Dream [65]	IT	6.3 [66]	FTE	Software Engineer [67]
VASANTH. V	MBIT WIRELESS	Dream	Core	5	FTE	ASSOCIATE ENGINEER
Suraj Subramaniam N	HCL	Regular	IT	4.75	FTE	Software engineer
Sivaramaganesh S	Cognizant	Regular	IT	4	Intern+FTE	GenC (Programming Analyst Trainee)
Suganthi S	Tata Consultancy ServicesRegul ar		ΙΤ	3.9	FTE	Assistant System Engineer-Trainee
Subitsha R	CTS	Regular	IT	4	Intern+FTE	Genc
Varunan R	HCL	Regular	ΙΤ	4.75	FTE	Software Engineer
Dhivya devi B	O9 solutions	Dream	IT	9.11	FTE	Functional/technical consultant
BALAJI R	MBIT WIRELESS	Dream	Core	5	FTE [68]	Associate Engineer
Dharani T	O9 solutions	Dream	IT	9.11	FTE	Functional consultant
Abarna.A	Wipro	Regular	IT	3.5	FTE	GET
Sivakarthikeyan J	Comcast	Dream	Core	6	Intern+FTE	GET
Krithika R	Presidio	Dream	IT	6.1	Intern+FTE	GET
Rengarajan S	Transunion	Dream	IT	8	FTE	NA
Madhusudan Saranathan	Wood PLC	Dream	Core	4.8	FTE	GET - Electrical
Anand Kumar M	Wipro	Regular	IT	3.5	FTE	Project Engineer
Sujit Aluru	LTI	Dream	IT	6.5	FTE	GET
LOGESHWARAN S	Cognizant GenC	Regular	IT	4	Intern+FTE	GenC
Avinash.k	MBit wireless	Dream	Core	7.5	FTE	Development Engineer
Nishitha Saraswathi A	Temenos [69]	Dream [70]	IT	6.3 [71]	Intern+FTE	Software engineer [72]
Praveen.W	Cognizant	Regular	IT	4.5	FTE	Software engineer
Dhanush Gajaraj	HCL	Regular	IT	4.75	FTE	Software Development Engineer
Madhuri Shakya	Trane technologies	Dream	Core	6	Intern+FTE	GET
V.Harini	Optum	Super Dream	IT	13.81	FTE	Software developer

## PLACEMENT REPORT

Sanjay Balasubramanian	Tata Consultancy ServicesRegul ar		ΙT	3.9	FTE	Software Engineer
Kabilan C	Wipro	Regular	ΙΤ	3.5	FTE	Assistant Software Engineer
Mujahith Thameem	Infosys	Regular	IT	3.6	Intern+FTE	Systems Engineer
Titus Yesuraj J	TCS	Regular	IT	3.6	FTE	Software engineer
R.Sri Hari	MBIT wireless	Dream	Core	7.5	FTE	Development engineer
BARATHKUMAR M	Presidio	Dream	IT	6.1	FTE	Associate Engineer
Pa.Hari Krishna AchuthanDeloitte		Dream	Management	7.6	FTE	Analyst
Divya Bharathi.S	Cognizant	Regular	IT	4.5	Intern+FTE	Gen C
S.Aarthi	TCS	Regular	IT	3.9	FTE	GET
Sanjay M	Latentview analytics	Dream	Management	6.5	FTE	Analyst- entry level

# Words of Wisdom

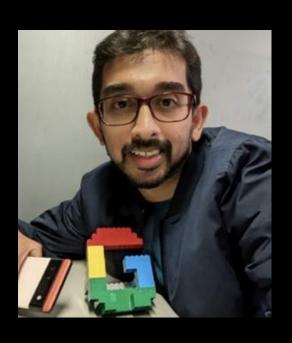
KRISHNA PRASAD S (2011 PASSED OUT) GOOGLE



#### My degree and my decade after

People call the USA, 'the land of opportunities'. I got a glimpse of it several years before I reached the US - at SSN. I came in as a nerdy teenager and graduated with a Bachelor's degree, with significantly more confidence to take on the challenges of the world.

My name is Krishna Prasad S, and I was an undergraduate student in the EEE department at SSN during 2007 - 2011. I'd like to share my experiences towards a satisfying career and how my experience at SSN prepared me for it. Before I begin, I'd like to thank my good friend, classmate and currently an associate professor in the EEE department - Dr. V. S. Nagarajan for this opportunity to share my experiences with the super-talented students and the faculty members. While I still have a long way to go career-wise, I hope this article helps students to plan better and seize the opportunities.



The best part of being a student in my opinion is the ability to make mistakes comfortably and not be judged for it. I was a regular student in college, juggling my life as a day-scholar between traveling to/from home in the city, classes, assignments and unittests, hanging with friends and so on. However, I was particularly nerdy and luckily I found a group of like minded nerds in the same batch as mine. Together we hung out making basic breadboard circuits at home with mosfets, relays, motors and LEDs. It was exhilarating to refer to our Devices & Circuits books (and the internet of course) for our 'hobby' projects. And pretty soon, I found myself soldering a few hundred LEDs on a display board using mosfets with my 'gang' making colorful LED patterns for college culturals and tech fests. We went on to create a 'tech club' of sorts in the EEE department (called ERF), involving some fellow juniors to carry on from where we left off, and they did a tremendous job! SSN and our EEE faculty members (Dr. Senthil Kumaran, Mr. Ramesh R & others) gave us a stage, incentivizingour desire for demonstrating our skills, which turned out to be a great motivator.

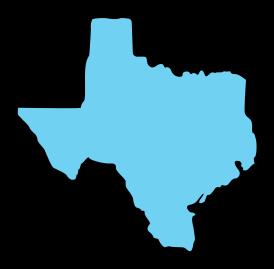
Collaborating with the faculty members for assisting in their research projects is another unique opportunity that I had the privilege of participating in, at SSN. During my second year of B.E, I had the privilege of working with Dr. Rajini on a simulation driven research project involving sterilizing food-borne bacteria using high voltage pulse forming networks. And during my third year, the SSN research center invited applications for internships for the first time ever. I had the privilege of participating in almost a semester-long research project on the first successful Growth of Silicon Nanowires for photo-voltaic applications. These were my first ever foray into academic research, which were invaluable for a young engineer.

I was reasonably good at coding from my high school days, with some basic competitive programming experience. At SSN, I taught myself web design from library books, the internet and with the help of some batchmates from the CS department. Together we participated in web + graphic design contests in other tech fests and won accolades. SSN's distinctive culture of student driven organization of culturals and tech fests also gave me a pedestal to design websites for various events - such as symposia, culturals and e-cell events as well.

After graduation, I went on to work at Infosys for almost a year. I chose to become an educator at Infosys partly and in the (roughly) one year of my career, I enjoyed training several hundred new grads, programming and web development. After my year-long contract at Infosys ended, I left to pursue a research internship at Raman Research Institute (RRI) in Bangalore under their 'visiting student program'. The academic research skills I picked up during my bachelors came in handy for qualifying for and succeeding in my research at RRI, where I



worked on a Brain-Computer interfacing project. My role there pretty much involved application of all skills I obtained during my bachelors degree including circuit simulation of a signal amplifier, PCB design, signal processing and programming.



After having spent a year at RRI, I left to pursue my Masters degree in Electrical Engineering with a full scholarship from University of Texas. Post-graduate degrees in the US can be extraordinarily expensive, especially for an Indian student. Despite not having a stellar GPA in my bachelors, the research opportunities and the side projects I could pursue at SSN, earned me my scholarship. During my MSEE degree, I specialized in Analog and RF circuit and system design.

Education in the US is really hands-on and testing tends to be very practical. Luckily, my penchant for side projects, picked up from my undergrad days, came in handy during my MSEE as well. I created a portfolio website of course projects and side projects during my postgraduate degree. A few months into the MSEE program, I found internships at Apple Inc in the iPhone division and later at Amazon ('Alexa' program) in California in their electrical engineering department. I graduated after two years of education and was offered a full time position at Amazon, after my internship. After having spent a couple of years at Amazon, I am now employed in one of the many electrical engineering teams at Google LLC, in Mountain View, CA where I work on the Pixel smartphone lineup. Hardware companies seem to be proliferating in almost every market segment and I'm excited for a challenging and satisfying career in the upcoming decade.



My word of advice for fellow SSNites reading this article, based on what worked for me so far: look for internships if you're in the hunt for jobs in the industry. It is an easy way of learning the job and qualifying for internships would be relatively easier as students. Secondly, spend time on building a narrative on what you've been learning, what you've done and where you're going next. It makes your path clearer every time you think about it. Good luck!











#### **DECRYPTED!**

## Attention: For all those who are aspiring to enter their dream B-school

The GMAT exam is the first and only standardized exam specifically designed for admission to graduate business and management programs. It sets the standard to predict your academic performance in today's graduate management programs and most importantly, schools trust the exam.

The GMAT exam is abbreviated as the Graduate Management Admission Test. It is a computer adaptive test.

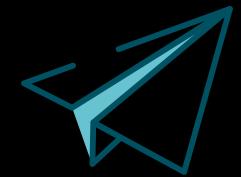
Applicants should have a basic educational qualification from any registered university or college.



The GMAT exam fee for both test center and online exam is 275 USD which is approximately INR 20,457.

There are totally 4 sections in the exam which are in the form of multiple choice questions. They are ass follows:

- Verbal Reasoning
- Quantitative Reasoning
- Integrated Reasoning
- Analytical Writing



The duration of the GMAT is 2 hours and 45 minutes excluding the analytical writing section.

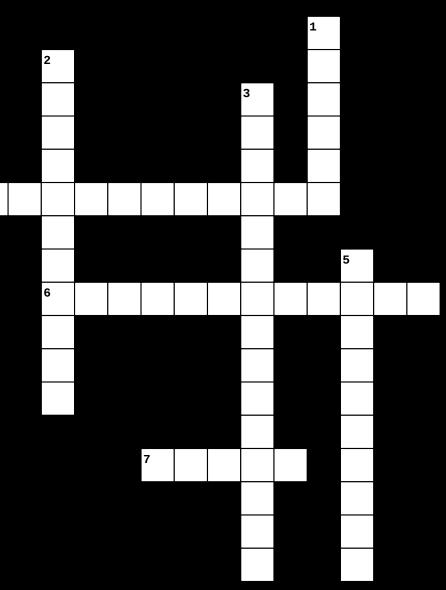
The total number of questions in these three sections is 79 and the analytical writing section contains only 1 descriptive question.

Candidates can use their GMAT score for up to 5 years.

Total GMAT scores range from 200 to 800; two-thirds of test takers score between 400 and 600. However, GMAT cutoff for the top business schools of the world are above 720.

Your purpose in life is to find your purpose and give your heart and soul to it.

## CROSSWORD



CAN YOU GUESS
THE VARIOUS
ELECTRICAL AND
ELECTRONIC
EQUIPMENTS?

DOWN

1.\_\_\_\_TESTER. MEASURES
RESISTANCE OF AN WINDING
OF MOTOR OR GENERATOR
AND MEASURES EARTHING'S
RESISTANCE

2.DISPLAYS THE PHASE OF THE COLORS IN COLOR TV

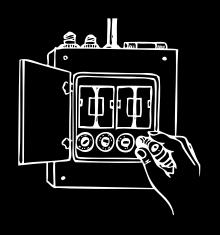
3.MEASURES THE DISTORTION ADDED TO A CIRCUIT

5.MEASURES SPEED OF MOTORS

ACROSS 4. MEASURES AF SIGNAL LEVEL AND NOISE

6. MEASURES CURRENT WITHOUT PHYSICAL CONNECTION

7. \_\_\_\_\_GENERATOR.
CREATES CONSTANTAMPLITUDE VARIABLE
FREQUENCY SINE WAVES TO
TEST FREQUENCY RESPONSE



**ANSWER** 

