REDEEEM

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Jan - Mar 2021

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FROM HOD'S DESK

We are happy to present the April 2021 Issue of the quarterly newsletter to you. It highlights the major academic achievements, research work, collaborations and extracurricular activities in the department for the past 3 months.

The Department of EEE organised the 7th International Conference on Electrical Energy Systems (ICEES 2021) in a virtual mode, technically co-sponsored by IEEE Madras Section in association with Renewable Energy Lab, Prince Sultan University, Riyadh, Saudi Arabia from 11th to 13th February 2021. The proceedings of ICEES 2021 have been successfully uploaded in IEEE Xplore. I appreciate the efforts of Dr. N. B. Muthuselvan, Dr. V. Thiagarajan and Dr. Deveshraj for the successful completion of the conference.
(https://ieeexplore.ieee.org/xpl/conhome/9383648/proceeding).

In our effort to revise the curriculum, the 3rd virtual meeting of the Board of Studies held during this period went on very well with the introduction of EFP Courses. Efforts are being taken to propose an Honours Degree in EEE with specialization in Artificial Intelligence and Machine Learning. Dr Tamillselvi, Dr.Rengaraj and Dr.Venkatakrishnan coordinated this activity by taking input from Dr.Ganesh Samudra.

The NBA documentation is also going very well with the coordination of Dr. M. Balaji, Dr. N. B. Muthuselvan and other faculty members. For the DST-SERB funded projects, an assessment of progress held in the month of February. The PIs and Co-PIs presented the progress of their projects on various dates scheduled during this period. There are a good number of publications.

The one-credit course offered by a foreign professor was well received.

Despite the Covid 19 situation, our students participated in various competitions held at IITM and other reputed organizations and won prizes.

I thank and appreciate faculty members and students who have contributed to the department.

EDITORIAL

Frustration is deeply woven into the fabric of life. And whenever some of our needs are temporarily met, we immediately start wishing for more. This chronic dissatisfaction is the obstacle that stands in the way of contentment. To deal with these obstacles, every culture develops with time protective shields—religions, philosophies, arts, and comforts. The roots of the discontent are internal, and each person must untangle them personally, with his or her own power. The shields that have worked in the past are no longer effective for increasing numbers of people who feel exposed to the harsh winds of chaos.

Children who grow up in family situations that facilitate clarity of goals, feedback, feeling of control, concentration on the task at hand, intrinsic motivation, and challenge will generally have a better chance to order their lives. Teenagers without strong family ties can become so dependent on their peer group that they will do anything to be accepted by them. Children have been often threatened with the withdrawal of parental love, will be so worried about keeping their sense of self from coming apart as to have little energy left to pursue intrinsic rewards. Instead of seeking the complexity of enjoyment, an ill-treated child is likely to grow up into an adult who will be satisfied to obtain as much pleasure as possible from life.

The fortunate one seems to enjoy situations that ordinary persons would find unbearable. They are much more happy, strong, steady cheerful, and satisfied than their less fortunate peers. They find ways to turn the bleak objective conditions into subjectively controllable experience. These are clearly reflected in their adult life as we see few around us are more stable, consistent, comfortable and truly enjoy challenges with an open mind where most others merely spectators of life with fragile self and closed mind. Ideally, the end of extrinsically applied education should be the start of an education that is motivated intrinsically.

EDITORIAL

At that point, the goal of studying is to understand what is happening around one, to develop a personally meaningful sense of what one's experience is all aboutFrom that will come the profound joy of the thinker, like that experienced by the disciples of Socrates that Plato describes in Philebus: "The young man who has drunk for the first time from that spring is as happy as if he had found a treasure of wisdom; he is positively enraptured. He will pick up any discourse, draw all its ideas together to make them into one, then take them apart and pull them to pieces. He will puzzle first himself, then also others, badger whoever comes near him, young and old, sparing not even his parents, nor anyone who is willing to listen…." The quotation is about twenty-four centuries old, but still relevant as it explains vividly what happens when a person first discovers the flow of the mind.

The deep enjoyment the flow provides requires an equal degree of disciplined concentration. The shape and content of life depend on how attention has been used. Only if we understand the way subjective states are shaped can we master them. Everything we experience—joy or pain, interest, or boredom—is represented in the mind as information. If we can control this information, we can decide what our lives will be like.

Most enjoyable activities are not natural; they demand an effort that initially one is reluctant to make. But once the interaction starts to provide feedback to the person's skills, it usually begins to be intrinsically rewarding. We have to develop the ability to find enjoyment and purpose regardless of external circumstances. Achieving control over experience requires a drastic change in attitude about what is important and what is not. This challenge is both easier and more difficult than it sounds: easier because the ability to do so is entirely within each person's hands; difficult because it requires discipline and perseverance that are relatively rare in the present era.

FACULTY ACTIVITY

External Recognition

1. Dr. R. Ramaprabha, ASSP/EEE has been nominated as an evaluator for the projects submitted for TOYCATHON 2021(conducted by the Ministry of Education's Innovation Cell) - Jan 08, 2021.

2. Dr. R. Ramaprabha, ASSP/EEE acted as External Expert (DRC member) for Ph.D. scholar of Electrical & Electronics Engineering, School of Engineering & Technology, GIET University, Gunupur-765022, Odisha, (INDIA) on Jan 16, 2021.

3. Dr. R. Ramaprabha, ASSP/EEE gave a demonstration of the working of a rooftop solar PV system installed in the EEE department to NIT Trichy students (S. Kaarthik, S. Ajay and B. Shrivanth – ICE dept, I year/ sem) to help them to complete their mini project on Solar Power Plant on Jan 18, 2021.

4. Dr. R. Ramaprabha, ASSP/EEE acted as External Expert (DRC member) for the PhD scholar of Electrical & Electronics Engineering, School of Engineering & Technology, GIET University, Gunupur-765022, Odisha, (INDIA) on Jan 23, 2021.

5. Dr. Mrunal Deshpande, ASSP/EEE has been nominated as an evaluator for the projects submitted for TOYCATHON 2021(conducted by the Ministry of Education's Innovation Cell) - Jan 08, 2021.

6. Dr.R.Seyezhai, ASSP/EEE acted as Internal Examiner for the Online Viva-voce examination for II Year M.E.(Power Systems) at Anna University, Chennai-25 on 07.01.2021.

External Recognition

7. Dr. K. Murugesan, ASSP/EEE invited as a chief guest for International Mother Language Day and delivered the speech on " Mother tongue and its importance" as a webinar organized by Suvadukal, NGO for Tamil language Teaching & writing practice organization on International Mother language day(21.02.2021).

8. Dr. R. Ramaprabha, ASSP/EEE has been nominated as an evaluator for the projects submitted for TOYCATHON 2021(conducted by the Ministry of Education's Innovation Cell) - Feb 02, 2021.

9. Dr. R. Ramaprabha, ASSP/EEE acted as External Expert (DRC member) for the PhD scholar of Electrical & Electronics Engineering, School of Engineering & Technology, GIET University, Gunupur-765022, Odisha, (INDIA) on Feb 03, 2021.

10. Dr. R. Ramaprabha, ASSP/EEE attended DC meeting for PhD candidate at Department of EEE, Dr. M.G.R. Educational and Research Institute, Chennai as DC member on 11.02.2021 through online.

11. Dr. R. Ramaprabha, ASSP/EEE attended the Department Advisory Board of Department of EEE, Sri Sairam Engineering College as a member of DAB on 16.02.2021.

12. Dr. N.B. Muthuselvan and Dr. V. Thiyagarajan attended the Annual General Meeting of the IEEE Madras Section on 20.02 .2021.

13. Dr.M.Balaji ASSP/EEE delivered an online lecture titled" Trends in Fault Diagnosis of Electrical Machines" in ISTE Sponsored 5days online Faculty Development Programme on "Power Electronics in Electrical Vehicles and Renewable Energy organized by Sanjay Ghodawat University, Kolhapur , Maharashtra. on 25.02.2021.

External Recognition

14. Dr.R.Seyezhai, ASSP/EEE acted as an Expert member for the faculty recruitment of EEE and ECE departments at Loyola ICAEM Engineering college , Chennai on 24.02.2021.

15. Dr.M.Balaji ASSP/EEE delivered an online lecture titled" Recent Trends in Fault Diagnosis of Electrical Drives" in on AICTE sponsored STTP on "Electric Mobility : Development, Integration and Design Challenges"organised by Jerusalem College of Engineering on 24.03.2021.

16. Dr. V Rajini attended the BOS meeting at AMET University on 17.3.2021.

Research Activity

1. M. Vijayalakshmi and Dr. R. Ramaprabha, " Stress Analysis of the Cast Iron Flywheel in a PV Based Energy Storage System", Interciencia Journal (ISSN: 0378-1844), Vol. 45, No. 12, pp. 82-90, Dec 2020 indexed in Scopus & Web of Science (Thomson Reuters). – Published in January 2021.

2. Dr. R. Ramaprabha and Dr. S. Malathy, " Dichotomous Search Based Algorithm for Tracking Global Peak in Partial Shaded Photovoltaic Array ", Revue Roumaine Des Sciences Techniques– Serie Electrotechnique et Energetique (ISSN / eISSN:0035-4066), Vol. 65, 3-4, pp. 211-215, Bucarest, Dec 2020 Indexed in Scopus & Web of Science (Thomson Reuters) and Inspec - The IET for indexing) -. IF -0.255 - – Published in Jan 13,2021.

Research Activity

3. Jeyapradha, Dr. V.Rajini, Vikram A S," High Power Density Laboratory Prototype of Single Phase Solid State Transformer", Journal of Control, Automation and Electrical Systems., springer publications, Brazilian Society for Automatics, https://doi.org/10.1007/s40313-020-00673-x, SJR impact factor 1.3

4. Dr. V. Thiyagarajan, ASSP/EEE, " Simulation analysis of 51-level inverter topology with reduced switch count", Materials Today: Proceedings, ISSN: 2214-7853, vol. 33, no. 7, pp. 3870–3876, 2020. (Scopus Indexed, Impact Factor: 0.596).

5. Dr. V. Thiyagarajan, ASSP/EEE, " Modified symmetrical inverter topology and switching pulse generation using logic gates", Materials Today: Proceedings, ISSN: 2214-7853, vol. 33, no. 7, pp. 3864–3869, 2020. (Scopus Indexed, Impact Factor: 0.596).

6. Dr. V. Thiyagarajan, ASSP/EEE, “Switched Staircase-Type Multilevel Inverter Structure with Reduced Number of Switches”, Lecture Notes in Mechanical Engineering, ISSN: 2195-4356, pp 557-567, 2021. (Scopus Indexed, Impact Factor: 0.37).

7. Sriram Shreedharan, Vignesh Ravikumar & Dr. Senthil Kumaran Mahadevan ASSP/ EEE published a paper titled “Design and control of real-time inverted pendulum system with force-voltage parameter correlation”, International Journal of Dynamics and Control- Springer , https://doi.org/10.1007/s40435-020-00753-5, Feb 2021 – Scopus Indexed – Impact factor 1.5.

8. Fantin Irudaya Raj, E., Dr. Balaji, M ASSP/EEE "Analysis and Classification of Faults in Switched Reluctance Motors Using Deep Learning Neural Networks". Arabian Journal of Science and Engineering Vol.46, pp.1313–1332,Feb 2021 (SCIE Indexed) JCR impact factor (2019): 1.711

Research Activity

9. Dr.R.Seyezhai, ASSP/EEE and R.Niarimathi (Part-time scholar) published a paper titled, “Realization And Control Of Multilevel Inverter With Gsa Tuned Pi Controller” in the Dynamic Systems and Applications 30 (2021) No.4, 645- 665, 2021. (Indexed in Clariviate analytics, impact factor:0.3562).

10. Dr. S.Tamilselvi (Associate Prof/EEE), C.Sonia, C.Visvesvaran, published a paper titled "Improved performance of grid-connected converters using PCB- embedded transformer", online, Materials Today Proceedings, Elsevier, ISSN: 2214-7853 Impact Factor: 0.97.https://doi.org/10.1016/j.matpr.2021.02.333.

11. Dr.R.Seyezhai, ASSP/EEE and Dr.D.Umarani, ASSP/EEE published a paper titled, “Simulation and Realization of Rectified Inverted Sine Hybrid Pulse Width Modulation Strategy for Quasi-Impedance Source Cascaded Multilevel Inverter” Select Proceedings of i-CASIC 2020, Advances in Automation, Signal Processing, Instrumentation, and Control, Lecture Notes in Electrical Engineering, 2021.(SJR Factor:0.34).

Conference Activity

1. Dr.R.Seyezhai, ASSP/EEE & Ms.S.Devi (Full-time Research scholar), presented a paper titled, “ Impedance Source Inverter Topologies for Photovoltaic Applications- A Review”, in the AICTE sponsored International E-Conference on Smart Technologies in Electric Vehicles and Power Grid:STEP-2021 organized by Sri Venkateswara College of Engineering, Sriperumbudur on 29.01.2021.

Conference Activity

2. Dr. R. Ramaprabha, ASSP/EEE, V. Aadhavan, K. Arun and, V. Arun (UG students, 2020 passed out), “Implementation of 15 Level Cascaded H-H-T Multilevel Inverter” 7th International Conference on Electrical Energy Systems – 2021 (ICEES2021) during Feb 11-13, 2021, Department of EEE, SSN College of Engineering. –Presented by Dr. R. Ramaprabha on Feb 13, 2021.

3. Dr.R.Seyezhai and Dr.D.Umarani presented the paper titled “Thermographic Analysis of Photovoltaic Quasi ZSource Multilevel Inverter” at the International Conference on Smart Technologies in Electric Vehicles and Power Grid organized by Sri Venkateshwara College of Engineering on 27-29th January 2021. This paper received the BEST PAPER AWARD.

4. Dr.R.Seyezhai, Dr.D.Umarani and Ms.E.Maheswari presented the paper titled “Design of Regulator Circuit for Medical Equipments Using Power Electronics Converter” at the International Conference on Electrical Energy Systems organized by Sri Sivasubramaniya Nadar College of Engineering on 11-13th February 2021.

5. Vivek P and Dr. Muthuselvan N B presented a paper titled, “Investigation on Photovoltaic System Based Asymmetrical Multilevel Inverter for Harmonic Mitigation”, at the 7th International Conference on Electrical Energy Systems, conducted by Dept of EEE, SSNCE on 12-02-2021.

6. Sriharan Sathish and Dr. N. B. Muthuselvan presented a paper titled, “A Functionally Reconstructed and Refined Power Flow Algorithm For Facts Devices”, at the 7th International Conference on Electrical Energy Systems, conducted by Dept of EEE, SSNCE on 12-02-2021.

Conference Activity

7. Dr. V. Thiyagarajan, ASSP/EEE, presented a paper "Mathematical Modeling and Simulation Analysis of Isolated Hybrid AC/DC Microgrids", at the 7th International Conference on Electrical Energy Systems (ICEES -2021), organized by Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam during 11.02.2021 -13.02.2021.

8. R. Tamizh Selvan, Research Scholar/EEE, Dr. V. Thiyagarajan, ASSP/EEE and M. S. Vivek, Research Scholar/ Chemical, " Optimal Design and Analysis of Fuel Cells for Low Power Applications", in the 7th International Conference on Electrical Energy Systems (ICEES -2021), organized by Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam during 11.02.2021 -13.02.2021.

9. Dr. R.Seyezhai, ASSP/EEE & A.Indumathi (Passed out PG Students), presented a paper titled, “Examination Of High Gain Interleaved Boost DC-DC Converter For Auxiliary Power Supply Systems” in the IEEE Sponsored International Conference on Electrical Energy Systems ICEES -2021 organized by the department of EEE, SSN College of Engineering, Kalavakkam on 13.02.2021.

10. Dr. R.Seyezhai, ASSP/EEE & A.Indumathi (Passed out PG Students), presented a paper titled, “Investigation Of Single Stage Pfc Integrated Ripple Free Led Driver Without Electrolytic Capacitor” in the IEEE sponsored International Conference on Electrical Energy Systems ICEES -2021 on 13.02.2021.

11. Dr. R.Seyezhai, ASSP/EEE & Dr. A. Bharathi Sankar (AP/VIT/SENSE) presented a paper titled, “ENERGY HARVESTING FOR SELF-POWERED WEARABLE DEVICE APPLICATIONS”, in The 2nd International Conference on Microelectronic Devices, Circuits and Systems (ICMDCS 2021) held at the Vellore Institute of Technology (VIT), Vellore India from 11th to 13th February 2021.

Conference Activity

12. Dr. Saravanan P, Dr. Anbuselvi M, “PSO-GRNN based optimal design of switched reluctance motor for electric vehicle”, presented in ICEES-2021, International conference at Dept. of EEE, SSNCE.

13. Dr. Saravanan P, Dr. Anbuselvi M, “Design of an adaptive fuzzy logic speed controller for SRM drive”, presented in ICEES-2021, International conference at Dept. of EEE, SSNCE.

14. Dr. S.Tamilselvi (Associate Prof/EEE), N. Karuppiah, J. Shanmugapriyan, presented a paper titled "PIC controlled hardware model realization for frequency regulation in power plants", IEEE sponsored '3rd International Conference on Intelligent Communication Technologies and Virtual Mobile Networks (ICICV 2021)' held during February 4 – 6, 2021 at Francis Xavier Engineering College, Tirunelveli. IEEE XPLORE ISBN: 978-0-7381-1183-4.

15. Dr.R. Seyezhai, ASSP/EEE & Dr. M.Tamilarasi (passed out full-time research scholar) presented a paper titled, ““Implementation of Chaotic PWM method for Four phase Interleaved Boost Converter” in the International Conference on Advances in Smart Sensor, Signal Processing and Communication Technology (ICASSCT 2021) organized by the Department of Electronics, Goa University, Goa, India during 19 - 20, March 2021.

16. Dr.R.Seyezhai, ASSP/EEE, S.Harika (full-time research scholar) R.Ramya, R.Swetha & Shanmughapriya (IV Year EEE B) presented a paper titled, “Simulation of AC-DC Bridgeless PFC Buck-Boost Single Phase On-Board Charger For Plug-In Converter for PHEV Electric Vehicles”, Virtual International conference on Power Initiatives -ICPI-2021 organized by K.Ramakrishnan College of Engineering, Tiruchirappalli during March 29-30,2021.

Project News

1. Dr.R.Seyezhai, ASSP/EEE & Dr.D.Umarani, ASSP/EEE submitted a project proposal worth Rs.30 Lakhs to DST-SERB Power scheme on 11.01.2021.

2. Dr.R.Seyezhai, ASSP/EEE & Dr.S.Sureshkumar, ASSP/EEE submitted the proposal for AICTE IDEA LAB under the guidance of Dr.V.E.Annamalai, Principal/SSNCE as Chief mentor for the IDEA Lab for Rs.110 Lakhs on 21.01.2021.

3. Dr.V.Rajini presented the margadarshan proposal on 14-1-2021 before AICTE

4. Dr. B. Chitra ASSP/Chem (PI) and Dr. G. R. Venkatakrishnan ASSP/EEE (Co-PI), applied a project titled " Transformer oil based Graphene and MWCNT hybrid nanofluids for high performance Insulation applications" in the SERB - POWER Scheme on 02.01.2021.

5. Dr. S. TamilSelvi ASSP/EEE (PI) and Dr. R. Rengaraj ASSP/EEE (Co-PI), applied a project titled " Implementation of Thermal Image Processing Based Robust Fault Detection and Diagnostic Tool for Solar PV Firm using Enhanced Machine Learning" in the SERB - POWER Scheme on 02.01.2021.

6. The project proposal titled “Implementation of Embedded Z-Source Multilevel Inverter for Grid-tied Photovoltaic Applications” budgeted Rs. 72.04 Lakhs was applied by Dr. R. Ramaprabha, ASSP/EEE as PI and Dr. M. Balaji, ASSP/EEE as Co-PI to Department of Science & Technology (DST) under Core Research Grant (CRG) on 08/03/2021

Project News

7. The project proposal titled “Design and Development of Three-Wheeler Light Electric Vehicle Drive with Hybrid Energy Sources” budgeted Rs. 31.82 Lakhs was applied by Dr. M. Balaji, ASSP/EEE as PI and Dr. R. Ramaprabha, ASSP/EEE as Co-PI to Council of Scientific and Industrial Research (CSIR) on 24/03/2021.

8. The project proposal titled, “ Design and development of transparent counter electrodes and quasi solid-state polymer electrolytes for bifacial dye-sensitized Solar Cells “, budget 43 lakhs was applied by Dr Mrunal Deshpande as PI, Dr Govindaraj Research Scientist SSNCE (CO-PI) and Dr Abhijit Deshpande, Professor, IITM (CO-PI) to Department of Science & Technology (DST) under Core Research Grant (CRG) on 08/03/2021.

9. Dr. R Leo ASSP/EEE (PI) was sanctioned 2.5 lakhs for a project titled “IoT and machine learning-based building energy management” funded by SSN Trust during 2020-2022.

10. Dr. R. Ramaprabha, ASSP/EEE successfully completed the internally funded project (Design, control and implementation of embedded switched inductor based Z-source inverter with high boost factor for photovoltaic interface worth about 2.2 Lakhs during Jan 2019 to Jan 2021) and presented the outcomes in the project progress review meeting conducted on March 03, 2021, at SSNRC.

Scholar Related

1. Ms.S.Vijayalakshmi, full time research scholar of Dr.R.Deepalaxmi, Asso.Prof/EEE delivered a research seminar titled “ Investigations on effect of fillers and radiation in polymeric insulating material blends” on 04/01/2021 in the Department of EEE, SSN College of Engineering, Chennai.

Scholar Related

2. Dr.R.Deepalaxmi, (Asso.Prof/EEE) conducted the synopsis meeting of her full-time research scholar Ms.S.Vijayalakshmi on 08/01/2021 in the Department of EEE, SSN College of Engineering, Chennai.

3. Dr. R. Ramaprabha, ASSP/EEE conducted a Synopsis meeting for Ms. M. Vijayalakshmi, PT-RS/EEE on Jan 05, 2021.

4. Ms. M. Vijayalakshmi, PT-RS/EEE of Dr. R. Ramaprabha, ASSP/EEE submitted the PhD thesis on Jan 12, 2021.

5. Ms. SP. Chitra, FT-RS/EEE of Dr. R. Ramaprabha, ASSP/EEE presented a research seminar on 31/12/2020.

6. Dr.R.Seyezhai, ASSP/EEE attended the DC Meeting for the part-time scholar Mr.Taha at Satyabhama University, Chennai on 06.01.2021.

7. Dr.R.Seyezhai, ASSP/EEE attended the DC Meeting for the full-time scholar at VIT University, Chennai on 29.01.2021.

8. Dr.R.Seyezhai, ASSP/EEE attended the DC Synopsis Meeting for the part-time scholar at SSN College of Engineering.

9. Dr.R.Seyezhai, ASSP/EEE Part-time scholar Ms.M.Shanthi, submitted her PhD thesis on 02.01.2021.

10. Dr.R.Seyezhai,ASSP/EEE conducted the extension meeting for the PhD scholar Ms.R.Sasikala on 27.01.2021 at Sathyabama University, Chennai.

11. Dr. V. Thiyagarajan, ASSP/EEE, has conducted the first DC meeting for his scholar Mr. R. Tamizh Selvan on 25/01/2021.

Scholar Related

12. Ms. S.Vijayalakshmi, a full-time research scholar of Dr.R.Deepalaxmi, Asso.Prof/EEE had received her Senior Research fellowship for the period of one year from 19-02-2021.

13. Dr. R. Ramaprabha, ASSP/EEE has conducted a DC meeting for her Full-time candidate Ms. Shanmughavadivu on 23.02.2021 to finalize the expert panel.

14. Dr. V. Thiyagarajan, ASSP/EEE, has attended the DC meeting of PhD Scholar 'Arya Venugopal', conducted by Dr. R. Femi, Supervisor, SRM Institute of Science and Technology, Kattankulathur on 29/01/2021.

15. Dr.R.Seyezhai,ASSP/EEE attended the Comprehensive DC meeting for the PhD scholar Ms.Payal on 10.02.2021 at SRM University, Kattankulathur.

16. Dr. R. Ramaprabha, ASSP/EEE has a Viva-Voce examination for her Full-time candidate Ms. Shanmughavadivu on 19.03.2021.

17. Dr.S.Tamilselvi (ASP) DC member attended a virtual confirmation DC meeting of Mr.S.Dhananjeyan (Reg No. 21133991134) held on 05.02.2021 through Google Meet.

18. Dr.R.Seyezhai,ASSP/EEE attended the Synopsis DC meeting for the PhD scholar Mr. Pradeep on 10.03.2021 at VIT University, Chennai.

19. Dr.R.Seyezhai, ASSP/EEE attended the DC extension meeting for the scholar Mr.Thaha at Satyabhama University, Chennai on 25.03.2021.

Scholar Related

20. Ms.R.Niraimathi, a part-time scholar under the guidance of Dr.R.Seyezhai, ASSP/EEE submitted her PhD thesis on 20.03.2021.

21. Dr. V.Rajini attended the Pre viva meeting of Shanthi Saravana on 9-3-2021 at Easwari Engg college through online mode

FDP/WS/Webinars Attended

1. Dr. U.Shajith Ali, attended AICTE Training And Learning (ATAL) Academy Online FDP on "Electric Vehicles" from 4-1-2021 to 8-1-2021 at KS Rangasamy College of Technology.

2. Dr. V. Thiyagarajan, ASSP/EEE, has participated in the TEQIP-III Sponsored Five Days FDP on “Recent Innovations & Technologies in Electrical Engineering” organized by the Department of Electrical Engineering, Engineering College, Jhalawar from 04/01/2021 – 08/01/2021.

3. Dr. U.Shajith Ali, attended AICTE Training And Learning (ATAL) Academy Online FDP on Energy Storage from 1-2-2021 to 5-2-2021 at Gandhi Institute of Technology and Management.

4. Dr. R. Ramaprabha, ASSP/EEE attended a webinar titled “Process of Innovation Development” conducted by IIC3.0 (Institution’s Innovation Council), SSNCE on Jan 04, 2021.

5. Dr.Mrunal Deshpande, ASSP/EEE attended a webinar titled “Process of Innovation Development” conducted by IIC3.0 (Institution’s Innovation Council), SSNCE on Jan 04, 2021..

FDP/WS/Webinars Attended

6. Dr.R.Seyezhai, ASSP/EEE attended the orientation session for the AICTE-IDEA Lab on 06.01.2021.

7. Dr.R.Seyezhai, ASSP/EEE has been selected as Evaluator for TOYCATHON on 15.01.2021.

8. Dr.R.Seyezhai, ASSP/EEE attended the evaluator training session for the Toycathon 2021 as an evaluator organized by MHRD during 18.01.2021-19.01.2021.

9. Dr.R.Seyezhai, ASSP/EEE, Dr.S.Sureshkumar, ASSP/Mechanical and Dr.M.Balaji,ASSP/EEE conducted the second council meeting for the IIC initiated at SSN Institutions along with the activity coordinators and members of IIC on 09.01.2021 and Mr. Sadagopan Krishnan, Sr. Vice-President [Engine Development,Ashok Leyland] as an external member.

10. Dr.R.Seyezhai, ASSP/EEE attended the alumni meet- TRIBUTE-2021 on 02.01.2021.

11. Dr. V. Thiyagarajan, ASSP/EEE, has attended the webinar titled “Process of Innovation Development” organized by Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam on 04/01/2021.

12. Dr. V. Thiyagarajan, ASSP/EEE, has attended the webinar titled “Insights to National Innovation & Start-up Policy 2020” organized by Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam on 06/01/2021.

13. Dr. R. Ramaprabha, ASSP/EEE attended a webinar titled “Demystifying PSO in NBA Perspective” conducted by IIC3.0 (Institution’s Innovation Council), SSNCE on Jan 30, 2021.

FDP/WS/Webinars Attended

14. Dr. V. Thiyagarajan, ASSP/EEE, has attended the workshop titled “Mathematical Modelling and its application to Electrical Engineering” organized by Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam from 18/02/2021 - 19/02/2021.

15. Dr. V. Thiyagarajan, ASSP/EEE, has attended the workshop titled “Emerging Research Trends on Battery and Electric Vehicle Technology” organized by Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam from 25/02/2021 - 26/02/2021.

16. Dr. M. Balaji, Associate Professor attended Workshop on Mathematical Modelling and its application to Electrical Engineering organized by Department of EEE,Sri Sivasubramaniya Nadar College of Engineering on 18th & 19th February 2021.

17. Dr.R.Seyezhai, ASSP/EEE attended the webinar on “National level e-content development and online assessment tools on 05.02.2021.

18. Dr. R.Seyezhai, ASSP/EEE attended the workshop on, “Mathematical Modelling and its application to Electrical Engineering”, organized by the Department of EEE, SSNCE on 18.2.2021- 19.02.2021.

19. Dr. R.Seyezhai, ASSP/EEE attended the training program regarding the ARIIA-2021 ranking organized by MHRD on 09.02.2021.

20. Dr.R.Seyezhai, ASSP/EEE attended the meeting regarding the selection of a vendor for patents in SSNCE on 19.02.2021.

21. Dr. V. Thiyagarajan, ASSP/EEE, has attended the National Level Seminar Series on "Green Technology & Sustainability in Power System Engineering" organized by Sathyabama Institute of Science and Technology, Chennai from 15/03/2021 - 19/03/2021.

FDP/WS/Webinars Attended

22. Dr Mrunal Deshpande participated in the Two Day Virtual Faculty Development Programme on “Emerging Research Trends on Battery and Electric vehicle Technology ”, held on 25 and 26, February 2021, conducted by the Department of Electrical and Electronics Engineering, SSN College of Engineering, Kalavakkam – 603 110.

23. Dr Mrunal Deshpande attended the workshop on “Design of Inverters and Battery Pack for Electric Vehicle Applications ”, held on 4 and 5, March 2021, conducted by the Department of Electrical and Electronics Engineering, SSN College of Engineering, Kalavakkam – 603 110.

24. Dr. R.Seyezhai, ASSP/EEE attended the orientation session regarding the ARIIA-2021 ranking organized by MHRD on 18.03.2021.

25. Dr. R.Seyezhai, ASSP/EEE attended the meeting regarding the progress of the Student innovative project team TechEEE1 organized by AICTE on 18.03.2021.

26. Dr. P. Saravanan attended the Two Day Virtual Workshop on “Design of Inverters and Battery Pack for Electric Vehicle Applications”, held on 4 and 5, March 2021, conducted by the Department of Electrical and Electronics Engineering, SSN College of Engineering, Kalavakkam.

27. Dr. P. Saravanan attended a One Day National Level Online Workshop on "Structural, Thermal Dynamic Analysis using Abaqus Software”, 13 March 2021, conducted by the Department of Mechanical Engineering, SSN college of engineering.

Events Conducted

1. Dr. R.Seyezhai,ASSP/EEE, Dr.S.Sureshkumar, ASSP/Mech and Dr.M.Balaji, ASSP/EEE conducted the webinar on the Process of Innovation Development under IIC 3.0 and the lecture was delivered by Dr.V.E.Annamalai, Principal, SSNCE on 04.01.2021.

2. Dr. R.Seyezhai, ASSP/EEE, Dr.S.Sureshkumar, ASSP/Mech and Dr.M.Balaji, ASSP/EEE conducted the webinar on National Educational Policy –NEP 2020 under IIC 3.0 and the lecture was delivered by Dr.N.Bhalaji, ASSP/IT, SSNCE on 05.01.2021.

3. Dr. R.Seyezhai,ASSP/EEE, Dr.S.Sureshkumar, ASSP/Mech and Dr.M.Balaji, ASSP/EEE conducted the webinar on National Innovation and Start-up Policy -NISP –NEP 2020 under IIC 3.0 and the lecture was delivered by Dr.V.Mahesh, ASSP/BME, SSNCE on 06.01.2021.

4. Dr.R.Seyezhai,ASSP/EEE,Dr.S.Sureshkumar, ASSP/Mech conducted the webinar on Framing PSOs for NBA under IIC 3.0 self-driven activity and the lecture was delivered by Dr.N.Bhalaji, ASSP/IT, SSNCE on 30.01.2021.

5. Dr.V.Rajini, Convenor, Dr. K. Usha, Dr. Krishnaveni and Dr. Alagu Dheeraj organised a workshop titled," Battery and EV Technology" on 25, 26-2-2021.

6. Dr. N.B. Muthuselvan, Dr. V. Thiyagarajan and Dr. M. Devesh Raj, conducted 7th International Conference on Electrical Energy System in association with Renewable Energy Laboratory, Prince Sultan University, Saudi Arabia, Technically co-sponsored by IEEE Madras section, during 11 – 13 February, 2021.

Events Conducted

7. SSN-IIC3.0 in association with ISTE-SSN Chapter conducted a Seminar on "**Innovation and Entrepreneurship**" on March 01, 2021 through online.

Event Coordinators:
Dr. V. Kamaraj (Prof. & Head/EEE),
Dr. R. Seyezhai (ASSP/EEE),
Dr. R. Ramaprabha (ASSP/EEE) and
Dr. M. Balaji (ASSP/EEE).

Number of Participants: 38
Speaker: Dr. Prahlad Vadakkepat, NUS, Singapore.

8. Dr.V.Rajini ,Convenor ,Dr. K. Usha ,Dr. Krishnaveni and Dr. Alagu Dheeraj organised a workshop titled, "Design of Inverters and Battery Pack for Electric Vehicle Applications" on 4- 3-2021 and 5-3-2021.

9. Dr. R. Seyezhai, ASSP/EEE, Dr. S.Sureshkumar, ASSP/Mech, Dr. D.Umarani, ASSP/EEE and Dr. M.Balaji, ASSP/EEE organized a webinar on , "Innovation Mandate for Product Development" under SSN -IIC3.0 on 03.03.2021. The speaker for the event was Mr. Duraisamy Rajan Palani, Vice President, Product Management, Deloitte.

10. Dr. R.Seyezhai, ASSP/EEE, Dr. S.Sureshkumar, ASSP/Mechanical organized a webinar on, "Recent Trends in World of Patents" under SSN-IIC3.0 on 27.03.2021.

Events Conducted

Virtual 7th International Conference on Electrical Energy Systems (ICEES – 2021)

Date of The Event: 11-13 February 2021.

Chief Guest:

Dr. Ned Mohan, Fellow IEEE and Regents Professor Department of Electrical and Computer Engineering, University of Minnesota, USA.

Guest(s) of Honor:

Dr. Umashankar Subramaniam, Associate Professor, Renewable Energy Lab, Prince Sultan University, Saudi Arabia,
Dr. N. Kumarappan, Professor, Annamalai University and Chairman, IEEE Madras Section.

Keynote Speaker Details:

·**1. Dr. Ned Mohan,** Fellow IEEE and Regents Professor Department of Electrical and Computer Engineering, University of Minnesota, USA,
2. Dr. Umashankar Subramaniam, Associate Professor, Renewable Energy Lab, Prince Sultan University, Saudi Arabia,
3. Dr. Jahangir Hossain, Associate Professor, University of Technology - Sydney, Australia,
4. Dr. Mohsen Sheikholeslami, Department of Mechanical Engineering, Babol Noshirvani University of Technology, Iran.

Target Audience:

Research Scholar, Faculty Members and Industrial Person.

Attendance: 300 participants.

Events Conducted

Brief Description:

The 7th Virtual International Conference on Electrical Energy Systems (ICEES – 2021) was conducted by the Department of Electrical and Electronics Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai,in association with Renewable Energy Laboratory, Prince Sultan University, Saudi Arabia and technically co-sponsored by IEEE Madras Section. Dr. V. Kamaraj, Prof and Head, Department of EEE, SSNCE and Dr. Umashankar Subramaniam, Associate Professor, Prince Sultan University were the Chair and Co-chair for the conference respectively. Dr. N.B Muthu Selvan, Dr. V. Thiyagarajan and Dr. M. Devesh Raj, Associate Professors from the Department of EEE were the conveners for ICEES-2021.

Paper Submission & Selection Details:

Number of submitted papers: 360
Number of accepted papers: 150
·Number of registered papers: 134

Paper Presentation Sessions:

134 papers were presented in 14 sessions spread over three days. In each session, a maximum of 10 research papers were presented by the authors. The session chairs were subject experts from reputed Government Educational Institution and leading private institution.

Pictures from Inaugral Session:

Events Conducted

12. Department of EEE in association with the Department of Mathematics conducted Two day National Workshop on **"Mathematical Modelling and its Applications to Electrical Engineering"** during Feb 18-19, 2021.

Convener: Dr. V. Kamaraj (Prof. & Head/EEE)
Coordinators: Dr. R. Ramaprabha, Dr. M. Pandikumar (ASSPs/EEE) & Dr. R. Sundareswaran (AP/Maths)
Number of Registered Participants: 72
Speakers:
Day 1 – Session 1: "Modelling of Electrical Machines" by Dr. K. Subramanian, Senior Associate Professor, Department of EEE, VIT-Vellore.
Day 1 – Session 2: "Mathematics Behind EEE" by Dr. M. Yamuna, Senior Associate Professor, Department of Maths, VIT-Vellore.
Day 2 – Session 3: "Power Quality Enhancement in Solar PV Distributed Generation System" by Dr. P. Selvam, Assistant Professor (RD), Department of EEE, GCE, Coimbatore.
Day 2 – Session 4: "Mathematical Modeling of Electro-Mechanical Systems" by Dr. P. Raja, Associate Professor, Department of EEE, NIT, Trichy.
The workshop was well-received by the participants.

Alumni Interaction

1. Dr. G.R.Venkatakrishnan (ASSP/EEE) has interacted with alumni by conducting TRIBUTE - 2021 on 2nd January 2021.

2. Dr. K. Murugesan started the online weekend placement training for 3rd-year rural scholarship students on 21-03-2021 with help of our following alumni:

(i) Mr. Sivanesan C - Caterpillar INC.
(ii) Ms. venkadeshwari E - Temenos
(iii) Ms. Pachaiyammal R - Bank of America
(iv) Ms. Sornanithya T - Kornon Technologies

Other Events

1. Dr. S. Krishnaveni reviewed a paper for “Advances in Science, Technology and Engineering Systems Journal”- Special Issue on Multidisciplinary Sciences and Engineering 2020-21.

2. Dr. R. Ramaprabha, ASSP/EEE reviewed the following papers: 1 paper for the International Journal of Electrical Power and Energy Systems; 1 paper for IETE Journal of Research;1 paper for IEEE International conference (ICEES2021, SSNCE).

3. Dr. R. Ramaprabha, ASSP/EEE completed NPTEL Online Certification Course on “Design of Photovoltaic Systems” during Sep-Dec 2020 (NPTEL-AICTE FDP – 12 weeks – 1½ FDP) –Funded by Ministry of HRD, Government of India – Results declared in Jan 2021.

Other Events

4. Dr. R. Ramaprabha, ASSP/EEE completed NPTEL online Certification Course on “DC Microgrid and Control Systems” during Sep – Nov 2020 (NPTEL-AICTE FDP – 8 weeks – 1 FDP) –Funded by Ministry of HRD, Government of India - Results declared in Jan 2021.

5. Dr. R. Ramaprabha, ASSP/EEE convened an online orientation program for I Year M.E. Power Electronics & Drives as a Multiple Course Class Committee Chairman on Jan 11, 2021.

6. Dr. R. Ramaprabha, ASSP/EEE attended a virtual meeting conducted by HoD/EEE to discuss on revising the curriculum, as per the requirement (credit -160) raised by the Principal on Jan 13, 2021.

7. Dr. R. Ramaprabha, ASSP/EEE met Dr. Ganesh Samudra (Visiting faculty, EEE/SSNCE) through MsTeams on Jan 18, 2021 to discuss the sequencing of lectures, coordination and logistics for the course UEE1405.

8. Dr. R. Ramaprabha, ASSP/EEE acted as Judge for the paper presentation event in Student’s technical symposium “Invente 4.0” on 23.01.2021. She was also in-charge for the event.

9. Dr.R.Seyezhai, ASSP/EEE evaluated the ideas submitted for TOYACATHON on 30.01.2021.

10. Dr.R.Seyezhai, ASSP/EEE and Dr.R.Ramaprabha, ASSP/EEE acted as judge for the paper presentation event for the INVENTE on 23.01.2021.

Other Events

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Other Events

11. Dr.R.Seyezhai, ASSP/EEE attended the NBA meeting as domain co-ordinator for Power Electronics for finalizing the courses related to professional elective and open elective on 25.01.2021.

12. Dr. V. Thiyagarajan, ASSP/EEE, has successfully completed the NPTEL course titled “Control Engineering”.

13. K Murugesan ASSP/EEE Chaired a session in 7th International Conference on Electrical Energy Systems- ICEES 2021 at Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam, Chennai on 12th Feb 2021.

14. Dr.K Murugesan ASSP/EEE and Dr Senthil Kumaran M, ASSP/EEE Sri Sivasubramaniya Nadar College of Engineering autonomous Syllabus is framed for following Engineering Fundamental and Practices subjects:

1. Digital logic System design
2. OOPs and Data structures for Electrical Engineers
3. Microprocessors and Modern Microcontrollers
4. OOPs and Data structures lab for Electrical Engineers

15. Dr Senthil Kumaran M Chaired a session in 7th International Conference on Electrical Energy Systems- ICEES 2021 at Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam, Chennai on 12th Feb 2021.

16. Dr.R.Deepalaxmi, Asso.Prof/EEE, has chaired a session in the 7 th International Conference on Electrical Energy Systems ,ICEES 2021 organized by Department of EEE, SSNCE on 12-02-2021.

17. Dr. R. Ramaprabha, ASSP/EEE had discussion with her internal funded project students batches (UG II Year – 2 batches) regarding the progress in their work on Feb 01,2021 through online meeting.

Other Events

18. Dr. R. Ramaprabha, ASSP/EEE chaired a technical session on 12.02.2021 in 7th International Conference on Electrical Energy Systems – 2021 (ICEES2021) conducted by, Department of EEE, SSN College of Engineering during Feb 11-13, 2021.

18. Dr. R. Ramaprabha, Asso.Prof./EEE submitted the Electronics group course proposals for Autonomous regulations 2021 prepared by Dr. R. Ramaprabha, Dr. P. Saravanan and Dr. S. Krishnaveni as discussed in syllabus subcommittee meeting.

19. Dr.V.Rajini and Dr.K.S. Vijay sekar submitted the NIRF data for NIRF 21 rankings.

20. Dr. V. Thiyagarajan, ASSP/EEE has reviewed the papers submitted for the 6th International Conference on Wireless Communications Signal Processing and Networking (Wispnet 2021) organizing by Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam from 25/03/2021 - 27/03/2021.

21. Dr. V. Thiyagarajan, ASSP/EEE has been appointed as a Program Committee member in the International Conference on Computer Engineering and Artificial Intelligence (ICCEAI 2021) organized in Shanghai, China, from 27/08/2021 - 29/08/2021.

22. Dr.R.Seyezhai, ASSP/EEE acted as Chair Person in the International Conference on Electrical Energy Systems ICEES -2021 on 11.02.2021.

23. Dr.R.Seyezhai, ASSP/EEE nominated as technical Program co-chair for the IEEE MASCON 2021 will be held at Chennai, Tamil Nadu, India during 27 – 28, August 2021.

Other Events

24. Dr.R.Seyezhai, ASSP/EEE submitted the activity report for the IEEE-Power Electronics Society, Madras Section on 01.02.2021.

25. Dr.R. Seyezhai, ASSP/EEE and Dr.S. Sureshkumar/ASSP/ Mechanical submitted the report of the activities conducted for Semester-1 under IIC3.0 in the portal on 10.02.2021.

26. Dr Mrunal Deshpande, ASSP/EEE acted as Chair Person in the International Conference on Electrical Energy Systems ICEES -2021 on 12.02.2021.

27. Dr.R.Seyezhai, ASSP/EEE Dr M Balaji ASSP/EEE and Dr Mrunal Deshpande, ASSP/EEE conducted a third project review for innovation centre projects of EEE Department students on 6.2.2021.

28. Dr Saravanan P acted as Chair Person in the International Conference on Electrical Energy Systems ICEES -2021.

29. Dr. K. Murugesan coordinated the 125th book review function of the SAARAL Tamil club of SSNCE and gave Felicitation address on 12-03-2021.

30. Dr. K. Murugesan started the online weekend placement training for 3rd-year students admitted under the rural scholarship scheme on 21-03-2021.

31. Dr. K. Murugesan coordinated and judged the online Tamil oratory Competition to select a student for awarding Srimati Vinaya Mani -Scholarship 2020-21 on 22-03-2021.

32. Dr. V. Thiyagarajan, ASSP/EEE has reviewed the papers submitted for the Journal titled "ECS Journal of Solid-State Science and Technology".

Other Events

33. Dr. V. Thiyagarajan, ASSP/EEE has been appointed as a review committee member for the 4th International Conference on Computing and Communications Technologies (ICCCT-2021) organized by Sri Sai Ram Engineering College, Chennai from 16/12/2021 - 17/12/2021.

34. Dr.R. Seyezhai, ASSP/EEE and Dr.S. Sureshkumar/ASSP / Mechanical submitted the report of two activities after review by IIC evaluation team conducted for Semester-1 under IIC3.0 in the portal on 16.03.2021.

35. Dr. R.Seyezhai, ASSP/EEE and Dr.S. Suresh Kumar/ASSP/ Mechanical submitted the entire report of ARIIA in the MHRD website on 19.03.2021.

Student Achievements

1. Jaysharan S and Soorya S of 3rd year won the prestigious Light Music Band event - Taarang hosted by Saarang, IITM's Annual Cultural Fest which had various bands participating from different parts of the Nation.

2. Swetha A of 3rd year was one among the top 10 finalists in the Western Vocal Competition hosted by Saarang, IITM's Annual Cultural Fest.

3. Anirudh Sethuraman of 2nd year was placed 3rd in the Instrumental Competiton hosted by Saarang, IITM's Cultural Fest.

Let us hear from the Finalists!

Caterpillar IDP challenge is a tech competition organised by Caterpillar through Shaastra, the Annual tech event of IIT Madras. It was a team event and our team " The AMA capacitors" consisting of Adhitya R, Madhusudan S, Pa Harikrishna Achuthan took part in it. Dr M Balaji, Associate Professor, SSNCE mentored us for the competition.

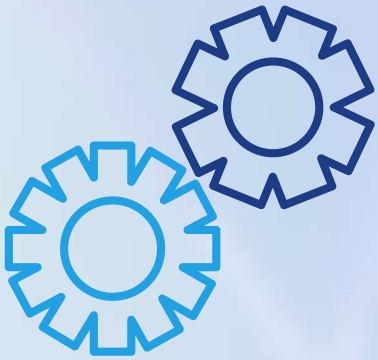
There were 2 problem statements,
I) To come up with ideas to reduce the friction and parasitic loss for modern heavy-duty diesel engine.

II) To come up with an algorithm or model to predict the life of starter batteries used in IC engine vehicles.

We chose the latter problem statement.

There were 2 stages.
First was the preliminary stage where we have to submit a proposal of our algorithm. From this 10 teams will be shortlisted for the final stage

Out of around 800 registrations from all over the country, we were selected for finals.



In the finals, we presented our algorithm and idea of the real-life implementation to a panel of judges in the form of a PowerPoint presentation.

- Adhitya R, III A

Hackathon Winners

Hackathon is a platform to bring brainstorming ideas to solve real world problems. I recently participated in three hackathons at inter-college level, national level and international level. We as a team (Sudiksha EEE 3rd year, Madhumitha CSE 3rd year) won all three, solving a recent real time issue.

Hack and Tackle is an intra and inter-college event conducted in our college by IT department which is a 24-hour event. There were around 200 teams registered from different colleges, after various levels of screening by 25 judges from industry, we won first prize with cash awards.

Vihaan is a National level event conducted by Delhi Technological University in association with IEEE which is a 24-hour event. Dealing with the hackers in north, this event gave us a lot of experience and learning. We won a special prize in Best all women category with many gifts and rewards.

Hackathon Winners

Green-tech hackathon 2021 is an international level event conducted by Vandebron company in Netherland which is a three-day hackathon. This hackathon pushed our thought process a way high. There were teams from various countries. We were the only team that consisted of students and rest all teams were working professionals. We won first prize in “Hack the planet” challenge with gifts and cash awards. The creator of the problem statement lauded our approach towards solving the proposed problem.

- Sudiksha R, III B

Intern Offer From DOW!

An internship is the best way to gain work experience and the ability to speak with people in a professional setting. I have been offered an Internship for 8 weeks from Dow Chemicals International Pvt.Ltd., Chennai. Besides being a chemical industry, it is also a core company for the electrical department. Even during the challenging long time lockdown, the company was very supportive and offered a Virtual Intern Program-2021.

The Process

Grades played an important role while screening eligible students from a mass number of applicants. The selection process was more like a job recruitment process. It consisted of four rounds-technical written test, group discussion, technical interview and HR interview.

I was asked to explain my project works, in-plant training experience and achievements. Technical questions were mostly from Electrical Machines, Control Systems, Power Electronics, Transmission and Distribution.

Throughout the selection process,I was evaluated on my technical knowledge and other soft skills required for the industry.I would like to express my gratitude to the faculties,Career Development Centre and SSN management for helping me to use the best of this opportunity.

-Shruthi J - III B

Placement Report

S NO	NAME	COMPANY	LPA
1	Adharsh Sundaram S	LTI	6.5
2	Aditya Krisna Kumar P	Infosys	3.6
3	Akash Arumugam V	Cognizant Technology Solutions	4.01
4	Akilesh A	Cognizant	4.01
5	Aravinth S	Infosys	3.6
6	Arun Selvin Kumar V	TCS Digital	7.2
7	Ashwathi K	Comcast	6
8	Avinash Kumar	CTS	4
9	Balaji V	Tata Consultancy Services	3.6
10	Brahadesh B	LTI	6.5
11	C.keerthivasan	TCS	3.36L
12	Dhilip Vignesh M S	Cognizant	4.01
13	DINESH KUMAR R	TCS	3.6
14	Gauthamkumar S	Cognizant	4.5
15	Gowtham Thanigaivel D	Cognizant Technology Solutions	4.01
16	Jaiharini M	LTI	6.5
17	Jayashree M	CTS	4.01
18	Jeevithaa S	Citi bank	13.7
19	Kalpesh J	Power of N	4
20	Karan S	L&T Technology Services	4
21	Karthick J	LTI	6.5
22	Karthikeyan E	TCS	3.6
23	Kaushik M.	Tata Consultancy Services	3.3
24	Keerthivasan S	Accenture	4
25	Leela Charumathi M	Comcast	6
26	Litricia G	LTI	6.5
27	Maninanda D	CTS	4.5
28	Manish Kumar J	LTI	6.5
29	Niraimathi R	L&T Technology and Services	4
30	Nisha R	Cognizant(CTS)	4.1
31	Nithesh Krishna V K	Deloitte	7.6
32	Preethi VJ	NTT DATA Business Solutions India Private Limited	3.6
33	S. M. Nivetha	TCS	3.36

34	Pavas Krishnan S	Ernest and Young (EY)	4.25
35	Pradheep S	Tata Consultancy services(TCS)	3.6
36	R Pratig Ram	Citi	13.7
37	Praveen Adithya K	TCS	3.36
38	Praveen Kumar M	Infosys	3.6
39	Purushothaman S	Oracle	6
40	Rahul S Iyer	LTTS	4
41	Raksshitha NJ	LTI	6.5
42	Ramakrishnan	CTS	4
43	Ramya R	Amadeus Software Labs, Bangalore	10
44	Ramyabharathi T	PWC	6
45	Ranjith R	TCS Ninja	3.36
46	Ratish Kumar S	LTI	6.5
47	Rishi S.P.	Infosys	3.6
48	K SABARI VISWANATH	Tcs	3.36
49	SAI ESWARI G	FRESHWORKS	6
50	Sai Prashanth B	Accenture	4
51	Sakthi Praneetha P S	Cognizant Technology Services	4.01
52	Sam Joel	Infosys	3.6
53	Santhoosh Aravind S	CTS	4.01
54	Sarvesh Krishna K	Zoho	4.6
55	Selvaswaroopa T R	Span technologies	3.84
56	Senthil Kumar	Cognizant technical services	4.01
57	Shanmughapriya S	Hitachi ABB Power grids	6.5
58	Shivani K	Cognizant	4.01
59	V.Shreemathy	Titan	5
60	Shridhana.M.S	TCS(NINJA)	3.5
61	R Shruthi Kamakshi	Hitachi ABB	6.5
62	V.Sivaraman	TCS	3.36
63	A.Sowmya	LTI	6.5
64	Sreemugi Ramasubramanian	Citi Bank	13.7
65	Sridhar.S	Tcs digital	7
66	Srikirthi S	Deloitte	7.6
67	Srivatsan G	Tiger analytics	7.5
68	Surendran K	HCL	4.75
69	Suruthi S	HCL	4.75
70	SWATHI .S	Span technologies	3.84
71	Swetha S	Deloitte	7.6
72	G.Vignesh	TCS	3.36
73	Vikram Vasudevan	LTTS	4
74	Vinay Joseph Govias	LatentView Analytics	5.5
75	N. Visalakshi	CTS	4
76	Vivian V.Martin	Comcast	6
77	Senthil	HCL	4.75

For Generations To Come!

The world around us is constantly evolving in almost all the diversified fields with every passing day. This evolution is mainly driven by robust technologies which are being developed by people worldwide. Right from the most primitive forms of communication like analog cellphones to the latest version of the android, everything is a progressive step towards something which is going to be way more challenging.

With every generation, there is a modification happening in the pace at which the system functions. Now we use technologies and devices which support and work based on the Fourth-generation framework popularly referred to as “4G”. The 4G tech is sustainable and has been a key aspect in transforming how the communication system works.

Transition in generations is a successive evolution of the technologies supporting the cellular networks. The devices become smart. They start to acquire the ability to self-heal. They communicate with us in order to provide the best user experience. This is the beginning of the era of 5G. The 5G tech was created in order to provide connectivity for billions of devices. It is almost 1000 times faster than the current 4G tech!

For Generations To Come!

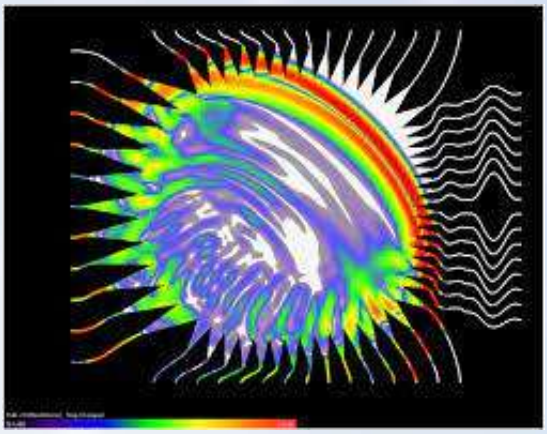
Internet of Things is the intercommunication of these devices which share data and various other user experiences among themselves in order to resolve the issues on their own without the need for human intervention.

One of the recent break-through in leveraging the power of 5G is that it has been found that this technology can be used to power IoT devices in a wireless manner. The 5G networks have been transformed into 'a wireless power grid' for powering various devices including wearables. This innovation makes use of a Rotman lens-based rectifying antenna capable of millimetre wave harvesting at 28 GHz. This design could help in reducing the usage of batteries to charge devices. The enormous capacities of the 5G tech could be tapped and be used an alternative.

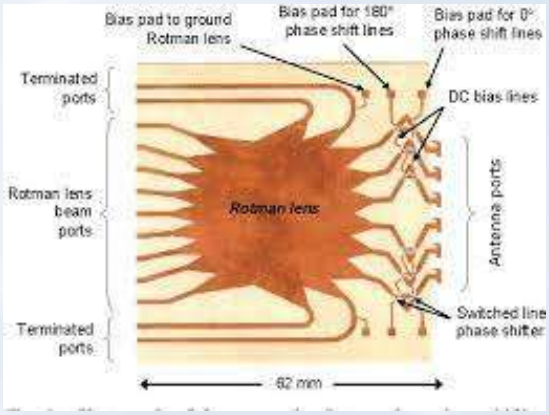
Researchers from the Georgia Institute of Technology have come up with a new Rectenna design by using the flexible Rotman lens which has capability of harvesting millimetre wave at the 28GHz band. The Rotman lens is used in radar surveillance systems to observe various spots without actually moving the antennas. In order to supply the low-power devices, large aperture antennas are required which have a problem of a narrow field view. This glitch has been solved by the scientists, by using their technology a large antenna can receive power from any direction and can work at higher frequencies.

For Generations To Come!

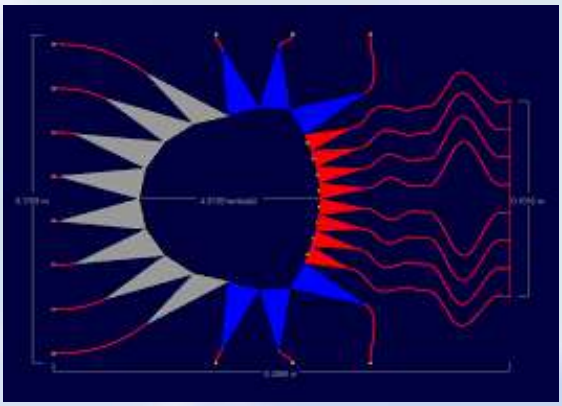
Attempts have been made to harvest energies at high frequencies like 24 or 35 GHz, but such antennas only worked if they had line of sight to the 5G base station and there was no way to increase their angle of coverage until now. The Rotman lens is similar to an optical lens in its operation and provides six fields of view simultaneously. Adjusting the shape of the lens, a structure with one angle of curvature on the side of the beam and another on the side facing the antenna results.



This helps the structure to map a set of selected radiation directions to an associated set of beam-ports. The lens is then used as an intermediate component between the receiving antennas and the rectifiers for 5G energy harvesting.



This innovation is definitely a breakthrough, as millions of batteries can be replaced by wireless sensors in order to harvest the power needed for IoT devices, wearables and many other applications. Since the 5G tech is going to be everywhere almost in all the urban areas this technology is quite feasible.



Say goodbye to batteries as 5G is almost here to our rescue!

-Harshini, II A

Just A Minute for JAMS

Counting your heels on the days to come so you wouldn't get to flush your foodstuff down your throats or tame yourself to hold up with the same bland Bread-Butter-Jam day after day? Well, the days aren't far off if the inventions and talks plunge right.

Yes, you heard it. The days where you no longer need to wrinkle your noses or scrunch your forehead in exasperation of missing the right times or getting to work late with due credit to irritating Jams are not far-off.

With a smart traffic control system, it goes without any doubt that it can spray wonders. But the actual question arises: Is it implementable?

What if I said, yes, and I know that too, that you shall jump up and down at this brilliant gift in hand. A time conserving set, and economical in many ways too. And, if there is something that might add excitement to the list, then it is the fact that parts of this proposed system have been tested for a try across the world and turns out, it was a deserving success too.

So, what exactly moved researchers to try out something like this?

Well, to start with, it had a lot to do with irritable congestions in roads, girdled by irksome horns at uniform intervals.

With increasing traffic on major roads controlled by traffic signals, many problems have become common, specifically during periods of peak demand. In most urbanized settings worldwide, drivers have become accustomed to excessive delay.

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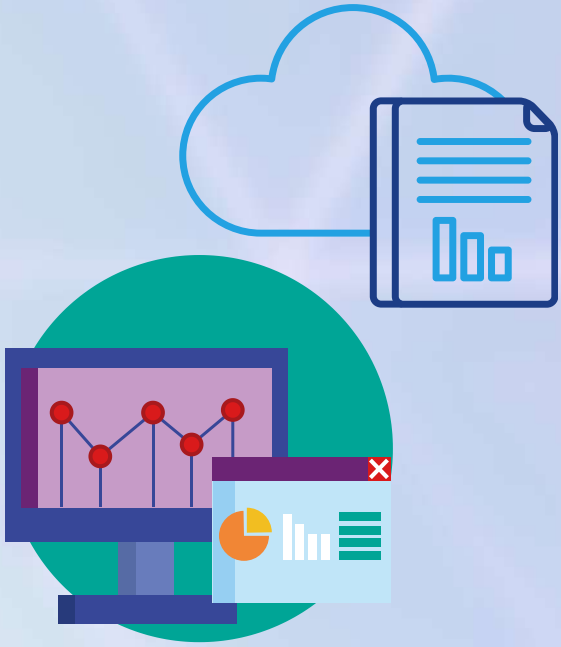
All the inhabitants who saw themselves on a messy road like that wished for just one thing- to hit beds in their excruciating tired states after working the whole day without many breaks as fast as possible. And that's all that mattered to them- to reach the homes that awaited them no matter the consequences.

Except this came up with a risk of its own- rise in accident numbers. Moving through short tricks ended up with one thing- graves where they visioned the peaceful sleep they had always wanted to get. So, the researchers came up with a technique of their own and resulted in giving rise to Smart traffic systems.



In smart traffic systems, data is collected at rushed intersections that have an unspoken history of long traffic lines. A wide analysis of occurring jam communication and also utilisation of adequate algorithms helps in diverting incoming additions to the jam, preventing a traffic choke, all at a time switching the signals at faster rates at the appropriate points.

This also required that the paths intended to be travelled by the users be fed to the data collection systems. That's when researchers realised that IoT was a better man to do such jobs. Utilising IoT, they came to a conclusion that implementing this with further improvement methods would prove to be more beneficial than usual.

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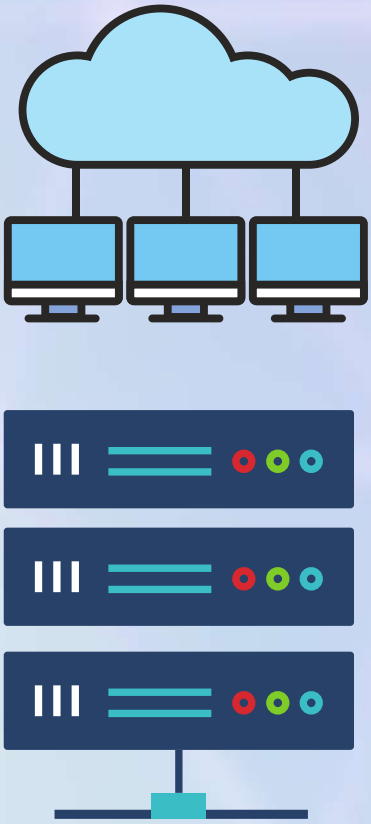
That's when the researchers settled upon working with piezoelectric roads that made use of the vibrations given by the vehicular engines whilst running on the lanes to produce piezoelectricity as piezoelectricity worked on mechanical stress getting applied to the plates,

In addition to this, the usage of IoTs in controlling the traffic signals comes with their exorbitant merits. They represent one of the biggest technology trends, transforming every physical object into an information source and revolutionizing the way we interact with our surroundings. It aims to create an ecosystem of connected objects and provide ubiquitous connectivity between trillions of multi-role devices, such as sensors and actuators. With the help of an inbuilt algorithm, it adjusts the traffic lights accordingly.

There are a few countries that started to come up with their own ideas and modifications for this wonderful solution in hand. In India, students of Chandigarh came up with their own version- Intelights that works on promoting traffic control. ONNYX electronics is supplying some control versions of their own. On the other hand, Carnegie Mellon University, Chilean professors, researchers in Tokyo, and Vienna have successfully implemented this Smart traffic management system, and are planning to pursue a large-scale implementation of the same.



Students really interested in solving the issues in biggie cities can actually make a career out of this by making use of the above-mentioned techniques and technologies.

-Tejaswini, II B

Wise Words of Our Alumna

Greetings SSNites!

Before, I begin to pen down an entire page that most of you might either skip or read just to find out how difficult is a Masters/PhD life, let me congratulate each one of you for making it to one of the finest institutions of our country and in an amazing department with knowledgeable and experienced faculty around you. Trust me, there is no bit of an exaggeration, its just how I feel. At SSN, we are allowed to explore whatever domain we would like, to take our steps forward, there is a proper freedom of choice that gives us the opportunity to learn by the quality work. You can hop into any research discussion with any of the Profs here, stay long at labs, talk about how you flunked at UT or likewise how much you liked to study everything but the syllabus! Well, I utilized by SSN life at least to the best I could, and I miss my department a lot!

Now, about me, I'm Ramyaa Rathna Kumar, 2019 passed out student, EEE dept. I am in the final semester of my Master of Science at Texas A&M University. My specialization is more of Data Sciences in Power Systems. I was told to write about my experiences, and honestly the past years have been no less than a roller coaster ride. The experience here is oriented towards overall development. I would say that we need to build a go-getter and first-initiative attitude here. Be it learning new things, talking to Profs, asking peers or people belonging to different nationality for help or maybe even connecting with recruiters, everyone should inculcate the willingness to do.

Wise Words of Our Alumna

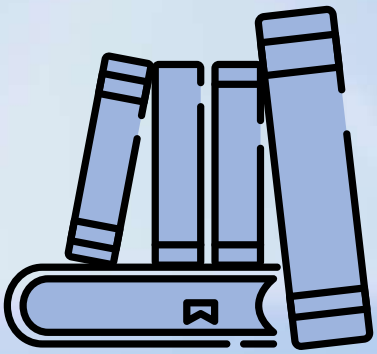
There are a lot of struggles and all of us break at times but its important to be oriented towards what we want to do, stay positive and of course have fun along the way. I am surely not the best person out there to provide advice of any sorts, but I would just like to mention some tips that I came to know quite late and realized that it would have been way better, had I known about it in advance. Firstly, please make sure, you are really interested and you know in which area you would want to do your specialization. If you feel that you need an interdisciplinary approach, and you need to take few courses here and explore, be ready to experience huge competition among peers during classes as well as job prospects. Second, be highly active on Linkedin, connect to people, spend some quality time on reading out the posts there, stay ahead on the technological fronts at least in the domain of your interests. Third, learn to completely be self-reliant

There are going to be times when you need to manage cooking, household, pay bills in the middle of an assignment deadline, the quicker you accept the reality and plan in advance, the better it is. Please do not loathe or sink in self-pity when here, everyone is just like you. All of us have financial struggles, away from our comfort zone at the same time trying to manage things with a smile. Finally enjoy this journey, not everyone out there gets a chance to establish themselves as a well-educated working professional, you have chosen this path and you will definitely reap its gains (at least this is what I tell myself every morning).

Wise Words of Our Alumna

Although many of you might start out the same journey, each one will take a different path at different periods of time, so please avoid comparison with anyone. Stay inspired, and as Steve Jobs said stay hungry and stay foolish, accept new things with an open mindset. On a personal front, I would also like to mention that please keep in contact with family, friends, Profs everyone you are with right now, these people are going to be your well-wishers forever and I wonder if you're lucky you might find people of those kind here

Of course, there are many talented people and super successful people out there, with great experiences and I'm just starting my journey, but for anything. I'll always be available for my SSN juniors! Feel free to connect on Linkedin or shoot me an email at ramyaarathnamanjula@gmail.com ----Bon voyage!



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