VOLUME 5 ISSUE 4

REDEEM

Quarterly Newsletter

Electrical & Electronics Department

SSN College of Engineering

Peek into latest technologies

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Conference on power and embedded drive control

DIY

Make your own air core inductor!

FROM THE HOD'S DESK

In this quarterly newsletter I am happy to highlight significant achievements of the department during the past three months.

It is evident from the following that our department is actively involved in innovation, quality publications, creating new ideas and their implementation.

Dr.V.Rajini published her patent entitled "Modular intelligent transformer" in Indian patent office. She was the nodal officer for National Institutional Ranking framework 2017(NIRF 2017), an initiative by MHRD, India. SSN College of Engineering is ranked 27th among all Engineering institutions in India, 80th among all educational institutions in India and ranked 5th in private Engineering institute. It is the only affiliated, non-autonomous institute in top 100 institutions.

Six internally funded student's projects were demonstrated to the delegates during the SNF Leadership Conclave held at SSN Innovation Centre.

S.Harika, II Yr.M.E. PED, under the guidance of Dr.R.Seyezhai, received the Best Project award in the national level in the Engineering Students Innovation Challenge 2017 organised by International Society for Scientific Research and development. This project was funded by SSN Management under student's project scheme.

Mukund Bharadwaj (EEE) and Simran Modi (CSE) participated at the Datathon competition at Kurukshetra and won the first prize. The competition was a hackathon based on data analytics.

R.Rahul, Sivaramakrishnan and Shiva Shankar of EEE B third year have secured paid internship at Euro process automatik, a channel partner of ABB and will be extending this internship as their final year project.

Dr Mrunal Deshpande organized an International Conference on Power, Embedded Drive and Control in association with IEEE Madras Section and Power Electronics Society. The conference was approved by IEEE and sponsored by CSIR, CTS and IEEE Madras Section. The conference was well received.

I express my sincere thanks and appreciation to everyone who have contributed to the growth and reputation of our department.

CONTENTS

PREFACE

These days' lots of positive messages are going rounds in whatsapp, lifting the spirit and encouraging for healthy, happy, positive and meaningful living. Mostly messages are forwarded to gratifying others than knowing the true essence of it. But some valuable information is shared. We hardly have time to message our own thinking and experiences. If one truly follows simple information spread in whatsapp, there is a possibility to become a hard-core professional in a short time. There are dedicated group trying to politicize the masses by spreading biased information. If the messages have not contributed to improve our quality of thinking and living then it loses its value. But the messages improved our feel good factor. Everybody seems to be interested in the idea of perfection and social wellbeing, but not able take initiatives to implement in reality. Accumulation of knowledge base without application is waste of time. All the good feelings generated are transient and we see that we get mentally polluted all the time and our core feelings and thinking dominate us most of the time irrespective of whatever we read or experience. That's the power of our hardwired deposits, and quality and affinity of genes. It is hard to constantly fight with it to change as it requires a larger understanding of self and life. That shows that something need to be worked on the core rather than polishing the periphery. You want that feeling of happiness again, like that sense of pleasure you had as a child when you saw your first rainbow. But now you feel like you aren't getting what you want out of life, and it's leaving you feeling disheartened. The answer could be that your thoughts are sabotaging your happiness. Is it possible that our thoughts have that much power over us? Yes! Our thoughts are the most powerful manifesting agent we have. Our thoughts work together with our subconscious mind to manufacture our reality. Our thoughts dictate to our subconscious mind to create what it is saying. Our subconscious mind is non-judgmental; it is like a computer assembling data. Whatever data you give it, it will accept. If the data is false or inaccurate, the computer doesn't care, it will accept whatever you punch in. Our mind works in the same way. Our internal dialogue is the data that we input to our subconscious mind. Our daily thoughts are the information that our subconscious uses to create. Our subconscious mind's job is to make our thoughts materialize. If your internal chatter says, I'm not as intelligent as my co-worker, your subconscious minds says, "Okay you're not as intelligent as your co-worker, I'll produce that for you. I will manifest your co-worker getting that promotion instead of you, to show you that it's true." If your internal chatter is always complaining about the injustices that happen to you, and that you are a victim, your subconscious mind says, "Yeah, you are such a victim you are always

getting treated unfairly; I will create a circumstance where you are treated unjustly, so you can be victimized." Have you ever wondered why successful people keep getting successful? It's because of their thinking. Thy have found the formula to success, their thoughts. Your subconscious is hard at work creating what you tell it. It wants to please you, so it will do what you think. Changing your outer world starts by changing your inner world fist. When your inner world isn't congruent with your outer world, it creates turmoil inside your body, leaving you with the feeling of being stressed, tired, and an overall sense of unhappiness. How do you stop the sabotage? Pay attention to your thoughts and internal dialogue. When you hear your little voice say anything limiting or negative, stop and replace that thought with what you really want, and believe you deserve it. It doesn't stop there, and then you have to take action into making that a reality. Act as if it were already true. When you do this, your subconscious knows you are serious about making a change, and it will assist you into getting what you really want. It will take a little time to start manifesting, but you will see a difference. Changing your thoughts results in changing your life. Often it is easily said than done.

What is education if we are unable live a stress free life, not growing into our highest self and reaching our fullest potential; delving deep within and exploring the purpose behind taking a human birth? Education ought to be the compass that guides us along our life's journey. It ought to be the process which enables a person to lead a successful life, which would mean being able to cope with its vicissitudes, to build healthy relationships, to find a meaningful calling, to develop one's creativity, build one's self-esteem and find happiness. It ought to enable a child to blossom into a well-rounded, healthy, wholesome adult who can contribute to society. But present-day education is largely about equipping a student for a livelihood, and not for life. From this perspective life becomes a succession of hoops a student has to leap through until he arrives at the Holy Grail of a well-paying and prestigious job. In the process the life journey becomes compressed into academics and marks-chasing, while the development of other innate talents and skills are given less weightage, character development is bypassed and the simple joy of living in the moment tarnished by the constant focus on passing exams. Children are taught to compete, and are then categorised into boxes – winners and losers, above average and below average, intelligent and dumb, bright and dull. All these labels curb their innate creativity and sensitivity, not to mention uniqueness, and they grow up to be dysfunctional adults unable to cope with the many challenges life has in store. Society pays a huge price for the damage and destruction these adults may cause to themselves and others, starting from addictions to lawlessness and more.

'***The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy.***

INTERNATIONAL CONFERENCE ON POWER AND EMBEDDED DRIVE CONTROL

Conference Chair : Dr Mrunal Deshpande
Organizing Chair: Dr M Senthilkumaran and Dr V Murugesan
Organizing Co Chair : Ms Anitha Roseline and Dr Pandikumar

Department of Electrical and Electronics Engineering organized a three day IEEE International Conference on Power and Embedded Drive Control (ICPEDC-2017) during 16-18 Mar 2017. The theme of the of the conference was Recent Trends in Power and Embedded drive control towards the creation of green energy and smart world. The inaugural of ICPEDC 2017, 16th March was graced by the Guests of Honor Dr. Prahlad Vadakkepat, Associate Professor, National University of Singapore, Singapore and Dr.R.Jayashri, Associate Professor, University of New South Wales, Australia. The Chief Guest at the inaugural was Dr. M. A. Atmanand, Former Director and Scientist, NIOT and The Chairman, IEEE Madras Section. The inaugural function was followed by two keynote speeches on 'Robotics - Embodied cognition and making man out of machines' by Dr. Prahlad Vadakkepat and 'MMC Based MTDC systems for offshore wind power transmission' by Dr. R.Jayashri. The panel discussion on 'Modern Trends in Embedded Systems' by distinguished members like Dr. Prahlad Vadakkepat, Dr.R.Jayashri and moderated by Dr. V. Kamaraj was a widely appreciated forum. Discussions on the conceptual framework of Robotics and role of embedded systems in robotics technology were presented and deliberated in detail. In the afternoon the technical sessions saw about 30 oral presentations spanning across three sessions conducted at three different venues.

The second day started with two keynote speeches on 'Power Electronics Applications in Micro Grid Connected Power System' by Dr. Mahesh K.Mishra, IIT Madras and 'Power Electronics for Wind Energy: From Past to Present and Future' by Dr. Naayagi Ramasamy, New Castle University, Singapore. Following the keynote two technical sessions were held each with 10 oral presentations. Post lunch two technical sessions were held and a total of 20 oral presentations spanned across these two sessions conducted at two different venues. The concluding day of ICPEDC-2017 began with a keynote by Dr. S.Paramasivam Director, Research, Danfoss Industries Pvt. Ltd., Chennai on 'Recent Trends in Power Electronics and Drives'. The last four parallel technical sessions of ICPEDC-2017 hosted 40 oral presentations. In all three days 11 sessions of paper presentations were held and chaired by eminent researchers from academia and industry. The conference was sponsored by IEEE Madras Section, CSIR & CTS. The conference was supported by IEEE and IEEE Madras Section-Power Electronics Society (PELS). The conference received financial assistance from IEEE Madras section (Rs.12,500/)

The Organizing Committee extends its gratitude to all the delegates, sponsors and IEEE and PELS and last but not the least the SSN College Management and The Principal, Dr S Salivahanan for their support.

Report by: *Dr. Mrunal Deshpande,Conference Chair (ICPEDC 2017)*

PLACEMENTS

VEENA S	DOW CHEMICALS
VASUDHA	VISTEON
VAISHNAVI	L AND T ECC.
SOWMYA	BANK OF AMERICA

GATE EXAM SCORES

PRASHANTH	52
VAISHNAVI D	37
RAMSESHAN	38

We , on the behalf of the department , congratulate them on the same and wish the success for all their endeavors.

OVERVIEW OF ACTIVITIES DONE IN THE DEPARTMENT

ENTREPRENEURSHIP AWARENESS CAMP

The SSN Incubation Centre organised an Entrepreneurship Awareness Camp during February 20 - 22, 2017 for engineering and MBA students. The event was sponsored by DST under NIMAT Project 2016-17. Around 66 students participated in the camp. Various Lectures and lab visits were arranged during this camp. The students visited the Solar Research Lab and Renewable Energy Conversion lab in EEE department. The camp was organized by DR.R.Seyezhai, Asso.Prof/EEE, Mr.Amith Tyagi & DR.Anand Ronald, Asso.Prof/Mech.

Mr.Lakshmanan krish, Management Consultant |Startup Advisor| BPA Specialist, addressed the students.

WORKSHOPS CONDUCTED

HANDS-ON WORKSHOP ON ARDUINO

Dr. R. Ramaprabha (Asso.Prof.) has arranged a Hands-on Workshop on Arduino under SSN-IEEE student branch for the benefit of UG/PG students during Feb 10-11, 2017.

- Conveners: Dr. T. Sree Sharmila (SSN-IEEE SB counselor) & Dr. R. Ramaprabha (Associate Professor/EEE)
- Coordinators: Kavin D (III Year/EEE), Arjun P (III Year/EEE)
- No. of participants: 32 (each team comprises 4/5 members) from different institutions – totally 160 participants
- Hands-on trainers: Dr. M. Pandikumar (Associate Professor, EEE/SSNCE), Ms. G. Ramya (Full-time research scholar, EEE/SSNCE), Mr. S. Iyappan (Project Associate, IIT Madras), Mr. G. Sathish Kumar (Project Associate, IIT Madras), Mr. P. Sriraman (IV EEE/SSNCE), Mr. P. V. Srihari (IV EEE/SSNCE)

The hands-on training session includes basics of Arduino such as Blinking of LED, PWM , ADC with multi-faceted projects like speed control of motor, Traffic Light Control, Arduino based calculator and interfacing of Wifi Module with Arduino.

HANDS-ON WORKSHOP ON POWER ELECTRONICS AND DRIVES

Department of EEE Organized "**Hands-on Workshop on Power Electronics & Drives**" during March 30-31, 2017

Conveners: Dr. V. Kamaraj, Dr. R. Seyezhai, Dr. R. Ramaprabha, Dr. M. Balaji & Ms. S. Malathy

Number of Participants: 14

Sessions & Speakers: 5 sessions for 2 days

- Session I: Introduction to POWERSIM Simulation Package & Hands on Session in PSIM for Power Electronics & Drives by Dr. R. Seyezhai, Asso. Prof./EEE

- Session II : Introduction to PSPICE Package & Hands on Session in PSPICE for Power Electronic Converters by Dr. R. Ramaprabha, Asso. Prof./EEE
- Session III : Introduction to MATLAB/SIMULINK & Hands on Session in MATLAB for Power Electronics & Drives by Ms. S. Malathy, AP/EEE
- Session IV : Research Issues in Special Electrical Machines by Dr. V. Kamaraj, Prof. & Head/EEE
- Session V : Hands on Session in MAGNET for Electrical Machines by Dr. M. Balaji.

TWO DAYS NATIONAL WORKSHOP ON POWER SYSTEM ANALYSIS USING ADVANCED SIMULATION SOFTWARES

Department of EEE Organized Two days National Workshop On "Power System Analysis Using Advanced Simulation Softwares" during January 30-31, 2017.

COORDINATORS: Dr. V. Kamaraj, Dr. N. B. Muthu Selvan & Dr. M. Devesh Raj

Number of Participants: 20

Sessions & Speakers:

Day 1 Session 1: Inaugural address and Brief Overview of Power System Simulation Softwares by Dr. P. Somasundaram, Professor, Department of Electrical and Electronics Engineering, CEG, Anna University, Chennai

Session 2: Load Flow Analysis - Case Study and Hands on practice by Dr. N. B. Muthu Selvan, Associate Professor, SSNCE

Day 2 Session 1: Short Circuit Analysis - Case Study and Hands on practice, by Dr. N. B. Muthu Selvan, Associate Professor, SSNCE

Session 2: Transient Stability Analysis, by Dr. M. Devesh Raj, Associate Professor, SSNCE

Session 3: Study of Transients in Transmission Lines by Dr. M. Devesh Raj, Associate Professor, SSNCE

HONOURS

Dr.V.Rajini, published her patent titled, "Modular intelligent transformer" in Indian patent office, Ref no : E-101/9361/2017-CHE

Dr.V.Rajini, Professor, EEE worked as the nodal officer for National Institutional Ranking framework 2017(NIRF 2017) , an initiative by MHRD, india. SSN College of Engineering is ranked 27th among all Engineering institutions in India, 80th among all educational institutions in India and ranked 5th in private Engineering institute. It is the only affiliated, non autonomous institute in top 100 institutions.

Dr. M.Balaji, Assoc. Prof./EEE attended National Conference on "SMART SUMMIT – 2016" (Science, Medicine, Agriculture, Research and Technology) organized by the PEARL Foundation for Educational Excellence (Reg. No. 101/2015 under Indian trust act) at Fortune Pandian Hotel, Madurai and he was awarded "Young Engineer Award" for his contribution in Electrical Engineering on 10.12.2016.

Dr.R.Seyezhai, Asso.Prof/EEE and S.Harika received the golden glow award- 2016 for their paper titled, " Analysis of Modulation strategies for two-stage Interleaved voltage source inverter employed for PV applications" .This work was funded under internal students project scheme at SSNCE.

Dr.R.Seyezhai, Asso.Prof/EEE consolidated the syllabus for M.E. (PED) for the 2017 regulation as the co-ordinator for the syllabus sub-committee on 20.01.2017.

Dr. N.B. Muthu Selvan, ASSP/ EEE Department has received Chartered Engineer certificate from The Institution of Engineers (India) on 02.02.2017.

DR.R.Seyezhai, ASSP/EEE, inaugurated the Electric-Make-A-Thon '17 event organized by SELECT, VIT University, Chennai on 03.02.2017.

Dr. R. Ramaprabha, Past IEEE Student Branch Counselor, Dr. T. Sree Sharmila IEEE Student Branch Counselor and Mr. S. B. Vishal SB Chair received a certificate of "Appreciation for Student Branch with Grade A Recognition" on behalf of branch with cash award of Rs. 3000/- in Annual Meeting of IEEE Madras Section held on Sunday, the 05th Feb 2017 during AGM, IEEE MAS at TAG Auditorium, College of Engineering, Guindy, Chennai

S.Harika (IIYr. M.E., PED) under the guidance of Dr.R.Seyezhai received the BEST Project in the National level for the project titled, " Interleaved VSIs for PV" during the Engineering Students Innovation Challenge 2017organized by the International Society for Scientific Research and Development on 20.02.2017.

Dr. R. Ramaprabha Asso.Prof./EEE acted as Publication Chair for IEEE International Conference on Power and Embedded Drive Control (ICPEDC 2017) at Department of EEE, SSN College of Engineering, pp. 497-500 held during March 16-18, 2017.

Dr,V,Rajini , chaired a session in the international conference on ICPEDC 2017 held at SSNCE during 16-18 march,2017.

Dr. U. Shajith Ali, Asso.Prof/EEE has been appointed as Conference Outreach Committee Member in 3rd International Conference on Applied Science Engineering and Technology (ICASET-17) will be held at Sri Sairam College of Engineering, Anekal, Bengaluru on 20.03.2017.

Dr.R.Seyezhai, Asso.Prof./EEE received the Second prize for the Faculty encouraging Student's publication in the SSN Research Day held at SSNCE on 23.03.2017.

Dr.R.Seyezhai, Asso.Prof./EEE received the prize for the Best Paper award in Conferences & Best Research paper award in the SSN Research Day held at SSNCE on 23.03.2017.

Dr Mrunal Deshpande ASSP/EEE, received prize for Best organized Conference in the SSN Research Day on 23.03.2017.

Dr. R. Ramaprabha acted as one of the judges for Project Exhibition 2017 at Sri Sai Ram Engineering College, Chennai on 28.03.2017.

Dr. R. Ramaprabha, Asso.P/EEE acts as one of the Advisory Committee Members for the 11th National Conference on "Innovative Techniques in Power Engineering and Drives" (ITPED'17) on 31st March 2017 conducted by Department of EEE, Velammal Engineering College, Chennai.

Dr.R.Seyezhai, ASSP/EEE received the Best Supervisor award for the project work carried out by S.Harika, II Year M.E (PED) which won the Best Project award in the national level on 31.03.2017.

PAPER PRESENTATION

The following full-time PhD scholars under the guidance of Dr.R.Ramaprabha (Assoc. Prof.) presented their papers in SSN Doctorate Scholars Day held on 01.12.2016.

- Ms. M. Vijayalakshmi presented the paper titled "Integration of AC Architecture in DC Microgrid" –Oral presentation
- Ms. SP. Chitra presented the paper titled "Development of Standalone Modular Interactive Solar Photovoltaic System" –Poster presentation
- Ms. G. Ramya presented the paper titled "Investigation On MPPT Techniques Under Partial Shaded Conditions" –Oral presentation –won best presentation appreciation.

Mr. Thiyagarajan V., AP/EEE, presented a paper titled, "Modified Nine Level Inverter with Reduced Number of Switches" in " International Conference on Electrical, Electronics, Instrumentation and Computer Communication (E^2IC^2)" at Department of Electronics & Instrumentation Engineering, Karpagam college of Engineering, Coimbatore on the 09.12.2016 and 10.12.2016.

S.Prabakaran, S.Tamil Selvi ASSP/EEE, P. Ajay-D-Vimal Raj, M.Sudhakaran, S.Rajasekar presented a paper titled, "Solution for Multi-Area Unit Commitment Problem using PSO Based Modified Firefly Algorithm", in the 1st Springer International conference on 'Emerging trends and advances in electrical engineering and renewable energy (ETAEERE-2016)', during 17th – 18th Dec 2016 at Sikkim Manipal Institute of Technology (SMIT), Majhitar, Sikkim,India.

Mr. Thiyagarajan V., AP/EEE, presented a paper titled, "New Symmetric and Asymmetric Multilevel Inverter with Reduced Number of Switches" in "International Conference on Communication & Control Engineering (ICCCE 2016)" held on 29.12.2016 and 30.12.2016 at University College of Engineering Villupuram (UCEV), Villupuram.

Venkatakrishnan G R, Mahadevan J, Rengaraj R have presented a paper titled" Differential Evolution with Parameter Adaptation Strategy to Economic Dispatch Incorporating Wind" in Second International Conference on Intelligent and Efficient Electrical Systems 2017 (ICEES 2017), January 20-21, 2017.

Dr. R. Ramaprabha, Asso.Prof./EEE and S. Iyappan, Research assistant /EEE, presented a paper titled "A Review on Solar Photovoltaic Water Pumping for Agriculture in India: Literature, Designing and Cost analysis", 9th International Conference on "Trends in Industrial Measurements and Automation (TIMA 2017)"at Madras Institute of Technology (MIT), Chennai, India, pp. 150-153 during Jan 06-08, 2017 – Presented by Dr. R. Ramaprabha

M. Mohana Krishnan, M.E.-II Year/PED and Dr. R. Ramaprabha, Asso.Prof./EEE presented a paper titled "Vector Control of Grid Connected Photovoltaic Inverter", 9th International Conference on "Trends in Industrial Measurements and Automation (TIMA 2017)"at Madras Institute of Technology (MIT), Chennai, India, pp. 154-159 during Jan 06-08, 2017- Presented by M. Mohana Krishnan

M. Kanimozhi, M.E.-II Year/PED and Dr. R. Ramaprabha, Assoc. Prof./EEE presented a paper titled "Design of 500W Standalone Photovoltaic System", Madras Institude of Technology (MIT), Chennai", 9th International Conference on "Trends in Industrial Measurements and Automation (TIMA 2017)"at Madras Institute of Technology (MIT), Chennai, India, pp. 312-317 during Jan 06-08, 2017 - Presented by M. Kanimozhi

P. Arjun, III Year EEE and Dr. R. Ramaprabha, Asso.Prof./EEE, presented a paper titled "Technical View on Flash Flood Intimation System using GSM", National Conference on Disaster Mitigation, Responsiveness & Management (NCDMRM), Feb 03-04, 2017.- Presented by P. Arjun

Dr. R. Ramaprabha, Asso.Prof./EEE and S. Malathy, AP/EEE presented a paper titled, "Deploying Power during Natural Disaster by Mobile Solar Photovoltaic System", National Conference on Disaster Mitigation, Responsiveness & Management (NCDMRM), Feb 03-04, 2017. - Presented by S. Malathy

V.S.Nagarajan AP/EEE presented a paper titled, 'ICT trends in Engineering Education and Research-A global perspective' in the 45th ISTE Annual Convention and National Conference organized by Gulzar Group of Institutes, Ludhiana, Punjab on 10.02.2017 and 12.02.2017.

Dr M.Balaji ASSP/EEE presented a paper titled, 'Electric vehicle – developments in current scenario'in the 45th ISTE Annual Convention and National Conference organized by Gulzar Group of Institutes, Ludhiana, Punjab on 10.02.2017 and 12.02.2017.

Dr V.Kamaraj Prof/EEE presented a paper titled, 'Home Automation for better Tomorrow'in the 45th ISTE Annual Convention and National Conference organized by Gulzar Group of Institutes, Ludhiana, Punjab on 10.02.2017 and 12.02.2017.

R. Supriya, V. Aishwhariya (Final Year EEE Students) and R. Ramaprabha, Asso.Prof./EEE, "Development of Low-Cost Solar Array Simulator using an Off-the-Shelf DC Power Supply", 2nd International Conference on Recent Advancements in Chemical, Environmental & Energy Engineering (RACEEE-2017), Department of Chemical Engineering, SSN College of Engineering, Chennai during February 23-24, 2017. – Presented by R. Supriya & V. Aishwhariya

Supriya R of final year, EEE B presented a paper titled, 'DEVELOPMENT OF LOW-COST SOLAR ARRAY SIMULATOR USING AN OFF-THE-SHELF DC POWER SUPPLY' in the 2nd International conference on Recent Advancements in Chemical, Environmental & Energy Engineering(RACEEE-2017) held at SSN College of Engineering, Chennai on 23.02.2017 and 24.02.2017.

Thiyagarajan V., AP/EEE, presented a paper titled "Simulation Analysis of Modified Multilevel Inverter with Reduced Number of Switches" in the International Conference on Recent Advancements in Chemical, Environmental & Energy Engineering (RACEEE-2017) organized by Department of Chemical Engineering, SSN College of Engineering, Chennai on 23.02.2017 and 24.04.2017.

W.A.Augusteen, B.Pravinkumar, R.Rengaraj, presented a paper titled " Self-Adaptive Evolution Programming for solving Economic dispatch problem incorporating wind energy, "in the TEQIP - II Sponsored International conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT' 2017), Feb 24 - 25 2017

Hithu Anand, R.Rengaraj, presented a paper titled " A smart grid view of distributed generation for reduced power loss in a feeder using firefly algorithm" in the TEQIP - II Sponsored International conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT' 2017), Feb 24 - 25 2017.

M.Karthikeyan, R.Rengaraj, presented a paper titled " Autoregressive Signal modeling and extreme learning machine based fault classification and location in UPFC compensated line" in the TEQIP - II Sponsored International conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT' 2017), Feb 24 - 25 2017

G.R.Venkatakrishnan, R.Rengaraj, presented a paper titled" An improved differential evolution algorithm for real power dispatch with stochastic wind power" in the TEQIP - II Sponsored International conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT' 2017),

P.S.Suvetha(PG Student),S.DeviVidhya (Full time Research Scholar) and M.Balaji presented a paper titled "Fuzzy Logic Control of Coupled Inductor Bidirectional DC-DC Converter", at the International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College

S. Malathy,AP/EEE, R. Ramaprabha, Asso. Prof./EEE, B. Kabilram, K. Manirajan, K. Marriappan and G. Vignesh (IV Year UG students/EEE), "Performance Analysis of Reduced Device Count Multilevel Inverter with Low Frequency PWM Schemes", TEQIP – II Sponsored International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), Pondicherry Engineering College, Pondicherry, India during 24th-25th, February 2017 at Hotel Accord, Puducherry. – Presented by K. Manirajan

M. Venmathi and R. Ramaprabha, Asso. Prof./EEE, presented a paper titled, "Investigation on Isolated Derived Topology for Differential Power Processing in Photovoltaic System", TEQIP – II Sponsored International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), Pondicherry Engineering College, Pondicherry, India during 24th-25th, February 2017 at Hotel Accord, Puducherry. – Presented by both the authors.

G. Ramya, FT Research scholar/EEE, M. Mohana Krishnan, PG student/EEE and R. Ramaprabha, Asso. Prof./EEE, presented a paper titled " Comparative Study on Control Methods for PMSM Based Wind Energy Using PI and Fractional Order Controller", TEQIP – II Sponsored International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), Pondicherry Engineering College, Pondicherry, India during 24th-25th, February 2017 at Hotel Accord, Puducherry. - Presented by G. Ramya

Ms.Mahalakshmi (IIYr.M.E., PED) and DR.R.Seyezhai, ASSP/EEE presented a paper titled, "DESIGN AND SIMULATION OF AN INTEGRATED PFC AC-DC CONVERTER FOR TELECOMS" in the International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry. The paper received the BEST PAPER AWARD and the project was funded by SSN Institutions on 24.02.2017.

S.Harika (IIYr. M.E., PED) and DR.R.Seyezhai, Asso.Prof./EEE presented a paper titled, "Analysis of Modulation Strategies for Two-Stage Interleaved Voltage Source Inverter Employed for PV Applications", in the International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry on 25.02.2017.

S.Aswini (PG Student), L.Kurinjimalar (Part Time Research Scholar), M.Balaji presented a paper titled "Performance Analysis of Different Rotor Configuration of BLDC Motors" at the International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Puducherry on 25.05.2017.

V.Aishwarya, Kaviya.R & C.Kavitha (II Yr.EEE, A) and DR.R.Seyezhai, Asso.Prof./EEE presented a paper titled, "Investigation and comparison of performanceparameters between bridged and bridgeless interleaved boost converter" in the International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry.This work by funded by SSN Institutions on 25.02.2017

S.Bavani(PG Student),P. Saravanan, M.Balaji Asso.Prof./EEE presented a paper titled "Design and Implementation of Fault Tolerant Converter Topology for Switch Reluctance Motor Drive" at the International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Puducherry on 25.02.2017.

A.Ramya (Full time Research Scholar), M.Ashwin Karthick (IV year UG Student) and M.Balaji presented a paper titled " Power Quality Improvement in BLDC Motor Drive using Modified Bridgeless Cuk Converter" at International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College , Puducherry on 25.02.2017.

Prabhu (Part time Research Scholar) and M.Balaji presented a paper titled "Vibration Analysis Of E-Core Flux Reversal Free Switched Reluctance Motor" at International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College , Puducherry on 25.02.2017.

Subhitcha.R & V.Sowmya (III Year EEE, B) & DR.R.Seyezhai, Asso.Prof./EEE presented a paper titled," Investigation of PWM Strategies of Voltage Source Inverter for Power Quality Improvement" in the International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry on 25.02.2017.

Subhitcha.R & V.Sowmya (III Year EEE, B) & DR.R.Seyezhai, Asso.Prof./EEE presented a paper titled," Analysis of Modulation methods for Voltage Source Inverter " in the National Conference National Conference on Recent Advancements in Signal Processing and Communication (NCRASPC – 2017) at R.M.K College of Engineering and Technology, Chennai. On 27.02.2017.

Ms.S.Krishnaveni AP/EEE, Dr. V.Rajini Prof/EEE presented a paper entitled, "Resonant gate driver for series operation of power MOSFETS", in International conference on Power Engineering Computing and CONtrol(PECCON 2017) organized by School of Electrical Engineering, VIT Chennai during 2- 4th March 2017.

Ramyaa Rathna Manjula ,Soundaryaa Ponnivalavan, , Antony Amalraj Morais and Leo Raju presented a paper entitled, " Micro-grid Grid Outage Management using Multi Agent Systems", in International conference on Power Engineering Computing and CONtrol(PECCON 2017) organized by School of Electrical Engineering, VIT Chennai during 2- 4th March 2017.

S. Premkumar, R. Ramki and Dr. M. Devesh Raj Asso.Prof./EEE presented a paper titled , "PI controller tuning using PSO for load frequency control of hybrid power system", at 3rd International conference on electrical, electronics & computer engineering (ICEECE -2017) at Vivekanandha college of engineering for women, Namakkal on 08.03.2017 and 09.03.2017.

Sajna gokul, Prithika Rani,Nidhi jagan, Antony Amal raj Morais and Leo Raju presented a paper entitled, "IOT based Autonomous Demand Side Management of a Micro-Grid using Arduino and Multi Agent System" in International conference (ICEPEDC 2017) organized by SSNCE, EEE Department, during 16-18-March 2017

G. Priyadharshini, N. Raja Nandhini, S. Shunmugapriya (III year EEE students) and Dr. R. Ramaprabha Asso.Prof./EEE," Design and Simulation of Smart Sockets for Domestic DC Distribution", IEEE International Conference on Power and Embedded Drive Control (ICPEDC 2017) at Department of EEE, SSN College of Engineering, pp. 497-500 held during March 16-18, 2017. –presented by students.

Ramyaa Rathna Manjula , Soundaryaa Ponnivalavan**,** Ramyaa Rathna Manjula, Antony Amalraj Morais and Leo Raju presented a paper entitled, " Micro-grid Grid Robustness Management using Multi Agent Systems ", International conference (ICEPEDC 2017) organized by SSNCE, EEE Department, during 16-18-March 2017.

Dr.R.Seyezhai (ASP/EEE), A.Inba Rexy(Research Scholar) presented a paper titled, "AC-DC Interleaved Boost Converter for PFC" in the International Conference on Emerging Trends in Science, Engineering and Technology(ICETSET – 2017) organized by Jerusalem College of Engineering, Chennai on 18.03.2017.

Thiyagarajan V., AP/EEE, and Dhivakar K., IIyear/EEE, presented a paper titled "New Single Phase Symmetric Seven Level Inverter with Reduced Number of Switches" in the International Conference on Emerging Trends in Science, Engineering and Technology (ICETSET-2017) organized by Jerusalem College of Engineering, Chennai on 17.03.2017 and 18.03.2017.

Dr.R.Seyezhai (Asso.Prof./EEE),D.Umarani(AP/EEE) and S.Dhivya (Senior Engineer, Tata Elxsi) have presented a paper entitled "Comparative Evaluation of PI and Fuzzy Logic Controller for PV Grid-Tie Quasi Z-Source Multilevel Inverter" in theInternational Conference on Emerging Trends in Science, Engineering and Technology(ICETSET – 2017) organized by Jerusalem College of Engineering, Chennai

B.S Devika , Vaishali and Gengadevi (UG/IV year EEE), Dr.R.Seyezhai (Asso.Prof./EEE), D.Umarani(AP/EEE), have presented a paper entitled "High Frequency High Gain DC-DC Converters forPhotovoltaic Applications" in the event ReSConAm'17 at IIT Bombay, Powai on 18.03.2017 and 19.03.2017.

G. Palanirajan (PG Student) and Dr. R. Ramaprabha Asso.Prof./EEE , "Simulation of Transformerless High Voltage Gain Converters for Vehicle Headlights" in First National Conference on Emerging Trends & Transformations in Engineering And Technology (NC2ET 2017) at Sri Lakshmi Ammal Engineering College, Thiruvanchery, Chennai, Tamilnadu, India on March 24, 2017, pp. 225-227, ISBN: 978-93-8110-61-7. – Presented by G. Palanirajan.

G. Palanirajan (PG Student) and Dr. R. Ramaprabha Asso.Prof./EEE, presented a paper titled, "Implementation of Transformerless High Voltage Gain Converters for Automobile Headlamps" in National Conference on Innovative Techniques in Power Engineering and Drives (ITPED) at Velammal Engineering College, on March 31, 2017 - Presented by G. Palanirajan.

V. Ramesh Aravind, E. Praveen Kumar and Dr. M. Devesh Raj Asso.Prof./EEE presented a paper titled, " PSO tuned load frequency control of hybrid power system", at International Conference on Engineering Technology and Science (ICETS'17) at Muthayammal Engineering Institutions, Rasipuram on 30.03.2017 and 31.03.2017.

Dr.R.Seyezhai & T.Tamizhselvan (Research Scholar) presented a paper titled, "Simulation and Hardware Implementation of Fuzzy PI controller for Solar powered MLI fed Induction Motor" in the International Conference on Trends And Advanced Research in Green Energy Technologies ICTARGET 2017 at VIT University, Chennai on 31.03.2017.

Dr.R.Seyezhai, Subitcha & V.Sowmya (III Yr.EEE, B) presented a paper titled, "Performance Analysis of PWM strategies for Voltage Source Inverter", National Conference on Innovative Techniques in Power Engineering & Drives" Velammal Engineering College, Chennai on 31.03.2017.

PAPER PUBLICATIONS

Dr.R.Seyezhai, ASSP/EEE and M.Sudhakaran(part-time Research scholar) published a paper titled, " Performance Evaluation of Level Shift PWM Technique for an Cascaded Multilevel Inverter", International Journal of Printing, Packaging & Allied Sciences Dec.2016,Vol.4, Issue : 3,pp.2070-2082 ISSN : 2320-4387,(Annexure-1) on 20.01.2017.

M. Venmathi and R. Ramaprabha Asso.Prof/EEE, published a paper titled "Implementation of zero voltage switched SEPIC/ZETA bidirectional converter for low power applications using FPGA", Turkish Journal of Electrical Engineering & Computer Sciences, Vol. 25, pp. 319-336, 2017 (ISSN online: 1303-6203; 1300-0632) Scopus Index 0.339(DOI: doi:10.3906/elk-1505-81) Thomson Reuters Impact factor : 0.5 on 24.01.2017.

V.Rajini published paper titled," A novel control scheme to improve the spectral quality of a single-phase bridgeless boost rectifier",International Journal of Power Electronics, Vol. 8, No. 1, pp 52-67 ,2016, inderscience publishers, *ISSN* online: 1756-6398.scopus indexed on 01.02.2017.

Rajini V, Anitha Roseline, Senthil Kumaran, vijayenthiran subramaniyan, published a paper titled ,"An Unified Algorithm for Multilevel Inverters" IET power electronics, Online ISSN 1755-4543, Thomson reuters indexed (Annexure 1) on 07.02.2017.

V.S.Nagarajan AP/EEE, V.Kamaraj Prof/EEE, M.Balaji Asso.Prof./EEE published a paper titled, 'Effect of Geometrical Parameters on Optimal Design ofSynchronous Reluctance Motor' in Journal of Magnetics, Vol.21 No.4, 2016, 544-553. (Annexure 1), (Thomson Reuters indexed), (Impact factor – 0.421) on 10.02.2017.

V.S.Nagarajan AP /EEE, M.Balaji ASSP/EEE, V.Kamaraj Prof/EEE published a paper titled, 'Design optimization of ferrite assisted synchronous reluctance motor using multi-objective differential evolution algorithm' in COMPEL - The international journal for computation and mathematics in electrical and electronic engineering, 36(1), 2017, pp. 219–239. doi: 10.1108/compel-06-2016-0253. (Annexure 1), (Thomson Reuters indexed), (Impact factor – 0.430) on 10.02.2017.

M.Karthikeyan and R.Rengaraj, published a paper titled, "Fault Classification and Location of an UPFC-Compensated Transmission Line Uisng Extreme Learning Machine", International Journal of Control Theory and Applications,, Vol.10, No.2, 2017, pp.183-194 (Scopus Indexed, Annexure-II) on 15.02.2017.

Rajini V, Alagu dheeraj AP/EEE,published a paper titled" Center Clamped Forward Converter for High Current Applications",J. Comput. Theor. Nanosci. 14, 395–402 (2017), ISSN: 1546-1955 (Print): EISSN: 1546-1963 (Online) scopus indexed (Annexure 1) on 22.02.2017.

V. Rajini and W. Abitha Memala ,published a paper titled " Wavelet Based Induction Motor Fault Diagnosis Using Zero Sequence Current", J. Comput. Theor. Nanosci. 14, 411–420 (2017) ISSN: 1546-1955 (Print): EISSN: 1546-1963 (Online),) scopus indexed (Annexure 1) on 22.02.2017.

V.Rajini, W. Margaret Amutha,published a paper titled "A novel self powered wireless sensored network", International Journal of Computer Networks and Wireless Communications (IJCNWC), ISSN: 2250-3501 Vol.7, No 1, Jan-Feb 2017, scopus indexed on 23.02.2017.

Thiyagarajan V., AP/EEE, published a paper titled "Modified Nine Level Inverter with Reduced Number of Switches" in "International Journal of Control Theory and Applications", ISSN : 0974-5572,Vol.10, No. 2 (2017), PP 217-225. (Anna University Annexure 2, Scopus Indexed). On 24.02.2017.

Dr.R.Seyezhai & M.Sudharan published a paper titled, "Performance Evaluation of Level Shift PWM Technique for an Cascaded Multilevel Inverter", International Journal of Printing, Packaging & Allied Sciences, Dec.2016, Vol.4, Issue : 3,pp.2070-2082, ISSN : 2320-4387. (AU Annx-1) on 28.02.2017.

S. Iyappan, SRA/EEE and R. Ramaprabha, Asso.Prof./EEE, published a paper titled "Design and Implementation of Brushless DC Motor based Solar Water Pumping System for Agriculture using Arduino UNO", International Journal of Engineering and Technology (IJET), ISSN (Print): 2319-8613 ISSN Online) : 0975-4024, Vol. 9, No. 1, pp. 224-232, Feb 2015 on 10.03.2017.

Thiyagarajan V., AP/EEE, Gokul Kumar V, Karthickeyan B, Naveen Kumar E, and Nikilaesh A (Passed Out Students) published a paper titled "Tesla Turbine Powered Solar Refrigerator" in International Journal of Recent Trends in Electrical and Electronics Engineering, ISSN : 2231-6612,Vol.04, No. 2 (2017), PP 50-55 on 12.03.2017.

Dr.R.Seyezhai, , M.Sudhakaran(Research Scholar) published a paper titled, "Performance Evaluation of Level Shift PWM Technique for an Cascaded Multilevel Inverter", International Journal of Printing, Packaging & Allied Sciences, Vol. 4, No. 3, December 2016,pp.2070-2082.(AU Annx-1) on 21.03.2017.

Jeshurun Edward, Aravindhan, Karthick, Karthik Ram and Muthuselvan ASSP/EEE, published a paper titled "Supervised Harmonics Compensation of a Single Phase Full Converter", in the proceedings of International Conference on Engineering Technology and Science (ICETS'17) at Muthayammal Engineering Institutions, Rasipuram, on March 30 and 31 2017

Aslam Amir, Jifry Shaheem T M, and Muthu Selvan N B ASSP/EEE, published a paper titled "Study of Distribution Factors for Allocation of Power Transaction in a Deregulated Market", in the proceedings of International Conference on Engineering Technology and Science (ICETS'17) held at Muthayammal Engineering Institutions, Rasipuram, on March 30 and 31 2017.

PROJECT PROPOSALS

Dr. R. Ramaprabha, Assoc. Prof./EEE and Dr. V. Kamaraj, Head/EEE applied project proposal to AICTE under Modernization of Lab (MODRUBS) for Rs. 22 Lakhs on 03.01.2017

Dr. R. Ramaprabha, Assoc. Prof./EEE and Ms. S. Malathy, AP/EEE has applied project proposal titled to AICTE under Research Promotion Scheme (RPS) for Rs. 23 Lakhs on 09.01.2017.

Dr. V. Kamaraj, Head/EEE, Dr. R. Seyezhai, Assoc. Prof./EEE, Dr. R. Ramaprabha, Assoc. Prof./EEE and Dr. M. Balaji, Assoc. Prof./EEE has applied proposal for conducting FDP to AICTE for Rs. 3. 55 Lakhs on 10.01.2017.

Dr.V.Rajini Prof /EEE Submitted AICTE RPS proposal for 25 lakhs on 31.01.2017.

Dr.V.Rajini Prof /EEE Submitted a SERB proposal to DST under EMR scheme for Rs. 63 lakhs on 31.01.2017.

Dr. S. Tamil Selvi (Asso.Prof/EEE), submitted a proposal titled "Transformer Design Implementing Operating Costs and Environmental Costs" for Rs. 36.00 Lakhs, under the scheme 'Early Career Research Award' in DST-SERB, on 31.01.2017.

V.Kamaraj Prof/EEE, M.Balaji Asso.Prof/EEE, V.S.Nagarajan AP/EEE applied a project titled, "Skill development through design and development of energy efficient drives for solar PV applications" to Royal Academy of Engineering (UK), under the scheme titled "Newton Bhaba Fund" for Industry Academia Partnership Programme of Rs.2,50,000 on 01.02.2017.

Mr.A. Bharathi Sankar (Full-time research scholar), DR.R.Seyezhai, Asso.Prof./EEE & S.Harika (II Yr.M.E., PED) applied the project proposal for the Young Innovators Competition to be held at Chennai on 17.02.2017.

Dr.R.Seyezhai,ASSP/EEE , A.Bharathi Sankar & S.Harika (II Yr.M.E, PED) participated in the Valeo Innovation Challenge , Paris, March 2017 for the solar car challenge project held on 01.03.2017.

PROJECT PRESENTATION

Shabeer Basha, Priya & Sujith (III Yr.EEE, B) under the guidance of Dr.R.Seyezhai presented their project work in the UG Students paper publication at SSNCE ON 20.01.2017.

Dr.R.Seyezhai, Asso.Prof./EEE attended the meeting for displaying projects at SSN Innovation Centre on 08.02.2017.

Dr.R.Seyezhai, ASSP/EEE attended the meeting for displaying projects at SSN Innovation Centre for the SNF Conclave at SSNCE on 17.02.2017.

Ms.Aishwarya, Kavitha & Kaviya (III Yr.EEE, A) under the guidance of DR.R.Seyezhai, ASSP/EEE displayed the project at SSN Innovation Centre for the SNF Conclave on 17.02.2017.

Mr.A. Bharathi Sankar (Full- time research scholar) under the guidance of DR.R.Seyezhai, ASSP/EEE displayed the Solar Car project at SSN Innovation Centre for the SNF Conclave on 17.02.2017.

Dr.R.Ramaprabha, Asso.Prof./EEE, Ms. S. Malathy, AP/EEE, Ms. G. Ramya & Ms. M. Vijayalakshmi (FT research scholars) demonstrated the different working modules of PV related projects/facilities available in Solar Energy Research Lab to the students who have attended three-day Entrepreneurship Awareness Camp sponsored by DST under NIMAT Project on Feb 22, 2017 by SSN Incubation Centre.

The project titled, "Embedded Switched Z-source Inverter for photovoltaic Applications" by D. Kavin, B. Arun Prasaath & K. Agil (III Year EEE Students) under the guidance of Dr. R. Ramaprabha, Asso. Prof./EEE has been selected for presentation to the delegates visiting the SSN Innovation Centre during SNF Conclave on Feb 17, 2017.

Dr.R.Seyezhai, ASSP/EEE, A.Bharathi Sankar (Full time research scholar) & D.Umarani, AP/EEE demonstrated the Solar Vehicle, Inverter for PV & Application of SIC device for PV" in the Entrepreneurship Awareness Camp at SSNCE sponsored by DST under NIMAT Project 2016-17 on 22.02.2017.

REVIEW

Dr. N. Pandiarajan Prof/EEE reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic –"An approach for efficient assessment of the performance of double auction competitive power market under variable imbalance cost due to high uncertain wind penetration" ON 09.01.2017.

Dr. N. Pandiarajan Prof/EEE reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic –"Rooftop solar potential based on LiDAR data: Bottom-up assessment at neighborhood level" on 11.01.2017.

Dr. N. Pandiarajan Prof/EEE reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic –"The Importance of Facades for the Solar PV Potential of a Mediterranean City using Lidar Data" on 12.01.2017.

Dr M Balaji ASSP/EEE, Dr Mrunal Deshpande ASSP/EEE, Dr N Muthuselvan ASSP/EEE, Dr U Shajith Ali ASSP/EEE, Dr Murugesan ASSP/EEE, Dr.R.Deepalaxmi ASSP/EEE, Dr Tamil Selvi, Dr Usha ASSP/EEE, Asso.Prof/EEE, reviewed the papers for ICPEDC 2017, EEE, SSNCE on 13.01.2017.

Dr Ranganath Muthu Prof/EEE, Dr V Rajani Prof/ EEE, Dr Aravindan Prof/ EEE, Dr N Pandiarajan Prof/EEE, Dr R Rengaraj ASSP/EEE, Dr Seyezhai ASSP/EEE, Dr. R. Ramaprabha, ASSP/EEE reviewed many papers for ICPEDC 2017 on 17.01.2017.

Dr.R.Deepalaxmi ASSP/EEE, reviewed the papers for first international conference on "Power Engineering Computing and Control (PECCON-2017)" to be organised by School of Electrical Engineering (SELECT), VIT University, Chennai on 17.01.2017.

Ms Alaghudheeraj AP/EEE, Ms S Malathy AP/EEE, Ms Umarani AP/EEE, Mr R Leo AP/EEE, Ms krishnaveni AP/EEE, Mr V Thyagarajan AP/EEE, Mr Balasubramanian AP/EEE, Mr Nagarajan and Mr Venkatakrishnan AP/EEE reviewed many papers for ICPEDC 2017 on 18.01.2017.

Muthu Selvan N B, reviewed a Research Article, "Journal of The Institution of Engineers (India): Series B" on 18.01.2017.

Dr.R.Deepalaxmi ,Asso.Prof/EEE reviewed the manuscript for Pearson Education on 20.01.2017.

Dr. N. Pandiarajan Prof/EEE reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic –"Dynamic rating of overhead transmission lines over complex terrain using a large-eddy simulation paradigm" on 24.01.2017.

Dr. N. Pandiarajan Prof/EEE reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic –"Wind power forecasts by a similar time series data mining method" on 24.01.2017.

Dr.V.Rajini Prof /EEE conducted project Review for M.E PED III sem on 17.02.2017.

Dr Mrunal Deshpande ASSP/EEE, Dr U Shajith Ali, Dr M Senthil Kumaran ASSP/EEE and P Saravanan AP/EEE conducted II project review for Final year EEE students on 24.02.2017.

Dr Mrunal Deshpande ASSP/EEE reviewed paper for COMPEL on 10.02.2017.

Dr Mrunal Deshpande ASSP/EEE, Dr U Shajith Ali, Dr M Senthil Kumaran ASSP/EEE and P Saravanan AP/EEE conducted II project review for Final year EEE students on 24.02.2017.

N. Pandiarajan reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic –" The Importance of Facades for the Solar PV Potential of a Mediterranean City using Lidar Data" on 01.03.2017.

Dr. N. Pandiarajan reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic –"An approach for efficient assessment of the performance of double auction competitive power market under variable imbalance cost due to high uncertain wind penetration" on 01.03.2017.

Dr. N. Pandiarajan reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic – "Rooftop solar potential based on LiDAR data: Bottom-up assessment at neighbor hood level" on 01.03.2017.

Dr. N. Pandiarajan reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic – "Evaluation of Planetary Boundary Layer Simulations for Wind Resource Study in East of Iran" on 01.03.2017.

Dr. N. Pandiarajan reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic – "Assessment of Barriers to the Dissemination of Decentralized Renewable Energy Systems in Uttarakhand, India - A Survey of Adopters and Non-adopters" on 01.03.2017.

Dr. R. Ramaprabha, Asso.P/EEE reviewed 3 papers for National Students Conference on Automation and Control held on 03.03.2017 at Department of EEE, SSN College of Engineering.

Dr. N. Pandiarajan reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic – "Focusing on the right targets: Economic factors driving non-hydro renewable energy transition" on 04.03.2017.

Dr. R. Ramaprabha, Asso.Prof./EEE reviewed papers for International Journal of Electrical Power and Energy Systems, International Journal on Engineering Science and Technology, International Journal of Electronics (Taylor & Francis) on 05.03.2017.

Dr. N. Pandiarajan reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic –"A hybrid bVAR-NARX wind power forecasting model based on wind and load demand correlation: A case study of ERCOT's system from an ISO's perspective" on 07.03.2017.

Dr. N. Pandiarajan reviewed a paper for "Renewable Energy" - Elsevier Publishing Campus. Topic – "Experimental characteristic output of PV modules under partial shading with two very different bypass diodes configurations" on 21.03.2017.

Muthu Selvan N B Asso.Prof./EEE, reviewed a research article for the Journal of The Institution of Engineers (India): Series B on 31.03.2017.

MEETINGS / SEMINARS ATTENDED

Dr. R. Ramaprabha, Assoc. Prof./EEE attended Faculty development training program titled "EE6602 - Embedded Systems", organized by the department of EEE, SSN College of Engineering, Kalavakkam during Dec 12-19, 2016.

Dr.R.Seyezhai, ASSP/EEE attended the Doctoral committee meeting at MGR University, Chennai for the research scholar Mrs.Bhuvaneswari ON 03.01.2017.

Dr. R. Ramaprabha, Asso.Prof./EEE attended tutorial on "Auto tuning using Relay feedback" in 9th International Conference on "Trends in Industrial Measurements and Automation (TIMA 2017)"at Madras Institute of Technology (MIT), Chennai, India, pp. 150-153 during Jan 06-08, 2017.

Dr Ranganath Muthu Prof/EEE attended the 9th International Conference on 'Trends in Industrial Measurement and Control 2017 (TIMA-2017)' at Madras Institute of Technology Campus, Anna University as Chairperson, Technical Committee. Also the Coordinator for the Poster Session on January 7, 2017.

Dr.R.Deepalaxmi , Asso.Prof/EEE and Dr Mrunal Deshpande Asso.Prof/EEE attended 1 day Teacher's Conclave on " Pursuing Excellence in Teaching" on January 7, 2017 organized by Good citizenship Forum, SSN College of Engineering in assosciation with Rajaji Centre for Public Affairs (RCPA), Chennai and ISTE,SSNCE Chapter.

D.Umarani/AP/EEE has participated and assisted in organizing the 1-Day Teachers' Conclave on 'Pursuing excellence in teaching' (A professional development programme for teachers in higher education) organized by Good Citizenship Forum , SSNCE in association with Rajaji Centre for Public Affairs(RCPA), Chennai and ISTE SSNCE Chapter on 07.01.2017.

Dr. R. Ramaprabha, Asso.Prof./EEE acted as advisory committee member for National Conference on Disaster Mitigation, Responsiveness & Management (NCDMRM), Feb 03-04, 2017 sponsored by IEEE Madras Section.

Dr. R. Ramaprabha, Asso.Prof./EEE participated IEEE MAS student branch officers meet 2017 at TAG Auditorium, College of Engineering, Guindy, Chennai on Feb 05, 2017.

Ranganath Muthu Prof/EEE Attended the Board of Studies Meeting at Anna University for the Faculty of Electrical Engineering for Affiliated Colleges on 20.02.2017.

Dr.V.Rajini, Prof/EEE conducted class committee meeting for II year EEE on 21.02.2017.

DR.R.Seyezhai, ASSP/EEE attended the Doctoral committee meeting at SRM University, Chennai on 28.02.2017.

Dr.R.Seyezhai, ASSP/EEE attended the meeting for the project proposal internal scrutiny for the SSN Incubation Centre. Two Projects were presented by UG students.

RESEARCH AND DOCTORATE ACTIVITIES

Ms.A.Chamundeeswari, (Research scholar) under the guidance of Dr.R.Seyezhai submiited her Ph.D. thesis after scrutiny report on 02.01.2017.

Dr.R.Seyezhai, ASSP/EEE and A.Bharathi Sankar (SRF) filed a patent titled, " Solar powered electric vehicle using BLDC Drive" on 10.01.2017.

Dr.R.Deepalaxmi , Asso.Prof/EEE, conducted the first Doctoral Committee meeting of the part-time research scholar Ms.N.Shanthi and Ms.S.Vijayalakshmi on 11.01.2017 and 12.01.2017 respectively.

Ms. S. Malathy, AP/EEE submitted her PhD thesis under the guidance of Dr. R. Ramaprabha, Assoc. Prof./EEE on 17.12.2016.

Dr.R.Seyezhai, ASSP/EEE conducted the DC confirmation meeting for the research scholar Mrs.M.Shanthi at SSNCE on 18.01.2017.

Dr. R. Ramaprabha, Assoc. Prof./EEE conducted PhD Viva-voce examination for her full-time candidate Ms. M. Venmathi on 18.01.2017. Her thesis was highly recommended for the award of degree.

Dr.R.Seyezhai, ASSP/EEE organized the First DC meeting for the research scholar Ms.Anto Sheeba at SSNCE on 18.02.2017.

Dr. R. Ramaprabha (Assoc. Prof.) attended DC meeting at Dr. M. G. R. Educational and Research Institute University, Chennai on 03.03.2017 as DC member

Dr. R. Ramaprabha, Assoc. Prof./EEE attended DC meeting at RMD Engineering College, Chennai on 03.03.2017 as DC member

Mr. Anoop, Doctoral scholar of Dr.V.Rajini Prof /EEE, submitted his thesis to Anna University on 15.03.2017.

Dr Mrunal Deshpande ASSP/EEE is now recognized supervisor of Anna University to guide Ph.D students on 16.03.2017.

Dr.R.Seyezhai, ASSP/EEE presented her research work in the Energy Researcher's meet at SSNRC on 21.03.2017.

Mr. Vasan Prabhu, Doctoral scholar of Dr.V.Rajini, Prof/EEE submitted his thesis to Anna University on 22.03.2017.

Dr. R. Ramaprabha (Asso.Prof./EEE) has presented her research activities and roadmap on 23.03.2017 at SSN Research center in Energy Researchers meeting

Dr.R.Seyezhai, ASSP/EEE submitted the Post Program report for the EAC program sanctioned under DST-NIMAT Project 2016-17 to EDII,Ahmedabad on 23.03.2017.

GUEST LECTURES

Dr M Balaji Asso.Prof./EEE Delivered a guest lecture on "Electrical Machines" at Jerusalem College of Engineering, Chennai on 20.02.2017.

Dr. R. Ramaprabha, Asso. Prof./EEE delivered a keynote address on "Reduced Device Count Voltage Source Inverters for Solar Photovoltaic Systems" in TEQIP – II Sponsored International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), Pondicherry Engineering College, Pondicherry, India during 24th-25th, February 2017 at Hotel Accord, Puducherry. And she chaired a technical paper presentation session on Component Count Waning and Performance Enhancement of VSI.

Dr M Balaji ASSP/EEE Delivered a Keynote address on "Optimization Techniques for Partially Shaded Photovoltaic Arrays" at International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College , Puducherry on 25.05.2017.

DR.R.Seyezhai, ASSP/EEE delivered a keynote address titled, " Application of BLDC Drive for Electric Vehicle" in the International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry on 25.02.2017.

DR.R.Seyezhai, ASSP/EEE chaired a session on BLDC drives in the International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry on 25.02.2017.

DO IT YOURSELF

HOW TO MAKE AN AIR CORE INDUCTOR

We are research oriented engineers. For research and development apart from simulations we require manipulations in hardware. One of the main component in most of the circuits is an Inductor. An Inductor is an energy storing device. The design of this component is simple and can also be implemented easily. For trial and error in hardware implementation of projects, an air cored inductor would be sufficient.

Design

$$L = [d^2 n^2] / [18d + 40l]$$

- Where' L ' is the inductance in Micro Henries [µH]
- 'd' is the diameter of the coil from one wire centre to another wire centre. It should be specifies in inches.
- 'l' is the length of the coil specified in inches.
- 'n' is the number of turns.

Steps to wind the coil

- The coil must be first wounded on a plastic former of the adequate diameter (equal to the required core diameter).
- The winding must be tight and adjacent turns must be as close as possible.
- After the winding is complete, slowly withdraw the core without disturbing the coil.
- Now apply a thin layer of epoxy over the coil surface for mechanical support.
- Remove the insulation from the coil ends.

Example

Suppose you want to make an inductor which produces an inductance of 10 μH. The diameter of the coil is 1 inch and the coil length is given by 1.25 inches. You will have to find the number of turns of the coil.

Thus substituting the values in the above equation

L = 10 inches

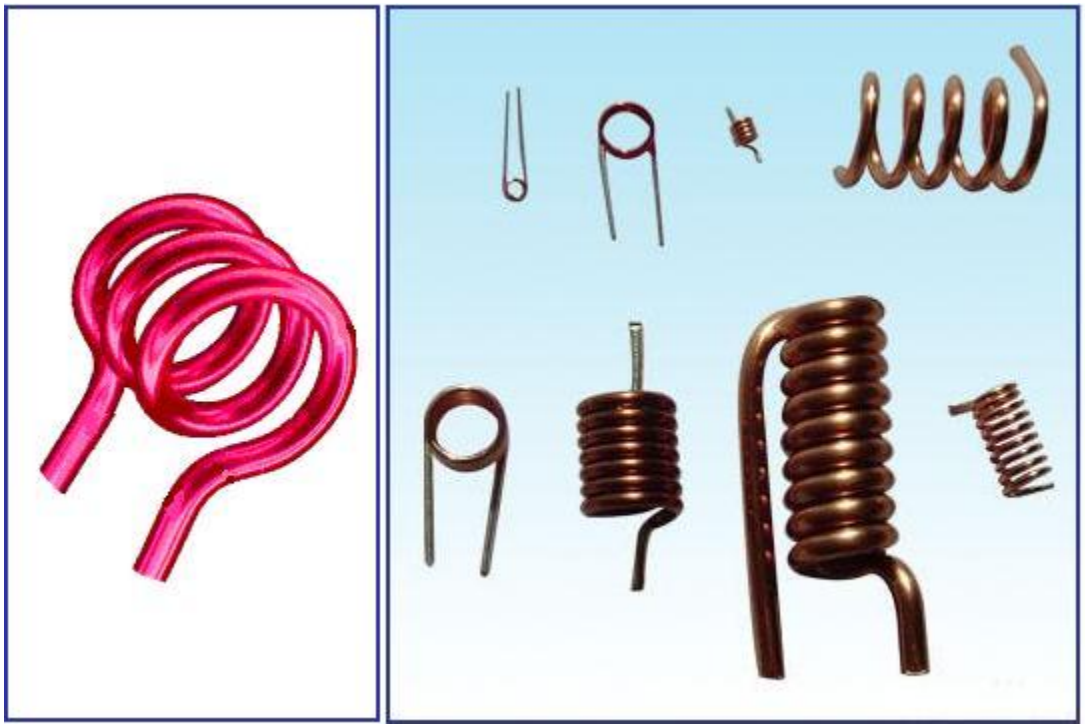
d = 1inch

l = 1.25 inches

n = √{L [18d * 40l]} / d = 26

Thus, the number of turns of the coil will be 26.

Number of turns/inch = 20.8

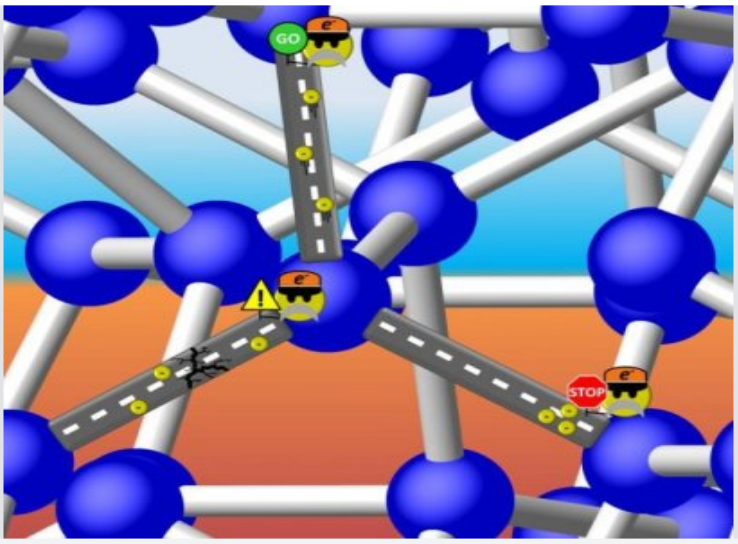


Submitted by, Shabbeer Basha, EEEB 3rd Yr

LATEST TECHNOLOGY

Discovery of semiconducting properties of Si-III might lead to unpredictable technological advancement

It would be difficult to overestimate the importance of silicon when it comes to computing, solar energy, and other technological applications. Yet there is still so much to learn about how to harness the capabilities of element number 14. The most-common form of silicon crystallizes in the same structure as diamond. New work shows that one form of silicon, Si-III, which is synthesized using a high-pressure process, is what's called a narrow band gap semiconductor.



Is Si-III a metal with freely travelling electrons, or a semiconductor with a discrete energy gap that can 'stop' the flow? It turns out the latter is true, but the band gap of Si-III is so small that electrons can 'proceed with caution' through the structure.

Open-source software unlocks 3-D view of nanomaterials

Now it's possible for anyone to see and share 3-D nanoscale imagery with a new open-source software platform developed by researchers at the University of Michigan, Cornell University and open-source software company Kitware Inc. **Tomviz 1.0** is the first open-source tool that enables researchers to easily create 3-D images from electron tomography data, then share and manipulate those images in a single platform.

A 3-D view of a hyperbranched nanoparticle with complex structure, made possible by Tomviz 1.0, a new open-source software platform developed by researchers at the University of Michigan, Cornell University and Kitware Inc.

Submitted by Aarthi G, 3rd Yr

You will LEARN

Each course here is intense and so you will do the course work on a regular basis. You can't just study before the day of exam and get over it. You will be expelled if found copying from your classmates or from the internet. This leaves you with no other option rather than learning by yourself. The curriculum is up to date and so are the professors who will always be there to help you out. Professors in the US have good industrial exposure and are passionate about teaching which inspires you to learn new things every day. The best part is you end up doing it. You will learn to read a lot of research papers which will create an interest towards research and will know what application based learning is.
You will also take some life lessons. You will learn the importance of networking and how to talk to people. You will learn that it is not a shame to ask "What is Ohm's Law?" in a master level EE class! You will learn that it is not essential to mug up formulas and its derivations as you can always refer to them from cheat sheets during exams. So, at the end of the day, you learn!

You can take a course from Cinematic Arts too!

You will have great number of options to choose your courses from. The flexibility and the nature of work load provided by the American educational system make it stand out of other universities from the rest of the world. You will find undergrads from non-engineering background in your EE class who might have more concrete EE knowledge than you. You will find a music major leading the solar car team. You will come to know that it is only your passion that takes you to higher heights in life.

International Exposure

The quality of education is high and jobs in the US pay relatively high. But besides these, you will work with people from diverse culture and background with different mindset and thought process. This will help you grow in all possible directions. You will meet Chinese people who are extremely smart and hard-working which will motivate you. You will find your rich American classmates to be the friendliest people on earth.

You learn to be 'IN'-DEPENDENT

You will not have your mom to get you food when you are in bed. You will not have your dad to give your daily pocket money. You will not have your sibling to criticize your work in all possible ways. Once you realize that there is no one to take care of you, you will take responsibilities. You will work in cafés, wipe floors, pick up dirty dishes and clean the dishes. But you will learn what it takes to earn money and will pay attention to each dollar spent. When you start looking for internships and jobs, you will face failure and fall often. But at the end, you will become stronger and smarter.

You will learn how to handle pressure

When you are done with an assignment, you will have two other project works to do! You will have constant pressure in terms of assignments, lab works, exams and projects for most of the courses. The professors give enough time to complete them and so you will learn how to manage time by prioritizing your work load. You will struggle every day but at the end, you will love it.

You will become a MasterChef!

You will find yourself wherever there is FREE food on campus. You will cook at home to save on money since it takes a lot of money to eat outside daily. You will call your mom to ask how many glasses of water to be added to make rice. You will try all kinds of cuisines of the earth. There will be times where your YouTube homepage will be filled with cooking video suggestions. You will develop eternal love for Idly, Dosa, Sambhar made by mom!

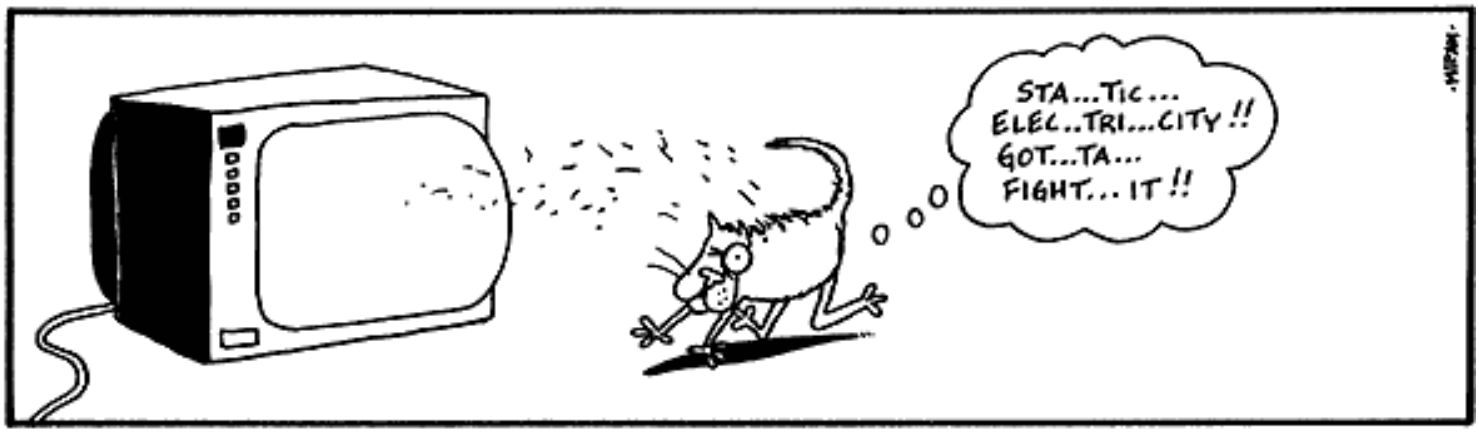
You will miss INDIA

Last but the most important - You will miss your home, parents, friends who care for you and that's when WhatsApp video call helps. You will miss your grandma's advice which has annoyed you. You will miss eating those spicy mangoes in Bessy beach. You will miss bargaining on the streets of TNagar for ten rupees. You will miss South Indian full meals, Andhra meals and Aasife biriyani. You will miss Indian music and movies. In short, you will miss the whole of **INDIA**. There will be times when you will just want to give up on everything and run back home. But after two years when you turn back, you will see that its totally worth it.

You will learn what life is!

-Kaviya Apparswamy (2016 passed out) Alumni)

On the lighter side,



EDITORIAL TEAM