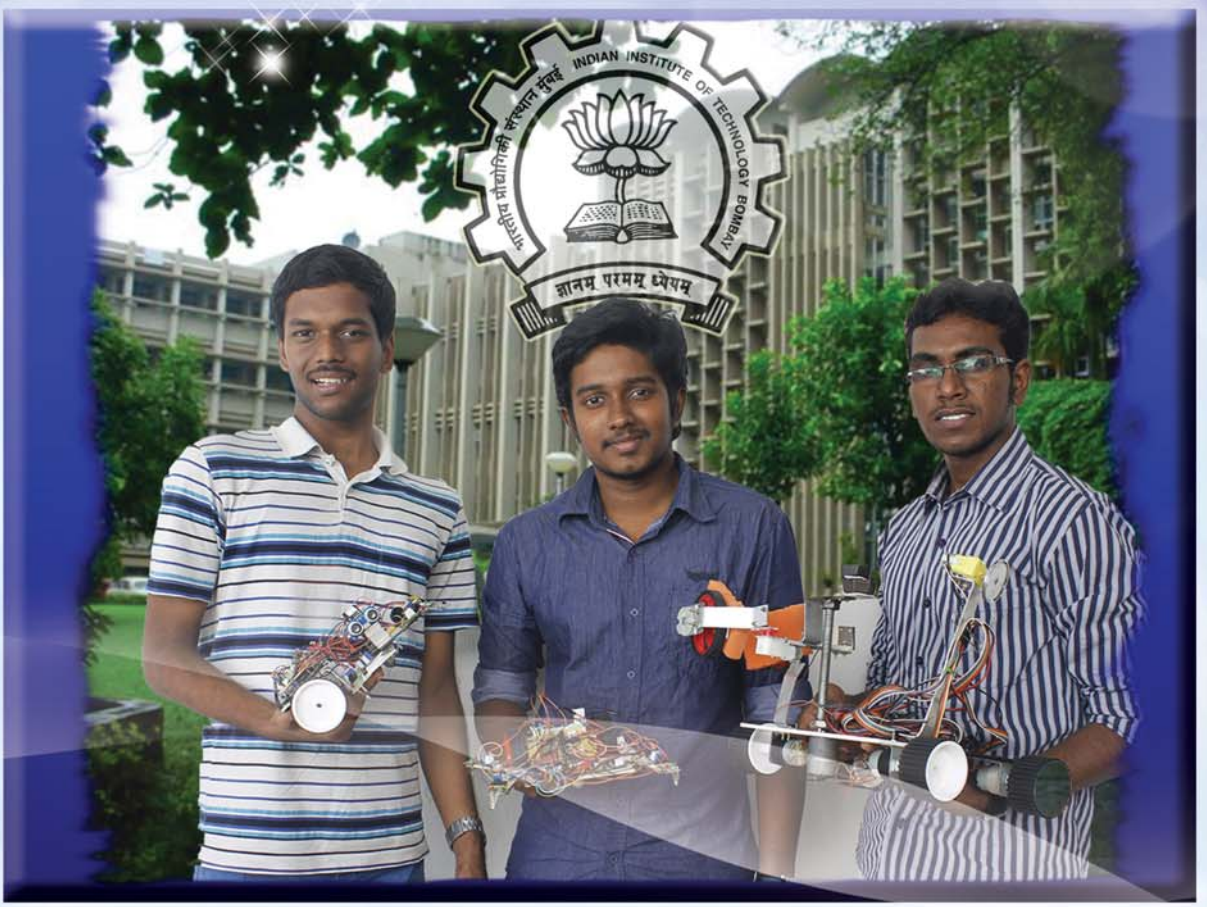
JANUARY 2013 - ISSUE 04

REDEEM



- EEE Dept. Students bag laurels at Robotics, IIT Bombay Techfest 2013
- National Workshop on "Feedback Controllers for Power Converters"
- Faculty Development Program(FDP) on HVDC Transmission (EE2032)
- Dr. Rajini's Interview

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

QUARTERLY NEWSLETTER

REDEEM

Preface

Chief Editor

I wish all the readers a happy and prosperous new year. The world is changing faster than ever. Our best hope for the future is to develop a new paradigm of human capacity to meet a new era of human existence. We need to evolve a new appreciation of the importance of nurturing human talent along with an understanding of how talent expresses itself differently in every individual. We need to create environments in our schools, in our workplaces, and in our public offices where every person is inspired to grow creatively. We need to make sure that all people have the chance to do what they should be doing, to discover the Element in them and in their own way. Finding your Element is essential to your well-being and ultimate success, and, by implication, to the health of our organizations and the effectiveness of our educational systems. If we can each find our Element, we all have the potential for much higher achievement and fulfillment. We all have distinctive talents and passions that can inspire us to achieve far more than we may imagine. Understanding this changes everything. It also offers us our best and perhaps our only promise for genuine and sustainable success in a very uncertain future.

Being in our Element depends on finding our own distinctive talents and passions. Why haven't most people found this? One of the most important reasons is that most people have a very limited conception of their own natural capacities. This is true in several ways. The first limitation is in our understanding of the range of our capacities. We are all born with extraordinary powers of imagination, intelligence, feeling, intuition, spirituality, and of physical and sensory awareness. For the most part, we use only a fraction of these powers, and some not at all. Many people have not found their Element because they don't understand their own powers. The second limitation is in our understanding of how all of these capacities relate to each other holistically. For the most part, we think that our minds, our bodies, and our feelings and relationships with others operate independent of each other, like separate systems. Many people have not found their Element because they don't understand their true organic nature. The third limitation is in our understanding of how much potential we have for growth and change. For the most part, people seem to think that life is linear, that our capacities decline as we grow older, and those opportunities we have missed are gone forever. Many people have not found their Element because they don't understand their constant potential for renewal. Most of us can look back to particular teachers who inspired us and changed our lives. These teachers excelled and reached us, but they did this in spite of the basic culture and mindset of public education. There are significant problems with that culture. Most students never get to explore the full range of their abilities and interests. The Element is the meeting point between natural aptitude and personal passion. An aptitude is a natural facility for something. It is an intuitive feel or a grasp of what that thing is, how it works, and how to use it. Being in your Element is not only a question of natural aptitude. Being in your Element needs something more—passion. People who are in their Element take a deep delight and pleasure in what they do. Attitude is our personal perspective on ourselves and our circumstances—our angle on things, our

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disposition, and emotional point of view. Many things affect our attitudes, including our basic character, our spirit, our sense of self-worth, the perceptions of those around us, and their expectations of us.

Being in our Element often means being connected with other people who share the same passions and have a common sense of commitment. In practice, this means actively seeking opportunities to explore your aptitude in different fields. Often we need other people to help us recognize our real talents. Often we can help other people to discover theirs. Eventually we have to find the Element in ourselves and help others to find it as well. We have to find new ways of looking at our own potential and the potential of those around us.

From the HOD's Desk…

Dr.V.Kamaraj

Quality engineering education is important in any technology driven economy. It is required to produce not simple graduates, but graduates who can handle the future knowledge driven society. This is the present day challenge for engineering institutes.

This edition of REDEEM contains details of department activities namely Faculty Development Program on HVDC systems and workshop on "Feedback Controllers for Power Converters". I congratulate the coordinators. I would like to congratulate Masha Nazeem for having participated in "Jagriti Yatra" (15 days National Train Journey funded by TATA group). I also congratulate Karthik Singaram, Karthikeyyan. R and Kamal. P of third year EEE for having secured 2nd place in "Robotics Events" in IIT-Bombay.

We thank all the contributors in making this issue a significant one. Suggestions and feedback are welcome for the overall improvement of the Newsletter. We wish you all a Very Happy New Year 2013.

Faculty Development Program (FDP)

High Voltage Direct Current Transmission, HVDC - (EE 2032)

28th November – 4th December 2012

The Faculty Development Training Program on "*High Voltage Direct Current Transmission" HVDC - (EE 2032)* was organized by Department of Electrical and Electronics Engineering, SSN College of Engineering, Kalavakkam, during 28th November – 4th December, 2012. Dr. Ashwin Kumar Sahoo, Professor and Dr. V. Rajini, Professor, and EEE Department faculty were the coordinators for the program. The FDP was fully s*ponsored by* CENTRE FOR FACULTY DEVELOPMENT, ANNA UNIVERSITY, CHENNAI.

The program was well received among faculty, both young as well as experienced. A total of twenty-four faculty from twelve different engineering colleges attended the training program. The seven days program was divided into twenty-eight sessions, with two forenoon and two after-noon sessions, which include lecture hours, lab, tutorials and presentation by participants, made the teaching – learning process more interactive and interesting. A total of eighteen resource persons were engaged for course delivery, out of which four were external.

Workshops

Department of EEE conducted two days National Level Workshop on "**FEEDBACK CONTROLLERS FOR POWER CONVERTERS**" during November 2-3, 2012.

Convener:

Dr. V. Kamaraj & Dr.B.L.Mathur

Coordinator:

Dr.R.Seyezhai & Ms.Mrunal Deshpande

Around 43 members (faculty & PG students from various institutions over Tamilnadu) attended the workshop. Lectures on Overview of Classical Controllers, Introduction to Non-Linear System and Sliding Mode Controllers, Voltage mode, Current Mode & Sliding mode Control of DC-DC Converters, Fuzzy Control in Power Electronic Converters, Neural Network Controller for DC-DC Converters, Design of Controller for Special Machines and Control of Induction motor drives were delivered. Tutorials on MATLAB simulation of PI, Sliding mode controller & intelligent controller for DC-DC Converters were handled.

IEEE Activities

IEEE Microwave Theory and Techniques Society

On the 2nd of November 2012, a seminar on recent advancement in Microwave Theory and Antenna Technology was jointly organized by IEEE Microwave Theory and Techniques Society (MTT-S), Madras Chapter and IEEE Student Branch of SSN College of Engineering, Chennai at the Central Seminar Hall, ECE Dept.

Dr. K. Malathy, Associate Professor from CEG, Anna University, Chennai, was the invited speaker for the event. Dr. Malathy is an expert in the areas of antenna arrays and EMI/EMC. She delivered the lecture on the topic "**Antennas for Next Generation**". The speaker, in her presentation, elaborated about the Smart Antennas and Challenges faced in various fields concerning Antennas. An overview of career opportunities on these fields was also discussed. It was interactive and the students were enlightened with the knowledge in the field of Antennas and its advancement.

Dr. S. Salivahanan, Principal, SSNCE, Dr. S. Radha, HOD, ECE Dept., Dr. Ashwin Kumar Sahoo, IEEE Student Branch Counselor, SSNCE, and Mr. S. Ajay, Student Branch Chairman - were present for the program.

"Maturity is not when we start speaking big things; it is when we start understanding small things in life"

IEEE Activities

A Story of Maxwell's Displacement Current concepts

On 11th December 2012, IEEE Microwave Theory and Techniques Society (MTT-S), Madras Chapter and IEEE Student Branch of SSN College of Engineering, Chennai jointly organized a seminar on "A Story of Maxwell's Displacement Current Concept". Dr. K. T. Selvan, Professor, ECE Dept., SSNCE, Chennai, was the invited speaker for the event.

The program was well received by students and faculty members. Dr. S. Salivahanan, Principal, SSNCE, Dr. V.Kamaraj, HOD, EEE Dept., and Dr. Ashwin Kumar Sahoo, IEEE Student Branch Counselor, SSNCE, - were present for the program. There were about 10 faculty members and 30 students attended the lecture.

The displacement current concept introduced by James Clerk Maxwell is generally acknowledged as one of the most innovative concepts ever introduced in the development of physical science. It was through this that he was led to the discovery of his electromagnetic theory of light. While this concept and its development have received much admiration in the literature from the viewpoints of both scientific content and philosophical methodology, there interestingly has been criticism, as well. In this talk, an overview of these perspectives was presented. With the distinctive creative quality of the concept emerging on balance, it was suggested that effective use of it could be made to help learners to contemplate innovation and creativity, among other factors.

Internally Funded Projects

- G. Shobana and P. Sornadeepika (IV Year EEE) have been awarded funding of Rs. 15,000 for their project titled, "Global Maximum Power Point Tracking of Photovoltaic Arrays", under the guidance of Dr. R. Ramaprabha, Asso.Prof/EEE.
- Abinaya.K, Akshaya.V & Induja.U (IV Year EEE) have been awarded funding of Rs. 25,000 for their project titled, " Design and Development of Quasi Z source Inverter for Photovoltaic Power Conditioning System ", under the guidance of Dr.R.Seyezhai, Asso.Prof/EEE.
- Pallamreddy Nirupa, Mounica Ganta & Thimmadi Akshitha (IV Year EEE) have been awarded funding of Rs.25,000 for their project titled, "Analysis, Modeling and Implementation of a MD Interleaved Boost Converter for Fuel Cell Hybrid Electric Vehicles", under the guidance of Dr.R.Seyezhai, Asso.Prof/EEE.
- B.Jeevitha, V.Kavitha & M.Manu Prasad (IV Year EEE) have been awarded internal funding for their project titled, "Harnessing Wind energy via Modern 3-Phase Matrix Converter", under the guidance of Dr.A.N.Arvindan, Prof/EEE.
- B. S. Dhivya, V. Krishnan and R. Arvind (IV Year EEE) have been awarded internal funding for their project titled, "Solar Fencing system for agriculture", under the guidance of Dr. R. Ramaprabha, Asso.Prof/EEE.
- N.Jenani (PG Student) has been awarded internal funding for her project titled, "Modern Line commutated Converters based HVDC Power Transmission with Digital Control" under the guidance of Dr.A.N.Arvindan, Prof/EEE.

Forthcoming Events

EEE Dept. of SSNCE is to host a National Conference on POWER SYSTEMS POWER ELECTRONICS and DRIVES (PSPED – 2013), March 1-2, 2013. For details visit www.ssn.edu.in

Faculty Achievements

Journal Publications

- K. Kanchana (Research Scholar) and Dr.V.Rajini Prof/EEE published a paper entitled," High frequency model of inverter fed induction motor drive for investigation of over voltage phenomena", ARPN Journal of engineering and Applied Sciences September 2012 | Vol. 7 No. 9, ISSN 1819-6608.
- K.Radhasree (passed out B.E. Student, batch 2012) and Dr.R.Seyezhai, Asso.Prof/EEE published a paper entitled, "Design and Computation of Energy factor parameters for an Interleaved Boost Converter" in the International Journal of Engineering research and Applications, Vol.2, issue 5, Sept. –Oct. 2012, pp. 1416-1420. (ISSN: 2248:9622).
- T. Porselvi (Research Scholar) & Dr.Ranganath Muthu published a paper entitled, entitled, "Design of Buck-Boost Converter for Wind Energy Conversion" System', European Journal of Scientific Research, Vol. 83, No. 3, pp. 397-407, Aug 2012 (SNIP 0.493, SJR 0.033).
- Mr.Pandiarajan, Asso.Prof/EEE & Dr.Ranganath Muthu, Prof./EEE published a paper entitled, "Performance improvement of PV module at higher temperature operation", in the International Journal of Engineering science and Technology - ESTIJ, Vol.2, No: 5, October 2012, pp.894-900.
- K.N. Dineshbabu, Dr. R. Ramaprabha and Dr. V. Rajini, published a paper entitled, "Mathematical Modeling and Simulation of Grid Connected Solar Photovoltaic System", in the International Journal of Electrical and Electronics Engineering (IJEEE) ISSN (PRINT): 2231 – 5284, Vol. 2, No.1. pp., 73-77, 2012.
- Dr.R. Seyezhai, S.Mahalakshmi, M.Bhavani and R.Anitha (passed out EEE Students- 2012 batch) published a paper entitled, "Analysis of Power loss calculation for Interleaved Converter using switched capacitors", in the International Journal of Advances in Electrical & Electronics engineering, Vol.1, No: 3, Nov.2012.

Paper Presentations

- M. Senthil Kumaran AP/EEE, Siddharth Raju (passed out UG student) & Dr.Ranganath Muthu published a paper entitled, 'Minimum Error Switching Strategy for Matrix Converter with Input Power Control, International Review on Electrical Engineering, Vol. 7, No. 4, pp. 4768-4775, August 2012 (SNIP 2.217, SJR 0.039).
- Dr.M.Balaji, Asso.Prof/EEE and Dr.V.Kamaraj, Prof & Head/EEE

Rhapsody

Dr.R. Arumugam received his B.E., and M.Sc. (Engg.) degrees from Madras University in the years 1969 and 1971 respectively. He received his Ph.D. in electrical engineering from Concordia University, Montreal, Canada. He worked in various capacities at College of Engineering, Guindy, and Anna University from 1976 onwards. He was formerly the Professor and Head of Department at CEG and Chairman, Faculty of Electrical Engineering, Anna University. He is presently working as the Professor in Electrical Engineering at SSNCE.

He was the recipient of Fellowship from Natural Sciences and Engineering Research Council (NSERC) of Canada during the period September 1983- December 1987. One of his technical papers was presented in the IEEE International conference on Power, Control and Instrumentation Systems, IECON – 2000.

He was a consultant to Lucas TVS Ltd., for the design of Switched Reluctance Motor and to Combat Vehicle Research and Development Establishment (CVRDE), DRDO, for the design of a prototype Linear Induction Motor. He has also involved in the Thermal Analysis of fuse element for S&S Power Switchgear Ltd., Chennai.

He has published 52 technical papers in International Journals, 2 papers in National Journal and 48 papers in International Conferences. He has guided 8 Ph.D. and 2 M.S (By Research) scholars. At present he is guiding 6 Ph.D. research scholars. His research interests are in Computer Aided Design of Electrical Machines, Finite Element Analysis, Electric Motor Drives and Power Electronics.

"Life is a shipwreck but we must not forget to sing in the lifeboats"
-Voltaire

attended and presented a paper titled "Common Web Tools for Technology Enabled Learning" at 42nd ISTE Annual Convention held at Anurag Group of Institutions, Hyderabad.

- Dr.R.Seyezhai Asso.Prof/EEE and M.Tamilarasi (AP/EEE) presented a paper entitled, "Design of directly coupled Interleaved Boost Converter (IBC) for fuel cells", in the National Conference in Control System & Power Electronics" sponsored by DRDO held at Vivekananda Institute of Engineering & Technology for Women, Tiruchengode.
- Dr. Ashwin Kumar Sahoo participated and presented a paper titled "Load Frequency Control for a Distributed Grid System Involving Wind and Hydro Power", at the 2nd IEEE International conference on Power, Control and Embedded Systems (ICPCES- 2012), held at NIT – Allahabad during 17th – 19th Dec 2012.

Guest Lectures

- Dr.V.Rajini, Prof/EEE delivered a keynote lecture on " Recent trends in Renewable Energy sources" on 10th Oct 2012 at Saveetha School of Engg, Saveetha University, under the auspices of Inauguration of IEEE student branch in the Forenoon.
- Dr.V.Rajini, Prof/EEE delivered a guest lecture on " Renewable Energy"" on 10th Oct 2012, at Saveetha Engg College in the afternoon.
- Dr.Ashwin Kumar Sahoo, Prof/EEE attended the doctoral committee meeting at SRM University, Chennai.
- Dr. Ashwin Kumar Sahoo delivered the keynote address at the National Conference on Advances in Electrical Energy Applications (AEEA – 2013), organized by Department of Electrical and Electronics Engineering, Velammal Institute of Technology, Chennai on 4th January 2013 and Chaired the paper presentation session.

- Dr.M.Balaji, Asso.Prof/EEE delivered a Lecture on, "Modeling and Analysis of SRM & PMSM at TEQIP sponsored Faculty Development Program at Alagappa College of Engineering and Technology during 31st October and 1st November 2012.
- Dr.Ashwin Kumar Sahoo, Prof./EEE organized a seminar on, " Next Generation Antenna Design" under IEE Student branch at SSNCE. The lecture was delivered by Dr.Malathy, Associate Professor, CEG, Anna University, Chennai.
- Dr.R.Arumugam, Prof./EEE delivered a keynote address on, "Recent Trends in SR Motor Drives" and chaired a technical session in the National Systems Conference (NSC -2012), conducted at Annamalai University, Chidambaram.
- Dr.Ranganath Muthu, Prof./EEE delivered a Keynote Address on 'Trends in Instrumentation' and Chairing the session on 'Instrumentation & Control Systems' at the International Conference on Emerging Trends in Electrical Engineering and Energy Management (ICETEEM-2012) at Aarupadai Veedu Institute of Technology, Chennai.
- Dr.Ranganath Muthu, Prof./EEE delivered a Lecture on 'Genetic Algorithm' at the Faculty Development Training Program on 'Applied Soft Computing' at MIT Campus, Anna University.
- Dr.R.Arumugam, Prof./EEE delivered a Lecture on, " Electromagnetic Analysis of Special Machines", in the CSIR sponsored seminar on "Electric drives and embedded Control ", at College of Engineering, Guindy.
- Dr.A.N.Arvindan, Prof./EEE delivered a Lecture on, " Power Quality Solutions" at the IET sponsored National Technical seminar on, "Power Quality – issues, problems and Solutions", at SMK FOMRA Institute of Technology, Chennai.

"The Power of accurate observation is frequently called cynicism by those who don't have it"
–George Bernard Shaw

- Dr.R.Ramaprabha, Asso.Prof/EEE delivered a Lecture on "Research Issues in Switch Mode Power Converters" in TEQIP sponsored one-week faculty development program (19.11.2012 to 25.11.2012) on Research Issues in Power Converters at A.C. College of Engineering and Technology, Karaikudi.
- Dr.V.Rajini, Prof./EEE delivered a Lecture on, "Power Quality & Harmonics", at the IET sponsored National Technical seminar on, "Power Quality – issues, problems and Solutions", at SMK FOMRA Institute of Technology, Chennai.
- Dr.A.N.Arvindan, Prof./EEE delivered a Lecture on, "Multilevel Inverters" at Sri Sai Ram Engineering College, Chennai.

Paper Reviews

- Dr.R.Ramaprabha, Asso.Prof/EEE has been appointed as a reviewer for an International journal on IET Renewable Power Generation and reviewed a paper titled**, "**Doorsill effect and dependency factor between modules of solar PV array**".**
- DR.V.Rajini, Prof/EEE has been appointed as reviewer for "IEEE Transactions on Dielectrics and Electrical Insulation" TDEI.
- Dr.R.Seyezhai, Asso.Prof/EEE has been appointed as a Technical Review Committee member for the International Conference on Global Innovation in Technology and Sciences 'ICGITS 2013' 4th to 6th April 2013, Kerala.
- Dr.R.Seyezhai, Asso.Prof/EEE has been appointed as the Editorial board member for TJPRC's Global Research Community International Journal on Electrical & Electronics Engineering.
- Ms.Mrunal Deshpande, AP/EEE reviewed papers for the International Conference on power system to be held at Malaysia.
- Dr.R.Ramaprabha, Asso.Prof/EEE has been appointed as Reviewer for International Journal on Neural Computing and Applications *(Springer Journals).*
- Mr.U.Shajith Ali, AP/EEE has been appointed as reviewer for the IEEE Transactions on Power Electronics.
- Dr.Ashwin Kumar Sahoo, Prof./EEE reviewed the papers for the National Conference, Power system emergencies, NPSEC-2012, organized by Shankara University, Kanchipuram.
- Ms.Mrunal Deshpande AP/EEE has been appointed as reviewer for science direct publications.
- Dr.M.Balaji, Asso.Prof/EEE has been appointed as a reviewer for International Journal of Electrical Power and Energy Systems (Elsevier Publications).
- Dr.R.Ramaprabha, Asso.Prof/EEE has been appointed as a reviewer for an International journal on IET Renewable Power Generation and reviewed a paper titled**, "**Decoupled Control Strategies for Three-Phase Grid-Connected Inverters**.**
- Dr.R.Ramaprabha, Asso.Prof/EEE has been appointed as a reviewer for International Journal of Electrical Power and Energy Systems (Elsevier Publications)
- Dr.R.Seyezhai, Asso.Prof/EEE has been appointed as Editorial board member for IJSEA journal.
- Dr.R.Ramaprabha, Asso.Prof/EEE has been appointed as a reviewer for Texas Instruments (TI) – TI India Analog Design contest 2012-2013 (Phase 1) for finalizing the final projects.

Academic Activities

- Dr.V.Kamaraj, Prof & Head/EEE arranged the ISTE monthly seminar at SSNCE.
- Dr. R. Ramaprabha, Dr. R. Seyezhai & Dr. M. Balaji submitted a proposal to support a national level workshop, "*Power Conversion Technologies for Renewable Energy Systems"* to CSIR, New Delhi.
- Ms. Latha Dinesh & Ms.Alagu Dheeraj, AP/EEE attended the faculty development program on, "Emphasis on smart operation and control of power markets using power electronic components", organized by Pondicherry Engineering College, Pondicherry.

Words of Wisdom

- From Dr.V.Rajini

Dr. V.Rajini is in the truest sense the epitome of confidence, determination and womanpower. She is respected for her "can do approach" and her diligence. She describes women as most complex biological machine. She has carved a niche for herself with more than two decades of teaching and research experience and is indeed a valuable asset to the department of Electrical and Electronics Engineering. She is currently working on the development of novel cable insulating materials for nuclear power plants. Her highly optimistic nature and intense passion towards teaching shine through in our interaction with her.

You are the most dynamic, optimistic and enthusiastic professor of the department...How do you manage to keep yourself motivated even after more than two decades of teaching and research experience?

It's always been my conscious effort to do my work differently and to the best of my abilities. The fact that I enjoy whatever I do is what keeps me going. I always strive to give life to all my pursuits, both personal and professional. I strongly believe that it's you who give life to your roles and not the roles that give you life.

Do you think Industrial projects are more viable in comparison to academic projects? Do you think there are enough opportunities available for students to pursue industrial projects?

Yes...Most definitely...Industrial projects definitely help in giving the students an edge in terms of exposure to new technological problems. These projects give you a platform to apply the fundamental concepts learnt as part of the curriculum and are sure to enrich you technically and professionally. They give you a birds' eye view of the current technological problems faced by the industry and encourage students to come up with innovative and feasible solutions. As far as the opportunities are concerned, I am convinced that there are ample opportunities available for students to exploit. A strong industry-institute relationship will go a long way in generating more such opportunities and making the best use of them. As far as possible, efforts must be taken to bridge the gap between the current industrial needs and the academic research trends.

You have been adjudged the Best teacher by a CTS-SSN Joint Initiative in 2011...What do you think is unique about your teaching?

I have always had a passion for teaching and truly enjoy being a teacher. I have been extremely lucky to have had very high support for all my academic and research aspirations. This support has been very useful in helping me improve as a teacher. I always keep my students motivated and try to communicate positively with them. I believe that only a positive and non-threatening interaction can bring out the best in them and help in achieving the common goals effectively.

What, according to you, are the main differences in the way research is carried out in India and in other countries of the world?

I have had opportunities to visit quite a few countries for academic conferences and seminars. Based on these experiences, I don't perceive a huge difference between the research methodologies of India and other developed nations. Factors such as the available talent pool, student potential and the like are not hugely different. But in India, research ventures are bounded by severe financial constraints. Highly innovative research ideas are deferred or rejected just for the want of proper funding. This has played a huge role in impeding India's growth in the field of science and research. Also, there is a need for scholars to intensify their drive towards research by constant perusal of current research trends. They should try and adopt a more interdisciplinary approach and should have the capability to direct their research activities in the right direction.

What are your non-engineering passions?

I unwind by listening to spiritual lectures and browsing the Internet for random trivia on history and culture. I also enjoy trying out various cuisines and relax myself by engaging in gardening.

What are your contributions to the Engineering community and to the EEE Dept. of SSN?

I'm extremely proud to have made significant contributions to the field of high voltage engineering and nuclear-based research, in particular. Our institution has seen tremendous growth over the past 16 years and I'm glad to have been a part of this development. I was also instrumental in setting up the highly unique High Voltage Engineering laboratory at the EEE Department. I hope that I'll be able to keep contributing my best to the institution in the future as well.

Finally, what is the message you would like to convey to the student community?

I sincerely urge the current generation to become more sensitive to the increasing scarcity of natural resources and shift focus towards innovative renewable alternatives. Students should try to evaluate their strengths and weaknesses completely before making their career choices. They should try and concentrate more on long-term goals and should not get carried away by short-lived successes.

Laurels of Students

Paper Presentations

- M. Harini (PG Student), Dr.R. Ramaprabha and Dr. B. L. Mathur, published a paper entitled, "Modelling of Grid Connected Hybrid Wind/PV Generation System using MatLab", in the ARPN Journal of Engineering and Applied Sciences (ISSN: 1819-6608), Vol. 7, No.9, pp, Sep 2012. SJR Impact factor 0.03.
- K. Murugesan, AP/EEE, S. Vijayenthiran, J. B. Mervin of Final Year & Dr.Ranganath Muthu Prof/EEE, Published a paper entitled, "SVM based Hysteresis Current Controller for DSTATCOM using Instantaneous Reactive Power Theory", International Review on Modelling and Simulations, Vol. 5, No. 4, pp. 1710 – 1716, August 2012 (SNIP 1.199).
- K. Murugesan AP/EEE, D. Sai Praveen, Tathagata Mitra of Final Year & Dr. Ranganath Muthu, published a paper entitled, "Performance Study of DSTATCOM with PI controlled SVPWM and Hysteresis Current Controller for Power Factor Improvement", ARPN Journal of Engineering and Applied Sciences, Vol. 7, No. 9, September 2012 (SNIP 0.199, SJR 0.027).
- G. Ramya (II Year M.E. (PED) and Dr. R. Ramaprabha, Asso.Prof/EEE presented a paper entitled, "Analysis of soft switching multi-phase boost Converter for photovoltaic system", presented in International Conference Power and Energy Systems-ICPES-'12) at Kalasalingam University, Krishnankoil, Tamilnadu, India.
- Adharsh.R, Divya Keerthiraj, Gayathri.P of Final Year have presented a paper entitled " Voltage Dip Compensation In Power Systems Using D-STATCOM" at the International Conference on Recent Development in Engineering and Technology (ICECE) held by IRNet, Mysore and was published in Interscience Open Access Journal.

Symposium Events

- M.N.Karthikeyan, G.Brindha, A.Haree Priya of Final year finished second in the event 'circuit debugging' in JETPOTENTIAL'12 conducted by St.Joseph's College of Engineering.
- M.Saravanan, S.Santosh Kumar of final year has won second prize in the technical paper presentation held at VIT University.
- M.Saravanan, S.Santosh Kumar of final year has won first prize in the paper presentation event held at MNM Jain Engineering College.

Saral Tamil Mandram

- Karthikai Selvi.S, R.Malathi, M.Charan, K.Arthi of third year and M.Rasu, Vignesh.D, Sivaganesh.S of second year participated in the state level Tamil - essay, poetry writing competition for colleges conducted by THENDRAL FINE ARTS ACADEMY and are waiting for their result.
- Vijayakumar.K of Final year was the speaker in the 'PATTI MANDRAM' that was shot in the college premises by IMAYAM TV, which was organized by TAMIL MANDRAM. The 'PATTI MANDRAM' was telecasted in IMAYAM TV on DIWALI.
- S.Siva Ganesh of second year, Abhinaya Venkatesan and Dhivya.B.S of final year sung songs on the Bharathiyar Anniversary organized by TAMIL MANDRAM.
- Keerthana.N of third year and Rasu.M of second year have been selected from our college to participate in the State Level Tamil Oratorical competition to be organized on 2nd October 2012, by Commissioner of Technical Education.

Sports Achievements

- Manohar.K of third year was the WINNER in the INTER-ZONE (state level) Table Tennis tournament conducted by ANNA UNIVERSITY held on 19/10/12. Also he was the RUNNER-UP in the Table Tennis event in SHAURYA'12 conducted by IIT, Kharagpur from 12th to 15th of October.
- Rohit Damodaren of Final year was a part of the CRICKET team, which was the WINNER at SHAURYA'12 conducted by IIT, Kharagpur from 12th to 15th of October.
- Harish Kumar.S.R of Final Year was a part of the College Squash Team which were the WINNERS of the inter-zone tournament conducted by ANNA UNIVERSITY.
- Sakthivel Murugan and Sudhir.M of final year was awarded GOLD MEDAL on completion of the half-marathon (21 KM) conducted by Chennai trekking Club.
- P.D.Subhadra of second year (part of the Anna university table tennis team) secured Third Place in South Zone Inter University Table Tennis Championship, organized by Kannur University, Kannur, Kerala held between 27th - 29th December.

Student Placements

Vishnuvardhan S	Hospira Pvt Ltd
Raghavi R	Ericsson India Global Services Pvt Ltd, Chennai
Santhosh Kumar S	
Vaishnavi A K	
Soundariya G	
Kayalvizhi S E	
Jeevitha B	
Aishwarya M	
Vignesh M	Larsen & Toubro Pvt Ltd
Tathagata Mitra	
Rahul S	
Soundharya B	Ford Motors Pvt Ltd
Niranjan M	Renault Nissan Technology & Business Centre India Pvt. Ltd.
Poornani A	
Prithiviraj P	
Sabareesh N	
Vijayashree M	
Gayathri K	HCL Technologies, Hardware/VLSI
Muthuvel M	

With the campus placement season in SSN College of engineering coming to an end, in total 99 students of final year EEE Dept. have been placed in various companies that have visited the Campus. While mass recruiters such as Cognizant Technologies Chennai and Infosys have recruited 65 of them, 29 students have received dual offers from both Companies.

Aishwarya. R of final year EEE has secured 95.6 Percentile in CAT 2012.

NSS Activities

- E.Gowtham, R.Kotteshwaran, Hari Krishna Babu, Deepan Chakravarthy, N.Keerthana, and R.Manivasagan of Third Year and M.Sakthival of Final year were the organizers of the Green March a part on NSS, which took place at Thiruporur for about 2 Kms. They also are organized a Cycle Rally at our campus.
- Chitra.P IV year, Harini.D I year, Gadapalli Sai Krishna Dileep I year, Celin Breezla I year joined hands with EKAM Foundation (an NGO) in Joy of Giving Week. They were the volunteers at Stanley Hospital on 02/10/12, RSRM on 03/10/12, and Royapet GH on 07/10/12 and also provided materials for Goonj (an NGO) on 08/10/12.

Robotics

- M.Saravanan, C.Velmurugan, A.T Pandia Raajkumar of final year have won first prize in the robotics event held at Valliammai Engineering College and Madha Engineering, third prize at VIT University.

EEE Students Excel at Techfest 2013, IIT-Bombay

The team consisting of Karthik Singaram.R, Karthikeyyan and Kamal.P, of EEE Dept., participated in two robotics events at TECHFEST 2013- Technical Symposium of IIT-Bombay that took place between 2nd and 5th of January 2013. They succeeded in securing 3rd place in the finale of an event called GRID-MASTER, and 2nd place in All-India level zonal of International Robotics Challenge and also went on till Top-8 of the grand finale of International Robotics Challenge that happened between 6 countries – India, Sri Lanka, Bangladesh, France, Egypt, Indonesia.

To elucidate more on the events, Grid-master is a Grid-solving robotics competition. Its finale consisted of 13 teams, which had won the prelims organized by IIT at 6 different cities across India (we had come first in the Coimbatore zonal). International Robotics Challenge popularly known as IRC is organized by IIT-Bombay every year. This is an international arena for robotics enthusiasts where we need to develop an autonomous grid solving robot and a manual remote controlled robot, both of which are required to co-ordinate with each other to accomplish a complex task put forth by the organizers. It was a great experience to fight it to the No.2 spot in India during the Indian zonal of IRC.

Special Achievements

- Masha Nazeem of third Year got selected for participation in the Jagriti Yatra (1 Train | 12 Destinations | 15 Role Models | 15 Days | 450 Youths | 8000 kms) - a 15-day national train journey initiated and funded by the TATA Group.
- Kamal.P of Third Year has attended the screening interview for the INDIAN ARMY in UNIVERSITY ENTRY SCHEME-23 for the post of TECHINICAL OFFICER and has been selected for the next round of selections, which would be in the month of May/June 2013.

"Not everything is wrong…even the stopped watch shows the right time twice a day "
- Paulo Coelho

A Rally in Life

Iswariya.M (2nd year EEE)


Avinash. R

You might know his name, but not his story. You might have heard what he has done, but not what he has been through. Probably if you were in his shoes, you'd fall the first step. To those who know not about Avinash Ramanthan, 'Nash' as his friends call him, a second year student at SSNCE, EEE Dept., let me elaborate.

We were all once a kid who would go around the town clinging on to our dad's fingers with our tiny little hands. That is when a new chapter began in his life. A five-year-old kid standing in the tennis court - surrounded by balls, racquets, tortuous nets and skilled players – fascinated by the charm and vigor of the game. Driven with an unconstrained enthusiasm, he forced his father to allow him to compete in the Tamilnadu State level open tennis tournament and had an astounding victory at the early age of 8. This was the first step in this unforeseen journey.

The daily grind is what polishes a man!

Travelling from Coimbatore to Chennai for the sake of excelling in tennis, Avinash was under the supervision of Coach Meenakshi Sundaram, one of the best tennis coaches in India and is currently in Texas, USA. Working with Meenakshi Sundaram was probably the finest days of his life. *"He pushed me up and kept pushing until I became the 7th ranked player in the nation"*, exclaimed Nash. Nash became the seventh best player in the nation when he was ten years old and was among the top twenty during his under fourteen matches. These victories did not conclude even after being the recipient of the prestigious 'Sports Scholarship' in SSN. He won 8 inter-college tennis tournaments, overwhelming the former 5th ranked Indian player.

Young players would have to work on their fitness levels. The rigorous trainings schedule during the weekdays and a continuous six hours practice during the weekends is what turned him into a prodigy. *"No matter how tedious"*, he said, *"we were five players together and were the best in Tamilnadu. That's what made everything enjoyable. We went to Goa, Delhi, Andhra Pradesh and played against all odds."*

"I love a rally. It makes the game more thrilling. The more you strive for a point, the happier you feel when you win it. "

Tennis is a racquet sport in which two players compete to see who has the shortest temper, the worst memory, the poorest eyesight, and the slowest watch. Every moment you tend to be taken by surprise by the unpredictable. *"The match is not over until the very last point. You have to give it your best."* The ball moves with an unprecedented speed and constant vigilance is a prerequisite. The fear of defeat is something that is not easily tackled, especially when you are standing in the tennis court with racquet in your hand. *"I hate losing more than I like winning. Those days were depressing. I would just go to my room and sit in a corner with my earphones on. But then I would be back on my feet after a few days after doing some analysis. Later, I ultimately realized that both winning and losing are part of the game and you don't have to beat yourself up for that."*

Regardless of Talent, one cannot be exceptional without desire.

Travelling around the country, visiting different states, meeting new people, winning many tournaments, life sure was one hell of an adventure for him. This is really one exciting journey starting with a toddler who got into tennis because of his dad, later played with an intense passion inspired by his peers and still consistently contributing to the sport. Although Nash becoming a player for the nation in the near future is a distinct possibility, he would definitely be a magnificent coach who would contribute to the betterment of the tennis society.

Importance of a Tech Club at SSN

Krish Prasad S, Alumni

Sri Siva Subramaniya Nadar College of Engineering, was, is and will be one of the premier educational institutions in India. Established in a sprawling 250 acre campus, our College has several departments as we all know, including the SSN Research Centre, which actually is doing a wonderful job out there, though we aren't much informed about the activities going on there.

All right. Now all that would seem to be a remarkable accomplishment for any 'other' engineering college under Anna University. But isn't our college something more? Hasn't our college been proving this thus far? The answer is YES! But is that all? Pondering over this will land our thoughts over or around the same pool - yes. It's the lack of a 'Tech Club' at SSN.

The kind of Tech Club I am speaking about is ONE universal club for all technology enthusiasts. One Club for all departments of UG and PG streams. Tech clubs streamline flow of thought. It helps students become more productive and more 'goal-oriented'. It will indeed lure more and more students towards itself, to experiment stuff they learn and I'm sure will mark the beginning of a new era - something like the Industrial Revolution that made Science and Europe flourish.

Learning isn't listening and reading alone. What's the point in waiting for some 4-6 years to implement all stuff we learn during implementation? How much will we remember? Concepts are understood best when they are experimented. This is the mantra of learning systems abroad. Actual learning is 'Doing'. The commencement of a technical club is not a herculean task at all. After all, I'm no Stephen Hawking to speak about unfathomable stuff. What makes IITs so reputed and revered all over the country? Certainly, sound technical knowledge + strong management support is the mantra. No university begins with state-of-the-art technology, ultra modern laboratories and sophisticated equipment. Even reputed laboratories such as Bell laboratories has its root from the humblest of hobby home-based laboratories of Alexander Graham Bell. Small drops make a mighty ocean - hobby tech clubs are the roots of cutting edge-research.

Innovation begins with fascination. A tech club will be enough to inspire and fascinate the sons of Science of the future. The American Engineers Council for Professional Development beautifully defines engineering as

"The creative application of scientific principles to design or develop structures, machines, apparatus, or manufacturing processes, or works utilizing them singly or in combination; or to construct or operate the same with full cognizance of their design; or to forecast their behavior under specific operating conditions; all as respects an intended function, economics of operation and safety to life and property."

As an engineering institution that is committed to induce into students the real spirit of engineering, it is high time that a fully functional Tech club be started within the campus to bring out the 'Brahma', that's buried inside every student.

Tech Clubs "Inspire to Innovate". Students will no more be students, instead will transform into scientists of the modern age. Aimlessness will be abolished and dependencies eradicated. Tech clubs instill self-confidence and enough courage to paraphrase the age-old saying into "Impossible is nothing!"

The Electrical Research Fraternity (ERF) of the EEE department has been exactly a model Tech club, that does commendable work and at the same time, inspiring a lot others. But then, a similar club that extends to all other departments will definitely be helpful for carrying out 'Multidisciplinary Research' and will become an instant hit among the students.

Jai Ho!

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