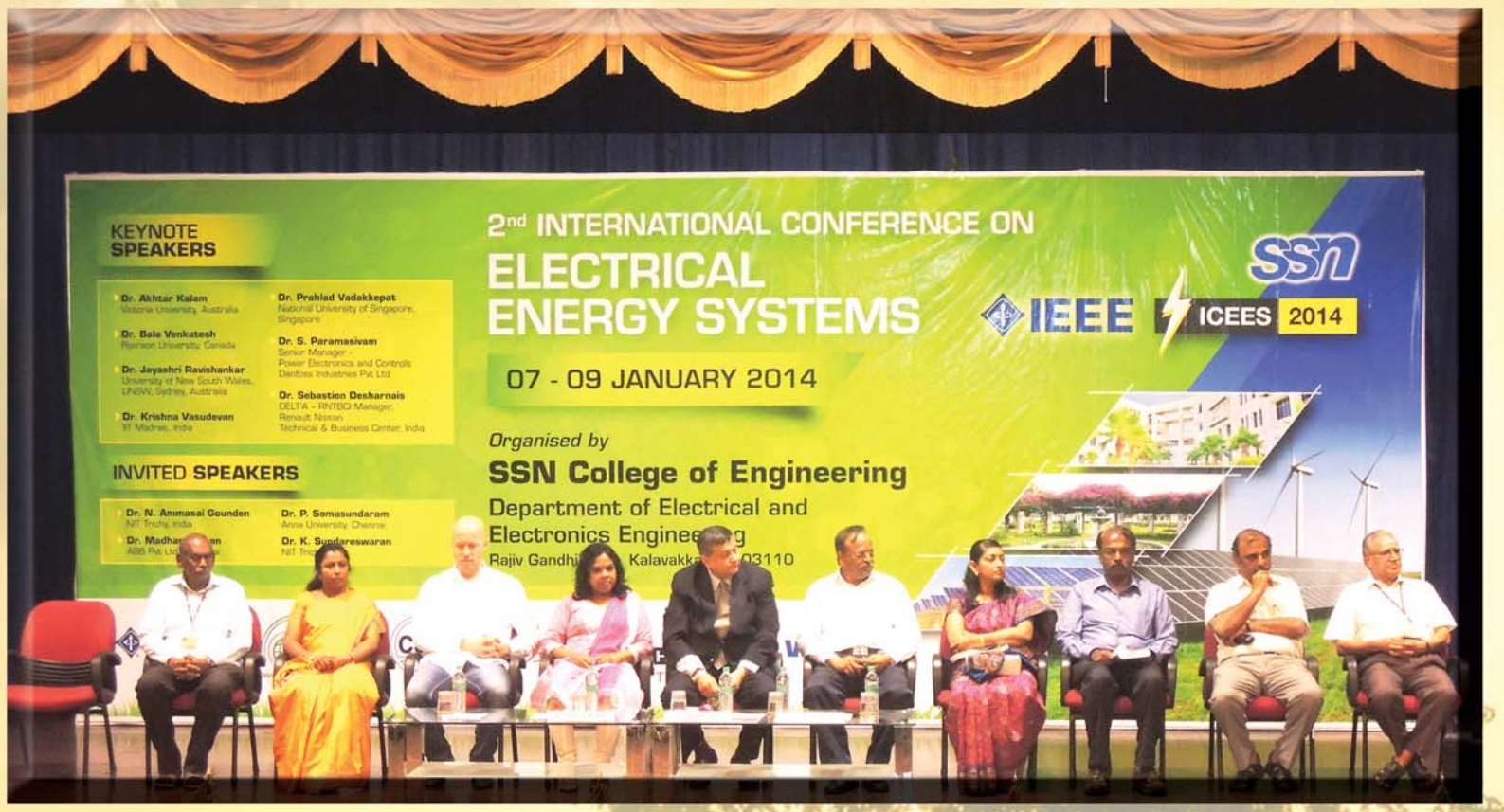
ISSUE NO: 09 * APRIL 2014

QUARTERLY NEWSLETTER

REDEEM



The Second International Conference on

Electrical Energy Systems (ICEES 2014)

DESIGN BY M. PANDIKUMAR, A.P, DEPARTMENT OF EEE

3 ICEES –2014

National conference 4

5 ISTE Award

Sycon 2K14 11

12 Higher Studies

Student Achievements 14

18 From the Alumni (CMU)

HOD's Desk

Electrical energy related technologies are gaining greater importance in recent years.The Department has organized a research level conference entitled "2nd International Conference on Electrical Energy Systems (ICEES 2014)" in association with IEEE Dr.Akhtar Kalam of Victoria University inaugurated the conference. The conference was approved by IEEE and received letter of acquisition for inclusion of proceedings in IEEE Xplore. . I thank all the faculty members and students for the successful conduction of international conference.The Department of Electrical and Electronics Engineering is constantly striving to achieve excellence in teaching, research and professional activities The Department received several awards such as Best Teaching Department Award, ISTE-Periyar Best Teacher Award, Best Research Department Award and Young Innovator Award. Ms. Vijayalakshmi, Research Scholar of our Department received DST Fellowship. I congratulate Dr. Pandiarajan for completing his PhD work. This issue of EEE Newsletter covers the details of our major achievements in several academic and sports activities during the last quarter

Preface

The Early Bird Catches the Worm

Early childhood development is not only critical for human development but also transformative for economic, social and sustainable development. Economic analyses from the developed and developing countries show that investing in the earliest years of life leads to some of the highest rates of returns to families, societies and countries – one of the most cost efficient investments in creating a strong foundation for human capital. - Neuroscience studies illustrate that the plasticity of the brain and the pace of development in the first few years of life are never again repeated. Also, these early connections form the basis of a lifelong capacity to learn and adapt to change, along with physical and mental health. Social science studies demonstrate that early childhood interventions help mitigate the impact of adverse early experiences that, if not addressed, lead to poor health, poor educational attainment, economic dependency, increased violence and crime, and greater substance abuse and depression.

The first eight years of age encompasses the complex interactions between the growing child and the multi layered contexts of development. It is during these very formative years that development and education have a symbiotic relationship, and it is the period in which the most rapid gains are made in all aspects of growth and development. Brain development begins shortly after conception and progresses at a very rapid pace through the first three years of life – the stage of greatest development and also the period when development is significantly influenced by the environment. Also neuronal development and brain circuitry are stimulated by positive experiences that shape brain capacity and inform the ability to process complex information, skills and tasks. This development begins during the foetal stage then accelerates rapidly upon birth.

Infants and young children benefit from positive and responsive interactions with at least one consistent caregiver, including exposure to language and opportunities for exploration and learning. For example, verbal engagement between parents and young children is one of the strongest influences on subsequent language development and between the ages of three and five there is a second window of opportunity, but also vulnerability. The pace of development of visual, auditory, language and prefrontal regions of the brain peaks by five to six years of age. Thus great attention is required in areas of disease prevention; basic healthcare; cognitive and language stimulation; social and emotional responsiveness of family, community and friends; and safety and protection. From around the age of six up to the age of eight or nine, after which the transition to primary school is complete, child development and learning have a symbiotic relationship. Cognition and language are used to learn new numeracy and literacy skills. This is also the stage in which socialization, tolerance and respect, regulation of emotions and positive learning are reinforced through new behaviours and interactions. The bottom line is that if children do not receive adequate stimulation, support and protection during the critical windows of growth, they can lose the opportunity to develop specific skills and abilities associated with that stage of development. Intensive remediation later in childhood is needed to obtain these missed skills or abilities, an exercise that is very costly and often unsuccessful

Source from WEF

Inaguration of 2nd International Conference of Electrical Energy Systems -ICEES 2014, Dr. Akhtar Kalam, Dr.Sebastien Desharnais, Kala Vijayakumar Dr.Salivahanan, Dr.V.Kamaraj and Dr.V.Rajini

The Second International Conference on Electrical Energy Systems (ICEES 2014) was held at **EEE Department, SSN College of Engineering, Chennai, India** during 7-9 January 2014, with the support of IEEE. IEEE Madras Section, Power Engineering Society (PES)-Madras Chapter and Control Systems Society (CSS)-Madras chapter are the Technical Co-Sponsors. **Dr.V.Kamaraj** and Dr Arumugam were the convenors and **Dr.V.Rajini**, **Dr.R.Seyezhai** and **Dr.R. Ramaprabha** were the organising chairs. The conference received 54 quality papers and the participants were immensely benefited from deliberations on various technical topics related to energy

- **Dr.Akhtar Kalam**, Professor, School of Engineering and Science, Victoria University, Melbourne, Australia inaugurated the event with an address on" **Smart Grids**"

The keynote speakers were

- **Dr.Sebastien Desharnais** ,DELT'A – RNTBCI Manager, Renault Nissan Technical & Business Center, Chennai, India on the topic "Adjustable Speed Drives : Enabling Flexibility".
-
- **Dr.Jayashree Ravishankar**, School of Electrical Engineering and Telecommunications The University of New South Wales, Sydney, Australia on the topic "Smart Grid Initiatives in Australia"
- **Dr.Bala Venkatesh**, Professor, Academic Director, Centre for Urban Energy, Ryerson University, Canada on "Energy Storage"
- **Dr.Prahlad Vadakkepat**, Associate Professor, Electrical and Computer Engineering National University of Singapore, Engineering Drive, Singapore on the topic "Frugal Engineering"
- **Dr.P.Somasundaram** Associate Professor/ EEE, Anna University, Chennai On the topic "Application of AI Techniques to Electrical Engineering"
- **Dr.N.Ammasai Gounden** Professor/EEE, NIT, Trichy on the topic "A Unified Power Electronic-Controller for Wind Driven Grid Connected Wound Rotor Induction Generator using LineCommutated Inverter"
- **Dr.K.Sundareshwaran**, Professor/EEE, NIT, Trichy on the topic "Design and Implementation of Particle Swarm Optimization on PIC16F876A Microcontroller for MPPT under Partial Shaded Conditions"
- **Dr.S.Paramasivam**, Senior Manager - Power Electronics and Controls Danfoss Industries Pvt Ltd. On Design Considerations for Gate Drives for IGBTs
- **Dr.Krishna Vasudevan**, IIT Madras, India on he topic "Electrical machines"
- **Mr.Madhan Mohan**, ABB Industries, Chennai on the topic "Recent Trends in HVDC Systems"

"One day you wake up and there wont be any more time to do the things you have always wanted. Do it now!"

-Paulo Coelho

Mr.P. Saravanan and Mr.U. Shajith Ali, AP/EEE, have organized a workshop on "**Electromagnetic analysis and design for Electrical Machines**" during 14th and 15th of March 2014.

Electromagnetic field analysis and design plays an important role in the manufacture of electrical machines. Many of the industries are doing the full fledged electromagnetic design of electrical machines to get better performance and increased power density. Electromagnetic field analysis requires the solution of Maxwell's equations, which necessitates the use of digital computers and efficient Finite Element Analysis (FEA) software packages. The importance of this domain has been discussed with 37 participants from industry and various engineering colleges. The sessions were focused on Electromagnetic design and Finite Element Analysis, Review of Software Packages for Electromagnetic Design with a case study. Practical hands on training on the use of Finite Element Analysis software.

Resource persons were **Dr.R.Arumugam,Dr.C.Lenin and Dr.M.Balaji.**

EEE department of SSN received "Best Teaching Department Award" instituted by Staffordshire University ,UK and Education Matters from Colonel Dr.Jeppiar, Chairman, Jeppiar Engineering College.

Dr Kamaraj receiving the ISTE Periyar Award for Best Engineering college Teacher for the year 2013 on 11th January 2014

Faculty Publications

Project Proposals

The project proposal titled, "**Design and Development of Flywheel based Power Conditioning System for a Renewable energy fed Micro grid**" submitted by **Ms.M.Vijayalakshmi**, Full-time Research Scholar (Mentor- **Dr.R.Ramaprabha**) to Department of Science and Technology under Women Scientists Scheme (DST- WOS A) has been sanctioned for Rs. 17.1 lakhs (plus some funds for travel and contingency will be approved time-to-time) (27.1.14)

Dr.R.Ramaprabha and **Ms.M.Venmathi** (Full-time Research Scholar) has submitted a project proposal titled "**Design and Implementation of Multi-port converter for power processing unit in domestic and photovoltaic vehicles**" to Science for Equity, Empowerment & Development Division-Submission of Concept Note under the Scheme for Young Scientists and Technologists (SYST) on 24.03.2014 (for Research fellowship).

P.Saravanan has submitted a project proposal to SERB on, "**Design and Development of Axial flux reluctance machine based battery operated vehicle**"

Paper presentations

Dr.V.Rajini, W.Margaretamutha, V.Renugadevi presented a paper "**A novel fused converter for hybrid power systems**", International Conference on Recent advances in engineering and interdisciplinary developments ICRAMID 2014, page no 946-950,ISBN 978-1-4799-3158-3 at Ponjesly Engg college, kanyakumari on 7,8-3-14

Dr.R.Seyezhai and **A.InbaRexy** (Research Scholar), presented a paper "**Simulation Analysis and Implementation of Two-Phase Interleaved Boost Converter with Ripple Steering for Power Factor Correction**" International Conference on Recent Advances in Mechanical Engineering and Interdisciplinary Developments, ICRAMID 2014, Ponjesly college of Engineering, Kanyakumari. (7.3.14)

Dr.R.Seyezhai and **M.Tamilarasi** (Research Scholar), presented a paper " **State Space Averaged Modelling And Power Loss Computations For Fuel Cell Powered Four-Phase Interleaved Boost Converter** ", International Conference on Recent Advances in Mechanical Engineering and Interdisciplinary Developments, ICRAMID 2014, Ponjesly college of Engineering, Kanyakumari. (7.3.14)

Dr.V.Rajini, S.Kanimozhi presented a paper," **A novel non isolated DC-DC Converter using High frequency transformer**", International Conference on Circuit, Power and Computing Technologies [ICCPCT] at Noorul Islam College of Engineering on 20,21-3-2014

Dr.V.Rajini, V.Renugadevi, W.Margaretamutha presented a paper," **A Novel Fused Converter Based Hybrid System with MPPT Control for Rural Telephony**", International Conference on Circuit, Power and Computing Technologies [ICCPCT] at Noorul Islam College of Engineering on 20,21-3-2014

Dr.R.Seyezhai published a paper entitled, "**Analysis and Design of Microcontroller based ZCS Quasi Resonant DC-DC Converter for Renewable Energy Systems**", International Journal of Innovative Research in Computer and Communication Engineering, Feb. 2014.

Dr.R.Seyezhai and **V.Chamundeeswari** (Research Scholar) presented a paper entitled "**Simulation and Control of Negative Output Relift DC-DC Converter**" in the International Conference ICACCI 2014, held at Chennai. (30.3.14)

Academic achievements

Dr.Ranganath Muthu attended the Board of Studies Meeting for the Department of Electronics & Instrumentation Engineering at National Engineering College (an autonomous institution affliated to Anna University), Kovilpatti (29.1.14)

Dr.R.Ramaprabha and **Ms.S.Malathy** have presented their research activities, progress in roadmap on 14.02.2014 at SSN Research centre in the presence of Dr.Barua

Dr.R.Ramaprabha and **Ms.S.Malathy** have presented their research activities, progress in roadmap on 14.02.2014 at SSN Research centre in the presence of Dr.Barua.

Dr.Mrunal Deshpande and **Dr.R.Seyezhai** attended a one day workshop on “Design of Electrical Machines Using FEA Package (Motor Solve)” at VIT Chennai. (20.2.14)

Dr.Mrunal Deshpande and **Dr.R.Seyezhai** attended a one day workshop on “Design of Electrical Machines Using FEA Package (Motor Solve)” at VIT Chennai. (20.2.14)

Dr.R.Seyezhai presented her research activity in the presence of Dr.Barua in the Energy research meeting held at SSNRC. (14.2.14)

Dr.V.Rajini delivered a Guest lecture on HV measurement Techniques” at Velammal Engg College

Maza Nazeem of final year EEE was conferred on “Young inventor award” on occation of the International women’s day from indian Overseas bank, Nagarkoil branch on 8-3-2014

Ms.G.Ramya (2013 Passed out PG student) has been selected for the grant of SSN Junior Research Fellowship (JRF) towards Full-time Ph.D. with effect from 01.02.2014 under the guidance of Dr.R.Ramaprabha.

Mr.N.Pandiarajan has defended his PhD Viva-voce on the topic “Development of the Circuit Model for the Photovoltaic Module and its Applications” under the guidance of Dr.Ranganath Muthu on 14th march 2014. We congratulate him for completing his PhD works

Dr.R.Ramaprabha and **Ms. S. Malathy** attended a technical celebration on "Teaching Awards in Engineering" as a part of EEE faculty conducted by Staffordshire University, UK & Education Matters at Jeppiaar Engineering College, Chennai on 03.03.2014.

Dr.R.Ramaprabha, **Ms.Alagu Dheeraj** attended a 2 Day workshop on Electro Magnetic Design and Analysis of Electrical Machines, National Level Workshop, Department of EEE, SSN College of Engineering(15.3.14)

Dr.V.Rajini, Mr.A.Subramoniam (Research Scholar) submitted Thesis on "**Digital X ray based image classification schemes for the assessment of Arthritis**" to Sathyabama University.

The abstract and Synopsis of the Thesis titled," "**Design and Control of Grid Connected Solar Photovoltaic System**" by **K N Dinesh Babu**, research scholar of **Dr.V.Rajini** has been approved and approval for submission of the thesis is sanctioned by University of Petroleum and Energy Studies, Dehradun. The thesis will be submitted on 31-3-2014

Dr.R.Seyezhai chaired a technical session on Power Electronics in the National Conference ON MEPED 2014 at Jeppiaar Engineering College, Chennai. (26.3.14)

Dr.V.Rajini did testing and commissioning of Impulse generator at High voltage lab. This is bought under AICTE-MODROB. (17.3.14)

Dr.R.Ramaprabha and **Ms.S.Malathy** attended a technical celebration on "Teaching Awards in Engineering" as a part of EEE faculty conducted by Staffordshire University, UK & Education Matters at Jeppiaar Engineering College, Chennai on 03.03.2014.

Mr.U.Shajith Ali and **Mr.P.Saravanan** organized a National Workshop on Electromagnetic Design and Analysis of Electrical Machines. 33 participants from various academic institutions and industry participated in this workshop.

Dr.R.Ramaprabha, **Ms.Alagu Dheeraj** attended a 2 Day workshop on Electro Magnetic Design and Analysis of Electrical Machines, National Level Workshop, Department of EEE, SSN College of Engineering

Dr.M.Balaji delivered a lecture on "Electromagnetic Analysis of BLDC Motor" and Handled a Tutorial Session in National Workshop on Electromagnetic Design and Analysis of Electrical Machines at SSN College of Engineering.

EEE Department got the best research department award for the year 2013 on the research day held on 22-03-2014 .This is the third such award in a row

Dr.Ranganath Muthu - Delivered Lectures on "Fuzzy Sets and Systems' and "Fuzzy Logic Control" for BARC Trainees at IGCAR, Kalapakkam. (28.3.14)

The abstract and Synopsis of the Thesis titled, "**Design and Control of Grid Connected Solar Photovoltaic System**" by **K.N.Dinesh Babu**, research scholar of **Dr.V.Rajini** has been approved and approval for submission of the thesis is sanctioned by University of Petroleum and Energy Studies, Dehradun. The thesis will be submitted on 31-3-2014

Dr.V.Rajini Carried out 2nd review of paper, "Total Dose Response of Hafnium Oxide under Gamma-ray Irradiation" by Mian Ding, Yonghong Cheng, Xin Liu, Xiaolong LiState Key Laboratory of Electrical Insulation and Power Equipment,Xi'anJiaotong University, Xi'an, 710049, China for IEEE Transactions on Dielectrics and electrical Insulation and recommended for Publication.

Guest Lectures

M.Balaji delivered a Lecture on Microprocessors and Microcontrollers at R.M.D Engineering College. (22.2.14)

Dr.Ranganath Muthu attended the Inaugural Function of the ISA Students Meet 2014 and delivered a lecture. (19.2.14)

Dr.V.Rajini delivered a Guest lecture on HV measurement Techniques" at Velammal Engg College.

Dr.M.Balaji delivered a lecture on "**Electromagnetic Analysis of BLDC Motor**" and Handled a Tutorial Session in National Workshop on Electromagnetic Design and Analysis of Electrical Machines at SSN College of Engineering.

Journal Publications

Dr.V.Rajini, B.Shanthisaravana, A.Paramasivam published a paper on Analyzing Wind Power Potential in Cauvery Delta areas for Implementation of Renewable Energy based Standalone Pumping System for Irrigation, In IERI Procedia, Elsevier Publications IERI Procedia 5 (2013) 153 – 160, Available online at www.sciencedirect.com (7.1.14)

Dr.V.Kamaraj, Dr.M.Balaji,S.Ramkumar "**Sensitivity Analysis of Geometrical Parameters of a Switched Reluctance Motor with Modified Pole Shapes**"Journal of Electrical Engineering and Technology, Vol. 9, No. 1,pp136-142, 2014 (Annexure 1 Impact Factor:0.725) (5.1.14)

Dr.Ranganath Muthu and **Porselvi.T**, "**Wind Energy Conversion System with Boost Converter and CHB MLI with single DC input**", International Journal of Engineering and Technology, Vol. 6, No. 1, pp. 138-145. Anna University Annexure II (14.3.14)

Dr.R.Seyezhai and **V.Chamundeeswari** (Research Scholar) presented a paper entitled "**Simuation and Control of Negative Output Relift DC-DC Converter**" in the International Conference ICACCI 2014,held at Chennai. (30.3.14)

Dr.V.Rajini, Dr.R.Ramaprabha, K.N.Dineshbabu, Kamal Bansal, "**Charge Pump Phase Locked Loop Synchronization Technique in Grid Connected Solar Photovoltaic Systems**", IOSR Journal of Computer Engineering,e-IISN:2278-0661,p-ISSN:2278-8727,Vol.16,No.1,Ver.VII,pp.91-98,Feb 2014. (18.2.14)

Dr.R.Ramaprabha published a paper titled, "**Selection of an Optimum Configuration of Solar PV Array under Partial Shaded Condition using Particle Swarm Optimization**", in an International Journal of Electrical, Electronic Science and Engineering, World Academy of Science , Engineering and Technology Publishers, France (ISSN: **ISSN:** 2010-376X, E-ISSN: 2010-3778), Vol. 8, No.1, pp. 96-103, Jan 2014. SJR Impact factor 0.13. (listed in Annexure II) (30.1.14)

Dr.R.Seyezhai and **M.Rasan** (Research Scholar) published a paper entitled, " **Comparative Study of Multi-carrier PWM Techniques for a Modular Multilevel Inverter",** International Journal of Engineering and Technology, Vol.5, No: 6, Dec.2013-Jan.2014, ISSN : 2319- 8613. (17.1.14)

Dr.R.Seyezhai and **A.InbaRexy** (Research Scholar), " **Analysis and Experimentation of Interleaved Boost Converter with Ripple Steering for Power Factor Correction**" World Academy of Science, Engineering and Technology, International Journal of Electrical, Electronic Science and Engineering Vol:8 No:2, 2014 (31.3.14)

Research Seminars by Scholars

S.No	Date	Title	Research Scholar	Guide
1.	3-02-14	Flywheel Energy Storage System	Ms.M.Vijayalakshmi	Dr.R.Ramaprabha
2.	1-03-14	Performance enhancement of PMBLDC Motor Drives	Mr.V.Krishnakumar	Dr.V.Kamaraj
3.	1-03-14	Analysis and implementation of Inverted Sine PWM technique for an asymmetric cascaded multilevel inverter	Mr.M.Sudhagaran	Dr.R.Seyezhai
4.	12-03-14	Efficiency Enhancement of Building Integrated Solar PV system	Ms.S.P.Chitra	Dr.R.Ramaprabha
5.	12-03-14	Modelling and Control of Multi-port Full bridge Converter Interfacing Renewable Energy Sources	Ms.M.Venmathi	Dr.R.Ramaprabha

SYCON 2K14

'Creating leaders and inspiring change'. This is the footing of SSN's very own annual youth conference SYCon that is an integral part of the E-Week events in the college.

SYCon 2k14 witnessed eminent speakers from multifarious walks of life interacting with students of SSN and other colleges of the city alike on what according to them went into making an entrepreneur whilst reflecting on their life journey.

SYCon 2k14 couldn't have had a better start with Anil Srinivasan keying prodigious tunes that compelled the audience to tune in to his engaging speech interspersed with music . He elucidated on how an independent musician is an entrepreneur homologous with the conventional sense of the word. Raju Venkatraman, Founder and CEO of Medall edified the audience based on experiences from his entrepreneurial expeditions so far. Ensuing that was Waseem F Ahmed's turn to enthrall the audience with his offbeat wedding photographs that are the products of his avant-garde startup ' Weddings by WFA'.

C.Sathyan eloquently presented the success story of how he transformed Hatsun Agro Products into a company with a turn over of 2500 crores. Ramesh Krishnan, a prominent Tennis player and winner of the Wimbledon and French Open junior titles who also has his own Tennis Academy-Krishnan Tennis Centre in Chennai discussed the status of Tennis and sports in general in India in the form of an interactive interview session. Following that a very sprightly Mathangi who is a recent entrant into the entrepreneurship world talked about her successful endeavor to set up an idiosyncratic quirky bistro That Madras Place in Adyar.

Post lunch, Drums Murali, a well renowned percussionist and Karthik Iyer, a sought-after violinist and an alumnus of SSN entranced the audience with two contradistinctive genres of music apart from sharing their life episodes exemplifying their entrepreneurial side.

Ram Viswanthan, founder of Chennai Runners ingeniously mapped entrepreneurial skills to aspects of running and gave a truly motivational discourse. Aishwarya Raman, a successful woman entrepreneur and the brain behind a very interesting and distinctive startup-Auto Raja Mobility Solutions, spoke about what inspired her to embark on this 'ride' and how far along she has come in this initiative of hers. The final speaker of SYCon 2k14 was Aishwarya Manivannan, an Interior Designer and HOD of Visual Arts at MCTM International School, engaged the audience in an engrossing discussion pertaining to the importance of creativity for an entrepreneur.

The one thing that every speaker reiterated, although in different forms, is that one should always hold fast to dreams and never be afraid of failure. This was the biggest take away from the conference which I'm sure charged up future leaders in the crowd that thronged the event.

Tulsi Ramanujam III EEE B

Internships at a Glance

ABOUT THE INTERNSHIP
The three national Science Academies, namely **Indian Academy of Sciences, Indian National Science Academy and The National Academy of Sciences** offer several two-month Summer Fellowships to enable students/teachers (studying/teaching in India) to work with scientists associated with the three Academies, every year.

WHEN TO APPLY?
Every year the last date for receipt of applications is usually around the end of **November**.

WHO CAN APPLY?

Applications are invited from interested students and teachers from all universities and colleges affiliated to **UGC/AICTE/MCI/Accredited Institutions of State Universities** for these Fellowships.

The fellowships are available in area of Engineering (all branches), Life Sciences, Mathematics, Physics, Chemistry, Earth and Planetary Sciences, and Agricultural Science.

HOW TO APPLY?
The application should have these following things:

(a) The **application form** in the prescribed format;

(b) A **write-up** (in about 150 - 250 words) as to what the applicant wants to learn and achieve;
(c) The **guide** with whom the applicant would like to work. Student applicants should include a **recommendation letter** (in the prescribed format) familiar with their work, in a sealed envelope. The selected candidate may work with the assigned guide for two months any time during the calendar year, preferably during the summer.

Applications should be submitted online through one of the four websites http://www.ias.ac.in, http://www.insaindia.org orhttp://www.nasi.org.in; however, a copy of the application together with enclosures must be sent by speed post or courier to **The Coordinator, Science Education Programmes, Indian Academy of Sciences, CV Raman Avenue, Near Mekhri Circle, Sadashivanagar, Bangalore 560 080**. The registration number assigned soon after online submission must be quoted both in the hard copy of the application to be sent and in the letter of recommendation to be forwarded by the teacher in the case of student applicants.

DECLERATION OF RESULTS

Information of selection along with concurrence of the guide will be despatched around **February–March**. The selected students/teachers will be provided appropriate round trip train fare and a monthly fellowship to meet their living expenses at the place of work.

~ Vignesh.M
(2nd yr, EEE-B)

Higher Studies

Step 1. Start planning for your admission at least 12 months in advance.

Get your passport ready. You must possess a valid Indian Passport at least one year before your planned travel.

You must have the prerequisite educational qualification. If you are applying for a MS course, you must have a requisite degree from a University Grant Commission affiliated, recognized, or listed University in India, with the required qualifying grades.

You must pass the GRE test. Most universities in the USA insist on GRE scores for admission to graduate programs.

You must take the TOEFL test and have the grades ready with you.

You or your parents must be financially strong to bear the costs towards your education, your stay and your other expenses.

Step 2.Find a way to prove your intentions to return back to your country and establish your links in your country of origin by way of property, peo-

Step 3.Plan your schedule

August - Start inquiries about Universities, course structure, financial structure, financial aid, and other details. Short list about 4 to 5 institutions.

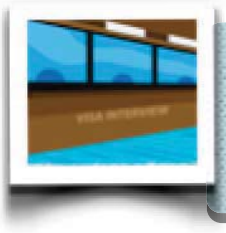
Use the Free Guidance and information about the universities available at United States India Education Foundation (USIEF)

September - December - Start applying to shortlisted universities

April-June is the time you will get your I-20 or rejection letter. Select your

Step4. Use the information in your I-20 to fill the SEVIS form.

Fill the form correctly and completely and pay the requisite SEVIS fee .The SEVIS Form and fee is mandated by Congress to support the program office and the automated system that keeps track of students and exchange visitors and ensures that they maintain their status while in the United States.



Step 5. Make an appointment for a VISA Interview through the VFS website. Select the date from among the dates available, download the form, fill the form correctly and completely, make the requisite payment and submit.

Reach the consulate well in advance. Wait patiently until you are called. Answer all questions honestly and confidently.

~ Nithya.S
(3rd yr, EEE-B)

"Sometimes the questions are complicated and the answers are simple."

- Dr.Seuss

Student Achievements

Journal Publications

S.Nithya (III Yr.EEE, B), **Dr.R.Seyezhai** published a paper entitled, " Study and Design aspects of Inductors for DC-DC Converter", International Journal of Electrical, Electronics and Computer Systems, Vol1, Issue-2, 2013, ISSN : 2347 -2820. (16.1.14)

Paper Presentations

K.Arthi, M.Deepa, J.Bhavani and **A.Archana** (IV Year EEE,A) and **Dr.R.Seyezhai**,presented a paper entitled, "**Simulation of three phase switched inductor Quasi z-source inverter for PV applications",** in the National Conference on Computational Intelligence in Electrical & Electronics Engineering at Sathyabama University,Chennai. (6.2.14)

Suhanya.M.S (ME), student of **Dr.Ranganath Muthu** won the best paper award for the Paper titled 'Direct Power Control of a Matrix Converter based Wind Energy Conversion System for the session on 'Modern Power Electronics' at the IEEE International Conference on Green Computing, Communication and Electrical Engineering held at Coimbatore during March 7-8, 2014

R.Digvijay (III Yr.EEE, A) and **Vignesh Sridharan** presented a paper entitled, **" Sleep detection system using MATLAB Image Processing"**, in the International Academic Conference on Electrical, Electronics and Computer Engineering 2014, held at Chennai on Feb 9th, 2014.This paper received the best paper award.

D.Umarani (II Year M.E) and **Dr.R.Seyezhai**, presented a paper " **A Comparative Study of Cascaded Z-Source and Quasi Z-Source Multilevel Inverter for Photovoltaic applications**", International Conference on Recent Advances in Mechanical Engineering and Interdisciplinary Developments, ICRAMID 2014, Ponjesly college of Engineering, Kanyakumari. (8.3.14)

R.Sreemallika (II Year M.E.) and **Dr.R.Seyezhai** presented a paper, "**Implementation of a Novel Bridgeless Interleaved SEPIC Converter for LED Applications**", International Conference on Recent Advances in Mechanical Engineering and Interdisciplinary Developments, ICRAMID 2014, Ponjesly college of Engineering, Kanyakumari. (8.3.14)

S.H.Jubair, K.Suhas and **A.Lokesh** "**Development of Improved Curve Tracer for Photovoltaic System under Partial Shaded Conditions**", presented in IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT 2014) at Noorul Islam Centre for Higher Education, Kumarakoil, Thuckalay, Tamilnadu, India, Mar 20th & 21st , pp. 585-589, March 2014

V.Cynthia and **Dr.R.Ramaprabha**, "Design and Implementation of Multilevel Type Full-Bridge Converter for Telecom Power Supplies", presented in *IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT 2014)* at Noorul Islam Centre for Higher Education, Kumarakoil, Thuckalay, Tamilnadu, India, Mar 20th & 21st , pp. 239-244, March 2014.

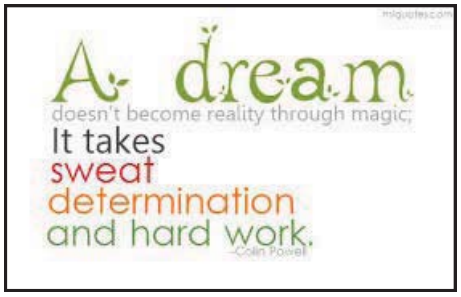
S. Gowtham and **Dr.R.Ramaprabha**, "**Modeling and Simulation of Power Flow Controller in Hybrid Renewable Energy Systems** ", presented in *IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT 2014)* at Noorul Islam Centre for Higher Education, Kumarakoil, Thuckalay, Tamilnadu, India, Mar 20th & 21st , pp. 579-584, March 2014.

S.Ajay, G.Deepika, S.Maneesha and **Dr.R.Ramaprabha**, "**An Active Battery Equalizer for Series Connected Battery Applications**", presented in *IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT 2014)* at Noorul Islam Centre for Higher Education, Kumarakoil, Thuckalay, Tamilnadu, India, Mar 20th & 21st , pp. 398-400, March 2014.

EEE PARTICIPATION IN INSTINCTS–2K14

EVENTS	YEAR	STUDENT NAMES
EEE Dept. Coordinator	4	Venkateshwaran
Sponsor Head and Vogue Fashion Team	4	Shreenivasan
Publicity Head	4	Raja Selva
Over All Event Coordinator	4	Kamal Prakash. P
Deco Head	4	Charan Mohan
Dance Club Head	4	Pushkar Jaishankar
Reels of Fire Head	4	M.S.Karthikeyan
Lights Out PLease	4	Kaavya
Photography Club	4	Vigneshwaran. K
Sponsor Team	3	Syed Riazudeen
Documentation Team	3	Bamini.R
Hospitality Team	3	Santosh Kumar
Content Development Board	3	Varshini.K
Gaming Organiser	3	Vimal Raj
Photography & Decoration Team	3	Rohit.V,V , Srinath.V
Photography Team	3	Vibhu.S.R , Pavan Kumar
Decoration Team (Main Audi Display)	3	Sri Hari, Nilesh.M, Neha.M, Shiny, Priya, Sadhana
Publicity Team	3	Sravannan, Vimal, Upendra, Senthamizh, Vigneshwar.K, Siva Ganesh, Venkatesh, Vignesh.D
Dance Team	3	Samyuktha.S
Saaral Tamil Mandaram	3	Raasu.M
Fashion Team	3	Tulsi, Sai Krupa.C, Sandhya, Parvathy.G, Priyanka, Samyuktha.S
Crowd Management	3	Vivek.P, Vignesh.S
Informals Stage	3	Siva Ganesh

Akshaya Padma Varshini (IV year A) scored 98.67% in GATE 2014



Placements

STUDENT NAME	YEAR	COMPANY'S NAME
P. KAMAL	4	KONE ELEVATORS INDIA PRIVATE LIMITED.
V. ARAVINDHAN	4	KONE ELEVATORS INDIA PRIVATE LIMITED.
A. IMTHIAZ AHMED	4	HIBRISE TECHNOLOGIES PRIVATE LIMITED.
R. KOTTEESWARAN	4	HIBRISE TECHNOLOGIES PRIVATE LIMITED.
VIGNESH MAHESH	4	BA CONTINUUM INDIA PRIVATE LIMITED.
S. KUMAR	4	COMPUTER SCIENCE CORPORATION.
K. M. ANIRUDH	4	MOBIUS KNOWLEDGE SERVICES.
S. H. JUBAIR	4	DATA CERT, INDIA.
NARAPPA NAIDU	4	KONE ELEVATORS INDIA PRIVATE LIMITED.
SUDHARSHAN. V. J	4	L AND T CONSTRUCTIONS
RAHUL RAO. K	4	L AND T CONSTRUCTIONS
V. SUPRIYA	4	FORD INDIA PVT LTD.

Admissions Abroad

STUDENT NAME	YEAR	UNIVERSITY ADMITS
R. ASWINI	4	UNIVERSITY OF TEXAS, ARLINGTON. UNIVERSITY OF FLORIDA. POLYTECHNIC INSTITUTE, NEW YORK UNIVERSITY.
T. MANASA	4	UNIVERSITY OF TEXAS, ARLINGTON. POLYTECHNIC INSTITUTE, NEW YORK UNIVERSITY.
S. BADRI NARAYANAN	4	IILINOIS INSTITUTE OF TECHNOLOGY, CHICAGO.
K. R. GOUTHAM	4	IILINOIS INSTITUTE OF TECHNOLOGY, CHICAGO.
A. S. ISAIKAVI	4	ARIZONA STATE UNIVERSITY.
K. MANOHAR	4	UNIVERSITY OF TEXAS, ARLINGTON. IILINOIS INSTITUTE OF TECHNOLOGY, CHICAGO. UNIVERSITY OF COLORADO, BOULDER.
RAJESWARI. B	4	PURDUE UNIVERSITY
SAIKALYAN KRISHNA	4	UNIVERSITY OF FLORIDA, PORTLAND STATE UNIVERSITY
SANDHYA NARAYANNAN	4	ARIZONA STATE UNIVERSITY

Internships

STUDENT NAME	YEAR	COMPANY'S NAME
K. MANOHAR	4	HIBRISE TECHNOLOGIES PRIVATE LIMITED.
A. IMTHIAZ AHMED	4	HIBRISE TECHNOLOGIES PRIVATE LIMITED.
N. KEERTHANA	4	HIBRISE TECHNOLOGIES PRIVATE LIMITED.
R. KOTTEESWARAN	4	HIBRISE TECHNOLOGIES PRIVATE LIMITED.
R. KARTHIK SINGARAM	4	DANFOSS INDUSTRIES PRIVATE LIMITED
P. KAMAL	4	DANFOSS INDUSTRIES PRIVATE LIMITED.
SANDHYA NARAYAN-NAN	4	HIBRISE TECHNOLOGIES PRIVATE LIMITED.
PRATYUSHA. B	4	DANFOSS INDUSTRIES PRIVATE LIMITED
POOJA. M	4	DANFOSS INDUSTRIES PRIVATE LIMITED
VENKATESHWARAN. R	4	DANFOSS INDUSTRIES PRIVATE LIMITED
VIGNESHWARAN. K	4	DANFOSS INDUSTRIES PRIVATE LIMITED

Symposium Events

SriRam and **SriVidhya** (II yr) won **FIRST PLACE** in the Paper-Presentation event conducted in Kurushetra (Anna University)

M.Sudharshana and **Sri Vignesh** (II yr) won **FIRST PLACE** in Circuit Debugging event conducted in Spangles'14 (Easwari Engineering College).

N.Ajay Kumar, Balaji Nagaraj and **Anbarasan** (III yr) won **FIRST PLACE** in Bug to Bag event conducted in Waves'14 (Anna University).

N.Ajay Kumar, Balaji Nagaraj (III yr) won **FIRST PLACE** in Google Guru event conducted in Waves'14 (Anna University

Digvijay, Rathon Sriram and **Abenav.S** (III yr) won **SECOND PLACE** in Bug to Bag event conducted in Waves'14 (Anna University).

"Science gathers knowledge faster than society gathers wisdom."

-Anonymous

From the Alumni

Getting into a good masters course at a renowned institution influences the confidence of a student more than anything. Especially when grades were pretty average. As John Nash puts it "every problem has more than one solution", it certainly seemed true in my case. Thanks to my professors at SSN, with their teaching, a few publications and conferences compensated for the 'so called high GPA'. On getting the admit and on meeting people, all the accolades made me feel good about doing 'something' productive in the last four years. And of course, the thought that I would be going to one of the top universities did make me feel good about myself. The feeling that 'after the next one and a half years, my life is set' sort of got into me! But, what would take to get through the next one and a half years in a productive manner, is something that certainly hasn't been all that comforting! Blah blah blah…basically, my CGPA wasn't great and to bail myself out, wrote a couple of papers, got an admit from a decent place, and I was excited about it!

On reaching here, one of the most intimidating things which I came across was when many of the other students introduced themselves to be from universities like MIT, Princeton and Stanford. Initially the thought of competing against such students did imbibe a sense of fear as well as a feeling of being a misfit. However, my view towards 'competition' changed gradually over time. It was no more about grades or who makes the toppers list or for the matter of fact, who took the best/toughest courses. What tends to matter the most was the knowledge possessed. At the end of the day, its about application of that knowledge.

After switching so many schools, getting used to this environment and culture wasn't much of a deal but I did observe that it made some of them reserved and contain themselves. But as a fact, CMU is populated the most by the Chinese and the Indians. You could expect to bump into one of them as the every third person you meet. When classes commenced, I was advised by seniors and cousins that you should never make a team with people from the same country, else professionalism would be lost. I did not realize that, and since there was a natural tendency to first interact with those from a similar background, my group members in a particular course were Indians too. Well, no offense meant, but with time and with the course load building up gradually for everyone, there were often texts exchanged reading "I have some work now, can you manage it this week please". Being a group project and knowing them personally, you couldn't really deny but to put in that extra time in compensating for the absence of another. This became a habit and eventually there was a scapegoat in the team who would end up doing all the work. I would probably give the same suggestion to all those coming over for their masters or have plans of doing it down the line, "never team up with people from the same place". More often than not, it will not end too well!

Sleep! Ah yes, something which has been void in life for the past five months! So, after a month of classes, everyone would be like 'there was a decent amount of work, I got to sleep for almost 8 hours everyday!'. And then, after two months, 'dude, this month is killing man, I probably slept for just six hours on most days'. The final month of the semester, and you would end up meeting someone who's like 'I'm so happy dude, I got to sleep for 5 whole hours last night!' and overjoyed about it, not to mention that he'll soon be unhappy getting back to a 4 hour sleep cycle! And gradually, you would find yourself to be making night-outs with liters of coffee and red bull by your side to keep you going all night long. There have been several weeks where you would find yourself not budging away from the laptop even for a minute, from 11am to the next day morning 8am, sleeping for the next 3 hours and repeating the same till the submission is done. Initially, I used to find such a routine terrifying and felt 'there is no way I'm going to be doing this', but with friends around and working in company of peers will definitely keep you going. More than it being a strenuous regime, you would have those little moments of fun and laughter with friends around, that half hour coffee break or that half hour counter strike on 42 inch screens at 4 in the morning!

Amidst all this ruckus, being independent is probably one of the biggest tests when you do your masters. To be able to manage the household as well the coursework is something which all of us would become an expert at towards the end of the course. I've never done so much planning in my entire life till now! Right from the time you wake up (after the 4 hours of sleep you get ;)) till you shut your eyes, 'what should I do for breakfast', 'should I eat at home or on campus', 'how much can I spend today', etc etc. Although after a point of time, you lose track and end up skipping meals or eating out. On top of this, promptly paying monthly bills certainly does not let you spend time off studies in peace!

Despite all this work, having some time off from such a schedule at least once a week (probably the

maximum you can afford) is definitely mandatory. Whether it is catching up on sleep, or hitting the bar, or exercising by playing a sport or gymming, is definitely mandatory! This reminds me of a friend here who would not do anything at all on Sundays, no matter what. Even if there were a hundred submissions that day, he would just not do it. It seemed ridiculous at first, but in the end seemed logical. That period of rest always feels blissful but at the end of it, the thought of getting back to routine is like a kid crying to go back to school!

I sometimes used to wonder why is it taking so much time for us to get work done here. There used to be thoughts like 'did I never have work in my undergrad?!, why was I so laid back'. Four years of undergrad at SSN seemed like heaven and jobless when compared to the situation right now! Thinking of it, when the professor issued an assignment in undergrad, most cases than not, either a few 'sincere' ones in class (which never fails to go extinct each year) would complete it ahead of the deadline and others would follow suit using his answers, or there would be books by the god of students, Bakshi, to pick out answers from! And within a couple of hours, our assignments would be done and we would get scores for it as well. But, plagiarism is treated as a serious offense here. Even if a single word was copied from a source, and when found guilty, the student receives a fail grade instantaneously and is debarred from the course for the semester. When the level of assignments are of high difficulty, it certainly demands that the student learn and acquires a thorough understanding of the subject before proceeding with the assignment.

From a period where the professors and parents used to push us to complete our work (it happened even till the end of undergrad), and we being reluctant about it, knowing that we would eventually get our marks, its come down to a point where you realize that 'if you don't work, your life is going to be screwed up!'. It could probably be the peer pressure around us as well as increase in our maturity levels. With people around you being thoroughly involved into their work, you would definitely feel lagging back if you didn't. Also, when you know that if you don't do well in your course, you're probably not going get a job, in turn messing up your visa status in the country and eventually heading back home after literally dumping all that cash. I've often heard that doing masters in USA will get you settled. After spending the last eight months here, I can assert that life here is not a bed of roses. In reality, it is just the opportunity and the exposure that is provided, but utilizing it to the maximum is the student's responsibility.

By now, I presume, after reading everything above, pursuing masters looks tedious and dreadful and killing. But at the end of the day, one has to put in that effort at some point in his life. The sooner the better! The earlier you get trained to handle such pressure, the more seamless would be the transition in a new environment. At the end of the day, one can put up with such schedules only if he/she likes what they do. Being forced, will just not help! There have been many days when I have thought if this is what I wanted to do all my life, and had I worked for a couple of years, irrespective of the industry, I would've had a better idea on what I would've loved to do the most. But certainly no regrets, as even if there was 1% of it, I wouldn't have been able to survive it so long. There is always the thought of 'will this help me, why am I stressing myself out so much', but in the end, who would not want to get a job that you like to be doing, especially when you're getting paid almost seventy lakhs a year and getting a global recognition!!

Therefore, unless you're 100% sure of what you want to be doing for the next 40 years, do not rush yourself into things just because you will be losing a couple of years early in your career. Best of luck to all my friends in SSN, and enjoy the rest of the stay there as those four years were something that I wish would come again even now!

When who you are and what you are is not decided by any external forces, then you are in dignity

Anonymous

~ Adwaith.V
(Alumni EEE)
Doing MS in CMU

For your valuable feedback,

Mail us At redeem.eee@gmail.com