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VIBRATIONS
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"From the President's Desk..."

Ms. Kala Vijayakumar

After almost 10 years, there has been a paradigm shift towards Research. And it has started fructifying. The faculty have published about 30 technical papers, conducted 3 conferences & 5 workshops and earned 3 new funded projects all during this quarter. Our visibility has improved as evidenced by the visits by dignitaries like Dr Walter Kohn, Nobel Laureate, Mr Kapil Sibal, Hon. Minister for HRD, Dr Ponmudi, Minister for Higher Education and Educationists like Dr Javid Douglas of Cape Town, and Dr Chris Wiscorson of UK. About 20 of our faculty have been invited by other colleges and organizations to deliver technical lectures.

The performance of our students in sports have been laudable – Ms Sanathosinidevi selected for TN Sr. National Women Basket Ball team, Mr Balaji has won Gold Medal in Anna Univ. Inter Zone Boxing Our teams have won Inter zone matches in Squash, Cricket, Tennis(Men) and Ball Badminton. Naturally more than 70 companies have visited our campus to absorb almost 50% of our students during this quarter.

I have little doubt that our students and faculty will better their feats in periods to come. I wish them all success.

"From the Principal's Desk..."

Dr. S. Salivahanan

With a sense of pride, I present to you the quarterly report of the activities of SSN College of Engineering for OND 2009. By the time this report reaches your hands, we would have witnessed the dawn of a brand new year 2010 ahead of us to realize our dreams. I wish you all a happy and productive New Year.

Before the SSNites can plan for the year 2010, let me give you a quick glimpse of all the activities that has happened in the last quarter.

Dr. Walter Kohn, Nobel Laureate in Chemistry visited our campus, delivered a talk on "Transformation to a New Energy Era" on 27 Oct 2009 and interacted with our students & faculty.

The Principal and Ms. P. Kaythry, AP, ECE & NSS Officer received the "BEST NSS UNIT" award from Anna University Chennai for the year 2008-09 and M. Karthiga, final B.E. (ECE) received the "BEST NSS Volunteer" award on 31 Oct 2009 from Mr. Napoleon, the Hon'ble Minister of State for Social Justice And Empowerment.

The Scholarship Award function was conducted on 4 Nov 2009 in which the Hon'ble Union Minister for Human Resources Development, Kapil Sibal, was the Chief Guest and Dr. K. Ponmudy, the Hon'ble Minister for Higher Education, Tamil Nadu, the Guest of Honour.

The NSS unit of our college observed World Aids Day on 1 Dec 2009. About 300 volunteers from different colleges participated and Dr. P. Mannar Jawahar, Vice Chancellor, Anna University

Chennai, distributed the prizes to the winners.

On 9-11 Dec 2009 at SSN Campus, the Second International Conference on Infrastructure Systems 2009: "Developing 21st Century Infrastructure Networks" sponsored by Next Generations infrastructures Foundation, Netherlands in association with CSTEP and SSNCE was conducted.

The Department of Mechanical Engineering organized a two-day training programme on "CNC Programming and Application" on 2 – 3 Dec 2009. YRC Unit of SSN organized a workshop on "Life Saving Skills & Disaster Management" in association with USHA Fire Safety Equipments Private Ltd on 10 Dec 2009. Departments of ECE and IT organized a two-day National Level Workshop on "Semiconductors: Micro to Nano" on 14 – 15 Dec 2009. Faculty & Students underwent "Inner Engineering" – Isha Yoga Programme on 16 - 22 Dec 2009. The Department of BME inaugurated the Animal House and conducted a one-day National level seminar on "Ethical Issues in Biomedical Research" on 17 Dec 2009. IEEE Student Branch of SSN organized a two-day Workshop for Higher Secondary School Teachers on "Engineering Principles in Science and Mathematics Classrooms" on 17-18 Dec 2009.

With the industry still struggling to come out of the knots of recession, we are proud to say that so far 454 students of SSN have been placed in reputed companies like Cognizant Technologies

Solutions, Aricent Technologies Ltd, Infosys, Thoughtworks, iNautix, Renault Nissan, HCL Technologies Ltd, HCL Infosystems, VA Tech Wabag.

The dawn of the year 2010 has created an urge in us to bring the institution to the forefront of research. With the kind of research activities that we are focusing on, the vision can be realized. Success is all about the vision we have about future. Happy 2010.

REBOOT '09

"Shoot for the moon. Even if you miss, you'll land among the stars."

These words were the inspiration for the entire student population, and we stand as one among them. On many occasions all of us have one purpose, and one goal. Reboot '09 was one such occasion which had every one of us coming together to make it happen like never before.

REBOOT, a National Level Technical Symposium, was a step towards excellence by the student community of MCA from SSN School of Management & Computer Applications, a part of SSN Institutions, one of the premier institutions in India that brings a world class contribution to the field of technical and management education.

Reboot '09 met with tremendous success with over 72 colleges and 702 participants.

The astounding success of Reboot '09 reaffirms the sound practices employed during its conception stage. To keep continuous track of the multitude of information, an intranet and as a public website were deployed well before the actual preparations started.

The intranet site kept track of the day-to-day activities, the various committees and its members, the projected budget, and other necessary details. It was updated frequently and was a great help to anyone seeking information. Online voting was also carried out to select the most popular banners and posters for the event. An internet site was available for outside participants to get all about the symposium, the various events, schedule, transport and accommodation facilities, etc. Participants could also register themselves online for the various events, and the huge number (nearly 580) of online registrations geared us up for the mega event. Appropriate email ids were created to

handle paper submissions and handle help requests from participants.

Mr. Janakiraman Ramaswamy, the director and former Chief Operating Officer of Zylog systems India Ltd was the Chief Guest for the inaugural session. He has to his credit, the implementation of the first ever wireless ISP business for Zylog. He is also the founder of Vonage India. He is also one of the pioneers of voice revolution in India having rich experience spanning sales, new business opportunities, channel strategies and brand management of telecom industry.

Paper presentations, Marketing, Hacking, Web designing, programming, quizzing, network gaming were some of the skills of the participants that were put to test during the event. Papers were presented on a wide range of topics such as Neural Networks, Ubiquitous Computing, Applications of Nanotechnology, Virtual & Mixed reality, Bioinformatics, Green Computing, Digital Image Processing, Biometrics and Robotics. A total of 280 papers were received from participants across various institutions.

R.Vinoth

President – Reebot 2009

NATIONAL LEVEL SEMINAR ON SCOPE OF RESEARCH: METHODOLOGY, ANALYSIS AND EVALUATION

The Center for Biomedical Informatics and Signal Processing of Biomedical Department of SSN College of Engineering and IEEE EMBS Students chapter of SSN jointly organized a two days national level research seminar on the Scope of Research: Methodology, Analysis and Evaluation on 8th & 9th Dec.2009. The aim of the research seminar is to make the participants understand the importance of research, How to do research, Various methodologies involved in research, How to validate the outputs of research and also about the various statistical tools used in the field of research. Prof.C.Eswaran, Multimedia University, Malaysia was the Chief Guest for the Inauguration function.

The Principal gave the welcome address and Dr.N.Siraam introduced the Chief Guest to the audience. The inaugural keynote address was given by Professor C.Eswaran, (former Professor, IITM), Multimedia University. After the Inaugural session there was a talk on the usage of Statistical tools in research by Dr. Chandrasekaran, Professor and Head, Department of Statistics, Madras Christian College, Chennai.

RESEARCH PUBLICATIONS IN JOURNALS

1. "A wavelet based lossless video compression using adaptive prediction and motion approximation" S.Jeyakumar and S.Sundaravadivelu ICGST International Journal on Graphics, Vision and Image Processing, Vol. 9 Issue 4, 2009, pp. 15-21.
2. "Parallel motion estimation using cluster computing for fast video sequence compression" S.Jeyakumar and S.Sundaravadivelu, i - Manager's Journal on software engineering, Vol. 3, No. 3, 2009, pp.58-64.
3. "Parallel adaptive spatial-temporal prediction with load balancing for fast video Compression" S.Jeyakumar and S.Sundaravadivelu, ICFAI University International Journal of Information Technology, December, 2009.
4. "Parallel adaptive motion estimation with dynamic load balancing" S.Jeyakumar and S.Sundaravadivelu, International Journal of Advanced Research in Computer Engineering, June-December 2009.
5. "Bipolar In-coherent Image Processing for Edge Detection of Medical Images", A.Brintha Theresa and S. Sundaravadivelu, International journal of recent trends in Engineering vol2, No.2, pp 229-232.
6. "Micro Calcification segmentation in dense mammograms using optical hologram", A.Brintha Theresa and S.Sundaravadivelu, International journal of image processing and networking tech, 2009, Vol.2 No.2.
7. "Improved Key Predistribution Scheme in Wireless Sensor Networks Using Cell Splitting in Hexagonal Grid Based Deployment Model", R.Kishore, S.Radha and S.G.Hymlin Rose, International Journal of Distributed Sensor Networks, Vol.5, Issue 6, Nov.2009, pp.850-866.
8. "Sine Carrier for Fundamental Fortification in Three Phase Z-Source PWM Inverters", U.Shajith Ali and V.Kamaraj, Journal of Modern Applied Sciences, Vol.4, No. 1, 2010, pp. 73-81.
9. "MATLAB Based Modelling and Performance Study of Series Connected SPVA under Partial Shaded Conditions", R.Ramaprabha and B.L.Mathur, Journal of Sustainable Development, Vol.2, No.3, 2009, pp 85-94.
10. "Impact of Partial Shading on Solar PV Module Containing Series Connected Cells", R.Ramaprabha and B.L.Mathur, International Journal of Recent Trends in Engineering, Vol.2, No.3, November 2009, pp 56-60.
11. "Fault Model and Testcase Generation for Composition of Aspects" Chitra Babu and Harshini Ramnath Krishnan, ACM Software Engineering Notes, Vol.34, No. 1, 2009.
12. "A Novel Approach for Image and Video Denosing by Sparse 3-D Transform Domain using Atrous and Gabor Wavelets" Srinivasan. and S.Sharonpriya, International Journal of Information Processing (IJIP), January 2009.
13. "Optimal Recovery Schemes in Distributed Computing" R.Delhi Babu and P. Sakthivel, International Journal of Computer Science and Network Security, Vol:9 No:7, 2009, pp.225-230.
14. "Optimization of Test Scheduling and Test Access for ITC-02 SOC Benchmark Circuits" R. Delhi Babu and P. Sakthivel, Journal of Computer Science, Vol 5, No.4, , 2009, pp.290-296.
15. "Using Sloane Rulers for Optimal Recovery Schemes in Distributed Computing" R.Delhi Babu and P. Sakthivel, International Journal of Computer Science and Information Security, Vol. 6, No. 3, , 2009, pp.79-83.
16. "Performance Evaluation of Computer Aided Diagnostic Tool (CAD) For Detection Of Ultrasonic Based Liver Disease", N.Sriraam, J.Roopa, M.Saranya and M.Dhanalakshmi, Journal of Medical Systems: Volume 33, Issue4 (2009), (Springer) USA, pp267-274.
17. "Patient video compression for Telemedicine Applications Using SSI-Prediction Approach" Shenbagavalli, L. Ganesan & N. Sriraam, International Journal of Biomedical Signal Processing , Vol.1, No.1, January 2010, pp35-38
18. "Effect of Sampling Entropy Parameters on EEG Classifiers" S.Pravin Kumar, N.Sriraam, P.G. Benakop & B.C. Jinaga, International Journal of Biomedical Signal Processing , Vol.1, No.1, 2010, pp1-8.
19. "Performance Evaluation of Maginary Motor Activities for Brain-Computer Interface Applications" N.Sriraam, G.Kathikeyan and J.Kamala Kannan, International Journal of Biomedical Engineering and Consumer Health Informatics (IJBECHI), 2009, Volume 1, Number 2, pp. 115-119.
20. "Enhancement of Solubility and Mass-Transfer Coefficient of 1,2-Dihydroxy-9,10-Anthraquinone (Alizarin) Through Hydrotropy" D.Gnana Prakash, Kumar, S.Thenesh and Gandhi, N.Nagendra, Chemical Engineering Communications, 2009, 197: 4, pp. 423 - 433.
21. "Equilibrium and kinetic study of adsorption of nickel from aqueous solution onto Bael tree leaf powder" ,Senthil Kumar P and Kirthika K., Journal of Engineering Science and Technology (JESTEC), 2009, Vol 4 (4), pp. 396-406.

22. "Adsorption of Pb²⁺ ions from aqueous solutions onto Bael tree leaf powder: isotherms, kinetics and therm" Senthil Kumar P and Gayathri R., Journal of Engineering Science and Technology (JESTEC), 2009, Vol 4 (4), pp.431-445.
23. "Stir up trouble: Creating a path to permanent problem resolution" V.E.Annamalai, Quality Progress, American Society for Quality, December 2009, pp.80.
24. "The effect of dressing generated abrasive fines on the grinding process", T.D.Lavanya and V.E.Annamalai, International Journal of Abrasive Technology, Vol.2, No,4, 2009, pp.382-392.
25. "Finite Element Analysis of the Effect of Cutting Speeds on the Orthogonal Machining Process of AA 6082 (T6) Alloy", K.S.Vijay Sekar and M.Pradeep Kumar, International Journal of Applied Engineering Research (IJAER) Vol. 4 No. 11 (2009) pp. 2189–2202.
26. "Synthesis, Crystal Growth, and Characterization of an efficient Nonlinear optical D- π A single crystal: 2-Aminopyridinium 4-nitrophenolate 4-nitrophenol", G. Anandha babu, R. Perumal Ramasamy and P. Ramasamy, Material Chemistry and Physics, 117 (2009) pp.326-330.
27. "Synthesis, Crystal Growth, and Characterization of an Organic Nonlinear optical Donor- π Acceptor single crystal: 2 - Amino - 5 - nitropyridinium-Toluenesulfonate", G. Anandha babu, R. Perumal Ramasamy, P. Ramasamy and V.Krishna Kumar Crystal Growth & Design 9 (2009) pp.3333-3337.
28. "Growth and characterization of an organic NLO material Ammonium malate" G.Anandha babu and P. Ramasamy, Current Applied Physics, 10 (2009)pp. 214-220.
29. "Growth of DL-Malic acid doped ammonium dihydrogen phosphate crystal and its characterization", P. Rajesh and P. Ramasamy, Journal of Crystal Growth, 311 (2009) pp.3491.
30. "Studies on the growth, crystal structure, optical and thermal properties of an organic crystal: Benzophenone hydradzone" G. Anandha babu, R. Perumal Ramasamy, P. Ramasamy and S. Natarajan Journal of Crystal Growth, 311 (2009) pp.3461-3465.
31. "Growth and Characterization of Metal-Organic Crystal: Tetra Thiourea Cobalt Chloride (TTCOC)"G. Senthil Murugan and P. Ramasamy Journal of Crystal Growth, 311 (2009) pp.585.
32. "Effect of KCl on the bulk growth KDP crystals by Sankaranarayanan- Ramasamy method", S.Balamurugan, P.Ramasamy, Yutthapong Inkong and Prapun Manyum, Material Chemistry and Physics, 113 (2009) pp.622.

Congratulations!

The research paper "Growth and characterization of Dichlorobis(L-proline)Zn(II) (DBLPZ) single crystals grown by Sanakaranaraynan-Ramasamy (SR) method" presented by Mr. Urit Chareon-In, Research Scholar, Centre for Crystal Growth was selected as BEST PAPER in the "National Conference on Materials Science," organized by Annamalai University, and was awarded the First Prize.

NEW PROJECTS SANCTIONED

1. National Institute of Ocean Technology, Ministry of Earth Sciences, Government of India has sanctioned Rs.20.64 lakh to carry out the project "Design and Hardware implementation of a programmable filter to improve the signal to noise ratio due to wind driven ambient noise in shallow water". The duration of the project is 2 years.
Dr. S. Radha, HOD, ECE, is the Principal Investigator and Mr. Sakthivel Murugan, ECE is the Co-Investigator.
2. DST has sanctioned Rs.21 lakh to carry out the project "Investigations on crystal growth and characterization of pure and rare earth doped KTP single crystals for electro-optic applications". The duration of the project is three years.
Dr. N.P. Rajesh, Physics Department is the Principal Investigator and Dr. P. Ramasamy, Dean(Research) is the Co-Investigator.
3. Indira Gandhi Centre for Atomic Research, Kalpakkam has sanctioned Rs.11 lakh to carry out the project "Development and characterization of mixed alkali halide single crystals for radiation dosimetry applications in IGCAR". The duration of the project is three years. Dr. P. Ramasamy, Dean (Research) is the Principal Investigator.

Congratulations!

Ms. Sri Santhosinidevi, I B.E. (ECE), has been selected for the Tamilnadu Senior National Women Basketball Team.

Mr. T.Abhay, III B.E. (CSE), has participated in the National Premier Chess Championship held at Mumbai during 7.12.09 to 16.12.09.

Mr. Anirudh kashthuri I B.Tech. (IT), has participated in the All India under-19 four day Inter State Cricket Tournament (Cooch Behar) held at Chennai, organized by BCCI during 4.12.09 to 7.12.09.

Mr. Balaji (MCA I Yr) has won the gold medal in the Anna University Inter Zone Boxing Tournament held at Nehru Stadium, Chennai on 29.11.09.

SCHOLARSHIP AWARD FUNCTION

The day that made all the students and their parents proud was the Scholarship day, conducted on 4th November 2009. Union Human Resource Development Minister Kapil Sibal and Higher Education Minister of Tamil Nadu K. Ponmudy distributed scholarships worth 4 crores to the scholarship holders. Meritorious Scholars received their scholarships from Shri Kapil Sibal and Shri K. Ponmudy. Presenting the scholarships, Shri Kapil Sibal stressed on the need for education for all and said that institutions of excellence such as SSN are much needed in the country. He said that "While providing education to everyone is an important matter, the quality of education should not in any way be compromised and India has a long way to go in this line".

Mr. Sibal was highly impressed by the research activity being carried out at SSNRC focussing on alternate source of energy.



Earlier, at the function, he said that some Deemed Universities in the country did not have the required infrastructure, others did not have faculty and still others had neither. "Some of which are located in this State [Tamil Nadu]." He said there was a need to rethink the way universities are set up in the country. Appreciating Shiv Nadar, founder of the SSN Institutions, he said that more philanthropists needed to invest money in the field of education. He said that academics and research must go hand in hand.

Shri Kapil Sibal said that education was not about getting high marks but was about looking beyond books. He said "70% of college students study courses like B.A and M.A and end up with

no jobs. They apply for jobs like peons. This is the state of higher education in the country. There are 220 million children who go to school in India, of which only 12.4% attend colleges, whereas 70 of 100 students go to college in developed countries". He pondered over the thought, estimating that by 2030, India will have a demographic advantage in terms of its youth population compared to the western world and will become a supplier of human resources. He said that the gross enrolment ratio in colleges will then increase from 12.4% to 30%. He concluded his speech saying that "As a nation we need to rethink about our higher education policies and methodologies we use in schools. In our schools, the teachers keep talking for 90% of the time in a class and never allow the students to talk. They just want to give the answers to the students. Education is not about memorising and reproducing in examinations. It is about breaking the walls of classrooms, looking beyond classrooms and questioning teachers".

Shri K. Ponmudy was pleased to meet the students and faculty at SSN and see the dramatic transformation the strong willed scholars have undergone to be on a par with their urban counterparts. He said in a world of competition, the only way India could keep in pace, or even lead, is to get education, and that it is the duty of the educated to ensure the future of its next generation. He stressed the need for Tamil as the medium of instruction. He called upon teachers to constantly upgrade themselves.

R. Srinivasan, Chairman, SSN Institutions (Founder & CEO, Redington and globally renowned entrepreneur), Shiv Nadar, Founder HCL, and Chairman, The Shiv Nadar Foundation and Kala Vijayakumar, President, SSN Institutions were also present. Mr. Shiv Nadar said SSN Institution was an experiment in many ways. He said they would soon begin a mission to intervene and work on literacy and eradication of illiteracy. He said that there was a need for more flexibility in the syllabus.

The Scholarship day came to an end with singer Karthik lending his voice to popular numbers that made the whole audience shake a leg or two, making it a memorable day altogether.



PHOTO GALLERY



PHOTO GALLERY

INTERNATIONAL CONFERENCE ON INFRASTRUCTURE SYSTEMS AND SERVICES SUCCESSFULLY BRINGS WORLDWIDE PERSPECTIVES AND STRATEGIES TOGETHER

On December 9-11th, The Center for Study of Science, Technology and Policy (CSTEP), in collaboration with the Technical University of Delft (Netherlands) and the Next Generation Infrastructures Foundation (NGIF), held the second annual International Conference on Infrastructure Systems and Services: Developing 21st Century Infrastructure Networks, at the SSN College of Engineering.

The conference attendees looked at how India – and other countries – should build their infrastructure for the next generation. Experts from around the world discussed and shared insights and innovative ideas about how to develop smart and sustainable infrastructure systems.



Highlights of the conference:

Dy Ch. Planning Commission, Shri Montek Ahluwalia set the tone for the importance of Infrastructure for India's future during a live video conference with the conference attendees.

The promising role of simulations and serious games in infrastructure development was explored with experts in this area including Dr. Ivo Wenzler, who conducted sessions on managing growth in cities and on organizational communication, and Dr. Igor Mayer with a session on planning and simulation for shipping ports development and management.

Mr. Bert Klerk, the CEO of ProRail led a session on issues in the building and optimization of railway networks (for commuter as well as for goods).

This conference highlighted the most pressing challenges in infrastructural development in

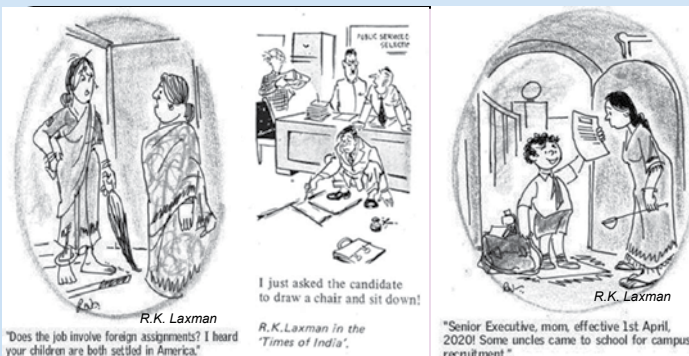
India. The participants discovered strategies for dealing with these challenges, incorporating insights from India as well as from other countries' experiences.

CSTEP plans to use the results of the conference to raise an awareness and influence the civil society and policymakers with informed debate about Indian infrastructural development.

The SSN students had an opportunity to interact with various experts through interactive sessions and got an idea about how infrastructural development plays an important role for the development of the society.

Congratulations!

M.Karthiga, final year ECE, received 'The best NSS volunteer Award' for her active involvement in social activities, in the NSS award function held at Anna University Chennai on 31st October 2009. The function was presided over by Thiru. D. Napoleon Hon'ble Minister of state for social Justice and empowerment, Vice Chancellor Prof. P. Mannar Jawahar, NSS coordinator of Anna University Dr. S. Chelladurai. Karthiga has been involved in social services since her school days.



NOBEL LAUREATE DR. WALTER KOHN VISIT TO SSN

SSN had the privilege of having Dr. Walter Kohn on 27th October 2009. His age-defying (86 years!) energy, enthusiasm and friendliness impressed the student and teaching community alike.

Walter Kohn (born March 9, 1923, in Vienna, Austria) is an Austrian-born American theoretical physicist. He was awarded, with John Pople, the Nobel Prize in Chemistry in 1998.

The award recognized their contributions to the understandings of the electronic properties of materials. In particular, Kohn played the leading role in the development of density functional theory, which made it possible to incorporate quantum mechanical effects in the electronic density. This computational simplification led to many insights and became an essential tool for electronic materials, atomic and molecular structure.

Kohn received a war-time bachelor's degree in applied mathematics at the end of his one-year army service, having completed only 2 & 1/2 out of the 4-year undergraduate program, from the University of Toronto in 1945.

He was awarded an M.A. degree in applied mathematics by Toronto in 1946.

Kohn was awarded a Ph.D. degree in physics by Harvard University in 1948, where he worked under Julian Schwinger on the three-body scattering problem.

Kohn moved from Harvard to Carnegie Mellon University from 1950-1960, after a short stint in Copenhagen as a National Research Council of Canada post-doctoral fellow. At Carnegie Mellon he did much of his seminal work on multiple-scattering band-structure work, now known as the KKR method. His association with Bell Labs got him involved with semiconductor physics, and produced a long and fruitful collaboration with Luttinger (development of the Luttinger-Kohn model of semiconductor band structure).

In 1960 he moved to the newly founded University of California at San Diego, where he remained until 1979. He then accepted the Founding Director's position at the new Institute for Theoretical Physics in Santa Barbara.

He took his position as a professor at University of California at Santa Barbara in 1984; he is currently a Professor Emeritus.

His work on density functional theory was initiated during a visit to the École Normale Supérieure in Paris, with Pierre Hohenberg, and was prompted by a consideration of alloy theory. The Hohenberg-Kohn theorem was further developed, in collaboration with Lu Sham, to produce the Kohn-Sham equation. The latter is the standard work horse of modern materials science, and even used in quantum theories of plasmas.

Kohn made significant contributions to semiconductor physics, which led to his award of the Oliver E. Buckley Prize by the American Physical Society.

He was also awarded the Feenberg medal for his contributions to the many-body problem.

In 2004, a study of all citations to the Physical Review journals from 1893 until 2003, found Kohn to be an author of five of the 100 papers with the "highest citation impact".

Dr. Kohn had shared his knowledge in alternate energy resources. The excerpts of his electrifying speech titled Transforming to the new energy era are as follows.



I am happy to be here with you. I have heard a few things about this Institution and there are a lot of similarities between this college and my college. Your Institution supports students in need, with funds. This is quite similar to my Institution where I studied - University of California - there also in early days we need not pay any fees, excepting some caution deposits to cover the expenses of what we broke during experimentation. Our Institute which supported students with funds, produced a lot of wonderful

graduates. Similarly, I am sure your Institute will also produce wonderful graduates.

I must say you youngsters are living in a very excited time. You have the opportunity to contribute something to the benefit of the society. Utilise it. In order to tell you why this is an exciting time, I will take you through a five slide presentation. After that we can have a conversation, either on this presentation or on the two movies (the Power of Sun) that you saw just now.

The first slide shows how the global energy is supported- around 35% by oil, 22.3% by coal, 21.2% by gas and 20.5% by other techniques like nuclear energy. Global warming is a consequence of excessive use of fossil fuels. It is the need of the hour to conserve energy.

The second slide shows how the crude oil production is decreasing over the years. For example, in 2000, the production was 60 million barrels per day. In 2010, it is estimated to drop to 40 million barrels a day.

The third slide shows the increase in population. Imagine what happens when the oil reserve keeps going down and our population continuously keeps going up.

The fourth slide shows the effect of these two phenomena- crude oil production per day per population. It may be noted that this factor is expected to reach 12.5 million barrels a day for every billion of population by 2015 and beyond this year, will show a downward trend. This means, each of us will have less of oil for individual use, as time progresses.

The fifth slide shows the percentage of support one can expect from various energy sources, considering the present as 100%. . It is hoped that by 2020, wind and solar energy use may surpass the use of oil and gas. If solar and wind energy are effectively used, then the overall energy availability can be more than what we have today. You may wonder how solar energy can grow to such proportions, given the current usage pattern. It is just like compound interest. You start with a small amount but when you add interest to interest and continue, the amount grows enormously. Similarly, if we plan to grow by 35% year on year, then even a small start of solar energy can grow to a large extent – by a factor of 20 over a decade and by a factor of 400 over two decades. Then it can even outgrow

the fossil fuel usage. This is a projection with only my name behind it. I request you to take it seriously. The cross over point from fossil fuel to solar and wind energy may vary depending on how seriously all of us take this view.

Today, the cost of solar energy is a deterrent - it is very costly. But when there are no more fossil fuel left, something has to be done about it. Either we have to adjust our energy budgets and use less (Conservation) or we have to create the change. We have to only blame ourselves for the situation we have created for ourselves. As present generation of students, you now have the golden opportunity of managing this change very well.

The students and faculty had a very fruitful interactive session and cherished the day with the great living legend.

BECOME A MINDFUL LEADER IN ALL ASPECTS OF YOUR LIFE.

Everyone can benefit from being a mindful leader, a mindful manager, a mindful assistant, even a mindful parent, wife or husband as it applies to one's personal and business life. A mindful leader leads from a position of mindful awareness, or what I call mindstrength, by knowing how to respond with awareness instead of reaction and how to make everyone on their team feel recognized, affirmed and valued. Mindfulness provides you with clarity and calm in a crisis, protecting you from the temptation to panic and jump from one bad situation to another, or blame others for the crisis and avoid looking at your role in it; plus it gives you the power to change it.

Mindful communication is an extraordinary tool for problem solving. It allows you to tolerate the discomfort of confrontation with others and the embarrassment of discovering how you might have contributed to the problem. Mindfulness also allows you to find your creativity and resourcefulness, so that you can approach the situation differently and perhaps transform it. It helps you to easily tap into your core creativity to solve problems and achieve goals.

Most of us were taught that creativity comes from the thoughts and emotions of the mind. The greatest singers, dancers, painters, writers, and filmmakers recognize that the most original,

and even transformative, ideas actually come from the core of our being. Core creativity emerges when we are in a state of open-mind consciousness, which evolves from a state of consciousness called mindful inquiry.

It isn't difficult to become a mindful leader if you are willing to make an effort to develop some type of mindfulness practice and be open to the process. The ideal practice is to cultivate a mindfulness meditation that is done twenty minutes once or twice a day. But it's better to start doing ten minutes once a day than aiming for the overall goal and then feeling overwhelmed by it and falling short.

Other ways to become a mindful leader is to develop your own type of meditation practice. Meditation allows us to listen and pay attention to what we might otherwise overlook—whether it's a fresh idea or a new way of perceiving a situation—enhancing our creativity and letting go of our obstacles to innovation. Take a five to ten minute break in the middle of your day to mediate so you can clear your head and tap into your core creativity. You can also access this creativity by exploring the Arts, walking in nature and through mindful movements such as martial arts, tai chi and yoga. Some of the most creative thinkers had spent a great deal of unstructured time in nature in their formative years. It appears that many artists, philosophers, leaders, and thinkers throughout time have intuitively used mindful awareness to further their inner development.

As you learn to build your mindfulness practice, and apply the principle of developing a witnessing mind over time you can increasingly build more and more mindstrength. With a little effort you can quickly learn to focus, harness and direct the unruly and untamed aspects of the mind into more clarity, order and positivity.

Article by Ronald Alexander

Edited by Lekshmi Prasad,

Student Counsellor

BRAND LOYALTY IS DEAD: MARKETERS NEED TO LOOK FOR SOMETHING ELSE

This million dollar issue was posed to a panel of marketing practitioners at SSN School of Management & Computer Applications. The occasion was DAKSHA 2009, a symposium organized by the Business Graduates of this institution which invited participants from 30 other institutions.

The panel consisted of Mr. Shridharan Mani, Director and CEO of American Megatrends, Mr. Hemant Kumar, COO of Tata Tele Services Chennai, Mr. Elango of Interface Communications, Mr. Jai Xavier Prabhu David of PR Hub and Mr. Vijay Srinivas General Manager-Marketing at SSL -TTK LIMITED, all of whom tussle with this thought in their daily working and were probably the best equipped to discuss this threadbare.

It was a lively 45-minute exchange of views. Mr. Shridharan Mani, who set the ball rolling, took the stand that these days customers are giving importance to price rather than the brand. The discussion went onto highlight the need for an emotional connect between the brand and consumers, proliferation of brands that lead to brand disloyalty, newer and better quality products being launched. Loyalty programs are a common tool adopted by marketers to maximize the value to consumers, provide incentives to consumers to remain loyal by building long term relationships. If a company increased the price of the product and inspite of that the customers are still purchasing that companies' product then we can say that the customers are loyal to that brand. Realizing that a brand cannot be everything to everybody is vital to maintaining a brand's health. Operational excellence, constant innovation and unrelenting focus on consumers lead to brand loyalty. The final consensus – brand loyalty is not dead. Just focus on the consumer and he will not let you down. Get an insight into consumers rather than go by reams of data.



எழுதுகோல் - பழைய சிந்தனை புதிதாய்

சில நாட்களாய் போனாவை தவிர்த்து பென்சில் பயன்படுத்தி கொண்டு இருக்கிறேன். காரணம் வாரத்திற்கு இரண்டு பேனாக்களேனும் காணாமல் போய்விடுகிறது. நான் மறதியில் எங்கேனும் வைத்துவிடுகின்றேன் அல்லது யாரேனும் எடுத்துக்கொள்கின்றார்கள். இப்போது பென்சில் என் மேஜையிலேயே யார் கண்ணும் படாமல், யார் கண்ணிலும் படாமல் இருக்கின்றது.

பள்ளியில் மூன்றாம் வகுப்பு படிக்கும்வரை, பென்சில்களால் எழுத சொல்கிறார்கள். காரணம் அப்போதுதான் கையெழுத்து நன்றாக வரும் என்று நம்பப்படுகின்றது. ஒரு காலத்தில் பேனா என்றால் மை பேனாதான் பிரபலம். ஒரே மை பேனா வருடக்கணக்கில் வரும். ஆனால், இன்று உலகமே பால்பாயிண்ட் பேனாவில் சமூல்கிறது.

பேனாவை பயன்படுத்துவது நல்லதா என இணையத்தில் தேடிய போது சிக்கிய சில தகவல்கள் சிந்திக்க வைத்தது. சராசரியாக ஒரு பேனா நிறுவனம் தினமும் 10 லட்சம் பேனாக்கள் தயாரிக்கின்றன. இன்றைய சந்தையில் உள்ள பேனா நிறுவனங்கள் நடிக்கர்களையும், விளையாட்டு வீரர்களையும் வைத்து விளம்பரம் செய்து இலாபம் பார்க்கிறார்கள். மேலும் இன்றைய பேனா தயாரிப்பில் 85% பேனாக்கள் பால்பாயிண்ட் பேனாக்களே ஆகும். (இனி பேனா என்றால் பால் பாயிண்ட் பேனாவை குறிக்கும்).

உலகில் மொத்தமாய் 20 பேனா நிறுவனங்கள் இருப்பதாய் வைத்துக்கொள்வோம்:

ஒரு நாளைக்கு: 10 லட்சம் × 20 நிறுவனங்கள் = 2 கோடி பேனாக்கள் தயாராகிறது.

2 கோடி × 365 நாட்கள் = 730 கோடி பேனாக்கள் (ஒரு வருடத்தில்).

அதே அளவு விற்பனையும் நடக்கின்றது. அதே அளவு கழிவுகளாகவும் வெளிவருகின்றது. இதுவரையில் பேனாவை நாம் சரியாக அப்புறப்படுத்தி உள்ளோமா? இன்றும் நம் வீடுகளில் தேடினால் மூலை முடுக்குகளில் இருந்து குறைந்தது 20 பேனாக்களாவது கிடைக்கும்.

இந்த 730 கோடி பேனாக்கள் மீள் உபயோகம் (Recycle) செய்யப்படுவது இல்லை. அதற்கான ஏற்பாடுகள் இதுவரை இல்லை. பேனா மூடி, பேனா பின் மூடி, பேனா நடு பகுதி, பேனா ரீபில் பகுதி அனைத்தும் பிளாஸ்டிக்கால் ஆனது. குவிந்து இருக்கும் குப்பைகளில் இது எல்லாம் ஒரு கணக்கா என எண்ணலாம்.. ஆனால் இதுதான் உண்மை நிலை! ஆனால் எல்லா சுற்றுதழல் பாதிப்பிற்கும் ஒரு மாற்று தீர்வு இருக்கத்தான் செய்கிறது. ஆனால் நடைமுறை சாத்தியங்கள், ஏற்கனவே பழக்கப்பட்டு சோம்பேறிகளாகிவிட்டதன் காரணமாக, மாற்று தீர்வுகளுக்கு மாறுவதே கடினமாகிறது. இந்த பேனாவிற்கு தீர்வுதான் என்ன?

பேனாவிற்கு முன்பு வந்த பென்சிலை பயன்படுத்தலாம். நிரந்தரமாக இருக்க வேண்டிய எழுத்துக்கள் மற்றும் கை எழுத்துக்கள் போட மட்டும் பேனா பயன்படுத்தலாம். எப்படியோ பாதி அளவு கழிவினை குறைத்தாலும் அது நமக்கு வெற்றிதான். இந்த தகவல் சரியென தோன்றினால் இன்றே செயல்பட துவங்குவோம். ஆரம்பத்தில் கடினமாக இருக்கலாம். ஆனால் தனி மனித புரிதல்கள் இருந்தால் இந்த அவசிய மாற்றம் சாத்தியமே.

எழுதுவோம் புதிய வரலாறுகளை!

பா. காயத்ரி AP/ECE / நன்றி - வலைதளங்களுக்கு

வா.பொ வா.பி (வாழும் பொழுதும் வாழ்க்கைக்கு பிறகும்) (ஒரு பெண் வாழும் பொழுது இந்த சமூகம் என்ன பேசுகிறது அவள் இறந்த பிறகு என்ன பேசுகிறது இது தான் இந்த கவிதையின் கரு.)

அளாகிப் போனதும் முக்காடு போட்டுட்டு மூலையில்
உட்காரச் சொன்னார்கள்

படிப்பேன் என்றேன் எதை கிழிக்க என்றார்கள்

வேலைக்கு சென்றேன் கச கச பேசினார்கள்

வேலையை விட்டு நின்றேன் கச முச என்றார்கள்

நண்பண் என்றேன் காதலன் என்றார்கள்

காதலன் என்றேன் காழகன் என்றார்கள்

ஏன் என்றேன் திமிரு என்றார்கள்

எதற்கு என்றேன் அகங்காரம் என்றார்கள்

எப்படி என்றேன் அடங்காப்பிடாரி என்றார்கள்

பெண்ணுரிமை பேசினேன் பிதற்றாதே என்றார்கள்

மனித உரிமை பேசினேன் மண்ணாகி போவாய்

என்றார்கள்

இப்படி பேசிப் பேசியே என்னை கொன்றொழித்தார்கள்

வாடிய உறவுகளை மேலும் வாட வைக்கும்

கண்ணீர் அஞ்சலி சுவரொட்டிகள்

எனது இறப்பிலும் ஒட்டப்பட்டது

அதில் இருந்த வரிகள்

இவைகள் தான்:

படிப்பிலோ இவள் படு கெட்டி

வேலையிலோ இவள் படு சுட்டி

ஏன் என்று கேட்பாள் பகுத்தறிவாளி இவள்

எதற்கு என்று கேட்பாள் சமத்துவ போராளி இவள்

எப்படி என்று கேட்பாள் அறிவியலின் குழந்தை இவள்

பெண்ணுரிமை பேசுவாள் பெரியாரின் பேத்தி இவள்

மனித உரிமை பேசுவாள் மார்க்ஸன் மகள் இவள்

இப்படிக்கு உன் பிரிவால் வாடும்

அக்கம் பக்கத்து வீட்டார்கள்

எனது கடைசி ஆசை

எனது கல்லறையில் எழுதி வையுங்கள்

இங்கு உறங்குவதும் ஒரு

“ஒரு சராசரி இந்திய பெண்” என்று.



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