

# Mechanical **Aspire**

Achievements in Sports, Projects, Industry, Research and Education

All about Nobel Prize – Part 11

Recipients of 2014 Nobel Prize

Physics- “for the invention of efficient blue light-emitting diodes which has enabled bright and energy-saving white light sources”



Isamu Akasaki , Japan



Hiroshi Amano, Japan



Shuji Nakamura, Japan

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Chemistry - “for the development of super-resolved fluorescence microscopy”



Eric Betzig, USA

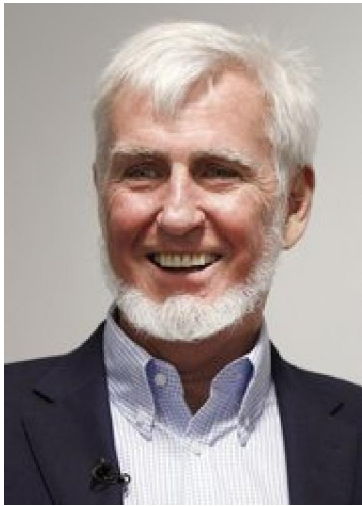


Stefan W.Hell, Romania



William E.Moerner, USA

Physiology-"for their discoveries of cells that constitute a positioning system in the brain"



John O Keefe, USA



May-Britt Moser, Norway

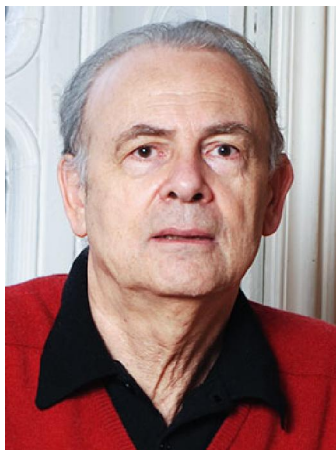


Edward I Moser, Norway



The Mosers said an important advantage of working as a husband-wife team was the ability to converse with each other quickly when they had ideas instead of having to wait for meetings.

Literature- "for the art of memory with which he has evoked the most ungraspable human destinies and uncovered the life-world of the occupation"



Patrick Modiano, France

Peace- "for their struggle against the suppression of children and young people and for the right of all children to education"



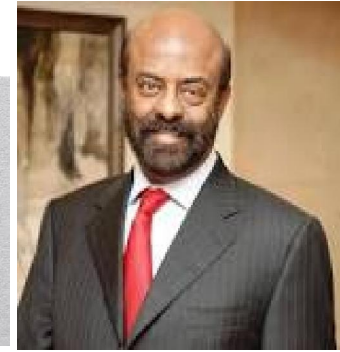
Kailash Satyarthi, India



Malala Yousafzai, Pakistan

Each awardee's life has a lot for us to learn. Try and see what made them worthy of such an award.

## Info to Alumni- Campus Update



Details at <http://shivnadarfoundation.org/the-golden-peacock-award>

## External recognition

### Info to Alumni- Department Update



Dr.N.LakshmiNarasimhan

Dr. N. Lakshmi Narasimhan Reviewed a Paper for the Energy Journal under Elsevier Publications.

Dr. A.K.Lakshminarayanan reviewed two research papers for Materials and Manufacturing Process, Taylor and Francis, One Paper for International Journal of Advanced Manufacturing Technology, Springer



Dr.A.K.Lakshminarayanan

## Internal recognition



Prof.N.Nallusamy

Dr. N. Nallusamy & Dr. M. Suresh received Best Teacher Award for the academic year 2012-13 during the Teacher's Day celebrations held on 19.09.2014

Best Teachers



Dr.M.Suresh

## Research activities



Dr.M.Nalla Mohamed

Dr. N. Lakshmi Narasimhan got two papers accepted for presentation in ICESES - an International Conference to be organized by CIT Coimbatore during Dec 2014.

Dr.M.Nalla Mohamed received supervisor recognition approval for guiding Ph.D and M.S Scholars from Centre of Research, Anna University, Ref.NO:24.02.24 (on 14-10-2014)

Dr.S.Rajkumar's research paper titled "Multi-zone phenomenological model of combustion and emission characteristics and parametric investigations for split and multiple-injection in common rail direct injection diesel engines" has been accepted for publication in Proceedings of IMechE, Part D: Journal of Automobile Engineering published by Sage publication, UK. This international journal is listed in Annexure I of Anna University



## FDP conducted



Dr. A.S. Ramana and Mr. B. Jayakishan organized one day workshop on **Energy Efficiency** at our campus on 10-10-2014

Dr. N. Lakshmi Narasimhan and Dr. S. Somasundaram organized a One Day **Workshop on CFD Using StarCCM+** on 6-10-2014



Dr.S.Suresh Kumar and Dr. A.K.Lakshminarayanan organised a one day national workshop on **"XFEM based fracture mechanics and its Applications"** (17-10-2014)

## FDP Attended

Mr. B. Jayakishan attended a workshop on Failure Analysis and Design organised by the Department of Mechanical Engineering, SVCE, Chennai (26-9-2014)

Dr. N. Nallusamy, Dr. S. Rajkumar, M. P. Sivaram (ME Energy Student) and K. Vignesh (ME Energy Student) attended one day workshop on Energy Efficiency on 14th October 2014 at Grundfos Pumps India Pvt Ltd, Thoraipakkam, Chennai.(14-10-2014)



Dr.S.Rajkumar



Mr.B. Jayakishan

Dr.R.Damodaram

Mr.C.Arun Prakash

Dr.G.SatheeshKumar

Dr. G. Satheesh Kumar, Dr. R. Damodaram, Mr. B. Jayakishan and Mr. C. Arun Prakash attended the five day workshop on Teacher Effectiveness conducted by the Department of Management studies, IIT Madras (13 to 17-10-2014)

## Crank -X user Feedback

Get a glimpse of what others felt.....

<https://www.youtube.com/watch?v=evNqulgJqYg&feature=youtu.be>

## President's Gesture

Dr.N.Lakshmi Narasimhan

Glad to share with you that our President has kindly consented to Utilize the Fund amount Rs. 25,000/- raised by our students organizing workshops during our Symposium CrankX 2014, as a Sponsorship to our SUPRA Team that made a Formula -1 Car at our campus recently. As a past Faculty Advisor, I sincerely thank our Management and President for the kind Gesture. My sincere Thanks to our Principal for the kind support and encouragement extended to the SUPRA team.

## Special Report – on Teacher Effectiveness Training at IITM

Our new faculty Dr.G.Satheeshkumar, Dr.R.Damodaram, Mr.B.Jayakishan and Mr.C.Arun Prakash attended a workshop on effective teaching. Their reflections....

## AICTE - STC "TEACHER EFFECTIVENESS WORKSHOP"

OCTOBER 13-17, 2014



Department of Management Studies  
Indian Institute of Technology Madras

## TEACHER EFFECTIVENESS WORKSHOP REPORT

A teacher is not the one who teaches;  
A teacher is the one from whom the students learn

This was the theme of the AICTE sponsored Short-term course on “Teachers effectiveness Workshop” between 13<sup>th</sup> -17<sup>th</sup> October 2014 at IIT Madras. The organizers **Dr. Rupashree Baral** and **Dr. M.P Ganesh** have done a commendable job through the execution of this programme. Four of our faculty members attended and were benefitted from this workshop: Mr. Jayakishan, Mr. Arun Prakash, Dr. Damodaram and Dr. G. Satheesh Kumar.

### DAY 1

The fundamentals of teaching, the philosophical assertion and the spiritual background for this noble vocation were the premise over which the sessions started. **Dr. C. Balaji** on his talk on “Joy of Teaching” started by calling that Teaching is tapasya and it helps to justify your existence. The teacher has to realize that each soul is potentially divine; every student is potentially divine. The highest goal for any teacher is to improve the learnability of the students. A teacher is a potential relationship multiplier through the students. We should learn to like all students without liking anyone in particular, learn not to show boredom and anger and more importantly we should not teach to impress!

**Death of a teacher:** Is the state when the teacher needs no preparation to teach a particular subject; so he suggests a (max) 5 yrs cycle for notes/ppt/subject. It is a primary duty of the teacher to verify whether the students are really prepared to face all challenges of life/work?

**10000 hrs rule:** Any profession, talent or skill could be mastered only when practiced for 10000 hours and that includes teaching too.

**Dr. L. S. Ganesan** on his talk on “Why are we teachers” quoted from Constitution (Article 51a) that excellence is the duty of every citizen. Excellence is to know your limits and go beyond. The current generation (being the digital natives) seeks instant gratification in everything they come across, so it is the duty of the teacher to demonstrate concentration. The only weapon that a teacher should use in the classroom should be the quality of teaching and not policing. And he recommends the 7<sup>th</sup> S, ‘Salvation : Synergy : Shanthi’ for ‘individual : Group/team : Civilization/nation’.

Then **Mr. Arul Dev** spoke on “integral education” and **Prof. Dev Das Menon** gave deep insights into the spiritual side of teaching and concluded that currently education gives only livelihood but does not teach how to live; it gives only the knowledge and not character...a teacher’s duty.

### DAY 2

**Dr. M. P. Ganesh**, one of the coordinators gave a lecture on ‘Psychology for Teachers’. He emphasised that the most important attribute for a good teacher is that he should be able to understand the students. For becoming an effective teacher, there are many abilities a teacher should develop. The teacher should have a sense of humour and make the class more interesting. They should have a good knowledge of their subjects and be able to explain things clearly. They should be fair and be able to understand the student’s feelings. They should spend time with students and treat them like adults while not showing any favouritism. All these actions of a teacher will make the student think differently. **This phenomenon is known as Pygmalion effect. It usually refers to the fact that often students turn to live up to what’s expected of them and they tend to do better when treated as if they are capable of success.** If a teacher does not believe in his job, does not enjoy the learning he is trying to transmit, the student will sense this and derive the entirely rational conclusion that the particular subject is not worth mastering for its own sake. If all the teachers they are exposed to are extrinsically motivated, students might well conclude that learning in general is worthless in and of itself. Student motivation, enthusiasm and achievement are influenced by multiple factors besides teacher’s expectation. The interest and need of a student form the most important aspects of education. Students get motivated based on these three needs:



- **Need for achievement:** The drive to excel, to achieve in relation to a set of standards, to strive to succeed.
- **Need for power:** The need to make others behave in a way that they would not have behaved otherwise.
- **Need for affiliation:** The desire for friendly and close interpersonal relationships. Some students have higher levels of one need than others. But it cannot be differentiated definitely.

**Dr. Joseph Einstein**, from the Department of Psychology, University of Madras discussed the concepts, strategies and skills about educator as a counsellor. He mentioned that every individual is a unique personality and they will have a fervent question in their minds “Who am I?” Their potential for development depends on its answer. Dr. Einstein wants all of us to ask our students to recall the positive potentials of their parents as they were growing up and then compare with them to realize and increase the student’s skills. Dr. Einstein describes counselling is not advising, guiding, correcting, instructing, directing, enquiring, informing, storytelling, story listening, crying together or even saying “Don’t worry.....I will take care of everything”.

Counselling is only a professional relationship and is given to the one who seeks it. The counsellor should not provide solutions. He should only help by giving ideas or through motivation and make him feel supported. He should establish a good rapport and then do behaviour and situation analysis before empowering the individual with motivation to decide on his own. Some of the attitudes required for a good counsellor are compassion, trust worthiness, non-judging mentality and empowerment. Dr. Einstein concluded that we should change from being a syllabus-oriented teacher to a person-oriented teacher.

**Prof. Rajeev Sukumaran**, a principal consultant of the Teacher Learning Centre (TLC), IIT Madras spoke about student-centered learning as opposed to teacher-centered learning and the idea of perception. He said that the brain always perceives information and does not receive the information. This perception leads to the development of a student’s intelligence and based on this intelligence he develops his personality. Some methods for student centered learning include active learning, in which students solve problems, answer questions, formulate questions of their own, discuss, explain, debate, or brainstorm during the class; cooperative learning, in which students work in teams on problems and projects under conditions that assure both positive interdependence and individual accountability; and inductive teaching and learning, in which students are first presented with challenges (questions or problems) and learn the course material in the context of addressing the challenges. As lecturers, it is our responsibility to ensure student’s effective learning. This is crucial to our profession: no university can exist without students and **students will keep coming only if we build our institutional reputation on both solid research and strong pedagogical bases.**

### DAY 3

**Mr. S. Raghav**, Founder of SciPhiWay (Science Philosophy Way) made an impressive speech on how to manage stress. This is one of most useful sessions and I think all the faculty members should attend and take the benefit. We found that his session to be completely different due to his focus on one of the most vital organ of human body, the "Brain" and the stress-related hormones. He taught some practical exercises to cope up with the mental stress which is inevitable in the current world. **Prof. C. Vijayan** of Physics department, IIT Madras delivered a presentation on use of effective pedagogies. He introduced

strategies for effective pedagogies in science education. He pointed out that [education should enable, enrich and empower](#). He provided some useful websites, videos and books for pedagogies. **Dr. Edamana Prasad** of Chemistry department, IIT Madras gave a lecture on Learning Outcomes of a Course. He stressed on the advantages of learning outcomes such as Focus, Curiosity, Effective learning in student point of view. In the teacher point view Assessment of student, Course material/ Conducting class and Effective teaching.

#### DAY 4 & 5

**Dr. V. Vijayalakshmi**, Professor, Department of Management Studies, IITM handled a session on Understanding your inner potential. She discussed some points which the students expect from their teachers and what the students feel to be a quality of a good teacher. Below are some of the points which she discussed.

Expectations of student from Teacher	Good qualities of Teacher
Appreciation / Attention	Humility
Positive Environment	Ability to Inspire
Newness in Thinking	Grip in subject knowledge
Aesthetics	Professional and Friendly
Practical Inference	Energy, Enthusiasm and Passion
Simplicity of Explanations	Non-judgemental

She also mentioned some methods which will make learning interesting like giving crosswords in exams instead of simple one word questions, making them teach in class, conducting quizzes in class etc. In the next session **Prof. Sarit Das**, Dean Academic Research, IITM briefed about Research and Publications. He introduced research as mixture of course work and innovation. He also insisted us to read a paper on “How to write a Paper”. He also stated that if there is a dilemma between choosing an institution and guide, importance should be given to institution than guide. Following this session, **Prof G. Arun Kumar** mentioned about some of the organizations that will fund for research. The last session for the day was on “Administration and other scholarly assignments”. He supported the fact that [more works make you more productive](#) by sharing his own experiences.

Day 5 started with panel discussion. The panel members were **Dr. Preethi Aghalyan** (Chemical Engineering, IITM), **Dr. Sujatha Srinivasan** (Mechanical Engineering, IITM) and **Prof. C. Chandra Sekhar** (Computer science). For a discussion on whether teaching an Art or Science, they said that it is a combination of both. They also insisted to grade students based on their efforts and not by their marks so that all will be involved in the assignments given. The next session by **Dr. Rupashree Baral** was on Effective Management of Time, Work and Non-Work roles. She concluded that [work-life cannot be balanced but only can be integrated](#). The last session was presentation of feedback and action plans. Each member from a team was asked to present their action plans and the feedback about the workshop. The workshop came to end with certificate distribution.

**Summary:** In short [anything not ‘thought’ is not learnt](#).

So a good teacher strives to make the students think upon what is being taught. Being a teacher is a means to Self- discovery and you are a perfect experiment for you to learn. So,

**“Seek knowledge for the sake of knowledge as knowledge is the means and the end”**

The entire course was one immense learning experience. Kudos to the team who did it!



## Workshop on Energy efficiency

One Day Workshop on “Energy Efficiency” was organized at our campus on 10<sup>th</sup> October, 2014. There were three technical sessions and an industrial visit to M/s. Turbo Energy Ltd., Paiyanoor.

**Dr. P. Dharmalingam**, Director & Head, Dr. Ambedkar Institute of Productivity, National Productivity Council (NPC), Chennai inaugurated the workshop and delivered lecture on Need for Energy Efficiency and Renewable Energy.



**Dr. P. Dharmalingam**

**Shri. S. Karthikeyan**



**Shri. Rajesh Mohan**

**Shri. A. Jankiram**

**Shri. A. Jankiram**, Addl. Director & CRC, SR, Petroleum Conservation Research Association (PCRA), Chennai elaborated Govt. of India’s initiatives on energy conservation and PCRA’s energy conservation activities in the second session of the workshop. This was followed by lecture on energy conservation opportunities in compressed air systems by **Shri. Rajesh Mohan**, AM & Field Engineer, PCRA, Chennai

In the third session, **Shri. S. Karthikeyan**, Senior Counsellor, Confederation of Indian Industry (CII), Chennai delivered a talk on World Class Energy Efficiency in Thermal Power Plants

In the afternoon session, workshop participants visited **M/s. TVS Turbo Energy Ltd.,** Paiyanoor. The participants were exposed to green building features and various aspects of solar cooling facility.



The workshop was funded by SSN Trust and coordinated by **Dr. A.S.Ramana** and **Mr. B. Jayakishan** and well acclaimed by the participants.

### Workshop on XFEM based Fracture Mechanics

#### **Workshop on “XFEM based Fracture Mechanics and its Application”**

Department of Mechanical organised a one day national workshop on “XFEM based Fracture Mechanics and its Application” on 17/10/2014 to create awareness latest developments in FEM especially Extended Finite Element analysis, XFEM methods to evaluate the static and dynamic properties of materials. Recently, the XFEM has gained an enormous attention in research and industry and has been realized in commercial software packages

**20 external participants** of faculties, PG and UG students from various colleges and **36 internal participants of ME Manufacturing and 4 UG students** got benefited from this workshop.

**Dr. S. Suresh Kumar** delivered two lectures on “**Basics of extended Finite Element Analysis**” and “**Crack Growth studies using XFEM**”

**Dr. A.K.Lakshminarayanan** delivered two lectures on “**Overview of fracture mechanics**” and “**Fracture toughness and Fatigue strength evaluation – Experimental Approach**”

**Industrial Visit to Ford India,  
Chennai Plant on 30<sup>th</sup> October 2014**



Report by Dr.K.S.Vijay Sekar,

We had the privilege of taking the M.E. Manufacturing Engineering students (17 students from First year and 6 students from Second year) for a visit to the Ford Motor Company, a World class automotive facility, spread over 350 acres, located at Maraimalainagar on the outskirts of Chennai. The plant operating since 1995 is home to some of the finest cars running on our roads. The PG students were accompanied by me and Dr. G. Satheesh Kumar, Associate Professor of the Department of Mechanical Engineering, SSN. A warm welcome was accorded to us by Ms. Varsha and Mr. Joseph who coordinated the visit from the other side and a special thanks to Dr. N. Lakshmi Narasimhan, who gave us the lead.



The proceedings started with the customary company presentation, which gave an overview of the Ford plant and its products. A short video on safety protocols to be observed during the visit was screened. The students were shown the sheet metal operations around the press shop where the skeletons of the cars are sculpted. Then a walk through to the assembling stations gave a glimpse of automation at its best with Robots welding the frames and automated guided vehicles handling the material to and fro from the workstations. One could see the safety measures being observed inside at various vantage points, so also display boards giving directions and exhibiting the work flow on the shop floor.

Then we came to the car testing bay where the cars are put through the paces on smooth to difficult terrains to check for any niggles before they are shipped to the dealers. We came back into the plant to have one final glimpse at the finishing touches that were given to the cars before they entered the testing bay. It was remarkable to see single assembly lines working on the entire Ford range of vehicles, Figo, Fiesta classic, Global Fiesta, Eco Sport, with the exception of the SUV - Endeavour which has a dedicated assembly line. The demand in the market being dynamic, the products to be



manufactured are scheduled every day, accordingly. We were told that around 200,000 vehicles are manufactured every year as also some 3,40,000 petrol and diesel engines some of them being exported as well.

The students had a field day watching a World class plant in operation at close hand and were curious and inquisitive right through the visit. All said and done, Ford made our day happier.

Thanks Ford India - for the opportunity and the experience.

### Industrial Visit-by Faculty

On invitation from Mr.V.Kumara Subramanian , Deputy General Manager , Learning and Development of TI Cycles, Dr.A.K.Lakshminarayanan visited TI Cycles at Ambattur, for a discussion on possible projects at Tubes India on welding related areas. Possible areas have been identified and initial work will start as PG student projects next sem.

### Student Activity Report- Team Precisio at Go-Kart event

### SSN Mechies build their Second Car

“No one can teach a person as experience does!” says a quote. The team had people interested in automobiles willing to learn some real experience in the field! The SAE India organization had recommended the Indian Society of new era engineers-ISNEE’s National Go-Kart Championship for students focusing on their technical and managerial development. It gives the opportunity to the undergraduate and diploma engineers to research and develop innovative projects.



The event had two rounds. The first one being the pre final round dealing with the design of the complete go-kart and the other one was on completing the challenges in the Race track on the Race day.

### PRE-FINAL ROUND:



### Fabrication and Innovation:

The Pre-Final Round was Held in Indore, Madhyapradesh. The design was completed on time in the CATIA software and analysis was done in Ansys. The Team spent a week's time on traveling to Indore and presenting the Design and the Business reports before the jury. The Design was appreciated and mistakes were reported in the Innovation part, which was a flywheel connected to crank shaft for easy immediate acceleration after a deceleration which was recommended to be corrected by the final report submission which was in September and the Modifications were done changing the innovation with electrical circuits for detecting Engine over heat

Fabrication was done in SAE 1020 grade material for the Chassis. The Engine's maximum displacement restriction imposed was 125 cc and the Engine of Yamaha Gladiator 125cc was used. The welding was TIG welding and Arc welding. Fabrication was done in Coimbatore as the Final was in Coimbatore.

### FINAL ROUND:

The Final Round was in KARI MOTOR SPEEDWAY, Coimbatore. The first day's challenge was to Dismantle the go-kart and reassemble it as quick as possible. Technical Inspection was conducted later where the kart cleared with no issues. The second day was filled with the Design Report checking, Comparison, and the Business reports. Then came the dynamic tests, in which the kart was able to pass the brake test. The Results were good, with team precisio getting top ranks in DESIGN, BUSINESS REPORTS, and the Dismantling Event among the 100 teams present at the Race track.



**CAPTAIN and Vice Captain** : M Prasanna and Navin Kumar Krishnan R

**DRIVERS** : V Saravanan and Pragadish Karthik R

**Members**: Anish P, Arvind G E, Gokul A G, Deepak Vishal R, Sagar Malhotra, Akilnandh Ramesh, Lekhaj K, Dhayanidhi M, Balaji V R, Bharath K S, Bharath K, Manoj kumar R, Steven Niketan Paul, Sushanth Jeyakumar, Parthiban A, Adhitya S(EEE), Harini (EEE)

**Faculty advisor**: Dr.R.Prakash



### Rank Holders of 2014

Rank-Name

11 - Deepak

13 -Vignesh Ram

17 -Arjhun Shyam Sundar

19 -Nandakumar L

24 -Vijayakumar SC

41 -Vivek Ananthkrishnan

44 -Girish

49 -KarthikRaja

49 -Sai Sreenath

50 -Keshika V

M.E.Manufacturing Rankholders

2-R.Saranarayanan

3-Sibi Varshan M

5-Clifford Benjamin Raj R

9-Gobivel K

11-Allwin Roy Y

12-Rajan P

### PG students Activity

Santosh. S and Javed Syed Ibrahim. S of Final year Manufacturing Engineering were selected for a two day UGC sponsored workshop at CEG, Anna University, Guindy titled **Recent Research Trends in Manufacturing Engineering, 2014 (RRTME 2014)**. It was held on 10th and 11th of October, 2014.



Nanayam Vikatan issue dated 2<sup>nd</sup> November carries an article on our third year student Vishal - on his Training academy Warhorse.



**“பேச்சுதான் என் முதலீடு”**

வித்தியாச இன்ஜினியரிங் இளைஞர்!  
கட்டுரை மற்றும் படம்: அ.பார்த்திபன்.

“எனக்கிருக்கும் மிகப் பெரிய திறமையே என் பேச்சுதான். அதையே முதலீடாக வைத்து ‘வார்ஹார்ஸ்’ (warhorse) என்ற நிறுவனத்தை வெற்றிகரமாக நடத்தி வருகிறேன்” என்கிறார், சென்னை பொறியியல் மாணவரான விஷால். அவரைச் சந்தித்தபோது தன்னைப் பற்றி, தன் நிறுவனத்தைப் பற்றி, தன் எதிர்கால கனவு பற்றி உற்சாகமாகப் பேச ஆரம்பித்தார்.

**தன்னம்பிக்கை பயிற்சி!**

“சின்ன வயசுல இருந்தே பேசறது எனக்கு ரொம்பப் பிடிக்கும். ஸ்கூல படிக்கும்போதே, நிறையப் பேச்சுப் போட்டிகளில் கலந்துக்குவேன். காலேஜல படிக்கும்போது பேச்சுப் போட்டிகளில் கலந்துக்க அதிக வாய்ப்பு கிடைக்கலை. ஆனால், நமக்குத்தான் பேசறது நல்லா வருதே. அந்தத் திறனை வைத்து ஏதாவது பண்ணலாம்னு தோணுச்சு. அப்பதான் சென்னைல இருக்குற ஒரு சேவை நிறுவனம் நடத்தற, ஏழை குழந்தைகளுக்கான ஆங்கில வகுப்பில் பாடம் எடுக்கச் சேர்ந்தேன். அந்த மாணவர்களுக்குச் சொல்லித்தரும் போதுதான் புரிஞ்சது. நமக்குப் பேசறது மட்டுமில்ல; பேசறது எப்படின்னு கூட சொல்லி தரமுடியும்னு.

அங்கு கிடைச்ச அனுபவம் நல்லா இருந்துச்சு. மாணவர்களின் முன்னேற்றத்தைப் பார்த்து ரொம்ப சந்தோஷப்பட்டேன். அப்பதான் எனக்குத் தோணுச்சு, நம்மகிட்ட தகுதி இருக்கு; நமக்குப் பணத்தேவையும் இருக்கு. குறைந்த கட்டணத்துல சொல்லித் தரலாம்னு முடிவு செஞ்சேன். அதுக்கப்புறம் உருவானதுதான் இந்த நிறுவனம். இந்த நிறுவனத்தின் மூலம் பள்ளி, கல்லூரி மாணவர்களுக்குத் தன்னம்பிக்கை பயிற்சி வகுப்புகளை எடுத்துட்டு இருக்கேன்” என்றபோது அவர் முகத்தில் பளிச் பிரகாசம்!



மாணவர்களைப் பட்டை தீட்டுகிறோம்!

## Vishnu's Speech on Teachers' Day

“ஒருவரது வாழ்க்கையை வெறும் சாக்பீசாலும் சிந்தனையாலும் ஒருவர் மாற்றிக்காட்டுகிறார் என்றால், அவர் ஒரு ஆசிரியராகத்தான் இருக்கமுடியும்.”, என்கிறார் ஜாய்ஸ் மேயர். கல்வி என்பது வறுமையில் இருப்பவனுக்கு அடைக்கலம், வளமாக இருப்பவனுக்கு ஆபரணம். அப்படிப்பட்ட கல்வியின் ஊற்றுக்கண்களான என் கண்ணுக்குத் தெரியும் கடவுள்களுக்கு என் பணிவான வணக்கம்.



வாழ்க்கையில் ஒரு நல்ல ஆசிரியர் எல்லோருக்கும் திடீரென்று என்றாவது வாய்த்துவிடுகிறார். அவரது பார்வையில் படும் நூறு முகங்களில் நாமும் ஒரு முகமாக நொடிப்பொழுதில் கடந்து போனாலும் நம்மைப் பொறுத்தவரையில் நம்மிடையே ஒரு பெரும் மாற்றத்தினை உண்டாக்கிவிட்டுப் போயிருப்பார் அவர். நாம் சிந்திக்கும் முறையிலிருந்து விரும்புகிற பாடங்கள் வரை அத்தனை விஷயங்களிலும் ஏதேனும் ஒரு பாதிப்பை உண்டு பண்ணிவிட்டு, ஒன்றுமே நடக்காததுபோல் அடுத்த வகுப்பு மாணவர்களை கவனிக்கத் துவங்கிவிடுவார்! நாம் இன்று இவ்வாறு இருக்கிறோம் என்றால், நாம் இத்தனை மாற்றங்களை சுமந்து கொண்டு இந்த உலகத்திற்கு உபயோகமாய் இருக்கிறோம் என்றால், அதில் பெரும் பங்கு வகித்துக்கொண்டிருப்பவர் நிச்சயமாக ஒரு ஆசிரியராகத்தான் இருக்க முடியும்!

இந்தியாவின் முதல் ஆசிரியை திருமதி.சாவித்திரி பாய் புலே. மோகன்தாஸ் கர்மசந்த் காந்தி பிறப்பதற்கும் முன்னாலேயே மகாத்மா என்று அழைக்கப்பட்ட மகாத்மா ஜோதிராவ் புலேயின் மனைவியார் இவர். கல்வி மறுக்கப்பட்ட பிற்படுத்தப்பட்ட சமூகத்தில் பிறந்து தன் வாழ்க்கை முழுவதும் பெரும் அவமானத்தை சந்தித்தவர். பிற்படுத்தப்பட்ட குழந்தைகளை வைத்து பள்ளி நடத்தி, அவர்களுக்குக் கல்விச் செல்வத்தை மட்டும் ஊட்டாமல் தன் சொந்த செலவில் உணவும் ஊட்டியவர் அவர். அவர் கற்றுத்தருவதோடு தன் சேவையை நிறுத்திவிடவில்லை.

மஹாராஷ்டிராவை ப்ளேக் நோய் தாக்குகிறது. அப்போதைய ஆங்கிலேய அரசு ப்ளேக் நோய் பரவாமல் தடுப்பதற்காகக் கடுமையான ப்ளேக் சட்டங்கள் இயற்றுகிறது. நோயால் பாதிக்கப்பட்ட மக்களிடமிருந்து பொதுமக்களைத் தனியே பிரித்து வைத்து யாரும் இவர்களை அண்ட வேண்டாம் என்று உத்தரவு போடுகிறது. ஆனால் ஆங்கிலேய அரசு மருத்துவர்கள் யாரையும் அனுப்பவில்லை, ஒருவரையும் காணோம். பார்த்தார் சாவித்திரி பாய் புலே. ஒவ்வொரு நோயாளியையும் தானே

தூக்கிக்கொண்டு, சுமந்துக்கொண்டு மருத்துவமனைக்கு ஓடுகிறார், உதவுவதற்கு ஒருவரும் இல்லை. அப்பொழுது சாவித்திரிபாய் புலேக்கு வயது 66.

66 வயதில் தன் முதுமையைக் கூட பொருட்படுத்தாமல் கற்றுத்தருதல் மட்டும் சேவையல்ல, இதுவும் சேவைதான் என்று ஒருவருக்கு தோன்றுகிறது என்றால், அவர் நிச்சயமாக ஒரு ஆசிரியராகத்தான் இருக்க முடியும்! இறுதியாகப் பாண்டுரங்க பாபாஜி என்ற பத்து வயது சிறுவனைத் தூக்கிக்கொண்டு ஓடும்போது ப்ளேக் நோய் அவரைத் தாக்குகிறது. நிலை குலைந்து விழுகிறார், அந்த சிறுவன் பிழைத்துக்கொள்கிறான், ஆனால் சாவித்ரிபாய் இறந்துபோகிறார். சேவையே வாழ்வாகிப்போனது இந்தியாவின் முதல் ஆசிரியைக்கு. அவரது வழித்தோன்றல்களாகிய உங்களின் கைகளில் நாங்கள் பத்திரமாக இருக்கிறோம் ஆசிரியர்களே. உலகின் எந்த மூலைக்குச் சென்றாலும் இதுதான் எங்கள் வீடு, எத்தனை வயதானாலும் நாங்கள் என்றுமே உங்கள் குழந்தைகள்.

அரிஸ்டாட்டில் தன் சீடர்களுடன் பயணப்படும்போது ஒரு இடத்தில் காட்டாறு ஒன்றை சந்திக்கிறார் அதில் சுழல் இருக்கிறதா என்று பார்க்க அவர் தன் ஒரு காலை ஆற்றில் இறக்க முயலும்போது அவரை முந்திக்கொண்டு ஒரு சீடன் அந்த ஆற்றில் குதிக்கிறான் பிறகு நீந்திக் கரையேறுகிறேன் இதைப் பார்த்த அரிஸ்டாட்டில், “முட்டாளே, ஆற்றில் சுழல் இருந்திருந்தால் என்ன ஆகியிருந்திருக்கும்?”, என்று கேட்கிறார். அதற்கு அந்த சீடன் சொல்கிறான், ”இந்த சீடன் இறந்துபோனால் ஆயிரம் சீடர்களை உங்களால் உருவாக்க முடியும் ஆனால் எங்களுக்குக் கிடைத்திருப்பதோ ஒரே ஒரு அரிஸ்டாட்டில்தான்”,என்கிறான்.

இதே சீடன் பின்னொரு நாளில் சொல்கிறான், “நான் இந்த உலகில் இருப்பதற்கு என் பெற்றோரே காரணம். ஆனால் நான் நன்றாக இருப்பதற்கு என் ஆசிரியரே காரணம்.”. அந்த சீடன் வேறு யாரும் அல்ல, அவன்தான் மாவீரன் அலெக்சாண்டர்

எங்களின் ஏணிகளே, இதுதான் உங்களின் அளவில்லா மதிப்பு பள்ளியிலும் கல்லூரியிலும் உங்களிடம் நிறைய திட்டு வாங்குவோம். ஆனால் எங்களுக்குத் தெரியும், நீங்கள் எங்களைத் திட்டவில்லை, எங்களை வைரக்கற்களாகத் தீட்டுகிறீர்கள் என்று சொல்லி, உங்களை வணங்கி விடைபெறுகிறேன். நன்றி.

## Alumni News



2

Vigneswaran Govindarajan, our alumni of first batch, through his venture Concentric Research Foundation, has selected two student projects for financial support.

1

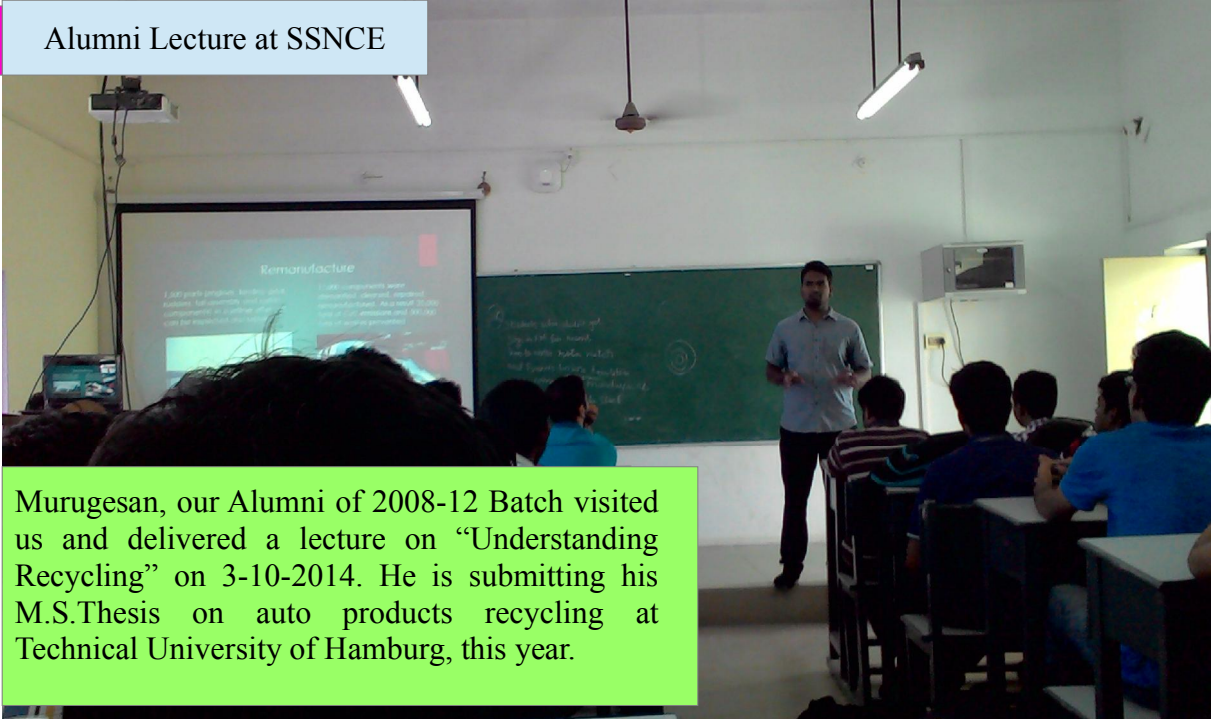
Akash Mani, of 2007-11 batch has moved from CTS and joined MBA Business Operations at Great Lakes Institute of Mgmt,( 2013-2015)





3

### Alumni Lecture at SSNCE



Murugesan, our Alumni of 2008-12 Batch visited us and delivered a lecture on “Understanding Recycling” on 3-10-2014. He is submitting his M.S.Thesis on auto products recycling at Technical University of Hamburg, this year.

4

### Arjhun Hariharan of 2009-13 batch informs on a paper acceptance



I would love to inform you that the paper titled “A Fuzzy AHP Approach for the Evaluation of a Firm as a Potential Employer” that the four of us (Arjhun Hariharan, L Bruno Augustin, Pranav Prakash and K G Sai Shreenaath) authored under the guidance of Dr S Vijayan has been accepted for presentation and publication at the 13th ICMBS (International Conference of Management and Behavioural Sciences) 2014 International Conference organized by SMBS (Society Management and Behavioural Sciences) - India & Canada to be held at Haridwar, India.

5

**JR Gowtham of 2007-11 batch, after a short stint as Programmer Analyst at CTS, did his MBA at PSG (2012-14) and is now Intern at Coca-Cola Maldives.**



## SSN Mech-Global Alumni Forum

Rohit Subramanian forms a  
Global Alumni Forum

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*SSN Mechanical-Global Alumni Forum*

[https://www.linkedin.com/groups?home=&gid=6713878&trk=anet\\_ug\\_hm](https://www.linkedin.com/groups?home=&gid=6713878&trk=anet_ug_hm)

*started by Rohit Subramanian -June 18 2014*

*Private group.* To request membership, click Join and your request will be reviewed by the group manager.

**A forum to network with fellow alumni of the Department of Mechanical Engineering, SSN College, established outside India**

## Suyash Kumar reflects on Life after SSN

7



Hi everyone.

Let me start this small write-up, we cannot plan everything we do, however we still plan on what we want to do.

Being from the first batch of Mechanical Engineers of SSN, we as a batch were honestly, circumspect of what might happen in the final year and what would we end up doing post the awesome 4 years at campus.

Efforts of the department and college alike brought astounding results and almost all of us seeking placements were placed. I too joined Ashok Leyland starting Sept 2011.

Life changed at AL (Ashok Leyland), for the 1<sup>st</sup> year, we are called GET's( Graduate Executive Trainee's) who are based out of Hosur, going through rigorous training modules all over the country; in Manufacturing, Marketing, Product Development and Supply Chain.

As a batch of around 30 odd GET's from over the country, it feels like extended college for another year, but something with more seriousness, as you attend the trainings you decide on what you like, what you want, what you are good at and you are judged about the same constantly by AL. This training of AL is renowned in the industry for the varied exposure to all functions on the industry.

Having got into Marketing and posted at home location was a dream come true, it does not normally happen and you prepare yourself for the worst anyway. The experience of working as a Dy Mgr- After sales in AL was a great learning; we are exposed to manpower handling, data crunching, technical challenges/support, training manpower, promotional activities.

Your role is to provide support and lead a team, which at such early point of your career is very rare in other firms. The responsibility given was tremendous and the work was very hectic and kept us on toes most of the times.

The nuances of the trade; an ever packed rucksack, a suffering stomach and ever complaining customers, you basically sign up for all this when you take marketing. It was tough last 2 years for the industry with very little growth, declining profits and new competition. This is the nature of manufacturing and more-so Automobile industry, it's cyclic. Every few years, the industry fades giving it the chance to evolve and re-grow. 2008 was one such year with a cyclic repetition in 2012-13.



Management Development Centre



Life at AL couldn't have been better and with the exposure of almost two and half years, I switched into a more settled desk job in a Business Consultancy, only because am preparing for MBA entrance exams simultaneously.( I wouldn't have much to write up about the new role as its still at its infant stage.)

With almost around 4years experience, I do plan to start on my MBA education in the years to come with a strong backing and experience of AL Marketing. While the consulting shift was not desirable and the job is too dull for a marketing professional, it leaves me with more time and energy to devote to the preparation. It is one challenge to study post work-ex and that is what I have faced.

- We do believe while we study, that not much of it is going to come to practical use, but it does, some topics more than others and some almost every day.
- The technical challenges in manufacturing industry are helped by our technical degrees and the management challenges by our extra-curricular skills.
- Manufacturing industry is dynamic with new challenges and new learning's every day and it is the right place for us to be as Mechanical Engineers.
- I do wish each and every one all the very best and lets keep our heads as SSNites – High!

One strong suggestion or rather an opinion to you all if I may, **if you plan on giving GMAT/GRE , give these before your jobs start** or initially while you still have time, because **scores are valid 5 Years** and finding time out to study from a job is a challenge I faced personally.



## Attention : Students

Since it is exam time and a lot of free time, for a change,  
instead of Amazing Innovations,  
we present several opportunities for you to create Amazing Innovations.  
You are invited to participate in these Challenges.

### Innovation Challenge -1

## **HYVE Engineering Contest**

*Deadline: 2014-11-26*

*Award: Cash prizes totalling 6,500 €*



We, the HYVE Innovation Community, strive to innovate with you. Our latest idea contest is highly challenging - yet, creative ideas are able to influence the engineering world to a great extent:

An internal combustion engine (ICE) can be started by an electric machine.

This procedure is determined as a tow-start and is used in many forms in today's powertrains. Nevertheless the coordination of e-machine, clutch and combustion engine is challenging. A quick and smooth start has to be ensured. To probe the causes and generate new, innovative ideas for clutch systems that guarantee an ideal interplay between all components, this idea contest was launched on October 1st.

Submit your ideas and get the chance to meet the experts behind the contest. The best ideas will be awarded: First winner: 3.000 €, Second winner: 2.000 €, Third winner: 1.000 €

Enter Contest Here: <http://www.engineering-contest.com/>

### Innovation Challenge -2



SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) has established three national awards for innovative student projects in engineering, pharmacy, science and other applied technologies.

These will be given away by Dr. R.A.Mashelkar, Chairperson, NIF at IIM-Ahmedabad in March 2015.

The awards will be given to young innovators in the following category:

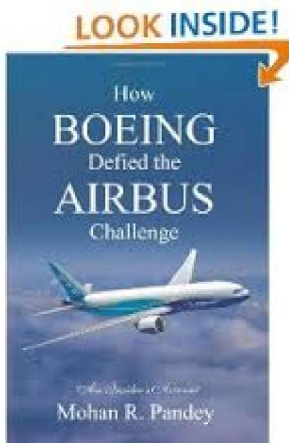
### **Gandhian Young Technological Innovation Awards, 2015**

1. MLM ( More from less for Many ) award
2. Sristi socially relevant technological innovation award
3. Strategic innovation and /or technological-edge award

[www.techpedia.in](http://www.techpedia.in) (www.techpedia.in) at SRISTI invites entries for these three awards by **31st January, 2015**:

Student projects which address an important social, environmental or technological problem faced by masses or disadvantaged people/sectors/spaces or micro and small enterprises, or have the potential to impact a pressing national need are invited. The applications may be made by the past or present students of technical institutions/universities. On behalf of the students who have already passed out and left the Institute/ University, the faculty member, who supervised the project, can also apply

#### Innovation Challenge -3



At Airbus, we're constantly looking for new, better ways to fly and that's what Fly Your Ideas is all about.

The competition is open to teams of 3 to 5 students from around the world, currently studying for a Bachelors, Masters or PhD in any academic discipline.

Start putting together your team for Fly Your Ideas 2015, and get ready to submit your proposal from this September.

There are 3 progressively challenging rounds, then the final in June 2015 when the top selected teams will present their ideas to a panel of Airbus and industry experts.

The winners will share the top prize of €30,000 and the runners up will share €15,000.

Fly Your Ideas is open to teams of 3 to 5 students of any nationality or discipline. You can create a team with friends on campus, or with other like-minded students from anywhere in the world.

There are six challenge areas as seen in <http://airbus-fyi.com/challenges>

Make sure you make a note of the deadlines for each stage!

- Registration from June 17 2014 to **end November 2014**
- Round 1 - September 2014 to December 2014
- Round 2 - January 2015 to April 2015
- Round 3 - May 2015
- Final presentation and awards in June 2015

<http://airbus-fyi.com/article/499/when-dates-for-your-diary?back=Site.about>

## Announcement on Life Skill Training

- To learn Life Skills, the following Training positions are available.
- This will be based on selection and will involve a mix of Theory and Practice.
- All these training courses will be certified for the skill picked up.
- Duration - from Jan 2015 to May 2015.
- Two hours of contact session per week with Practice assignments.
- Apply before 30 November,2014.

S.No.	Position	Vacancies	Eligible Year
1	Internal Administration Trainee	10	II
2	Research Trainee	20	II
3	Industrial Practices Trainee	20	III
4	Product Development Trainee	10	III
5	Marketing Trainee	5	III
6	Auto Focus Group Trainee	25	II , III & Final
7	Mech Faculty Trainee	4	PG I Year

- Details and application formats **mailed to your official ssn mail id.**
- Those who have not yet activated their ssn mail ids can contact Dr.K.S.Jayakumar and get their details of username and password.

## Corporate Wisdom 11- Managing Relationships

What is the most effective way to create and sustain great relationships with others?

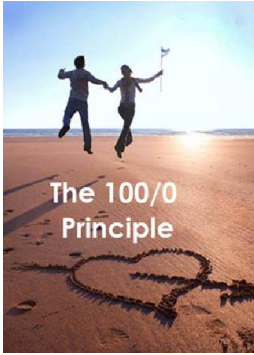
If we see the relationship as a mutual expectation then it becomes a transaction. If I do this , I expect this from you.

If the relationship should move to a higher platform of Transformation then ....

**It's *The 100/0 Principle*: You take full responsibility (the 100) for the relationship, expecting nothing (the 0) in return.**







Implementing *The 100/0 Principle* is not natural for most of us.

It takes real commitment to the relationship and a good dose of self-discipline to think, act and give 100 percent.

*The 100/0 Principle* applies to those people in your life where the relationships are too important to react automatically or judgmentally.

Each of us must determine the relationships to which this principle should apply. For most of us, it applies to work associates, customers, suppliers, family and friends.

**Step 1 - Determine what you can do to make the relationship work...then do it. Demonstrate respect and kindness to the other person, whether he/she deserves it or not.**

**Step 2 - Do not expect anything in return. Zero/**

**Step 3 - Do not allow anything the other person says or does (no matter how annoying!) to affect you. In other words, don't take the bait.**

**Step 4 - Be persistent with your graciousness and kindness. Often we give up too soon, especially when others don't respond in kind. Remember to expect nothing in return.**

**At times (usually few), the relationship can remain challenging, even toxic, despite your 100 percent commitment and self-discipline. When this occurs, you need to avoid being the "Knower" and shift to being the "Learner."**

**Avoid Knower statements/thoughts like**

**"that won't work,"**

**"I'm right, you are wrong,"**

**"I know it and you don't,"**

**"I'll teach you,"**

**"that's just the way it is,"**

**"I need to tell you what I know," etc.**

Instead use Learner statements/thoughts like

"Let me find out what is going on and try to understand the situation,"

"I could be wrong,"

"I wonder if there is anything of value here,"

"I wonder if..." etc.

In other words, as a Learner, be curious!

**Principle Paradox;** This may strike you as strange, but here's the paradox: When you take authentic responsibility for a relationship, more often than not the other person quickly chooses to take responsibility as well. Consequently, the 100/0 relationship quickly transforms into something approaching 100/100. When that occurs, true breakthroughs happen for the individuals involved, their teams, their organizations and their families.

**"Life is an echo, what you send out comes back" Chinese Proverb.**

Have a wonderful day & great week- Ramki