

Mechanical **Aspire**

Achievements in Sports, Projects, Industry, Research and Education

All About Nobel Prize-Part 17

Life and Death with Nobel Medals

It is 1940. The Nazis have taken Copenhagen. They are literally marching through the streets, and physicist Niels Bohr has just hours, maybe minutes, **to make two Nobel Prize medals disappear.**

These medals are made of 23-karat gold. They are heavy to handle, and being shiny and inscribed, they are noticeable. The Nazis have declared no gold shall leave Germany. But two Nobel laureates, one of Jewish descent and the other an opponent of the National Socialists, have quietly sent their medals to Bohr's Institute of Theoretical Physics, for protection. Their act is probably a capital offense — if the Nazis can find the evidence.

Inconveniently, that evidence was now sitting in Bohr's building, clearly inscribed "Von Laue" (for Max von Laue, winner of the 1914 Prize for Physics) and "Franck" (for James Franck, the physics winner in 1925) — like two death warrants.

Bohr's institute had attracted and protected Jewish scientists for years. The Nazis knew that, and Niels Bohr knew (now that Denmark was suddenly part of the Reich) that he was a target. He had no idea what to do.



Niels Bohr



Max Von Laue



James Franck

How To Get Rid of A Nobel Prize Medal

On the day the Nazis came to Copenhagen, a Hungarian chemist named Georgy de Hevesy (he would one day win a Nobel of his own) was working in Bohr's lab. He wrote later, "I suggested that we should bury the medal(s), but Bohr thought it was too dangerous because the Germans would dig up the grounds, the garden and search everywhere in the building. So, **I decided to dissolve it.**" - Georgy de Hevesy

So Hevesy's thoughts turned to chemistry. Maybe he could make the medals disappear. He took the first one, he says, and "I decided to dissolve it. While the invading forces marched in the streets of Copenhagen, I was busy dissolving Laue's and also James Franck's medals."



This was not an obvious solution, since gold is a very stable element, doesn't tarnish, doesn't mix, and doesn't dissolve in anything — except for one particular chemical emulsifier, called "aqua regia," a mixture of three parts hydrochloric acid and one part nitric acid.

Dissolving gold is a slow business. Nitric acid loosens the gold atoms, after which hydrochloric acid moves in, using its chloride ions to surround and transform the gold.

Georgy de Hevesy



It must have been an excruciating afternoon.

De Hevesy, in his autobiography, says because gold is "exceedingly unreactive and difficult to dissolve," it was slow going, but as the minutes ticked down, both medals were reduced to a colorless solution that turned faintly peach and then bright orange.

By the time the Nazis arrived, both awards had liquefied inside a flask that was then stashed on a high laboratory shelf.

Then, says science writer (and Radiolab contributor) Sam Kean, in his book *The Disappearing Spoon*:

...When the Nazis ransacked Bohr's institute, they scoured the building for loot or evidence of wrongdoing but **left the beaker of orange aqua regia untouched**. Hevesy was forced to flee to Stockholm in 1943, but when he returned to his battered laboratory, he found the innocuous beaker undisturbed on a shelf.

Re-created and Re-issued

Back in Denmark, de Hevesy did a remarkable thing. He **reversed the chemistry, precipitated out the gold** and then, around January, 1950, sent the raw metal back to the Swedish Academy in Stockholm.

The Nobel Foundation then **recast the prizes using the original gold and re-presented them** to Mr. Laue and Mr. Franck in 1952. Professor Frank, got his re-coined medal at a ceremony at the University of Chicago, on January 31, 1952.

Niels Bohr also had a Nobel medal, but he'd put his up for auction on March 12, 1940, to raise money for Finnish Relief. The winning bid was anonymous, but later, Mr. Anonymous gave Bohr's medal to the Danish Historical Museum of Fredrikborg, where it can be seen today.

Three winners, three medals — each of them sold or dissolved, then replaced.

In wartime, it seems, Nobel medals get around.

<http://www.npr.org/blogs/kruhwich/2011/10/03/140815154/dissolve-my-nobel-prize-fast-a-true-story>

Mech Marvel - 5

Underwater tunnel

The Aqueduct Veluwemeer is a navigable aqueduct over the N302 road near Harderwijk, in eastern Netherlands. It is located under a small part of the lake Veluwemeer and at the same time connects the mainland Netherlands to Flevoland, which is the largest artificial island in the world.



The aqueduct was opened to traffic in 2002. It is about 25 meters long and 19 meters wide and has a water depth of 3 meters that permit small boats to pass through. An estimated 28,000 vehicles pass through this aqueduct every day. Footpaths are built on either side of the aqueduct for public to enjoy the view.



Imagine what kind of tools would have been used for drilling, boring and creating such a marvellous duct. Think of designing the steel structure 25 meters long, 19 meters wide and 3 meters deep which has to support water above it and has to serve as roof for the tunnel underneath, permitting vehicles to move on the road constructed below and also be waterproof-not permitting the water to leak! Challenging enough?

<http://www.ritebook.in/2014/05/drive-under-water-aqueduct-veluwemeer.html>

Info to Alumni- Campus Update

The 19th **College Day** function was held on April 08, 2015 .

The Chief Guest **Dr. V. Irai Anbu**, IAS (Chairman, Tamil Nadu Tourism, Culture and Religious Endowments) and Guest of Honour **Dr. M. Ravi**, IPS (Inspector General of Police, Chennai) delivered college day address and distributed the prizes and medals. **[detailed speech covered in later pages]**

Elections were conducted for next year's student coordinator for **Saaral Tamil Mandram** last week. The result came out on 21st April. A.Parthiban of 3rd year 'B' section has been elected as the new student coordinator of Saaral Tamil Mandram for the year 2015-16.



Info to Alumni- Department Update

The New Association members for next year (2015-16) have been identified now- thanks to Election Officers Mr.K.L.Harikrishna and Dr.M.Suresh. **Association President is ARUN K V J from III year 'A' sec**



K.L.Hari Krishna

Other reps from A Section	Other reps from B section
ADITHYA VIGNESH J	RAMESH K
ARVIND G E	SARAT KUMAR B
HANUSH M	SHIVARAM P R
JAGHAN S	THINESH T



M.Suresh

**OFFICE BEARER FOR THE PERIOD
2015-2016**



KVJ ARUN



M.HANUSH



K.RAMESH



J.ADITYA VIGNESH



G.E ARAVIND



THINESH



SARAT KUMAR



P.R. SHIVARAM



S.JAGAN

New Faculty Joins..

Dr.S.R.Koteswara Rao has joined as Professor of Mechanical Engineering on 15th April 2015.



In his previous assignment, he was with Tagore Engineering College as Principal for a little more than 3 years and later as Dean (R&D) for another 3.4 years. Earlier to that he was a Professor and Head of the Department of Mechanical Engineering at SSN College of Engineering.

He obtained his Ph.D degree from Indian Institute of Technology Madras, in the year 2005. His research areas of interest are Welding, Surface engineering and Corrosion. He has published about 40 papers in International refereed journals.

He has received funding for 7 projects as Principal Investigator from various agencies such as Naval Research Board, Armament Research Board, DRDO, UGC-DAE, DST and AICTE. His arrival is expected to strengthen the Project portfolio of Mech dept.



N.LakshmiNarasimhan

External recognition

Dr. N. Lakshmi Narasimhan was invited to review a paper for the International Journal of Refrigeration, by Elsevier Publishers

Dr. K. Babu was invited to review two chapters of the book titled "Engineering Drawing" for Pearson Education.



K.Babu



N.Nallusamy

Prof.N. Nallusamy was invited to review the research article titled "Oxygenated Palm Biodiesel: Ignition, Combustion and Emissions Quantification in a Light-Duty Diesel Engine" for the international journal "Energy Conservation and Management", published by Elsevier Publications.

Prof.N. Nallusamy was invited to review the research article titled "Effect of compression ratio on diesel fuelled partially premixed charge compression ignition engine – an experimental investigation" for the International Journal of Ambient Energy.

Dr M S Alphin presented a invited Keynote Lecture on "Application of Mechanical Engineering for Medical Science" for International Conference on Technological Developments in Engineering at Chendhuran College of Engg. & Tech. He also served as a Session Chair for the conference. (9-4-15)

Guest Lecture

17-4-15 SAEINDIA SSN CE Collegiate Club organised the guest lecture for PG Energy Engineering and Manufacturing students on the topic "Advancement in Automotive Testing" delivered by Mr. R. Govardhana Giri, Business Development Manager, Atalon Instruments Singapore / India, Sriperumbudur, Chennai



Nalla Mohamed



Vimal Sam Singh

1-4-15 Dr.M.Nalla Mohamed and Mr.Vimal Sam Singh arranged a guest lecture on the topic "Managerial excellence through 5S concept" delivered by Mr.K.Babu, Retired Manager-Production, Rane Engine Valves Ltd, Chennai



Prof.G.Venkatarathnam

22-4-15 Dr.N.LakshmiNarasimhan organised a Guest Lecture by Prof. G. Venkatarathnam, IIT Madras, on "Introduction to Organic Rankine Cycles".

The lecture has been arranged for our First Year M.E. (Energy Engg.) students as part of "beyond the syllabus coverage" on the subject Turbomachines.

Research Publications

Dr M S Alphin Published a technical paper titled "Kinematic simulation of human gait cycle using msc Adams", Journal of Chemical and Pharmaceutical Sciences. Co Authors:J. Paul Chandra Kumar (Ph.D. Scholar/ Mech./ SSN), M.S.Alphin, M. Anbarasan, ISSN: 0974 - 2115 , (Imp Factor: 0.114, Anna Univ. Annex. List,) pp 148-154. March 2015.

P.S.Srivathsan, B.Praveen Ramanujam, V.V.S.S.Praneeth, K.Prasanth and **Dr.S. Rajkumar** published a technical paper titled "CFD Modeling of Combustion and Emission Characteristics of Diesel Lean Premixed Combustion Engine" in the International Journal of Applied Engineering Research, Vol. 10 No.2 (2015) pp. 1590-1595, indexed in Annexure - II of Anna Universtiy.



Prof.N. Nallusamy published a technical paper titled "Experimental study on diesel engine to analyse the spray characteristics of biodiesel by varying injection pressure" in the International Journal of Applied Engineering Research, Vol. 10 No.8 (2015) pp. 5968-5971, indexed in Annexure - II of Anna Universtiy.



Arun Prakash

Arun Prakash. C, Saileshwar. C. S, Rajkumar. R, Ramakrishnan. K.S published a technical paper titled "Vision Based Liquid Level Inspection System For Beverage Industries" inthe International Journal of Applied Engineering Research, Vol. 10 No.2 (2015) pp. 1289-1292, indexed in Annexure - II of Anna Universtiy.

Dr.A.K.Lakshminarayanan published a paper titled "Thermal Performance Evaluation of Friction Stir Welded and Bolted Cold Plates with Al/Cu Interface", Journal of Mineral, Metals and Materials Society, JOM, May 2015, Volume 67, Issue 5, pp 1032-1044 (Impact factor: 1.401) coauthored by **Dr. M.Suresh**, and Mr. M.Sibivarshan



AKL



Ebenezer

The paper by A.Kirthivasan, Akhilnandh Ramesh, Amitesh Jain J, **D. Ebenezer and R Prakash**, titled "Experimental optimization of ethanol gasoline blends for a two stroke commercial gasoline engine", has been published in the journal of chemical and pharmaceutical sciences, Special Issue 7, 2015, PP 190-193. [ISSN: 0974-2115, Impact factor (2013): SJR: 0114; SNIP: 0.044; Thomson Reuters: 0.099; AU Annexure-II (Version 2014.2)-SI No: 10528]



Prakash

Conference Presentations



K.S.VijaySekar

Dr.K.S.Vijay Sekar co-authored a research paper in collaboration with Dr.Dinakaran, Professor, Hindustan University, titled " Performance Evaluation of Cryogenically Treated Tungsten Carbide Insert on Face Milling of Grey Cast Iron", which was presented in "The International Conference on Mechanical and Manufacturing Engineering,ICMME-2015", organised by SCSVMV University, Kanchipuram. (2-4-2015)

Dr.K.S.Vijay Sekar coauthored a research paper along with Mr.Thamizharasan and Ms.Nithiya Sandhiya (both M.E. Manufacturing First year) titled" Review of composite machining and related optimization techniques" which was presented in "The International Conference on Mechanical and Manufacturing Engineering,ICMME-2015", organised by SCSVMV University, Kanchipuram.



A.S.Ramana

The research paper titled "Effect of Storage and Wick Materials on Solar Still Performance" was presented at AMMA 2015 International Conference in NIT Trichy by S. Raja, P. Saminath, C. Pradeep, and K .K. Ranjith- final year students. [co-authored with **Dr. A. S. Ramana**] (9-4-15)

The paper titled "Numerical and experimental study of progressive failure analysis of axial-loaded compositetubes with trigger " was presented at AMMA 2015 International Conference in NIT Trichy by P.Yuvarajan, S.Sivasankar, M.Umasankar, final year students co-authored with **Dr. M.Nalla Mohamed** (9-4-15)

The paper titled "Investigating the energy absorption characteristics of composite wrapped cylindrical aluminium tubes under static loading" was presented at AMMA 2015 International Conference in NIT Trichy by P.Yuvarajan, S.Sivasankar, M.Umasankar, final year students co-authored **with Dr. M.Nalla Mohamed** (9-4-15)

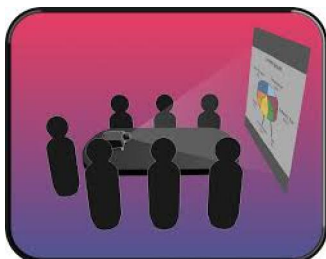


Book Chapter

Dr.K.Rajkumar, Published a book chapter, K.Rajkumar and S.Aravindan, Tribological Characteristics of Copper-Nano Carbon Crystalline Composites, 4th Chapter, DOI:10.4018/978-1-4666-7530-8.ch004, IGI Global, USA, 2015, page no.109-126, A volume in the Advances in Chemical and Materials Engineering (ACME) Book Series



DC Meeting



Dr M S Alphin Conducted Confirmation DC Meeting cum Seminar for Mr. Paul Chandra Kumar, Ph.D Scholar .

Dr Senthil Kumar, Anna University and Dr Davidson Jebaseelan, VIT Chennai were the invited members for the seminar and Meeting.(6-4-15)

Membership in Professional Body

Dr.K.S.Vijay Sekar and Dr.N.Lakshminarasimhan were elected to the Membership of the Institution of Engineers (MIE), Kolkata. (10-4-2015)



Student's Activity-Industrial Visit



On 23-4-15, First year ME Energy Engineering students visited Visteon Ltd., Maraimalainagar on 23.4.2015. Dr. A. S. Ramana arranged the visit.



ME Energy Engineering students visited Visteon subsidiary Halla Visteon Climate Control Corp., (HVCC), Chennai on 23rd April 2015.

HVCC is the second largest provider of automotive thermal management systems. It offers automakers a full range of thermal management products including compressors, condensers, HVAC, radiators, air conditioning lines, exhaust gas recirculation (EGR) coolers and charge air coolers. Students were initially briefed about the company and about the safety norms to be followed during the visit.

Shri Deiva Balan, GM, Maintenance, Visteon Chennai delivered an elaborate presentation about various renewable energy and energy efficiency projects undertaken by the company that have significantly led to reduction of conventional energy consumption. The session was highly informative and motivating to venture into the field of energy conservation.

This was followed by visit inside the plant. Students were shown the actual implementation of those projects and its benefits. Visit to energy saving solar air heaters installation, solar light utilization system, introduction of artic master in HVAC system, introduction of ionizer in furnace, geothermal concept cooling, redesigned shop floor exhaust system etc provided valuable practical knowledge to students. We are thankful and appreciative of HVCC initiative to disseminate energy conservation knowledge to student community.

FDP Attended

Report of Faculty Development Programme Development on “Recent Advances in Supply Chain Network Management”

The Faculty Development program on “*Recent Advances in Supply Chain Network Management*” was successfully conducted by Rajalakshmi Engineering College, Chennai during 06th – 18th April 2015 with an overwhelming response with 54 participants from various Engineering colleges in India.



The FDP was inaugurated by Dr.L.S.Ganesh, Dean IITM and Dr.N.Chandrasekaran, Vice president Take Solutions. The resource persons were professors from IIT Madras, Anna University and experts in Logistics Industries.

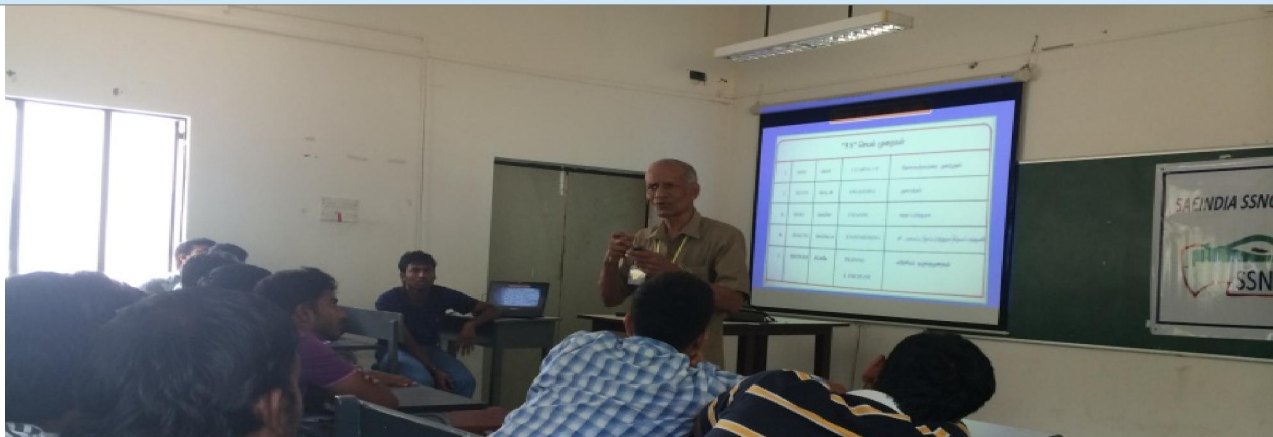
From IIT Madras Dr.L.S.Ganesh, Dr.T.T.Narendran, Dr. G.Srinivasan, Dr.Mrs. Arshiinder Kaur and Dr.C.Rajendran delivered the basics, present scenario as well as the research potentials on supply chain management. Dr.P.Sahabudeen and Dr.M.Rajmohan from Anna University presented the multi criteria decision making and simulation tools that used in supply chain management. The practical applications and implementation problems on supply chain concepts were revealed by the Industrial experts.

The lectures were neatly planned and scheduled properly in such a way that anyone can understand from the basics, current scenario, tools, and implementation problem and the research avenues in supply chain management.

Dr.P.Malliga, Professor, Anna University presented the valedictory address and distribute the certificates and the course content to the participants on the last day.

Guest Lecture report 1

On behalf of our Department of Mechanical Engineering, a guest lecture was arranged for our third year mechanical engineering students on April 01, 2015 by Dr. M.Nalla Mohamed and Mr.Vimal Sam Singh. Mr K.BABU, a renowned success person in the industrial practices was the guest speaker of the day.



With a huge experience in industrial life of about 40 years, he delivered a memorable guest lecture which, in many ways, was highly beneficial to the students. Along with revealing the actual industrial world's expectation from students, he narrated his own experience which threw light in the minds of students on various intricate doubts about their futures. His presentation about the implementation of 5S in RANE group of companies was thoroughly exhilarating motivation for the students. His expression of values and proper attitude was the highlight of the day. His theory of 'Simple things cause huge differences' was a different viewpoint to the students. The lecture was well received with interesting questions from the audience. This session was a beautiful combination of knowledge, humour, experience and values.

Invited Lecture

Dr M S Alphin presented an invited Keynote Lecture on "Application of Mechanical Engineering for Medical Science" at the International Conference on Technological Developments in Engineering at Chendhuran College of Engg. & Tech., Pudukkottai. He also served as a Session Chair for the conference.



Dhananchezian

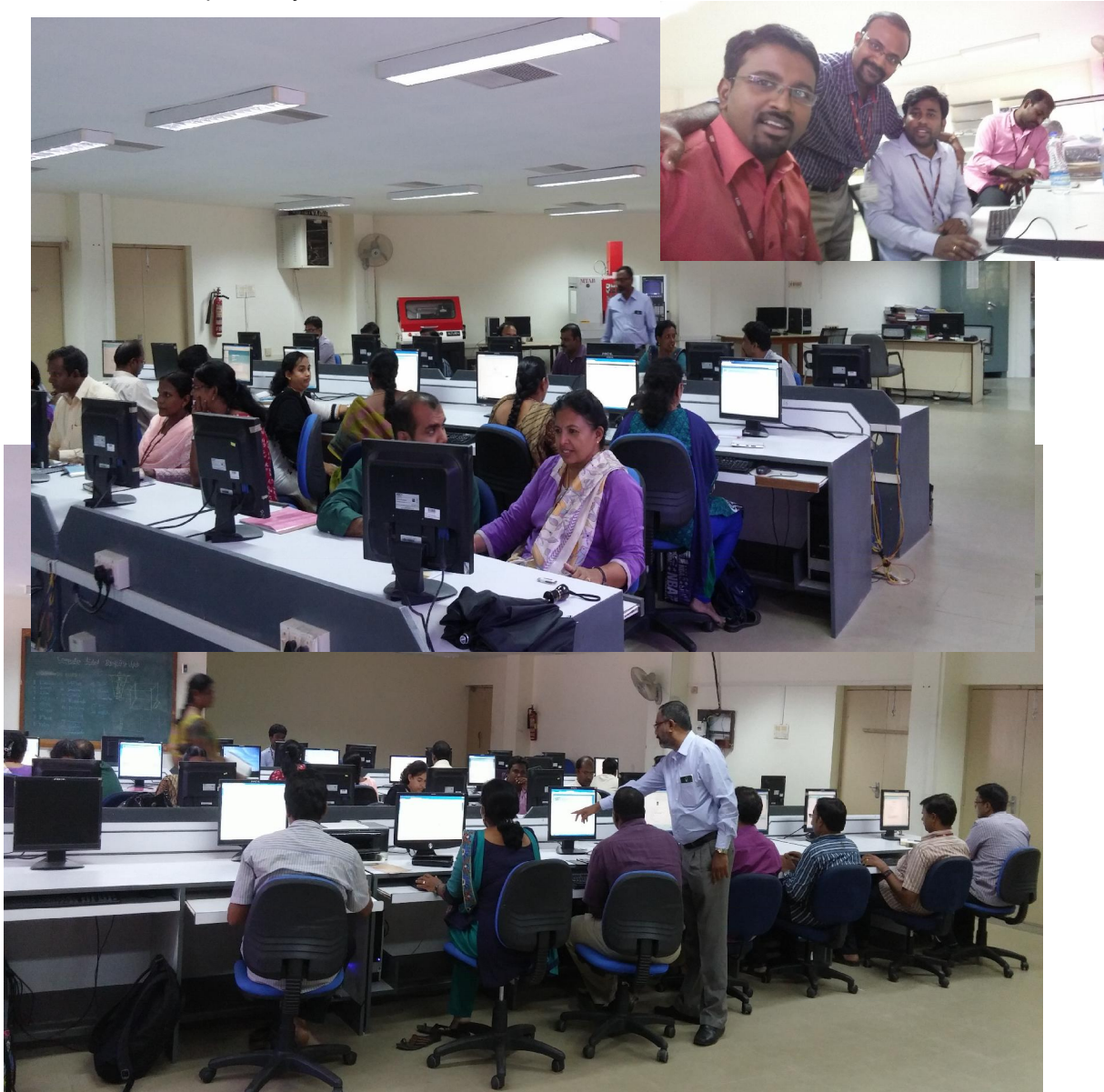
- Mr Ebenezer's Cricket team won runner up in Staff intra Cricket matches held for Sports Day 2015
- Dr M S Alphin has won the third place in 100 meters running competition.
- Mr Giridharan, Lab technician/ CAD Lab has won the first place in 100 meters running competition.
- Dr Dhananchezian has won the runner up in the badminton matches.
- Dr.K.S.Vijaysekar is the Winner in the Chess Competitions.



Giridharan

Training on MOODLE

SSN Intranet is being replaced by MOODLE-Modular Object Oriented Dynamic Learning Environment. 25 faculty from various depts underwent the first training at CAD Lab on 21st April. The training was organised by Dr Sasikanth Albal at CAD Lab, Mechanical Engineering Department to provide initial training for Faculty in charge from each Department. The lecture session and lab training was by Mr. Shivkumar. It is understood that Moodle as a learning platform can enhance existing learning environments similar to Twiki that is followed presently.



As an E-learning tool, Moodle has a wide range of standard and innovative features such as calendar and Grade book. Moodle can be integrated with online content resource repositories, managing course registration, payment and enrolment, course schedules, training resources, compliance management and student records. Compared to Twiki it has got better privacy of learning materials and other information's that is stored. It was also discussed that many higher learning institutions around the Globe are using Moodle.

Here is a sample moodle page to work on <http://school.demo.moodle.net/login/index.php>

Username: teacher and password: moodle

A "SHOCK" SURPRISE !!

Attention- Researchers

A writeup based on the information gathered from the invited lecture by Dr. Chintoo S Kumar, Srushti Education Systems, on 17th April, 2015 at SSNCE. -article by Dr.N.LakshmiNarasimhan



Many of us are aware of *shockwaves* and their *devastating effect*. The uranium (U-235) and plutonium (Pu-239) bomb blasts of Hiroshima and Nagasaki by the America during the end of World War II (1945) is an *unforgettable Sad event* that stands as a testimony of the devastating effect that shock waves can cause (see picture below).



Fig. 1 Shock wave soaring high, the dust to skies (source-internet).

There are several other examples too on the devastating effect of shock waves - like the wiping out of the Dinosaurs and other giant animals from earth millions of years ago by the shock waves caused by the aerial bombardment of space debris, the aftermath of a bomb explosion, severe thunder and so on. So, the extraordinary *killing effect* after a bomb blasts or explosion is indeed due to the immediate *shock waves* produced almost instantaneously after the event of a blast/explosion. The propagation of shock waves to distances very far (several kms) away from the explosion site happens many times faster than the speed of sound! Note the speed of sound is approximately 340 m/s or 0.34 km per sec in air. The sound speed varies with fluids and solids w.r.t. temperature and it is very high in water and still more higher in solids (ex. water 1500 m/s, Iron 5000 m/s at about 25 deg C).

Typical photographs of the presence and propagation of shock waves from supersonic aircrafts and bullet fired from a gun are shown in Fig. 2. The shock waves tend to move faster than the object/source and race ahead of it in no time! So, what are shock waves all about and how they are produced? Can it become weaker as it moves farther away from the source/object? A brief description is given below only for the purpose of introduction.



Fig. 2 Historic photographs of shock waves (first two are around supersonic aircrafts and the last one from a fired bullet) - photo source- internet.

Shock waves are very thin and fast moving zones where the changes in fluid properties such as velocity, density, pressure and temperature are phenomenally abrupt across the zone! Technically shock waves are steep finite pressure waves that may be normal or oblique and produced only under supersonic conditions. An object flown past by shock waves will experience the abnormal changes in the flow properties in its vicinity, that which cannot be resisted beyond a certain limit by the object. There is almost nothing in this world that the shock waves/thin zones couldn't penetrate upon!

Shock waves are caused only under supersonic conditions (velocity more than the speed of sound is supersonic) and more specifically when deceleration happens at supersonic speeds. Hypersonic speeds are still many more times larger than supersonic speeds (i.e. Mach number, $M > 4$ or 5). To know about Mach number and more about shock wave propagation, the readers are requested to follow any standard text on Gas Dynamics. The scope of the article is not to impart knowledge on the above topics rather limited to throwing

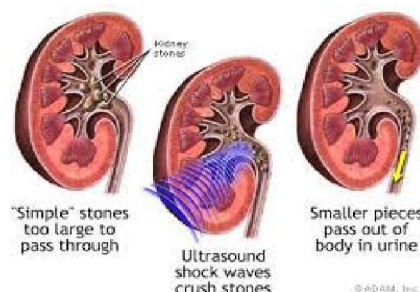
some information on the positive & constructive applications of the "killer shock waves" the world is attempting with. Our common encounters with shock waves in day to day life are, sudden blast of an inflated plastic cover, balloons, blow off of metal diaphragms, sneezing, lightning/thunder, quick whipping by the ring masters in circus to control ferocious animals, and so on. The good part is, on a lot more occasions, we don't encounter the devastating effect of the shock waves produced in these examples cited above except lightning/thunder. The shock waves tend to weaken as they progress far away from the source and ultimately become a sound wave of low pressure (Mach number well below 1).

Shock Waves : "Destructive to Constructive applications"

Not so long ago after the 1945 incident, scientists recognized the application of shock waves for constructive purposes in the fields such as medical, biology, mining, industrials, agro, domestics, etc. A large number of interesting and unbelievable small scale applications with shock waves are coming up and being researched elsewhere round the globe. For example, commercial shock tubes that produce shock waves under controlled conditions as per the requirement, are available for applications commencing from making of fruit Juices, cutting of vegetables, needleless drug delivery, drying of leaves, to clearing of bore well crevice sediments and so on. A lot many biological, medical and industrial applications are explored elsewhere with shock waves. Readers are directed to visit the websites of the prestigious Laboratories such as Laboratory for Hypersonic and Shock Wave Research, Department of Aerospace Engineering, Indian Institute of Science, Bangalore 560 012, India, and so on for more interesting applications of shock waves.

The applications given in this article is only a few of the interesting ones that researchers have ventured. There is a greater part yet to be ventured with Shock Waves for promising and useful applications. It is a "Surprise Shock" to come to know about the constructive potential of Shock Waves whenever a product using shock waves are being introduced or patented (Fig. 3). Readers can visit the links given below for more facts about the constructive applications of Shock Waves. The author would like to acknowledge with thanks, the speaker, Dr. Chintoo S Kumar, Srushti Education Systems, Bangalore for his valuable information shared during his invited talk on "The Fascinating World of Shock Waves" organized at SSNCE on the 17th April, 2015.

It is time to flip the Shock Wave Coin - from killer to life saver !!



Blasting off the kidney stones with shock waves -
No Surgery!! - No Pain!!

A commercial Shock Wave Gun.

Fig 3. Constructive applications of shockwaves (source - internet)

Some Useful links: applications of Shock Waves to Engg. and Medicine

<http://www.aero.iisc.ernet.in/~lhrs/web/research.htm>

<http://www.aero.iisc.ernet.in/~lhrs/web/Jagadeesh/downloads/ImechEpartG2008.pdf>

<http://www.princeton.edu/cefr/Files/2013%20Lecture%20Notes/Hanson/pLecture11.pdf>

http://iopscience.iop.org/1742-6596/500/14/142025/pdf/1742-6596_500_14_142025.pdf

<http://people.eng.unimelb.edu.au/imarusic/proceedings/12/Takayama.pdf>

Guest Lecture Report 2

A guest lecture under beyond the syllabus coverage for the subject - Design and Analysis of Turbomachines (EY7202), was arranged by Dr. N. Lakshmi Narasimhan, for the II sem M.E. (Energy Engg.) students on 22.04.2015 at 10.30 a.m. Prof. G. Venkatarathnam, IIT Madras, was invited to deliver the talk.



The speaker gave an excellent talk on "Organic Rankine Cycles Operating With Mixtures", commencing with an introduction to simple Rankine cycles operating with pure fluids like water. The demerits with pure fluid Rankine cycles and their practical limitations were highlighted. Then the need for using pure organic hydrocarbon fluids such as propane, butane, etc., (instead of water) for power generation employing an Organic Rankine Cycle (ORC) was emphasized. The later part of the talk posed the challenges with ORC's operating with single organic fluids and introduced the audience about using mixture of organic fluids as working fluids to overcome the challenges. In the concluding part, a simple demonstration on the advantages of using mixtures for improved cycle efficiency, lower exergy losses in the heat exchanger systems, cost benefits and so on in ORC's was presented. Overall, the lecture was well received by the students and was rated as an "awesome and very informative" lecture.

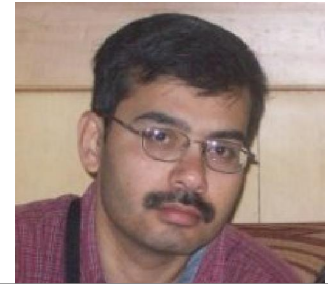
Mr.Ramesh Ramachandran

College Day Special

You all will have two common feelings at a later date

- 1.College days were the best days of my life
- 2.I wish I had utilised my college days much better.

Any learning has a 10:20:70 component of formal: informal : outside class experience. Only those who make best use of the 70% outside class experience reach better heights in life. So, learn to make good use of your time in college.



Mr.Ramesh Ramachandran
Assoc Director, CTS



Dr.M.Ravi

SSN is the greatest of all the galaxies of educational Institutions. Mr.Ramesh was talking about the 10:20:70 rule. Please note that before starting the 70% outbound learning, you have to essentially complete the first 30% of formal and informal education properly. You guys are blessed to be in such a college with great facilities.

Myself and Irai Anbu are classmates. We were sitting on the floor till eighth standard. We got desks only in the ninth standard. Looking at the facilities you have, I am feeling quite jealous and sometimes even feel I must be born again to be educated in SSNCE.

On the flip side of today, we are all caught in the cobweb of Internet. In our School and college days, we never had such distractions. Some of your student reps from IT dept and the cultural secretary were reading their speech from laptop and tablets. I thought they were reading someone's message from whatsapp. Interestingly our "Om Harahara Mahadeva" is now doing its rounds in whatsapp. We need to use apps for something useful.

Dr.M.Ravi, IPS

Instead of knowing yourself, you are absorbed in your Selfies. Instead of handling technology, we let technology handle us! That is not the right way. But SSN is exceptional. I am sure you will never become victims of technology. You should become users of technology for good purposes.

With merit based admissions and good faculty, SSN really stands apart. A Teacher tells. A good Teacher explains. A Better Teacher demonstrates. An Excellent Teacher Inspires.

Since you are already overloaded with Annual Reports and since better Speakers are yet to come, I will close with a small anecdote.

Once there was a Carpenter working with a Contractor. The Carpenter wanted to retire and requested his Contractor to relieve him. The Contractor said that he can retire after building just one more house. The Carpenter went ahead and completed the house. Since he was no more involved in the house he used substandard material and substandard workmanship. After completion of the house, when he went back to the Contractor, the Contractor gave him the key of the new house and said "The house you built now is just for you".

The Carpenter felt bad. If only he had known that the house is for him, he would have attended to it carefully and would have used standard material.

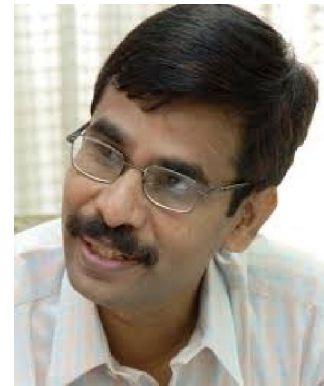
Just like the carpenter felt uninterested in the new house after he decided to retire, you also should not retire after plus two. Life does not stop with Plus two. Build your house (future) with good material -not junk material. No doubt-you all will be successful-because you have been molded in a conducive environment. All along you have been good students. Now it is time to be good sons and daughters, and good friends. Don't blame others. Don't have Self-pity. With Confidence, Hard work, Commitment, Focus and Dedication, you can win the world.

Life ahead for all of you is just like this. You will become engineers who will build so many things in life. Attend to each work as though it is for you. Do the work with attention. Never neglect your duties.

watch him live at Nam Virundhinar show of DD <https://www.youtube.com/watch?v=0c5pQ1tFsmg>

Dr. V.Irai Anbu

Dr. Irai Anbu is literally a man of letters! Read his degrees..
BSc (agriculture), M. A (English), M. A (Labor Management),
MSc (Psychology), MA (Sanskrit), M B A., Hindi (Praveen) and
PhD (Business Administration). He is pursuing his second PhD in
Comparative Literature (parallels in the works of Thiruvalluvar and
Shakespeare).



Get inspired at his web page <http://www.iraianbu.in/>

My wishes to all and to the last benchers in particular. I was a last bencher in my School days- because, no one can push us beyond that. I would like to reflect on how to utilise College Life.
College Life is the best part of your life. Use it to the maximum extent. The practice of 10% curricular and 90% extra curricular activities enriches your life.

Once there was a student who attended only one class. Then he never came to class. However, on sympathetic grounds, he was allowed to sit for the Exam. He passed with 99% marks. When he was asked how he got 99% marks, he responded, "**I would have got 100% , but that one class I attended confused me...**". Jokes apart, learn to understand what is told in class.

An article in " Psychology Today" mentions that only the ten years between the age of 18 to 27 decide what you are going to be in life. Beyond 27years, there is no point in attempting to teach. At that age of 27, the person will only argue- he thinks he knows everything.

Once Mullah was travelling in a bus. His neighbour asked him whether his wife and sons are okay. Mullah said yes. After the person left, I asked Mullah why he bluffed- since he had neither married nor had any sons. Mullah laughed and said , "**what is the point in arguing? If I told him I am not married, he will start advising me on why I should not delay my marriage**".

At this age, one undergoes Cognitive Dissidence . For example, if you ask a married person whether you should marry, he will suggest you should marry- because everyone wants everybody else to suffer. Instead of telling you the truth, they tell something based on what they want you to go through. This is called Cognitive Dissidence. Somebody said, "**Marriage is a Workshop-because men work and women Shop!**"

At this age, we have many wrong beliefs.

For example, have you ever thought of what is the root word for engineers? All of us think it is engine-which is wrong. Engineering comes from the root word Enginuity.

Is river male or female? Why do we assign gender to rivers? Except Brahmaputra everything else is a female name. Is computer male or female? One said that since you have to turn its head to listen, it is male. Another said, since it needs a pen (woman in Tamil) drive it is a male.
One said -it has more storage and so it is female.

Well, think, why women never get a disease in their heart, lung or brain. Have you ever heard of women getting heart attack or becoming insane? These cases are very few compared to occurrences in men. **In spite of their being so strong, why do we call women as weaker Sex?** Is it not a wrong belief?

There are many more such beliefs. In olden days, it was believed that

- 1) the Earth is the centre of the Universe.
- 2) Man is the Center of Creation.
- 3) Mind is under man's control.

We always over estimate our machines. Once there was a person who carried two big suitcases and came walking. He had a wonderful watch that could tell anything that you wanted to know. Impressed by its utility, one person wanted to buy. After a negotiation, he paid a hefty amount and took the watch. When he started moving,

the first person reminded him, "You have missed the batteries-these two big suitcases are the batteries required to run that wonderful watch that you bought from me." When you are impressed by the watch, why is it that we don't think of the batteries? (Incidentally, this is the challenge for mech-can you remove the batteries?)

There are many such anomalies. Sigmund Freud was so good in disseminating human behaviour but he was not comfortable in reading a railway Time Table. Another famous Science fiction writer had never touched a computer.

There is a famous experiment called "EuroMiller experiment"-which studied all the derivatives of carbon. It was found that earth has only 2% of Carbon. But our body has 20% of carbon. It is the combinatory property of carbon in our body that enables life to happen. Similarly it is the networking ability in creating Friendship- that decides your life- not the marks you score.

Similarly, we have three false premises on education

1. Memory is synonymous with Intelligence
2. Performance in college reflects on performance in life
3. Happiness depends on job

Memory is a poor substitute for knowledge. People actually express to Impress (not to convey). We remember only what we apply. Headlines are for remembering for only one day.

All branches are related. Don't we need electricity after we build a house? Don't we need Civil to construct the house? Don't we need mechanical gadgets and equipment to construct the house? Don't we need computers and TV to live happily? So, learn to appreciate all branches as a whole . Isolated appreciations do not help.

**Education is what remains after you forget everything that you learnt.
Application is more important than reading.**

T.S.Eliot asks

"Where is the Life we have lost in living?

Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in information?"

Apply what you read. Creativity is important in applying what we learnt. So, knowledge must always be converted into applications.

Success in job is not related to academic performance. Man is fragmented. He has a personality and an individuality. Personality refers to the Masquerading -where one tries to show others that he is nice. Whereas the Individuality refers to the inner core.

Man is not a being-he is a "becoming".

There is a Story that once a thief who could play flute was found in the group of a Saint. When people asked the saint why he allowed a thief, he would say, "but he plays the flute well". If someone appreciates the flute player, the Saint will say,"but he is a thief". This is just a warning of what he will become after playing the flute! So, **man is what he will become-not what he was.**

Single flower cannot become a park. Even in large numbers it can only remain as a Garden. To become a park, there must be different flowers. Similarly, academic performance is like one flower-even if you have so much of it, it is just one part of the park. To become a park, you have to be a multifaceted person-where academics is only one of the facets.

Happiness is not related to job. Incidentally, in college or School, I did not receive any prizes. But today, I am invited to distribute prizes. If I had received prizes, my photo will be only at my house. But now, my photo will be in everybody's house. This gives me happiness.

Your happiness in job depends on your boss. A good job under a bad boss may make your life miserable. Even a bad job under a good boss can make your life good. Even in a bad company, a good boss can give you a creative assignment and keep you happy.

Happiness depends on your autonomy, your mastery in your subject and in having a purpose in life. When Stephen Hawkins completed his Ph.D. he was asked what he will do next. He answered promptly "I will work to disprove my own Ph.D. Work".

Once a University announced that it is putting up the best of students under the best of faculty for a specific task The task was completed on record time , very successfully. When the team was asked how they succeeded, they responded "we had the best of students and faculty, that is why".

Later, the University revealed that both the students and the faculty were not the best but arbitrarily chosen . Finally it was understood that the "positive expectation" created by the university by saying that they were the best lot, was responsible for the team's success. This is the power of "**positive expectation**".

So, believe you are the best. Make a mark in your life. All the best.

Alumni News 1

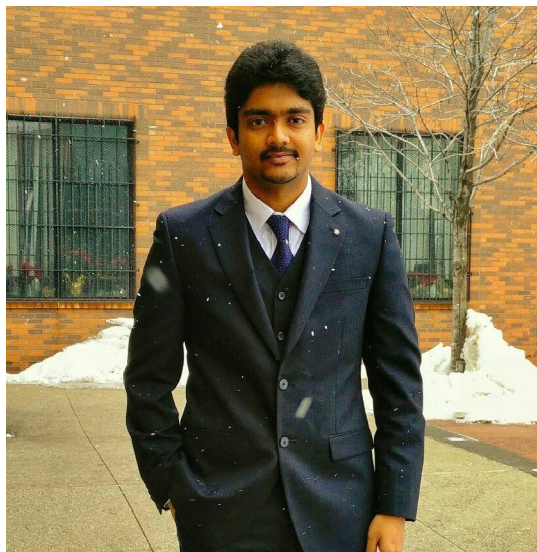


Hello Sir ,
I am Manimaran.S- 2014 Batch .I got placed in Detroit Engineered products India pvt ltd. in ashok nagar chennai. The designation is Associate project engineer and i will be working in area of mesh works product development .
Thanks for your valuable support which helps me to get this job.And thanks for department and college which guides me to be a good engineer and achieve this position.
-----Received by Dr.N.LakshmiNarasimhan

Hello Sir,

Alumni News 2

This is Vivekanand S.R. Mech 2008-2012 batch.
I hope you are doing good.
I am happy to inform you that I got an internship with TESLA Motors here in USA, one of the leading Electric car makers in USA led by Elon Musk..
Your help at various stages has helped me to reach this level and I would like to extend my heartfelt THANKS for your kind gesture.
-----received by Dr.K.S.Vijaysekar



Vivek ia now doing MS in Industrial Engineering atUniversity of Illinois
He had worked for two years in Ford. His reflections on work before MS..

Ford Experience was very helpful.

If someone is trying to do MS from our SSN Mech after getting placed in OEMs, please advice them to take professional experience very seriously and not to avoid experience with good OEMs like Ford, Hyundai, etc.
This will surely help them in getting good offers in the place they move for MS.

“Here is an article about our alumnus Ashwin (08-12 batch) published in Deccan Chronicle dated 29th April 2015.”
- C.Arun Prakash.

Ashwin Murugan is now progressing towards his dream of playing for India.

Another Ashwin under the wings of Super Kings?

S. BAGAWATI PRASAD

DECCAN CHRONICLE

While one Ashwin (Ravichandran) has been enjoying the unwavering trust of skipper M.S. Dhoni at Chennai Super Kings over the past eight years, it looks like another Ashwin (Murugan) from the city has caught the eye of CSK coach Stephen Fleming.

But this Ashwin is a leg-spinner. M. Ashwin, who represented Tamil Nadu in three Ranji trophy matches in 2012, was just another net bowler queuing up to roll his arm over during a net session at the MAC 'B' stadium ahead of the Delhi Daredevils match earlier this month.

It only took a few of his leggies at all-rounder Irfan Pathan for Fleming to pay more attention to the youngster's bowling.

"Fleming immediately took me over to the centre wicket where the likes of Mike Hussey, Faf du Plessis and the rest of the big guns were training. Since then I have been rubbing shoulders with the core team under the guidance of CSK coaches and it feels special," said Ashwin, who plies his trade for India Pistons in the first division.

Ashwin felt "jittery" the moment he saw Dhoni, Raina, Jadeja and McCullum. "I have seen how devastating these players can be. And when I was asked to bowl to them I was a touch nervous at the beginning but I settled into my groove quickly," added the 24-year-old, who is "enjoying" the warmth of the CSK stars.

"I've been bowling a lot to Hussey and Dhoni in the nets. Dhoni has been encouraging me a lot and has advised me to focus more on



M. Ashwin (left) trains with the Chennai Super Kings team.

the googlies to left-handers. He was sharing a few insights on how to go about bowling in T20. "I'm thrilled to be part of CSK's training sessions," he said.

What was the most surprising moment for Ashwin? "I was bowling alongside Jadeja and suddenly I saw McCullum bowling all of a sudden. Every time I bowled a good ball against the top batsmen of the team the Kiwi gave a pat on my back and I was overjoyed," he said.

Former fielding coach of Tamil Nadu T.S. Mohan, who is in charge of organising the net

bowlers during practice sessions ever since the inception of the IPL, has witnessed Ashwin's progress from MAC 'B' ground to the MAC Stadium. "I think the CSK management may have felt that Ashwin is one for the future. Leg-spinners have been ruling the roost in the IPL. Ashwin, who has been helping the CSK batsmen gear up for challenges of quality leg-spinners, has a lot of variations in his sleeve. He has a great career ahead of him if he keeps improving," said the 60-year-old coach.





Alumni News 4

Veneesha Komireddy of 2007-11 batch, is now Industrial engineer and Inventory Manager at d.e.Foxx and Associates, Inc, , Desoto, Texas, USA. After working for a year at Infosys as Business Analyst for the client Pricewaterhouse Cooper, she went to US for her Masters in Industrial engineering at University of Arlington.

d.e.Foxx Associates, established in 1981, retains 30+ years of experience with a primarily Fortune 1000 client list. They manage labor, manufacturing, logistics, construction, and sourcing solutions.

Forthcoming Events

National Conference Thermomechanical Processing of Steels

Event Serial -17348

Website <http://guwi2015.nmlindia.org>

Contact Person - Dr. V. C. Srivastava

Event enquiries email address - guwi2015.nml@gmail.com

Deadline for abstracts/proposals: 2015-05-15

Organized by: Gleeble User Forum India

Venue: Jamshedpur , Jharkhand , India

About Event

In the present global scenario, stringent requirements on product performance have led to an unprecedented emphasis on new steel compositions and technological innovations leading to efficiency, affordability and environment friendliness. The issues related to process and micr

Materials, Methods & Technologies 2015, 17th International Conference

Conference 7th to 11th June 2015

Elenite Holiday Village, Burgas, Bulgaria

Website: <http://www.sciencebg.net/en/conferences/materials-methods-and-technologies/>

Contact person: Ivan Genov

Alerts on all conferences in India can be had from <http://www.allconferencealert.com/india.php>

Alerts on International conferences can be had from <http://www.conferencealerts.com/>

Amazing Innovations 1

Solar Refrigerator that works without electricity

A solar-powered refrigeration system is set to preserve food and medicine and improve quality of life in areas with no electricity

Keeping food cool — in fact, keeping anything cool — in hot countries which lack infrastructure can be a difficult task. A Mexican researcher has now developed a refrigeration system which uses no environmentally-harmful substances and is powered by the sun, yet can keep water at 9°C for up to three months.



Developed by Susana Elvia Toledo Flores of the Zeolite Research Department at the Institute of Science of the Meritorious University of Puebla in Central Mexico, the device works by using zeolites — highly porous aluminosilicates — to adsorb and desorb methanol in a solar-driven cycle.

During the day, the sun heats the zeolite, onto which methanol molecules are adsorbed. The heat drives the methanol off the zeolite and pushes it into a condenser, from where it flows into a storage tank.

Overnight, the zeolite bed cools down, which decreases the vapour pressure of the methanol. The refrigerant in the storage tank runs into an evaporator where it turns into vapour, cooling the refrigerator; meanwhile, the vapour is reabsorbed by the zeolite bed.

Source: <http://www.theengineer.co.uk/news/solar-fridge-cools-without-current/1020157.article>

Amazing Innovations 2

Gravity Powered Light

GravityLight, a gravity-powered lamp with potential applications in the developing world, has triumphed over 150 other low carbon innovations to win Shell's coveted £150,000 Shell Springboard award.

Conceived by UK industrial designer Martin Riddiford and developed by London start-up Deciwatt, the technology uses the force of gravity to generate electricity that can be used off-grid. The device consists of a weighted 12kg bag threaded through a patented electricity-generating device. The bag is attached to the device and then slowly descends to the ground. As it does so, a series of gears convert this kinetic energy into electricity which is used to power an LED lamp.

According to the Deciwatt website, the duration of the drop is 28 minutes on a low light setting, 20 minutes on medium and 12 minutes on high. It can be used over and over with no running costs.

<http://gravitylight.org/gravitylight/>

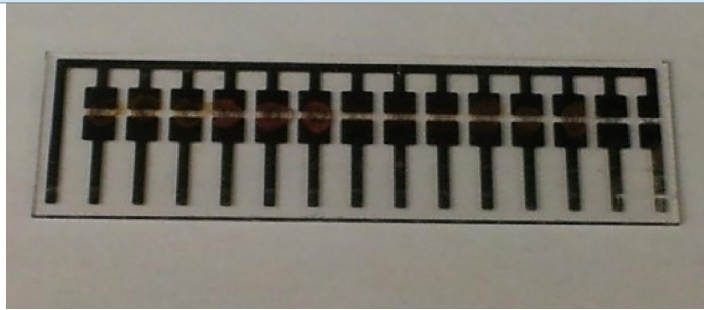


Amazing Innovations 3

Carbon Nano Tubes sense food quality

A team of MIT chemists has developed a small sensor that's capable of telling consumers whether the meat in their refrigerators is safe to eat.

The team believes that the inexpensive device, which makes use of modified carbon nanotubes, could help cut down on food waste.



The idea behind the sensor focuses on chemically altering carbon nanotubes so that their ability to carry an electric current is inhibited when a certain gas is present. The nanotubes were modified with metal-containing compounds known as metalloporphyrins, in this case containing a single cobalt atom bound to numerous nitrogen-containing rings.

That compound is effective at binding to compounds known as biogenic amines, such as cadaverine and putrescine, which are produced by meat when it starts to decay. When these gases are present, the electrical resistance in the carbon nanotube is increased, with the reaction easily measured to provide feedback to the user.

The sensor was tested on pork, beef, chicken, salmon and cod, successfully detecting decay in the samples when left unrefrigerated. The sensors are cheap and easy to manufacture, use very little power, and do not require any expertise to use. As such, the team believes that the devices could be incorporated into the packaging of meat products, allowing them to offer much more accurate safety information than a standard expiry date.

Amazing Innovations 4

Amphibious Vehicle

A Californian-based car company has designed the world's fastest amphibious car called the Panther, pictured here. For 13 years, Dave March, the founder of Panther has dreamed about building a car that would perform equally well on water as they did on land.



In fact, he wanted his cars to reach “freeway”-type speeds in the water. The result was the WaterCar Python, which became the fastest amphibious car in the world, reaching road speeds of over 125 mph (201 km/h) and water speeds of at least 60 mph (96 km/h). WaterCar's latest offering is the Panther. WaterCar calls the Panther the “ultimate vehicle” It is capable of reaching water speeds of up to 45mph – almost as fast as an average speedboat – plus can be driven up to 80mph on land. The Panther's design is based on a Jeep CJ8 Scrambler, however, because the chassis of the Jeep was too heavy for the water, the Panther's lightweight chassis is made of chromoly steel. Whereas the Python is an amphibious sports car, the Panther is more of an amphibious SUV, as WaterCar claims that it can be driven on all sorts of surfaces, including sand and mud.



KONE Corporation

KONE is one of the global leaders in the elevator and escalator industry. The company has been committed to understanding the needs of its customers for the past century, providing industry-leading elevators, escalators and automatic building doors as well as innovative solutions for modernization and maintenance.

The company's objective is to offer the best People Flow™ experience by developing and delivering solutions that enable people to move smoothly, safely, comfortably and without waiting in buildings in an increasingly urbanizing environment. In 2014, KONE had annual net sales of EUR 7.3 billion and at the end of the year over 47,000 employees. KONE class B shares are listed on the NASDAQ OMX Helsinki Ltd. in Finland.

History

KONE was founded in 1910. During its 100 years as an industrial engineering company, KONE has been involved in businesses as different as textile manufacture, medical technology and the design of hydraulic piping systems. The company's main focus, however, has always been the elevator and escalator business.

Over the years, KONE has proven its ability to adapt to a changing world as well as to create new opportunities for the company to grow. Stable ownership by four generations of the same family has created a strong and supportive environment for continuous development.

Toshiba alliance

KONE entered into a strategic alliance with Toshiba Elevators and Building System Corporation in 1998, expanding the relationship through cross-ownership in 2002. Through this alliance, Toshiba has the right to manufacture and market elevators based on KONE's machinerom-less technology in Japan.

In 2004, KONE and Toshiba agreed to strengthen their alliance through a long-term collaboration in the advancement of high-rise elevator technology. As a first step, KONE and Toshiba agreed to a licensing arrangement enabling KONE to supply high-speed double-deck elevators based on Toshiba's proven technology and Toshiba to gain access to new markets outside Asia. The Alliance partners also agreed to exploit, on a case-by-case basis, the potential for collaboration in competing for and carrying out mega-projects around the globe

KONE's values are:

1. Delighting the Customer
2. Energy for Renewal
3. Passion for Performance
4. Winning Together

The Company says, "Our customers' success is our goal. We work for and with them to identify and deliver [solutions](#) that exceed expectations. We stay with them for the total life cycle of our products and services and ensure the [safety](#) of users and our people."

Kone has over 1,000 offices around the world and services over 1 million elevators and escalators globally.

KONE is the industry forerunner in technological innovations. KONE is committed to offering high quality, innovative and energy efficient People Flow® solutions that make travel within and between buildings as smooth as possible.

A history of innovation

KONE's history of innovation is one of the company's success factors. KONE has always provided a systematic and long-term investment into its R&D capabilities. In its striving towards serving customers to perfection, KONE explores technologies in other industries and monitors changing markets, trends, customer needs, and working methods. KONE has introduced a wide range of major innovations throughout the years.

KONE's innovations and solutions:

KONE UltraRope™

The latest in a long line of technological breakthroughs, KONE UltraRope™ sets a new benchmark for high-rise buildings. The super-light KONE UltraRope technology provides unrivalled elevator eco-efficiency, reliability and durability, while also improving elevator performance. It eliminates the disadvantages of existing steel ropes – high energy consumption, rope stretch, large moving masses, and downtime caused by building sway. KONE UltraRope can enable future elevator travel heights up to 1,000 meters. [Watch the KONE UltraRope video and read more »](#)

KONE EcoDisc® motor

The KONE EcoDisc hoisting motor is the heart of KONE's elevator solution. The machinery was completely renewed in 2012 providing several advantages. The new innovative copper winding system reduces the amount of energy lost as heat, making KONE elevators even more energy efficient than before. The new motor control system and brakes provide a smooth and quiet ride, while the more compact design frees up space.

KONE MonoSpace® elevator

KONE revolutionized the industry in 1996 with the world's first machine-room-less elevator – the KONE MonoSpace® for low- to mid-rise buildings. In 2012 a completely new range of KONE MonoSpace elevators was launched. The new solutions are significantly more energy efficient than before, provide industry-leading ride comfort and feature award-winning car interior design. With increased space efficiency, the KONE MonoSpace is ideal for buildings in need of elevator modernization.

KONE MiniSpace™ elevator

The KONE MiniSpace is an elevator with a small machine room and is the ideal solution for the most demanding high-rise buildings. KONE MiniSpace elevators are powered by the energy-efficient KONE EcoDisc® hoisting machine, offer superior ride comfort and feature award-winning car interior design.

KONE NanoSpace™ modernization solution

In addition to being very quick to install, the KONE NanoSpace™ uses highly compact components and innovative technology to deliver an elevator car that's up to 50% bigger with no changes to the existing shaft. As well as more space and better accessibility, it also provides a smooth ride for maximum comfort. And with the eco-efficient KONE HybridHoisting™ system, it also helps to reduce energy consumption and running costs.

KONE EcoMod™ escalator modernization

An innovative and systematic approach to replacing the entire workings of your escalator. The solution delivers brand new technology without expensive and disruptive truss removal.

The solution also **reduces the energy consumption** and operating costs of the new and installed equipment.

KONE InnoTrack™ autowalk

Move people quickly and smoothly over long distances. KONE InnoTrack autowalks are easy to install without making changes to floor structures, and their modular design means you can easily change their length or location.

KONE JumpLift construction time elevator

KONE JumpLift is a construction time elevator with a temporary machine room that can be moved upwards as construction progresses.

KONE JumpLift advantages: enables a faster, safer construction process, earlier closing of the facade, reduced down-time, and safer transportation in all weather conditions.

KONE Polaris™ - destination control system

KONE Polaris increases elevator handling capacity, improves passenger comfort and reduces waiting times. It also improves security through integration with the building's access control system. With the latest capacitive touchscreen technology and a highly intuitive user interface, our new destination operating panel ensures an effortless user experience. For even greater convenience, building tenants can make elevator calls directly from their mobile device with the KONE RemoteCall™ smartphone app. Read more about [KONE People Flow Intelligence solutions »](#)

KONE IDE300™

The KONE IDE300™ access system integrates automatic building doors and elevators. It provides easy, hands free access to buildings and elevators.

IDE300 also recognizes the resident, opens the door, turns on the lights, calls the elevator and takes the residents automatically to their home floor.

Tytyri - the world's highest elevator test shaft

Tytyri is located in Finland and it has been in operation since 1998. It's located in a 350 meters deep limestone mineshaft.

Vertical travel distance 317 m
Max. theoretical speed 17 m/s
Max. suspended load 50 tn

Learning content in Kone website

1.Kone Escalator ToolBox

This innovative, time-saving application is a valuable solution specifier for the designer. It creates customized CAD drawings and building specifications for different escalator and autowalk products, which the user can then download directly into his project architectural drawings. This saves time and leads to easier product selection and a smoother project flow.

To use the Toolbox, simply select the relevant segment below.

<http://koneglobal.hostctb.com/>

2.Design Collection for escalators

<http://cdn.kone.com/www.kone.in/Images/design-collection-final.pdf?v=2>

3.Step by step procedure on how to design your escalator

<http://cdn.kone.com/www.kone.in/Images/mix-and-match.pdf?v=1>

4.See how an escalator works in the video link at the page

<http://www.kone.in/escalators-autowalks/>

Recruitment process

As an applicant you have the opportunity to apply directly to any of the open jobs published on Kone websites [Apply now page](#).

Once you have completed and sent your online application you will receive an automatic email confirmation. A local HR and line manager will go through the applications and invite the most promising candidates for an interview. There may be several interview rounds before a final selection is made.

Internships around the world

Every year KONE offers students and graduates opportunities to work and develop with interesting projects around the world. Most KONE internships require studies in business, engineering, information technology or law but there are also positions for students from other disciplines.

Prerequisites for internships

KONE International Trainee Program (ITP) is for university students who are at least halfway through their studies. Good English language skills are essential for an International Trainee. In many cases you should also be familiar with the language of the host country. In the program you will face interesting challenges and become acquainted with KONE as a global company. ITP is also an excellent stepping-stone to a career with KONE.

For students and graduates Kone offers both global and local challenges such as thesis work, trainee positions and entry-level jobs.

<http://www.kone.in/about-us/careers/students-graduates/>

Mech Alumni of SSN are in KONE Elevators. Interested persons can get the contact from Dr.NLN.

There was a wise old man who had answers to all life-related questions. A boy, in his adolescent years, wanted to test the wise old man. Holding a little bird in the palm of his hand and his hand hidden inside his coat, he asked “Is the bird in my hand alive or dead?”



R. Ramakrishnan
Advisor, GMR Group



The wise man smiled and replied, “If I tell you the bird is alive, you will crush it and show me a dead bird. If I tell you the bird is dead, you will release the bird and show me it is alive.” The wise man added “Mind you my son! This is the philosophy of life. Your life and your death are in your own hands.”

In spite of all the variable factors like the canvass, paint and brush, the quality of the painting is the responsibility of the painter. The quality of sculpture is the responsibility of the sculptor. Similarly, the quality of your life is your responsibility. Your life and death are in your hands. No blame is allowed.

Just to give an example- If I ask you to carry a 12 kilogram granite stone, you will struggle with it. Instead, if I ask you to carry your child who weighs 12 Kg, you will happily do it.

Anything in life that is perceived as “Kashtam Kashtam” will only make you struggle.

Anything in life that is perceived as “Ishtam Ishtam” will give you fulfillment.

- The secret of living a life of fulfillment is to see challenges with “Ishtam Ishtam” attitude.
- This makes you to own the challenge with your passion.
- Challenges should cause happiness to you and in you.
- Take charge and take control .
- Take ownership and this will lead to being responsible .

Have a wonderful day & great weekend

Ramki