Newsletter

Volume 6, Issue 6, June 2016

Mechanical Aspire

Achievements in Sports, Projects, Industry, Research and Education

All About Nobel Prize - 30

Nobel Equivalent Prize for Teaching

One of the impacts of Nobel Prize is to generate similar high valued prizes for the faculty not covered by Nobel Prize. As we all know, Nobel Prize, established in 1901, covers only five areas (Physics, Chemistry, Literature, Medicine, and Peace). Inspired by Nobel, the Sweden's Central Bank has established Nobel Memorial Prize in Economic Sciences, in 1968. On similar lines, a Grand Prize for Teaching has also been established in 2015.

The Global Teacher Prize was created by the Varkey Foundation, a philanthropic offshoot of Global Education Management Systems, a Dubai-based company and the largest operator of private elementary and secondary schools in the world. It has schools in the Middle East, Asia, Africa, North America and Europe.

The prize, dubbed the "Nobel Prize for Teaching," is aimed at doing for education what the Nobel has done for science, literature and peace.

The Global Teacher Prize is a US \$1 million award presented annually to an exceptional teacher who has made an outstanding contribution to their profession. The prize serves to underline the importance of educators and the fact that, throughout the world, their efforts deserve to be recognised and celebrated. It seeks to acknowledge the impacts of the very best teachers – not only on their students but on the communities around them.

Eligibility: The Prize is open to currently working teachers who teach children that are in compulsory schooling, or are between the ages of five and eighteen. Teachers who continue to teach, even on a part-time basis are also eligible, as are teachers of online courses. The Prize is open to teachers in every kind of school and, subject to local laws, in every country in the world. More details at http://www.globalteacherprize.org

First 'Nobel Prize for Teaching' goes to Ms.Nancy Atwell



Nancie Atwell, a teacher from Southport, poses with former U.S. President Bill Clinton and Sheikh Mohammed bin Rashid Al Maktoum, prime minister of the U.A.E. and Ruler of Dubai, after she won the \$1 million Global Teacher Prize in Dubai, United Arab Emirates, (15-3-2015)- The Associated Press

A veteran teacher and education author from midcoast Maine was awarded the first **Global Teacher Prize** and **\$1 million** at a ceremony in Dubai, attended by former President Bill Clinton.

Nancie Atwell, who founded the Center for Teaching and Learning in Edgecomb 25 years ago, was one of the 10 finalists for the prestigious prize. She was chosen from a field of 5,000 nominees from 127 countries who were winnowed down to 50 in January and to the 10 finalists in February 2015.

"Your incredible story will shine a light on the tireless work that teachers do all over the world," Sunny Varkey, founder of the Varkey Foundation, told Atwell at the ceremony. "We all need to find ways of collectively celebrating teachers, of saying to a celebrity-obsessed world that teachers are important and worthy of respect."

Former President Clinton also spoke, recalling the influence his teachers had on his life.

"Attracting the best people to teaching, developing and supporting their skills, and holding them in high regard would lift learning levels all around the world," said Clinton, who serves as honorary chairman of the Varkey Foundation.

"However much we achieve in life, we all began learning the basics from a teacher in the classroom," said a written statement from Kevin Spacey, an Academy Award-winning actor and a member of the panel that selected the winner. "Those that teach – devoting their talents and time to nurturing the talents of others – deserve to be respected and celebrated."

http://www.pressherald.com/2015/03/15/maine-teacher-wins-global-education-prize-1-million/

2016 Award for teaching



Hanan Al Hroub from Palestine received her Global Teacher Prize award from Sunny Varkey of the Varkey Foundation. Hanan grew up in the Palestinian refugee camp, Bethlehem, where she was regularly exposed to acts of violence. She went into primary education after her children were left deeply traumatised by a shooting incident they witnessed on their way home from school. Her experiences in meetings and consultations to discuss her children's behaviour, development and academic performance in the years that followed led Hanan to try to help others who, having grown up in similar circumstances, require special handling at school.

With so many troubled children in the region, Palestinian classrooms can be tense environments. Hanan embraces the slogan 'No to Violence' and uses a specialist approach she developed herself, detailed in her book, 'We Play and Learn'. She focuses on developing trusting, respectful, honest and affectionate relationships with her students and emphasises the importance of literacy. She encourages her students to work together, pays close attention to individual needs and rewards positive behaviour. Her approach has led to a decline in violent behaviour in schools where this is usually a frequent occurrence; she has inspired her colleagues to review the way they teach, their classroom management strategies and the sanctions they use.

The prize ceremony is an Oscars-style ceremony .The audience for the event included Hollywood stars such as Salma Hayek and Matthew McConaughey and political figures including former UK prime minister Tony Blair and the vice president of the United Arab Emirates , Sheikh Mohammed bin Rashid Al Maktoum. The top 10 finalists were invited on stage by a video message from physicist Stephen Hawking and were congratulated by video messages from US vice-president Joe Biden and former US president Bill Clinton.

Sunny Varkey, founder of the Varkey Foundation and who created the prize, said he hoped that Hanan Al Hroub's story would "inspire those looking to enter the teaching profession". One of the ten finalists included Robin Chaurasiya from Mumbai in India , who founded an organisation to teach and support teenagers from the city's red-light district.

Roshni Nadar Malhotra featured in Vodafone Foundation's Women of Pure Wonder

Roshni Nadar Malhotra, CEO, HCL Corporation and Trustee, Shiv Nadar Foundation featured as a Woman of Pure Wonder in Vodafone Foundation's latest publication, launched on the occasion of International Women's Day 2016. An undertaking by Vodafone Foundation, this list of 50 women of pure wonder celebrates female leaders who took the road less travelled and made it big. The book chronicles the struggles, survival and ultimate success of such extraordinary women.



For more about the Group, visit http://shivnadarfoundation.org/sites/default/files/the-foundation-post-q2-2016.pdf

Shiv Nadar University, a Shiv Nadar Foundation Institution, celebrated its second convocation on May 7. Noted economist, **Dr Raghuram Rajan**, Governor, Reserve Bank of India and **Ms Vanitha Narayanan**, Managing Director, IBM India, were the Guests of Honor and inspired the gathering with their thought provoking and deeply moving addresses. For details, pl visit

http://www.shivnadarfoundation.org/Shiv-Nadar-University-Convocation-2016

Chemistry Research Drive Program



The Department of Chemistry in collaboration with an NGO-RJSF is conducting a three week program [fifth Chemistry Research Drive Program (CRD-2016)] from 18th May 2016 to 4th June 2016 , for PG/M.Phil students to equip them to take up Research as career.

Dr. B. Gopalan, Chief Scientific Officer and Executive Director, R&D Center, Orchid Pharma Ltd, inaugurated the program.Prof. K. K. Balasubramanian,Former Head, Department of Chemistry, IIT(M), delivered the Keynote address.

Info from Dr.V.S.Gayathri.

Info to Alumni- Department Update

External Recognition



Dr. A. S. Ramana was invited to review an article for Energy Conversion and Management Journal (Elsevier Publications).

Dr. A.K.Lakshminarayanan, was invited to review One paper for Archives of Civil and Mechanical Engineering, Elsevier, one paper for Transactions of Indian institute of Metals, Springer and two papers for Materials and Manufacturing Process, Taylor and Francis



Dr. K. Rajkumar was invited to review the following articles

"Investigation of aging behavior and mechanism of nitrile-butadiene rubber (NBR) in the accelerated thermal aging environment" for the journal Polymer testing -an Elsevier journal

"Thermostability, mechanical and tribological behaviors of polyimide matrix composites interpenetrated with foamed copper" for the Transactions of Nonferrous Metals Society of China, Springer Publications

"'Thermal property and tribological performance of squeezed A359/(SiC+Si3N4) hybrid composites" for Tribology International, Elsevier Publications

"Effect of Nano Particle Reinforcement on the Properties of Aluminium Matrix Composites" for Tribology Transactions, Taylor & Francis Publications



Invite as Chief Guest for FDP

Dr.K.Babu writes....



I have been invited to be the guest of Honour for the inaugural function of a one week Faculty Development Program (FDP) "Optimization **Techniques** Manufacturing, Design, Dynamics and Heat Transfer" on 30-May-2016 jointly organized bγ the Department of Mechanical Engineering and Aeronautical Engineering of Jeppiaar Engineering College Chennai. The Inaugural session was presided by Dr. G. Sathyabama, The Principal of Jeppiaar Engineering College and the two HoDs of the respective Departments.

The FDP was conducted to enhance their own faculty skills and it was indeed a good initiative to have emphasised the program's objective on Optimization as a common problem irrespective of the branch of Engineering.

After the inaugural function, I was invited to share my expertise in optimization techniques in manufacturing for the first two sessions. Accordingly, I delivered the first session titled "Optimization Techniques in Manufacturing" and the second session titled "Comparison of GA, PSO and SA – with a Case Study" on 30-May-2016. Both the sessions were well received by the Faculty of both the Departments.





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Project News

Dr.B.Anand Ronald and Dr.M.Selvaraj (Co - PI), submitted the project on "Process Monitoring during Friction Stir Spot Welding (FSSW) of Thermoplastics " to DST - Extra Mural Research Funding for Rs. 39.75 Lakhs. (May 6th,2016)





Dr.K.Jayakumar has submitted a proposal to DST-SERB on Unconventional machining studies on Aerospace Materials, for Rs. 33,85,600. (May 27th, 2016)

Supervisor Approval

Dr.D.Anantha Padmanaban has been approved as Research Supervisor by Anna University. This increases our approved Supervisors count to 30.



Research News

- The DC meeting of **Mr.K.Muralidharan**, Part Time Scholar of Prof.N.Nallusamy, was conducted on May 13th.
- Ph.D seminar presentation of Dr.B.Anand Ronald's Part-Time research scholar,

Mr. A. JOHNNY VARGHESE, was conducted on 26-5-2016. The title was

- " Processing and Characterization of Carbon- Carbon Composites for Braking application "
- The Ph.D Public Viva-Voce Examination of Mr.ELIL RAJA. D (Reg.No.2812219110), Scholar of Dr.S.Vijayan, was conducted on 30.05.2016

Thesis Title: Fixture Layout Design and Optimization

Prof R.Jeyapaul from NIT, Trichy and Prof R.Raju from Anna university were the examiners. As a DC member, Dr.P.Ramkumar of IIT Madras also attended the Seminar.

Events organized: Dr. K. Rajkumar, Dr. L. Poovazhagan and Dr. K. Jayakumar organized one day National Conference on Processing and Characterization of Advanced Engineering Materials on 6.5.16.

Events attended: Dr.M.Nalla Mohamed and Praveen kumar(JRF &Research Scholar/Mech) participated in the 3 days Faculty Development Program conducted by Mepco Schlenk Engineering College on the topic 'Engineering Analysis using ANSYS' between 09.05.16 and 11.05.16

Dr.G.Selvakumar, has attended Faculty Development Program on 'Design Thinking' at CTS Siruseri, Chennai on 21.5.2016

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Publications

Dr.M.Nalla Mohamed and J. Sylvya Rebecca(P.G. Manufacturing student) presented a paper in the National Conference on Processing and Characterization of Advanced Engineering Materials on the topic 'CFD simulation of Crater Formation in tool steel workpiece in Electrical Discharge Machining' on 06.05.2016

D.Ananthapadmanaban, N.Arun, Jaya Arun Prashanth, presented their paper "Use and Exploitation of Rare Earth Metals", in the National Conference conducted at ,SSN College, on May 6th, 2016.





Dr.S.Vijayan Associate Professor /Mech has published two international papers in SCI Journals

- 1. S.Prasath, S.Vijayan, S.R.K. Rao (2016), "Optimization of Friction Stir welding process parameters for joining ZM21 to AZ 31of dissimilar Magnesium alloys using Taguchi technique", La Metallurgia Italiana ,Vol 5, pp. 25 -33.
- 2. R.Sasidharan, S. RajendraBoopathy, S. Vijayan and S. R. Koteswara Rao (2016), "Optimization of bead geometry for duplex stainless steel GTA welds using the Taguchi approach", Materials Testing, Vol. 58, issue 4.pp 312-318.

Dr.G.Selvakumar, has published an international Journal paper titled "Experimental Study on Wire Electrical Discharge Machining of Tapered Parts" in Arabian Journal for Science and Engineering, ISSN 2193-567X, Springer, DOI: 10.1007/s13369-016-2145-z. Listed in SCI Expanded; IF = 0.367. (Published online 04 May 2016)





Dr M S Alphin, alongwith Co-Author :Sriram Kaushik (M.E Manuf - 2015), published a paper titled "Experimental Study for Dynamic and Surface Interaction Characteristics of Knee in-Vitro", Procedia Engineering, DOI:10.1016/j.proeng.2016.05.139, Procedia Engineering, ISSN: 1877-7058, Elsevier 2016, Impact factor:0.629



Dr. N. Lakshmi Narasimhan, has taken up an industrial consultancy with Power Lab Instruments, Chennai-96, for design/development of a thermal system.



Research Equipment added to mech facilities



The following equipment for Vibration testing are added to our Dynamics Lab

- Vibration Exciter and power amplifier
- Function generator
- Forced and Free vibration setup
- Dytran Impact Hammer
- Data Acquition software- DEWETRON Kistler Force Transducer
- Kistler Tri-axial Accelerometer
- Kistler Uniaxial Accelerometer
- Vibration Analyzer 4 channels

Thanks to SERB-DST and SSN Trust for sponsoring.

This is part of the project obtained by Dr.M.S.Alphin

Book Chapters – Elsevier Research

Elsevier Publications has brought out a

"Reference Module in Materials Science and Engineering".

This is an effort to revise and update old articles of importance and make them relevant to the current researchers.

Dr.V.E.Annamalai has six reviews with collaborative authors, in this research level book. Three of them are listed below:

4. Schäfer S.G., and Annamalai V.E.,

Degradation of Glass Linings and Coatings. pp. 1-11

5. Gabe D.R., Wilcox G.D., Carter V.E., and Annamalai V.E.,

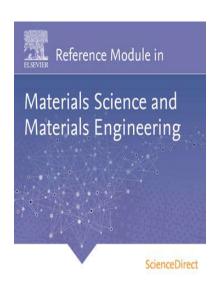
General Principles of Protection by Coatings. pp. 1-13.

6.Dennler G., Sariciftci N.S., Brabec C.J., and Annamalai V.E., Organic Tandem Solar Cells. pp. 1-5.

In: Saleem Hashmi (editor-in-chief),

Reference Module in Materials Science and Materials Engineering.

Oxford: Elsevier; 2016. ISBN: 978-0-12-803581-8



Research Level Book Chapter



Dr. K. Rajkumar has published a Book chapter at international level, titled "Mechanical, Electrical, and Tribological Properties of Copper–Graphite Composites' Chapter 13, under the Composite Materials Book series, Springer-Verlag Berlin Heidelberg 2016, DOI 10.1007/978-3-662-49514-8_13

Watch the departmental Promotional video, shot for publicising SSN Mech https://www.youtube.com/watch?v=35ytFjix6g8

STUDENT ACTIVITIES:

Vashist, 1^{st} year mechanical B, Came second in the Shot put event in SSN College of Engineering Sports meet on May 2nd, 2016

Ram Sharma - 3rd Year Mechanical B - Lead a team of 13 members as a part of NSS and worked along side the Tamilnadu Poling during the elections in Thiruporur 916.5.2016)

Summer Research Fellowships

Vignesh E, 3^{rd} year mechanical B - granted Research fellowship at IIT Madras for 2 months – June and July 2016

Ram Kishore, 3^{rd} year mechanical B - granted Summer Research fellowship, Department of Aerospace, IISc Bangalore

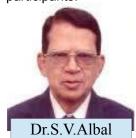
Ram Kishore, 3rd year mechanical B - granted Summer Research fellowship, Department of

Faculty Write up on HCL Training

Report by Dr. K.S. Vijay Sekar

In February this year, we were requested to do a CAD tool training and handle the Mechanical Foundation Program for the new recruits at HCL Madurai division. We had our academic program going in full swing and the impending NBA visit looming large in the not so distant horizon. Yet, we found in this request, an opportunity to help the newly created training centre and pass on our experience to the eager participants.





The Training was split into three phases. The CAD tool training in CREO, SOLID WORKS and the Mechanical Foundation Program. We are happy to state that we have completed the training successfully and it was well received by the HCL trainees. We are eager for more such opportunities and confident that we will be called when needed.

We thank the President, SSN Institutions for getting us onboard and trusting us to deliver on the requirements. We are also thankful to Dr.SV Albal for coordinating the program on our behalf. We also thank the HCL team for the support.

The Summary of the training program is given below:

- 1. One day overview of CAD/CAM Concepts, tools and methodologies, applications 18.03.2016 Dr.K.S.Vijay Sekar
- 2. 10 days Training on CAD Tools CREO Software- Sketch, Parts, Assembly -21.03.2016 to 01.04.2016 M.Ajin
- 3. 10 days Training on CAD Tools SOLIDWORKS Software Sketch, Parts, Assembly 26.04.2016 to 30.04.2016, 06.05.2016 to 08.05.2016 and 14.05.3016 to 15.05.2016 **Thamizharasan MM**
- 4. Mechanical Foundation Course- 9 days as follows:
- a) Product design, QFD, TRIZ, Creativity, Metrology and Measurements 02.05.2016 to 03.05.2016 **Dr. VE Annamalai (2 days)**
- b) Engineering Drawing, Engineering Drawing and Tolerancing, Introduction to Geometric Tolerancing Symbols and Terms, PDS design methodology & evaluation, Optimization 04.05.2016 to 05.05.2016 **Dr.K. Babu & Dr.S.Suresh Kumar (2 days)**
- c) Introduction to Materials and Manufacturing Processes, Surface Treatment, Coating, Casting, Heat treatment 09.05.2016 to 10.05.2016 **Dr. A.K.Lakshminarayanan & Dr.R.Damodaram (2 days)**
- d) Joining and assembly processes,Review of metals/alloys,Polymers, Ceramics and Composites 11.05.2016 **Dr. VE Annamalai & Dr.R.Damodaram (1 day)**
- e) Forging, Design consideration, Finite element analysis 12.05.2016 to 13.05.2016 Dr. K.S. Vijay Sekar & Dr. S. Suresh Kumar (2 days)

The work involved content development and course delivery with Scheme for evaluation.

The program is called YEP – Young Engineer Program.

For more details on Talent Care, pl visit http://www.hcltalentcare.com/young-engineer-program

'We have developed a composite measure called Jobability Quotient (JQ)—an index to measure how job-ready an individual is. If you complete our programme successfully, you'll have an assured job'

says Vijay Iyer, Chief Business Officer, HCL Talentcare.

Faculty Write up

Report on National Conference on Processing and Characterization of Advanced Engineering Materials (NCPCAEM 2016)







Dr. K. Rajkumar, Dr. L. Poovazhagan and Dr. K. Jayakumar organized one day "National Conference on Processing and Characterization of Advanced Engineering Materials (NCPCAEM 2016)" on 06.05.2016.

Totally 82 full length papers were received from the different topics of engineering materials. After peer review and plagiarism checking, 70 papers were accepted for conference oral presentation. Subsequently selected papers will be published in the Journal of Manufacturing Engineering (ISSN No: 0973-6867). Papers were received from Kerala, Karnataka, Mizoram, Pondicherry and various parts of Tamilnadu. One of the papers is co-authored by a professor from Universidad Technical Federico Santa Maria, Valparaiso, Chile. Papers were also received from the various reputed institutes like VSSC (ISRO) Trivandrum, NIT-Calicut, NIT-Mizoram, Anna University-Chennai, Pondicherry University, VIT-Chennai, SASTRA University, Hindustan University, Annamalai University, B.S.Abdur Rahman University, Christ University Bangalore, SVCE, etc.

NCPCAEM 2016 conference was inaugurated by Dr. K. Kalaichelvan (Professor & Head, Department of Ceramic Technology, Anna University, Chennai), and Dr. R. N Viswanath (Ramanujam Fellow, IGCAR, Kalpakkam). The conference proceedings was released during the inaugural ceremony.

Two keynote lectures were arranged. The first lecture was delivered by Dr. K. Kalaichelvan on the topic of Ceramic Matrix Composites – Processing and Joining. The second lecture was delivered by Dr. R. N Viswanath on the topic of functional Nanoporous Materials. Both the lectures were received well by the audience.



KEYNOTE-1

Ceramic Matrix Composites - Processing and Joining Dr. K. Kalaichelvan Professor, Dept. of Ceramic Technology, Anna University

Ceramic Matrix Composites (CMC) are of great interest as thermo structural materials and was developed initially for Military and Aerospace applications. During the past 30 years, tremendous progress has been made in CMC developments. Several approaches are available for processing of CMCs, using liquid or solid precursors. The Chemical Vapour Infiltration (CVI) technique fostered the development of CMCs.



It is an extension of Chemical Vapour Deposition (CVD) Technology. When CVD technique is used to impregnate rather large amounts of matrix materials in fibrous preforms, it is called chemical vapour impregnation or infiltration. The continuous fiber reinforces CMCs followed the development of C/C composites and CVI manufacturing technique.

Development of CVI SiC/SiC composites began in 1980s. A number of CVI SiC/SiC components have performed excellent in extreme environment at elevated temperatures.

A Reliable, efficient joining and integration of CMC can be a powerful tool in enabling a speedy drive toward innovation and efficiency of several key industrial products. An important point to be considered when CMC have to be integrated to metallic structures is the difference in coefficient of thermal expansion (CTE). In order to accommodate the CTE mismatch, a number of approaches have been proposed such as suitable design to minimize stress concentration, Metallic interlayers, Graded joints, or mechanical structuring of the surface to be joined.

KEYNOTE-2

Functional Nanoporous Materials Dr. R. N. Viswanath

Surface and Nanoscience Division, Materials Science Group Indira Gandhi Centre for Atomic Research, Kalpakkam – $603\,102$, TamilNadu.

The main motivation behind the processing of engineering materials, starting from materials design, is to understand how materials response and function in the presence of external stimulus such as temperature, mechanical load, nuclear/corrosive environments and electric/magnetic fields. In these respects, my presentation focuses mainly on the development of nanoporous metallic materials and study of their process controlled functional properties.

In general, these nanoporous materials behave as a sponge. Distinguishable microstructure features self evolved during their preparation are in the form of a composite structure consisting of continuous and interpenetrating pore and ligament phases. Their high surface area-to-volume ratio of nanometer sized open pore channels with more random interconnects (~ 10¹⁸ interconnects per mm size cuboids) and surface induced stress shielding enable to generate superior physical and engineering properties on compared to their counterparts. For instance, when a porous metallic body is subjected under uni-directional compression, the deformation activity tends to dominate along the applied force direction. Whereas, in an identical experiment condition, a fully dense metal object deforms non-uniformly and changes their physical dimensions in all the three directions. Therefore, obtaining knowledge about the mechanical driven changes in property of nanoporous metallic materials become challenging when these materials are being used for a specific application. A novel method proposed for the determination of specific surface area of such porous templates were also discussed.

The following papers were adjudged as best papers during the conference oral presentations. Details of Best Paper awards are given below.

- 1. AB39: Preparation of Tin Oxide Doped Titania Catalyst And Their Enhanced Photocatalytic Activity Under Solar Light Irradiation, Radhika R Nair and Sunaja Devi K R, Department of Chemistry, Christ University, Bangalore-560 029, Karnataka, India
- 2. AB62: Tribology Studies and Mechanical Properties of Pure Al Reinforced With Solid Lubricants
- S. Ayyanar¹, A.Ganavelbabu² and P. Logananthan¹
- ¹Asst.Prof, Department of Mechanical Engineering, Anand Institute of Higher Technology, Chennai
- ²Asso. Prof, Department of Industrial Engineering, Anna University, Chennai
- 3. AB37: Effect of Welding Speed on Microstructural and Mechanical Properties of Pulsed Nd:Yag Laser Welded Dissimilar Metals

Shanthos kumar G, Sivagurumanikandan N, Saravanan S and Raghukandan K

Department of Manufacturing Engineering, Annamalai University, Annamalai nagar – 608002, Tamilnadu, India.

- 4. AB82: Enhancement of B Phase Crystal Formation In PVDF/MWCNT Fibermat Sensor For Strain Sensing Application
- M.S.Nisha², Dalbir Singh², J.Freesta Shiny¹, B.Sasirekha¹
- ¹PG student ²Assistant Professor, Hindustan University, Chennai 603103

Full details are in the conference website link: https://sites.google.com/a/ssn.edu.in/https-sites-google-com-site-ncpcaem2016/



New Initiative

Faculty Industrial Internship

Dr. N.Lakshmi Narasimhan, Associate Professor in our Dept, had an industrial internship at M/s Ecologikol India Pvt. Ltd., Chennai, during May 25 - 28, 2016.



About M/s Ecologikol

"Ecologikol" is a pioneer in providing industrial technology business solutions in the areas of Energy Management, Green Buildings, Health, Safety, and Environment with clients spread across the globe. Apart from the regular assignments, the company has extended its interactions with the Academic fraternity across India and abroad to introduce and train "young Engineers" on key areas such as Energy Management, Green Buildings and so on.

An *MOU* was signed very recently by the company with SSN as part of their interaction and relationship building with our institution. This internship was part of activation of the MoU.

A Brief About the Internship - Dr. N. Lakshmi Narasimhan

Making use of the space offered to strengthen the Academic-Industry interaction at SSN, I am glad to have got an opportunity for a short term internship at M/s Ecologikol, Chennai during May 25-28, 2016.

My assignment during the internship was to assess the Thermal Load on Residential Buildings viz. single independent with open terrace, Single Independent with one floor (G+1) and a residential apartment with three floors (G+3) comprising four units per floor.

The thermal load simulation was carried out using the licensed Building Energy Simulation software IES-VE available with the company.

The analysis of the results are under progress and the expected outcome is a joint research proposal in the near future and a research paper.

The interaction has led to offering of two projects to two of our M.E. (Energy Engg.) students.

I am glad to extend my sincere thanks to our department and institution as a whole. My sincere thanks are due to "*Ecologikol team*" as this internship assignment would not have become useful and exciting without their support during the simulation runs.

While our Management had agreed last year itself, to sanction upto two weeks OD for such internship,

Companies were not ready to take up faculty as interns.

Only now, we have gained confidence of one company to let us in as interns.

Hope NLN will bring in successful interactions to showcase to other companies for more such opportunities

Using fire to fight fire - The Sea Can

Mech Marvel - 18

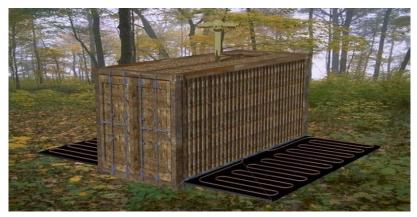
The Sea-Can is a self-contained fire fighting unit that can be dropped in the path of a fire, or left on site near premises that are at risk of fire. Taking the form of a shipping container, it can quickly and easily be moved by truck, sea or helicopter to the point where it's needed.

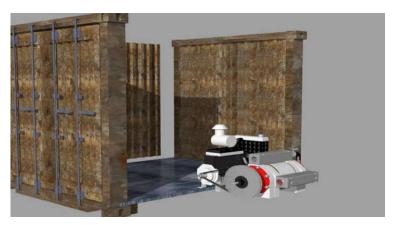
It sits on the ground, dormant, until the ambient temperature of the fire rises up to around 200 degrees Fahrenheit, at which point the side doors drop down and a set of roof nozzles rise up.

The side doors have a bunch of copper boiler tubing running all across them, and once the water in these tubes reaches 212 degrees Fahrenheit, it begins to boil.

Powered only by the heat of the fire itself, the boiling water powers one of Eddie's patented CEM (cylindrical energy module) steam pumps, a highly efficient, compact and simple design, that pumps CAFS fire retardant foam out the top nozzles, covering a ground area around 150 feet in diameter. Read about CEM technology at http://www.epindustries.com/cemco.html







The foam will keep pumping until supplies are exhausted or the fire's heat dies down below the boiling threshold of the water in those copper tubes.

The system can sit in place for years at a time without needing any maintenance. It needs no external fuel, running off the heat of the fire itself, and opening up and working of its own volition without needing any human intervention – so nobody needs to put themselves in harm's way to activate it.

It's a fascinating idea, and Eddie's in discussions with several different fire fighting agencies in North America to get the Sea-Can up and running, controlling fires, saving properties and potentially lives.

Corporate Story 18



The word "Pnuematic" for mechanical machinery, is like blood to our body. It powers several operations. Air is pressurised to serve as an energy source. There is almost no company which does not have the humble compressor. This story is about an Indian company with roots in Tamilnadu-which grew to become a top notch global player in compressed air. Read on... Of course they are potential recruiters and we have the challenge of bringing them to our campus-VeA

Preamble: Elgi Equipments Limited is a leading air compressor manufacturer with a broad line of innovative and technologically superior compressed air systems. ELGi has earned worldwide distinction for designing sustainable solutions that help companies achieve their productivity goals and keep the cost of ownership low.

ELGi offers a complete range of compressed air solutions from oil-lubricated and oil-free rotary screw compressors, oil-lubricated and oil-free reciprocating compressors and centrifugal compressors, to dryers, filters and downstream accessories.

The company's portfolio of over 400 products has found wide application across industries. Whether it is the paint on your wall, the car you drive, the medicines you take or the leather bag you carry, ELGi products have been used either in their production, maintenance or usage.

Vision: "Always be the choice everywhere."

Global Presence: Elgi Equipments serves the global marketplace. Over two million ELGi compressors are powering business worldwide. The company offers a strong sales and service network, besides a well-knit distribution network worldwide. Well-trained and highly qualified engineers and technical experts manage our sales and service offices.

The manufacturing facilities in India, Italy and US cater to various markets with products that suit the unique requirements of those markets. The warehouse facilities in Australia, Brazil, the Middle-East and US support the growing sales, service and distribution network across the world.

Growth Strategy: Elgi Equipments has posted steady growth over the years in global market. Consistent growth in profitability, revenue and assets has helped the company enhance its shareholder value and brand equity. ELGi is now poised for the next level of growth that will catapult the company into a major global player.

The company practices the Elgi Business System (EBS) that ensures effective goal deployment across the organization and maintains focus on improving productivity, quality, delivery lead time, working capital, asset utilization and profits. EBS also focuses on inculcating the ELGi core values in employees.

EBS envisages leveraging ELGi's competence in product innovation, cost competitiveness; rapid adaptation to changing market needs and responsiveness to customer needs to achieve its business goals.

History

1960 Elgi Equipments Limited incorporated. Manufactures air compressors and garage equipment.

1962 Building the foundation: ELGi enters into a technical collaboration with Pumpenfabrik Uraca, Germany for manufacturing air compressors.

1975 Elgi Equipments becomes public limited company

1983-88 Indigenizes the manufacture of rotary screw compressors

1990 Develops for the first time in India -rotary screw type vacuum exhausters

Develops high-pressure compressors for naval applications

Develops MKB high pressure compressors for defence war-ships

Develops compressors for raising water from bore wells

2000 Introduces Six Sigma, TPM, Baan ERP and other quality measures

Introduces new generation oil-free screw air compressors

2002 Develops the world's smallest screw air compressor

2008 Opens new assembly plant in China and Warehouse facility in the Middle-East

2009 Opens Warehouse facility in Brazil and Global Support Centre in India

2010 ELGi acquires Belair SA of France

2011 ELGi succeeds in launching the first Oil-free screw air compressor

2012 ELGi launches the compact, silent and energy efficient EN Series screw air compressors

ELGi acquires Italy based Rotair S.P.A, US based Patton's Inc. and opens its subsidiary and country offices at Australia and Thailand respectively

2013 ELGi opens its subsidiary office at Indonesia

2014 Opens its regional office at Malaysia

2015 Launches Portable Screw Air Compressors

Launches oil-free reciprocating compressors

Careers at ELGi

ELGi offers an exciting and challenging environment that brings out the best in each employee. The company gives new ideas a fair chance and provide a culture that enables the pursuit of innovation and excellence. As a multi-product company with global market presence, ELGi provides to its employees the exposure to a wide repertoire of technologies and business skills. A well-designed training and development programme ensures that our people receive all the support they need to become well-rounded, global professionals. For currently available positions and for applying online, visit http://www.elgi.com/careers/

Knowledge Sharing

Read about various applications of air at their beautiful magazine at http://www.elgi.com/magazines/

There is a terrific e-learning content on how compressed air is being used in various applications, right from aerospace industry to textiles, arranged in alphabetical order. Would surely be a great value add to all mech graduates. You can also learn from their video collection at http://www.elgi.com/videos/

The Automatic Car washer from ELGi

With the automatic car washer ATS ELGI brings a new revolution in car washing in India. It offers an advanced washing technology to the car washing industry and comes as a panacea for all the difficulties in manual car washing. It is a completely automated machine which gives an immaculate finish and increased productivity. It is an excellent investment opportunity for entrepreneurs to reap big revenues and for beginners who wish to start their new business venture.

Key Features

Soft Poly-Ethylene brushes
Stainless Steel precision nozzles
Rugged PLC control system
Optimization of motor power used in Dryer.
Photo cell technology for vehicle mapping
Contour following brush and air blower
Corrosion resistant hot dipped galvanized structure
Wax to facilitate drying process
Telescopic wheel brush system



The Simple Air Compressor



Amazing Innovation - 1

Traffic-Straddling Bus That Drives Over Cars

Shenzhen Hashi Future Parking Equipment Co. of China has unveiled a concept of Straddling bus in the recently held Beijing International High-tech Expo (May 2016) . The so-called Straddling Bus looks like an above-ground subway — except for the part where regular cars go under the subway cars. The system consists of a 4 to 4.5 meter-high subway car with passenger boarding on the upper level and a hollow shell on the lower level for vehicles to pass through.





Shenzhen Hashi spouts off some impressive statistics for the system:

capacity for 1200 to 1400 passengers,

reduction in traffic jams by 20% to 30%, and

cheap building costs (10% of the cost of a traditional subway).

Will it be safe to travel underneath this bus?

Chinese residents won't have a choice — Beijing's Mentougou District is already planning a pilot project for the system.

Watch the fantastic concept presentation at https://www.youtube.com/watch?v=Hv8 W2PA0rQ

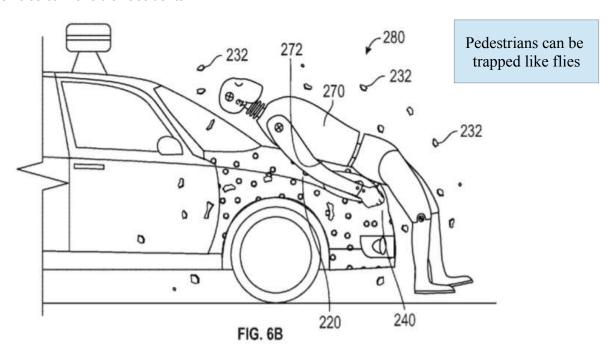
US patent number 9,340,178 dated May 17, 2016. Title "Adhesive vehicle front end for mitigation of secondary pedestrian impact". (patent filed on Nov 12, 2014).

In a world with self-driving cars, Google envisions the inevitable: accidents involving pedestrians.

But the firm is exploring an unusual solution. The company received a patent on May 17th, 2016, Tuesday describing a way to reduce pedestrian injuries in an accident with a robotic vehicle. The impact of the crash, Google suggests, would expose a coating that glues the person to the front of the car.

"The adhesive layer may be a very sticky material and operate in a manner similar to flypaper, or double-sided duct tape," the patent said.

In its patent, Google acknowledged that robot cars will hit pedestrians -- until the technology gets to the point that the vehicles can "avoid all accidents."



Today, when a car runs into a pedestrian, it often carries the person along until the driver brakes, throwing the victim from the vehicle, possibly leading to further injury as they hit the road or some other hard surface, or get hit by another car, the patent said. But that doesn't have to happen.

"The front region of the vehicle may be coated with a specialized adhesive that adheres to a pedestrian, and thus holds the pedestrian on the vehicle in the unfortunate event that the front of the vehicle comes into contact with the pedestrian," the patent said. "The adhesion of the pedestrian to the vehicle may prevent the pedestrian from bouncing off."

An eggshell-like layer covering the adhesive would protect the sticky surface during everyday driving, but shatter in an accident to reveal the glue.

Reproduced from http://www.mercurynews.com/drive/ci_29905115/google-patent-protects-pedestrians-from-self-driving-cars

The Wall Garden

Amazing Innovation - 3

Few works of art are as beautiful as nature, so why not frame nature and hang it on your wall at home? That's the premise behind the Wall Garden, a new aeroponic planter that is designed to hang like a picture and grow herbs, flowers and vegetables.

To begin, a 13 x 15.4 x 3.5-in (33 x 39.1 x 8.9-cm) base unit with five slots for growing pods is mounted on the wall close to a power socket. A magnetic frame is then attached to the unit, covering an eventual area of $18.4 \times 18.5 = 10.5 \times 10^{-2} \times 10^{$

Users will be able to choose packs of five growing pods from which different plant types will be grown. The pod packs contain plant-types that have similar lighting and watering requirements. Each Wall Garden will be provided with a pod pack, after which user will be able to buy replacement packs from the Living Art website for US\$10-15.

The five chosen pods are watered and inserted into the slots in the base unit. The base unit is filled with a water and nutrient mixture via a spout on its side and, once it is plugged in, mists the crop roots with the solution. The remaining mist falls back into a reservoir at the bottom of the unit from where it is recirculated. Living Art says the unit needs topping up with the solution about every 2-4 weeks.





Plant growth is also encouraged by an LED light that is mounted on the top of the Wall Garden. An accompanying mobile app for Android and iOS will allow users to set a timer for when the light comes on and off, as well as provide low-water notifications and allow users to view growing tutorials.

Beginning as a blank canvas, the Wall Garden allows users to grow fresh herbs, flowers and vegetables of their choice until they fill the frame. In addition, it uses no pesticides or no soil, is low maintenance and naturally filters the air in the user's home. The Wall garden is said to use around 650 W a day.

See how it works at http://www.livingartllc.com/#!the-wall-garden/c380

listen to the inventor at https://ksr-video.imgix.net/projects/2357532/video-662621-h264 high.mp4

Amazing Innovation - 4

De-addicting children from digital games

It is undeniable that smartphones and tablets have had a huge impact on our daily lives, and one byproduct could be young children spending less time playing with physical, real world toys. A new gaming platform called Yibu is aiming to bring old-fashioned toys back into the mix, blending physical toys with the gaming world of a tablet app.

According to Frog – the global design and strategy company behind Yibu – some 73 percent of children aged three to seven use smartphones and tablets. That time spent staring at a screen directly takes away from hours they would otherwise spend playing in the real world, outside or with physical toys. If you prefer your kiddos to get the increased spatial problem solving that can come from toys, perhaps Yibu is a happy compromise.





The new platform is designed to combine the compelling, even addictive nature of smartphone and tablet games with traditional toys. The company started developing the platform back in February 2015, experimenting with sensors as a means of telling a story. The name – pronounced "ee-boo" – means "first step" in Mandarin, representing the idea that the product is designed to provide a healthy, stimulating introduction to technology for children.

The prototype of the platform includes five wooden toys, which were made by a local toy craftsman in Shanghai. Each toy has a different focus, including sound, direction, temperature, light and rotation. Making changes to the toys directly affects what's happening to the on screen character, a polar bear that the user is tasked with returning to her family.

For example, if you take the game outside into the sun, the bear will get hot and start to sweat. To combat that, you can either move the light sensor to a shady spot, or blow on the temperature sensor.

Alumni News

Recently, Vishal was selected as the Assistant Director(Vice Chairperson) at London International MUN, held in London from February 26- March 1st 2015. It was Europe's largest conference with 3500 delegates coming from across the world. Vishal was heading the committee called UNGA-SOCHUM(United Nations General Assembly-Social, Humanitarian and Cultural). This committee mainly discusses issues regarding social and humanitarian issues such as right to privacy, protection of refugees.

After a stint at several Model United Nations, Vishal has decided to follow his passion-of Public Speaking. He, alongwith a handful of friends has established "Warhorse" - a startup that looks for a niche in empowering students to speak up confidently. If you have a need to get your students-be it UG or PG- to face their placement interviews confidently- maybe Warhorse can help. Try!



Created with an initial investment of `700, they've now completed nearly 38 workshops and trained over 1400 students in the art of public speaking.

Their website (http://warhorse.in/) rightfully declares

"A good speech is like a pencil; it has to have a point".

We, at warhorse, thrive to be the sharpeners.

The Indian Express of My 9th, had carried an article hailing their efforts. Read it at http://www.newindianexpress.com/education/edex/This-Horse-Can-Help-You-Speak-Up/2016/05/09/article3419205.ece1

Forthcoming Events

The Department of Metallurgical and Materials Engineering, IIT Madras is organizing the biennial symposium, International Symposium for Research Scholars (ISRS) on Metallurgy, Materials Science & Engineering from December 21-23, 2016. ISRS is a unique symposium devoted exclusively to research scholars who are pursuing their Ph.D/M.S degrees (from academia, R&D laboratories or industries). ISRS aims to provide research scholars a forum to showcase their research in front of their peers and experts, exchange research ideas, and facilitate networking. For more information please visit https://mme.iitm.ac.in/isrs2016/.

Department of Mechanical Engineering, University College of Engineering (Autonomous), Osmania University, Hyderabad, Telangana, India and Defence Research & Development Laboratory (DRDL), Hyderabad, India are jointly organizing an International Conference on "Advances in Materials and Manufacturing (ICAMM-2016)" during 8-10 December, 2016. More details at www.icamm2016.in

The International Conference on Nanoscience and Nanotechnology for Energy Applications (EApp-2016) will be held at Sathyabama University, Chennai, India during June 27th-29th, 2016 in association with Institut Jean Lamour, University of Lorraine, Nancy, France. For More Information, visit www.eapp2016.com

5 DAY TRAINING ON 3D PRINTING- ADDTIVE MANUFACTURING

ORGANISED BY: DEPARTMENT OF AUTOMOBILE ENGINEERING & CEAD,

KUMARAGURU COLLEGE OF TECHNOLOGY

VENUE: AUTO DEPT, E-BLOCK, KCT

BATCHES: 1st Batch - May 30th to Jun 3rd; 2nd Batch - Jun 6th to Jun 10th, 3rd Batch - Jun 13th to Jun 17th; 4th Batch - Jun 20th to Jun 24th, 5th Batch - Jun 27th to Jul 1st

* KCT RESERVES THE RIGHT TO SHIFT THE BATCH IF THERE ARE LESS REGISTRATIONS IN A BATCH UG & PG STUDENTS/FACULTY/RESEARCH SCHOLARS/INDUSTRY CAN PARTICIPATE

TIME: 9 AM TO 5 PM MAXIMUM: 30 participants / BATCH

REGISTRATION ON: First Come First Serve Basis

REGISTRATION FEES: Rs. 3500/- (inclusive of Service Tax)
PAYMENT DETAILS: DD IN FAVOR OF AKSHAY CADD CENTRE

NEFT: Name: AKSHAY CADD CENTRE Bank: Citi Bank ,Avinashi Road,Coimbatore

Account No. 0100866428 IFSC Code: CITI0000011

LIMITED DORMITORY /HOSTEL ACCOMMODATION WILL BE PROVIDED @ Rs. 200/day/head

CONTACT: CEAD-0422 2661448 | cead@kct.ac.in

register at the link given below:

https://docs.google.com/a/ssn.edu.in/forms/d/1g48BJ3cOaEiBAC 5UYtvJLCQn5j79xeu-009HKMnzms/viewform

The International Conference on Advanced Materials SCICON'16 during December 19-21, 2016.

SCICON '16, is a highly interdisciplinary initiative organized at Amrita University serves as a platform for scientists and researchers across the globe to exchange and brainstorm ideas in the field of advanced materials which find applications in every field of human activity. The conference aims at consolidating the research findings in the specialized areas and facilitate transfer of these findings into possible prototypes and products which will enhance the quality of life in tune with the theme of the conference. More details at http://scicon.in/

Submit Your Papers through the link, https://easychair.org/conferences/?conf=scicon16.

Project Calls

Info from Dr.Muthu Senthil Pandian, Research Scientist, SSNRC



SERB is coming up with restructured time bound mechanism for submission of proposals, evaluation of proposals and release of grant under EMR schemes. Now, Principal Investigators (PIs) would be able to submit research proposals under EMR schemes only against the call for proposals instead of submission throughout the year. The call for submission of proposals will be made twice in a year.



The First call is now open. Eligible researchers can submit the proposals till 31st July 2016.

Home: http://serbonline.in/SERB/HomePage Details: http://serbonline.in/SERB/emrDetails

DST has issued Call for Applied Research and Technology Development Proposals on "Materials for Energy Storage (MES) – 2016" The proposals could address both electrical and thermal applications.

electricity applications, where the technologies covered may include all kind of batteries, flywheels and capacitors suitable for applications in the power range of several tens of KW to 1 MW as well as other technologies related to storage of small, medium, large-scale power.

thermal applications, where proposed solutions aim to develop the high efficiency conversion and storage of extra renewable electricity into heating, cooling, desalination etc. The hybrid system should take into account the optimal integration of various potential heat storage media.

Last date for submission: 31 July 2016

http://www.dst.gov.in/sites/default/files/Approved-file-MES-Call-for-2016.pdf

Collaborative multilateral basic, applied and innovation research projects in the following thematic areas can be submitted in response to the call:

- 1. Prevention and monitoring of natural diasters
- 2. Water resources and pollution treatment
- 3. New and Renewable Energy and Energy Efficiency
- 4. Biotechnology and Biomedicine including human health and neuro science
- 5. Ocean and Polar Science and Technology
- 6. Materials Science including Nanotechnology
- 7. Photonics etc.,

Last date for proposal submission: 25 August 2016

To submit an application an online-submission form should be completed at the following webpage: http://brics.rffi.ru/rffi/eng/brics form

Innovation Challenge



Yoga rooms, golf courses, libraries—some airports already feature these or other attractions for passengers and visitors to enjoy. We have now launched the new Frankfurt Airport Innovation Challenge as an opportunity for you to contribute your own ideas for making Frankfurt Airport an even better, more unique place. Help us create a fascinating new world: the airport of the future. Register now to join our community. As a member, you can either submit ideas on your own or brainstorm with others to come up with innovative proposals. It's worthwhile to participate: the competition's winners will receive attractive prizes!

Enter Contest Here: https://www.fra-challenge.de/#

Innovation Contest for Product Development



Texas Instruments in collaboration with Department of Science and Technology(DST) proudly announce the DST & Texas Instruments India Innovation Challenge Design Contest 2016, Anchored by the Indian Institute of Management (IIM), Bangalore and supported by MyGov.

The contest is open for all students pursuing B.E./B.Tech, M.E./M.Tech & Ph.D

Calling all student innovators, thinkers and makers of the country to join the revolution! Give your ideas a jumpstart by sculpting your innovation with technical support from Texas Instruments, business mentorship & incubation from the best minds of the country - IIM Bangalore and seed funding of INR 2 Crores and product development fund of INR 1.5 crores from the Department of Science and Technology (DST).

This contest is for students from Indian engineering colleges who have a dream to create something new, aspire to make a difference and contribute to India's success towards becoming an innovation hub.

For further details please visit: www.ti.com/iicdc Submissions open till September 30, 2016

Contest on mother's story

Share your Stories NOW!

Last Date 6 June, 2016

In the spirit of celebrating Mother's day, Ministry of Women and Child Development, Government of India has organized a Contest inviting stories about mothers. The concept of this campaign is to promote the idea of children sharing anecdotes/ stories about their mother who has defied gender stereotypes, raised her voice against gender discrimination and championed the cause of gender equality and empowerment.

Participate in drafting the National Policy for Women

Ministry of Women and Child Development, GoI invites your inputs on the National Policy for Women 2016 so that a comprehensive policy document may be created which would address all the objectives of this policy. Last Date 20th June

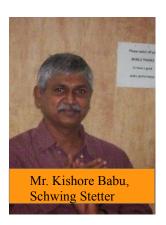
Download the <u>Draft National Policy for Women 2016 here</u>.

Inspiring Life Stories

Some years ago, there was a Mensa convention in San Francisco.

Mensa, is an international organization for people who have an IQ of 140 or higher.

Several of the Mensa members went out for lunch at a local cafe. When they sat down, one of them discovered that their salt shaker contained pepper, and their pepper shaker was full of salt.



How could they swap the contents of the two bottles without spilling any, and using only the implements at hand? Clearly -- this was a job for Mensa minds. The group debated the problem and presented ideas and finally, came up with a brilliant solution involving a napkin, a straw, and an empty saucer.

They then called the waitress over, ready to dazzle her with their solution.

"Ma'am," they said, "we couldn't help but notice that the pepper shaker contains salt and the salt shaker contains pepper..."

But before they could finish, the waitress interrupted & said...

"Oh -- sorry about that."

She leaned over the table, unscrewed the caps of both bottles and interchanged them.

There was dead silence at the Mensa table.

Moral of the story: Most of the times, for most of the problems, there are simple solutions but it is our "brilliant" minds that complicate! Take a re-look at life..... it's very simple.

Thanks & Regards

Kishore Babu

HR - Department

SCHWING Stetter India Private Limited





Listen to Ms.Smriti Irani on the transformations done and planned for Higher education in India, at

https://youtu.be/UxNtpGqwfzc

The Art of Advising

Firstly, you cannot teach those cannot see a teacher in you.

Secondly, though feedbacks/feed forward are given to improve a person, they often perceive it as "you are pointing at their mistakes". The intention behind the feedback/ feed forward is to tell a person 'where they can become better', but they perceive it as you telling them 'where they were wrong'



Thirdly , most of the communication gaps occur because we communicate to an unprepared mind.

To illustrate this point, let me share this story. A man from a village, with his innocence still intact, came to a city. With pangs of hunger, he visited a roadside eatery. He asked the bearer, "what can you give me that will satiate my hunger?" "Vada is good," was the reply.

"What is the cost of the vada that would satisfy my hunger?" questioned the hungry soul. Prompt came the reply, "5 INR." The village enquired "Are you telling me that vada will satisfy my hunger and it will cost me 5 INR?" A little irritated, the bearer asked in return, "Do you want the vada or not?"

The man ordered the vada, consumed the first and was still hungry. So he went for the second, but was still hungry. Then went to the 4^{th} , 5^{th} , and also the 6^{th} . – his stomach seems to be bottomless pit. He was still hungry. Finally the 7^{th} did the job. His hunger was satiated. The innocent- headed judiciously picked up a 5 INR coin and extended to the bearer.

To his utter shock, the bearer demanded INR 35 and clarified- you had 7 vadas. The villager shot back, "I clearly asked you, *what is the cost of vada that would satisfy my hunger*? Only the 7th satisfied my hunger and the other six did not fulfill the purpose. So I will pay only for the 7th and not for the six. "

If the six did not precede the 7th vada, it could not have made the difference.

And even if only 6 vadas had gone in, still it would not have made the difference.

The six vadas refer to the communication that is required to prepare the mind of the receiver to receive your advice. The 7th vada is the advice. If you learn the art of communicating to a prepared mind, you make a difference to people close to you, and also, you will not be perceived as arrogant.

Wishing you most & more

R.Ramakrishnan

If your intentions are genuine and the motive is only to make a difference, go ahead and do it, even at the risk of the world misunderstanding you.

Compiled and released by HoD Mech

Feedback to annamalaive@ssn.edu.in