

Mechanical **Aspire**

Achievements in Sports, Projects, Industry, Research and Education

All About Nobel Prize- Part 47

[reproduced from nobelprize.org]

2017 Medicine Prize

Awarded jointly to Jeffrey C. Hall, Michael Rosbash and Michael W. Young "for their discoveries of molecular mechanisms controlling the circadian rhythm".

Why is the circadian clock important? Anna Wedell of the Medicine Committee discusses the importance of our daily biological clock and why the findings of the 2017 Nobel Laureates are so crucial. Watch the video at



https://www.nobelprize.org/mediaplayer/?id=2721&utm_content=medicine_video

2017 Physics Prize



Awarded with one half to Rainer Weiss, and the other half jointly to Barry C. Barish and Kip S. Thorne "for decisive contributions to the LIGO detector and the observation of gravitational waves".

"Huge discoveries are really the result of giant collaborations". Physics Laureate Kip S. Thorne reflects on how this year's Nobel Prize in Physics was a remarkable team effort.

Read the interview at https://www.nobelprize.org/nobel_prizes/physics/laureates/2017/thorne-interview.html?utm_content=thorne_interview



2017 Chemistry Prize

Awarded to Jacques Dubochet, Joachim Frank and Richard Henderson "for developing cryo-electron microscopy for the high-resolution structure determination of biomolecules in solution".

"Now there's an explosion in research." Immediately after the announcement, Professor Peter Brzezinski, Member of the Chemistry Committee, described a cryo-electron microscope and how it has helped us to see the invisible. Watch the interview at https://www.nobelprize.org/mediaplayer/?id=2726&utm_content=medicine_video

2017 Literature Prize

Awarded to Kazuo Ishiguro "who, in novels of great emotional force, has uncovered the abyss beneath our illusory sense of connection with the world".

"The greatest authors in history have received this Prize". Here, 2017 Literature Laureate Kazuo Ishiguro shares his reaction to the award: "I come in the line of lots of my greatest heroes".



Listen to the interview at <https://www.nobelprize.org/mediaplayer/index.php?id=2727>

2017 Peace Prize



Awarded to International Campaign to Abolish Nuclear Weapons (ICAN) "for its work to draw attention to the catastrophic humanitarian consequences of any use of nuclear weapons and for its ground-breaking efforts to achieve a treaty-based prohibition of such weapons".

"Wow! This is amazing!". Executive Director of ICAN Beatrice Fihn was surprised and overwhelmed when she received the news from the Norwegian Nobel Committee.

Listen to the interview at https://www.nobelprize.org/mediaplayer/index.php?id=2728&utm_content=peace_interview

2017 Prize in Economic Sciences

Awarded to Richard H. Thaler "for his contributions to behavioural economics".

"He's made economics more human". Peter Gärdenfors, Member of the Prize Committee, explains Richard Thaler's ground-breaking work in the field of behavioural economics. Watch the interview at



https://www.nobelprize.org/mediaplayer/?id=2730&utm_content=economics_video

Kind Attention -Student researchers
Try and read more to understand
1) what these discoveries mean to mankind , and
2) how these research collaborations happen

Info to Alumni- Campus Update

External Recognition



Confederation of Indian Industry

SSN President,
Mrs. Kala Vijayakumar to co-chair Working Group
of CII National committee on Integrity and
Transparency in Governance for Professional
Higher Education.
(info from Alumni Officer Mr.Arun Prakash)



Philanthropist of the year Award

Recognition by UGC & NBA



Principal writes..

1.Effective Sept 25, 2017, SSNCE has been **recognized by UGC** under Section 2(f) and 12(B) of the UGC Act, 1956. This makes SSNCE eligible for Central funding.

2.Both Chemical engineering and Mechanical engineering UG programs have been **accredited by NBA** for three years, effective 2017-18.

Info to Alumni- Campus Update

ISO Surveillance

Dr.Srinivas Gumparthi writes..
ISO - Surveillance Audit by TUV NORD Auditors
was conducted successfully on 16.10.2017 (Monday).



Patent Committee



A committee has been constituted to check and approve inventions for patenting. Core members are Principal, Mr.Amit Tyagi, Dean Research, and Dr.Seyezhai, chaired by Dr. Chandy. Based on the invention being considered, the HoD concerned and a suitable subject expert will also be taken in for each patent application. On Oct 17, in the Second patent committee meeting, two inventions from mech and one each from BME and EEE dept were considered.

Internal Funding Student projects

From 12th to 14th October, around 150 student projects were evaluated by a team of experts for internal funding selection, under the leadership of Prof.P.Ramasamy, Dean Research.



Book release for GATE preparation



Dr.M.Subramanian of Chemical engg writes..

I am happy to inform you that I have authored a book titled "**GATEway to General Aptitude**". This book, consisting of about 350 pages, is based on the general aptitude questions of GATE 2010-2017 exams, and typical questions of other exams as well. This is common to all branches.

For the benefit of students, a sample chapter is
attached as Anx 1-VeA

National conference on Fluid Mechanics



The Dept of Mathematics conducted the National Conference on Fluid Mechanics-2017, on Oct 27. Dr.B.V.SS.Prasad (IITM), Dr.A.Kandasamy (NIT Surathkal) and Dr.Atul Sharma (IITB) graced the occasion. Conference was chaired by Dr.S.Narasimman and convened by Dr.I,Jayakaran Amalraj



Amit Tyagi writes..



Highlighting SSN's Research achievements

The New Indian Express has published a story titled “**Racing with the SUN!**” which is around SSN's solar powered battery operated vehicle created by Dr. R. Seyezhai and her PhD student. The story highlights key features related to the project and is based on the face to face interaction arranged between the journalist and Dr. R. Seyezhai at the campus a few days back. The story has appeared in the Chennai (circulation-155,000) and Kochi (circulation- 50,004) editions of the publication. (Monday, Sept 18.2017, edex section)

Based on this press release dissemination around the project, we have also garnered coverage in several online publications like

- | | |
|-----------------------|-------------------|
| 1) Chennai Patrika: | 113,790 pageviews |
| 2) Express News: | 2,100 pageviews |
| 3) Chennai city news: | 7,410 pageviews |
| 4) Faceinews: | 710 pageviews |
| 5) NBA: | 30 pageviews |
| 6)Kalaipoonga: | 3,870 pageviews |

Attention-Student Researchers

To continue this process further, we solicit innovative and interesting projects from your departments which can be covered.

The projects should ideally have been filed for patents or should have uniqueness in terms of impact, design or costs.

A.S.Sriram writes..

Placement Highlights



A total of 457 offers, 402 students placed and 41 companies visited so far for 2018 batch summarizes the Placement Update as on date. Some of the highlights include

- Nine new companies have been added so far
- The Super Dream companies visited so far are Amazon(27 lacs) and Goldman Sachs(22 lacs)
- The biggest company of this season would be Direct i offering Rs.29.96 lakhs per annum in October
- Microsoft is seeing third year students for internship opportunities in October

Inspire Science Camp

The Valedictory function of the week long Inspire Science Camp was conducted on 11-10-2017. Mr.John Kingsly, IAS, Resident Director, Trade Promotion, New York delivered the valedictory address. The function was presided over by our President Ms.Kala Vijayakumar.

Around 200 students of Plus two are selected based on their marks and offered exposure to scientists and their work, totally free of cost. Their boarding, lodging, travel and all expenses are borne by Ministry of HRD.

Through the good efforts of Dr.N.P.Rajesh, SSN has been continuously getting the opportunity to conduct the program year after year. --- VeA



External Recognition

Dr. A.K.Lakshminarayanan has been Included as **Technical Program Committee Member** for International Conference on Computational Materials Science and Thermodynamic Systems (CMST 2018) Venue: Wolfson College. University of Cambridge March 22 – 23, 2018 Cambridge city, United Kingdom

<https://cmst.website/committee/>



Dr. S. Rajkumar, Associate Professor, **delivered lectures** on Combustion Modeling of Diesel Engines at VIT University, Vellore on 28.10.2017.



Dr.K.S. Vijay Sekar, Associate Professor, **reviewed a research paper** titled "Mechanical behaviour of Jute/Epoxy composites at subzero temperature" submitted to the Journal of Materials and Environmental Sciences.



Dr. N. Lakshmi Narasimhan, Associate Prof, has been **invited to receive an Award** from Tube Investments of India (TII) - Murugappa Group of Companies at Hotel ITC Chola, Chennai at 6 pm on 30th Oct, 2017. This award is for recognition of the faculty internship initiatives (underwent last summer at TII) as a Best Practice for Industry-Institute networking and subsequent projects planned for mutual benefit of TII Industries and SSN in the long run.

Dr. N. Lakshmi Narasimhan, Associate Prof, **Reviewed a paper** for Int. J. Refrigeration (Elsevier).

Publications

Dr. K.S. Vijay Sekar, Associate Professor **published a paper** titled "IMPACT OF CUTTING FORCES AND CHIP MICROSTRUCTURE IN HIGH SPEED MACHINING OF CARBON FIBER – EPOXY COMPOSITE TUBE" in Archives of Metallurgy and Materials, Arch. Metall. Mater. 62 (2017), 3, 1771-1777, indexed in Thomson Reuters/Scopus. The co-authors are Dr.S.Suresh Kumar, Associate Professor, Y Allwin Roy and K. Gobivel (former PG students).

Dr. N. Lakshmi Narasimhan, Associate Prof, as a Main Author got a paper titled "Studies on the inward spherical solidification of a phase change material dispersed with macro particles", **accepted for publication** in the Journal of Energy Storage (Elsevier).

Project news

Dr M S Alphin, Associate Professor, is one of the Co-investigators for the **project proposal** "Effectiveness of Music, Light and Pressure Sensor Based Tooth Brush on the Oral Health Status of Children" Submitted to Department of Health Research. The Principal Investigator of the proposal is Dr Nivedha Subburaman, Raagas Dental College, Chennai. submitted on 1-10-2017



STUDENT ACTIVITIES:

KRISHNAN V, KARTHIKEYAN G, MURALI TS, CG SUBRAMANIAM, of third year, won the second prize amongst 8 finalists from various colleges for a presentation in Caterpillar India. They also participated in a simulated work [12 & 13 -10-2017]

ARUNKUMAR R, of third year, got selected for participation in HUMAN EXPLORATION ROVER CHALLENGE conducted by NASA with a six member team. [17-10-2017]

Stakeholder Engagement

Mr.Yogesh, father of Shashank (now doing Masters in Purdue University), is an ardent fan of Aspire. A few months back, he had sent a link to the document listing out Army project descriptions. Last month, he wrote to us ,

"I have lots of Engineering text books (all in new condition!!), used by my son, at home. Does your department have any book club or sorts where I can drop these which can be used by deserving students? Please let me know before I pass it onto other lending libraries.."

That was an eye opener. Based on this, our dept library in charge Dr.S.SureshKumar offered to go and pick up. But Mr.Yogesh was not for that- he insisted on bringing the books and delivering to us at our campus. Accordingly, both Mrs and Mr Yogesh dropped in and handed over the books.[13-9-17]



Shashank Yogesh

Mr.Sundaresan Yogeshwaran, is Founder Director Matexnet P Ltd, India's First Internet driven B2b Company and Neutral Market Place for Disposals and Procurement. Being an Entrepreneur himself, he has offered to help our students towards getting exposure to startups and their functioning. He is of the opinion that a good way to learn is by interning with various successful startups. He offered help, through his networking.



By the inspiration of Mr.Yogesh, we have now started thinking of two new lines of action.

- 1.What more can we do with our dept library than just stocking reference books
- 2.How can students be exposed to entrepreneurship systematically. (outcome will be shared..)

Get to know more about Matexnet at <http://www.matexnet.com>

Faculty Write up

Dr.B.Anand Ronald writes on Workshop Attended at PSG

- The One day workshop on Recent Advances in Manufacture of Aerospace and Automotive Components - RAMAAC 2017, was organised by PSG Tech., Coimbatore on 14 Oct. 2017.
- The inaugural session on 3 D printing was given given by Mr. E. Sreedhar Kumar, Senior Manager, TIFAC CORE PSG Tech.,.
- The second session was on Incremental Sheet Metal Forming Process-by Mr.E.Theenathayalan, Scientist-E, DRDL, Hyderabad.
- Next there was a visit to TIFAC CORE Center for Product Development @ PSG Tech, where the participants were shown the different 3D printing machines and Vacuum casting facility available.
- Next was Industry presentation on “Recent Technology and Advancement in CNC machines” by Mr. K. Gowrishankar, DGM, Lakshmi Machine Works.
- Last 2 sessions were on “Advances in Manufacturing and Testing of Composites” by Dr.V. Krishnaraj, PSG Tech and on “Recent Advances in Manufacturing Technology” by Mr.B. Srinivasan, Project Manager, Larsen & Tubro.



Dr. B. Anand Ronald, Assoc. Prof/ Mech in front of Stratasys Fortus 900 mc machine for 3D Printing @ PSG Tech.



Ms.R.Rajeswari writes..

It is important to induct research attitude in students at an early stage.

In order to do this, I was assigned the responsibility of arranging regular meetings for first year mech students to get to know what their seniors are doing in research.

The first meeting happened on Oct 11th, 2017.

- The talk was on "Improved passive safety feature of vehicle bumper beam by using cellular structure as filler material" by Mr.Ankit and Mr.Deebal, III year students of Mechanical Engineering .
- They had recently won a cash prize of Rs.3.5 lakhs from Valeo for developing their concept for "Future cars" competition.
- Even though it was arranged during free period, the attendance was good, from both the sections. The students had a good interaction.
- We hope to conduct such meetings at regular intervals, showcasing student achievers of SSN.



Engrossed in discussion after the presentation..

1. Guest Lecture

Dr. R. Ramakrishnan, Associate Professor, VIT Vellore, delivered a guest lecture on "Practical aspects of Hydraulic Automation" for our Mechanical Engineering students on 16.10.17 (Monday) by 10.00 am.

The talk started with '10 tips for understanding hydraulics' and moved on to complex systems for various applications. He even chose to speak on the importance of Bond graph in the dynamic analysis of complex hydraulic systems.



Being one of the pioneers in the field of series hydraulic hybrid system in our country, he was covering the length and breadth of the topic with an impeccable eloquence. The quality of his publications and patents were speaking of his consistent efforts even at this young age. The difficulties and challenges that he faced as a researcher would sure have inspired every one present in the audience.

2. Conference on Industrial Robotics



Axis Global Automation organized a conference on Industrial Robotics at Coimbatore on 27.10.2017. The conference was presided by a few industrial leaders from as far away as Japan. The meeting was attended by many industry people from in and around Tamilnadu with a major share from Coimbatore. There were equal participation from educational institutions many of them were from outside Coimbatore. Opportunities and goals in the immediate future were defined to start with and the difficulties that they foresee for the Indian market for robots were also discussed. For the educational institutes the internship opportunities for the students and establishment of robotics centre of excellence were the major takeaways. Towards the end a detailed question & answer session was helpful in clearing major doubts among the stakeholders, ending with a sumptuous dinner.



Dr.Krishana Kanth, Scientist C, Technology Development and Transfer Division of DST SERB, visited us on Oct 14th, Saturday, to look at the facilities created for the Project "Reclamation of Abrsives". [funded to the tune of Rs.74 lakhs].

After inspecting the facility created, he had time to go round the dept and have a look at other research activities of the dept. Dr.Krishana Kanth showed interest on Friction stir processing , showcased by Dr.A.K.Lakshmi Narayanan.

Mr.Jayakumar Ramdoss of HoCF team, took him to the International Hostel and showed him the infrastructure available, so that we can host any DST events in future.



**"PRIDE OF MURUGAPPA" - SHARING OF BEST PRACTICES**

Event Organized by Industry Institute Interaction Centre (TII IIIC) of Tube Investments of India (TII - Murugappa Group) at EID-Parry & Co, Nellikuppam, Cuddalore on 27.09.2017.

A report by-

Dr. N. Lakshmi Narasimhan, Associate Professor/Mech, SSNCE.

I am glad to present a short report on my participation as an external team member of the three member group that represented TI-IIIC (TI - Industry Institute Interaction Centre, Avadi, Chennai) in the PRIDE OF MURUGAPPA - BEST PRACTICES SHARING event Organized by EID - Parry, Nellikuppam, Cuddalore. on Sep 27, 2017.

The event "Pride of Murugappa" conducted annually since the last 14 years encourages its employees to share whatever Best Practices they have adopted for the development of the Organization as well its stakeholders. The event is organized under several categories/themes such as Best Practices in Safety, Production, Process Improvement, CSR, and so on. Different companies of Murugappa Group across India are chosen by TII to host the event individually for the categories mentioned spanning about 9 to ten days in total. In this context, EID - Parry, Nellikuppam at Cuddalore organized the event for the CSR (corporate social responsibility) category this year on the date mentioned.

Post my internship during summer at TI - IIIC between June 5 and 10, 2017 under the faculty industrial internship scheme of our institution, about 28 projects were identified and submitted to TII (Tube Investments of India) for their consideration. The management of TII appreciated the efforts and recommended TI-IIIC to include the outcome of the faculty internship offered as a "Best Practice" to strengthen the Industry-Academia interaction considering it as an activity under CSR category. Based on the recommendation, the same was included for the **Pride of Murugappa** event organized for the year 2017 at Cuddalore EID plant (CSR category).

About 200+ entries under the CSR category were screened across all the Murugappa Group of companies and about 20 were qualified to take part in the grand final round organized at EID Parry, Cuddalore. Happy to share with you that the "faculty internship" got through amongst a stiff competition in the top 20. Post qualifying for the final round, I had an invitation from TI-IIIC to be an external member representing the company and present my case studies and benefits of the internship before an expert panel. The panel evaluated the 20 qualified "Best Practices" during the Grand Finale on Sep 27, 2017 at Cuddalore plant.

Mr. Kumarasubramaniam (Senior General Manager, Learning and Development, Tube Investments of India - IIIC) and Mr. Jagesh G (Deputy Manager, Learning and Development of TII-IIIC) were the other team members. The presentation was made by all of us highlighting the benefits for both TII & SSN from the internship. I shared my observations made during the internship to validate the need for such internships. Overall that was a good eye-opener coming to know each other across industries on the best practices. *A Ton of Learning Indeed !!!* I am extremely thankful to my HOD, Dr. VEA and the Principal and Management for the kind consent and support for the internship. Happy to share with you that, based on the internship, about 20 out of my 28 proposed projects have been accepted by the company for phase-1 study to be carried out systematically over a period of time.

Glad to mention that the Faculty Internship has paved way for involving other faculty members, students of PG and UG as well in the approved projects. My sincere thanks are due to Mr. Kumarasubramaniam for the gracious support and special thanks to Mr. Jagesh and the entire TII group of companies and its management. Hope this association with TII leads us to strengthen our Industrial networking and add value to our system !!

NLN was included as member of the team and this team has been awarded Second Prize

Faculty write up

Dr.K.S.Vijaysekar writes..
On forthcoming Conference

International Conference on Engineering Materials, Metallurgy and Manufacturing

ICEMMM2018 - SSN College of Engineering, Chennai.

February 15, 16 2018

www.icemmm2018.com



The Department of Mechanical Engineering, SSN College of Engineering, is happy to announce an International conference on Engineering Materials, Metallurgy and Manufacturing (ICEMMM2018), which is aimed to bring Researchers from Academia and Industry under one umbrella to present and showcase their research work in this conference.

The Highlights of the conference are:

- The Presented Papers will be published in:
 - ✓ Lecture Notes in Mechanical Engineering, Springer (Indexed in SCOPUS)
- A Select list of Full length papers (High quality, Peer reviewed) will be considered for publication in the following Journals (Indexed in Thomson Reuters and SCOPUS):
 - ✓ Materials and Manufacturing Process – Taylor & Francis
 - ✓ Journal of Surface Engineering – Taylor & Francis
 - ✓ Journal of Iron and Steel Research International – Elsevier (In Springer from 2018)
- The Keynote speakers for the conference are eminent Academicians, Researchers and Scientists such as:
 - Dr. Manoj Gupta, NUS, Singapore
 - Dr. Sridhar Idapalapati, NTU, Singapore
 - Dr. M.Vasudevan, IGCAR, Kalpakkam, India

We request you to submit papers to this conference and also help in circulating this information to your students, friends, colleagues and well wishers in Academia and Industry across the Globe. Please visit www.icemmm2018.com for conference submission details.

Wishes and Regards,

Conveners : Dr. K.S. Vijay Sekar & Dr. A.K. Lakshminarayanan

Co - Conveners: Dr. L. Poovazhagan, Dr. M.Dhananchezian & Dr. K. Jayakumar

- Self and Dr.S.Ramana Gopal (Civil HoD), attended a two day program at Pune on NBA Orientation, during October 30 & 31, 2017.
- Civil is about to apply for NBA and Mech has just now received three year accreditation-narrowly missing the qualifier for six year category.
- So, it was relevant for both of us to gear up and see what is really expected of us .
- Also, when we move into autonomy in future, we have to move to the Tier I category which is all the more stringent. Hence the need to cope with expectations.



The genesis of the workshop itself is interesting. The Zeal Group of Institutions , which is around twenty years into education, has recently received NAAC accreditation. They wanted to go for NBA accreditation for their programs. So, they arranged for a training workshop for their own faculty. But they thought-when so many luminary personalities of NBA are lined up for talk, why not throw it open to others also- that is how a private organisation run workshop became a strong meet as good as if it were conducted by AICTE or NBA body itself- with around 250 participants from all over India.

Topics covered	Speakers and their profile
Output to Outcome Based Education	Dr.D.N.Reddy, Chairman NBA Appellate Committee
Expert Remarks	Dr.Arun Nigavekar, Former Chairman, UGC
Washington Accord & ABET	Dr.Mallikarjuna Babu, Principal, BMS College of Engg, Bengaluru
Issues in Accreditation	Dr.S.C.Sahasrabudhe, Member, Academic Advisory Committee, NBA
Internalizing NBA activities: A Roadmap	Dr.Ashuthosh Marathe, Dean Quality Assurance, Vishwakarma Institute of Technology, Pune
NBA Evaluator's perspective	Dr.P.J.Kulkarni, Member, NBA Committee
Rubrics development	Dr.Ratnadip R.Joshi, Assoc Dean, Quality Assurance, MIT WPU, Pune
Case studies -learning from experience	Dr.R.R.Joshi, Member , NBA Committee
Education tools & Bloom's Taxonomy	Mr.M.V.Kalidas, Vice President, "Inpods".

A detailed report will follow in a week's time---- VeA

Student write up



Student Innovators Award is organized every year by the ICT Academy of Tamilnadu. ICT Academy is an initiative of the Government of India in collaboration with the state Governments and Industries.

Tamil Nadu Student Innovator Award 2017 presents an opportunity for students to showcase their innovative projects state-wide and provides an environment to nurture their invention by discussing with the experts.

During 2017 Award season, we applied the MOTORCYCLE SAFETY ATTACHMENT project under the Mechanical section. There was an initial round where a total of 12 projects were shortlisted from around 400 projects. We had qualified, and had a chance to present our idea in front of the Jury on September 9th, 2017.

The results were announced soon enough and we had been placed 2nd in the mechanical section all over the state. We were presented with a cash award of Rs 10,000 at the BRIDGE conference conducted at Le Meridien, Coimbatore the next week.

I should admit that the two days 12/10/17 and 13/10/17 were one of the best days of this year because we not only came second on the challenge that we were presented with but also were allowed to undergo a Simulated Work Environment which is set up in their plant at Thiruvallur, got a chance to see the huge (LITERALLY HUGE!) mining pieces of equipment which I've only seen in National Geographic on TV from a feet apart, and also an Industry Lecture on Manufacturing going on in that plant.



This competition (Caterpillar Challenge called CAT it) was held as a part of their manufacturing month celebrations. 8 different colleges were given the challenge of sending a ppt presentation on the topic Industrial revolution 4.0 and only one team per college was selected. From SSN, to my knowledge, around 4 teams sent the proposal and ours got selected to present in the plant in front of the Industry Leaders. Mr. Vimal Samsingh (Center in the pic) accompanied us and guided us in the presentation. His inputs were invaluable to our win.

Now, Thiruvallur is a far off place from SSN. So, We had to leave at least two hours before time from college. The team consisted of Myself, Karthikeyan (Second to left in pic), Krishnan (First from left) and CG Subramaniam (Second from the right).

The facility was in itself is huge considering they manufacture dump/hauling trucks like 777, 772, etc and also the Hydraulic EXcavator (HEX). It was a marvel of a sight to see such huge machines in motion. The radius of the wheels alone was close to 6 meters!!! Which is close to 2 meters my height.

The round one presentations went extremely well as we managed to give a presentation and we were appreciated for it as well. The duration of the presentation was 15 minutes. The board consisting of leaders of various divisions like Hydraulic division, manufacturing division was happy with our presentation.

The round 2 presentations happened almost immediately after lunch. We had one evening to prep the previous day for this. We were asked to propose a coal mine to be set up at Jharkhand. It was during this round that we did a few minor mistakes like interchanging the images in the slides which cost our first spot. Nevertheless, the board congratulated our team for the depth and analysis of our presentation in specific. The inputs given by Vimal Sir helped us a lot in understanding the prognostics and the Industrial management techniques as well. All this happened on Day 1.

The top 3 teams on day 1 were called to arrive next morning on Day 2 for a Simulated Work Experience which is offered only to specific employees at Caterpillar itself.

This was an eye-opener as we were made to actually stand in the assembly line and were made to assemble different parts onto the equipment which moves continuously. We analyzed the people, safety, velocity issues and used 6 sigma and TQM processes real time to gauge our performance. It was the best experience that we got there.

This was followed by an Industrial visit to the plant where we saw this marvel of a machine being welded, made and assembled. The huge suspension and gear systems left us in awe. We saw the same process as in the simulated version on the floor which gave us a feel of understanding performance measures real time.

Next, we saw excavators being used for stunts! They organized an event where the different types of equipment were used to stunts. IMAGINE AN EXCAVATOR DOING A WHEELING!! (LOL)We saw that!



Lastly, there was a lecture organized by the leaders of the Manufacturing development division of Caterpillar. It gave us an idea as to how manufacturing processes are done today. Apparently, the fresh graduates have to undergo three curricula like welding, machining and one more to actually work there. This is to ensure quality.

This marked the end of day 2. It took 5 hours to reach SSN from the place using the public transport which was quite tiring. With that, the day ended and our exposure increased.

Research and Internship Updates

TS Murali writes>>>

I am happy to share that my research abstract from the Internally funded project based on Energy Materials has been **accepted for the poster presentation at Kalam Young Researchers Conference (KYRC)** scheduled this month at the Central Electrochemical Research Institute (CECRI), A laboratory of Council of Scientific & Industrial Research.

I am glad to inform you that I have been interviewed several rounds and **accepted as a paid student intern at Altair India, Bangalore Office** .I have received the internship offer letter today.



Human Exploration Rover Challenge Representing India

Human Exploration Rover Challenge is an annual competition organized by NASA. This competition will take place from April 12-14 2018, conducted at The Marshall Space Flight and Rocket Centre, Huntsville, Alabama, USA.

ABOUT ROVER CHALLENGE: (<https://www.nasa.gov/roverchallenge/home/index.html>)

The rover is a three or four wheeled human powered vehicle. The intent of the competition is to pilot the rover on a simulated mars surface, which consists of about fourteen obstacles. This race course must be completed in the minimum time possible and the team that takes the shortest span of time to complete the course will be declared the winner. The winner is declared and is felicitated with "THE BEST INTERNATIONAL TEAM" Award.

The rover will be powered by two of the team members- a male and a female.

The wheels of the rover must be non-pneumatic, and this must also be a product of the team. There is an award for the "BEST WHEEL DESIGN" this year.

Also, a camera will be installed in the rover and live feed from the race will be transmitted to an observatory station. The transmission must be wireless.

Apart from the above mentioned awards, there are a lot of awards for other categories.

ABOUT OUR TEAM:

Team Precisio from SSNCE is a six member team of students from the Departments of Mechanical, CS and EEE. The registration for this challenge opened on 13 October 2017. The process is electronic and happens on a first come first served basis. The limit for the number of teams representing a country is four. We are one of the four teams from INDIA to participate in the challenge this year. As a team, we will represent INDIA in this competition.



Team members

NARMADHA BALRAJ	Final Year Mechanical
G.P.PRATHAP SEELAN	Final Year Mechanical
NETHAJI RAMAN	Final Year Mechanical
ARUNKUMAR R	Third Year Mechanical
ARJITH NATARAJAN	Final Year Comp. Sc.
SHUNMUGAPRIYA SUBRAMONY	Final Year EEE

Team mentor:
Dr.S.SURESHKUMAR



Roll-out solar panels to power Welsh island

Solar panels that can be unfurled like carpet could be a game changer where portable power solutions are needed, such as in the wake of a natural disaster, for example. Cardiff Council in the UK is about to test out this technology on a small island off the coast of Wales, as a new way of possibly shoring up its energy requirements for the future.



Flexible solar panels can pack more of a punch than stiff, regular old panels because they allow for a higher energy capacity from a smaller package. UK firm Renovagen has been working to adapt the technology for industrial-scale applications.

Its Rapid Roll Solar PV system consists of flexible solar panels that can be unrolled from a small trailer unit within two minutes to provide 11 kW of power.

A larger version can be unrolled from a shipping container in less than an hour for 300 kW of power.

Cardiff Council has now enlisted the company's services to conduct trials on Flat Holm Island, a small limestone island that, while home to no permanent residents, does host tourists in search of wildlife, a pub and a lighthouse. Power for the island's minimal infrastructure has previously come courtesy of conventional solar panels and a diesel generator, but it is now looking for cleaner, and more flexible solutions as it prepares for a rise in visitor numbers.

While the trials on Flat Holm Island play out, Cardiff Council will also use the Rapid Roll system to charge two [Nissan e-NV200 electric vehicles](#) at a recycling depot on the mainland.



See the magic of how it works at https://youtu.be/M9MAZLhm_9k



Caterpillar has a rich history starting from 1886. With 2016 sales and revenues of \$38.537 billion, Caterpillar is the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives. The company principally operates through its three product segments - Construction Industries, Resource Industries and Energy & Transportation - and also provides financing and related services through its Financial Products segment.



- Their philanthropy is taken care of by the **Caterpillar Foundation**.
- Their motto is "**Empower a Woman, Change the World.**" They address Energy Poverty of the girl child.

"By combining the enduring power of women in communities all over the world, and the sustainability and strength of Caterpillar products, we are on a mission to make energy access a basic global human right.

And this year, we are honored to be taking bold action. As we celebrate the 35th anniversary of our 3500 engine, we are also celebrating by giving a 3500 generator to the [St. Luke Foundation for Haiti](#). Over 150,000 lives will be impacted annually because this generator will provide energy access to the organizations that are part of the foundation, including 3 hospitals, 32 schools, orphanages, bakeries and more."

Innovations

- Making Sustainable progress possible is their motto and they make it happen through innovation and collaboration. Caterpillar employees have turned their passion for product development into innovations that create customer value and make the world a better place.
- Check out [Six Caterpillar Technologies Creating Customer Solutions](#) and
- the [10 Ten Ways Caterpillar Changed the World](#)

India Operations : Caterpillar has been active in India since the 1930s. Today, together with their dealers, they employ more than 10,000 people. Caterpillar's India presence includes state-of-the art manufacturing facilities, high tech research and development, as well as numerous global support organizations. Caterpillar employees, dealers and facilities are located at hundreds of locations to serve and support customers and respond quickly to their needs.

Caterpillar's products, services and technologies fall into the following lines of business:

1.Mining and Quarry : Caterpillar manufactures 60 and 100-ton off highway trucks (OHT) in India for the domestic and export markets. They have recently introduced the 240-ton mining truck in India.

2.Power Generation : Caterpillar offers a range of prime power and standby options to meet the varying needs of customers. Given below are some examples of Caterpillar's power applications:

- Hindustan Construction Company Ltd. (HCC) uses Cat® Power in its 'Cold Desert' zone Nimoo-Bagzoo and Chuktak sites in Kargil area of Jammu & Kashmir.
- Oil & Natural Gas Corporation Limited (ONGC) is replacing all of its existing engines with more than 170 Cat 3512B engines over the next 3 years.
- The Indian Navy, Coast Guard and Customs patrol the 7,000 kilometers of India's coastline with ships running on Cat power.
- ABG Shipyard, India's largest private ship builder ordered 20 Caterpillar 3516B HD Petroleum Power Modules.

3.Construction :

Cat machines are working around the clock in the construction of the 2000 MW Hydroelectric Power Project at Subansri, Arunachal Pradesh, which includes digging and moving 1.14 million m³ of soil, civil works for diversion tunnels, coffer dams and concrete gravity dams, etc.

- **Road works** : Whether it is in the Golden Quadrilateral or the national road corridors, Cat machines are deployed at every stage of the road construction from embankment to road finishing.
- **Petroleum** : Cat reciprocating engines and Solar Turbines, enable gas compression for key customers including Reliance, ONGC, British Gas, CAIRN India and OIL India.
- **Rail** : Electro-Motive Diesel Inc. (EMD) is the world's leading manufacturer of Diesel Locomotives with a turnover of \$1.8 billion. It celebrated 50 years of bringing the latest Diesel Locomotive Technology to the Indian Railways in 2009. Currently EMD fully supports the ramp up of production at DLW to manufacture up to 200 locomotives per year. The Indian Railways deems locomotives powered by EMD technology and equipment to be highly reliable with an impressive availability rate of 91 - 95 percent.

4.Services :

- **Cat Financial:** Caterpillar Financial Services Asia Pte. Ltd, together with its two Indian dealers, Gmmco and TIPL, have entered into an agreement with the following key infrastructure focused banks - ICICI and HDFC Bank and NBFC's [Non Banking Finance Company] Tata Capital Services and Magma (collectively referred to as Preferred Financiers Suppliers), to support the sale of the full range of Cat products sold in India. The collaboration agreement will give customers in India new finance options for the purchase of Cat machines and power systems, which are being used to fuel growth and sustainable development in India.
- **Finance Shared Services:** Like their customers, their internal partners require effectiveness and efficiencies. For that, Caterpillar India houses the Asia Pacific Shared Services Center in Bangalore. The center provides Transaction Accounting, General Ledger and Financial Analysis services to more than 40 legal entities located across India, China, Singapore, Australia, Indonesia and Japan. The combined workforce of 170 is comprised of qualified Chartered Accountants, Cost accountants and postgraduates in Finance.
- **Cat Logistics:** When the world is your market, you learn how to move quickly and efficiently. Based in Bangalore, Cat Logistics, India serves global clients in sectors such as aerospace and defence, automotive, consumer durables, high-tech and electronics and industrial.
- **Bucyrus India Private Limited:** A subsidiary company of Caterpillar Inc., who is a world leader in the design and manufacture of high productivity mining equipment for surface and underground mining. Cat surface equipment is used for mining coal, copper, iron ore, oil sands and other minerals, and underground equipment is used primarily for mining coal. In addition to machine manufacturing, Caterpillar manufactures high-quality OEM parts and provides world-class support services for its equipment. The Bucyrus India Private Limited corporate office is at Kolkata.

5.Distribution

Cat Dealers: When customers want Cat products, financing, insurance, training or maintenance, they go to the independent Cat Dealer in their area. To many of them, the Cat Dealer is part of the Caterpillar family. We have eight dealerships with TIPL and Gmmco as the parent dealers, who serve our customers with more than 70 service and sales branches throughout the country.

The Cat Rental Store: Customers large and small count on The Cat Rental Store in locations around the world for Cat products and a broad range of allied equipment-- the tools they want, only when they need them.

Of interest to our students and Alumni

Caterpillar India Engineering Design Center, with a highly competent team of about 900 Engineers, partners with more than 40 business units across the globe and provides comprehensive product development and associated engineering services (Design, Virtual Validation and Virtual Manufacturing).

They are an integral part of the enterprise strategy in the Global Research and Development footprint in the areas of Machines, Energy and Power Systems and Advanced Components and Systems.

The Design Center also leverages heavily its supplier partner resources to be more responsive to the rapid changes for its various engineering needs.

Their collaboration with leading technical universities (Indian Institute of Technology-Madras, and Anna University) also supports the enterprise in research and development in the areas of Emission, Engine Performance Simulation and Transportation.

Careers at Caterpillar (global opportunities)

pl refer <http://www.caterpillar.com/en/careers/hiring-process.html>

search jobs and apply online at <https://caterpillar.taleo.net/careersection/cat+external+cs/jobsearch.ftl?lang=en&portal=4140124208&src=CWS-10005>

This is what the site reads as:

Click the "Search for Jobs" tab on our careers site to access the job board.

- Search keywords, Job ID numbers and/or your location to simplify results.
- Browse job descriptions/qualifications.
- Create a job alert for job postings that match your searches.
- Save jobs as favorites to share via email, LinkedIn or Facebook.
- Find a job? , • Click "Apply"
- No matches? • [Join our Talent Community to stay updated.](#)



Caterpillar visits us regularly and recruits SSN graduates.

They also offer Internships for our students.

Amazing Innovation- 41

Shoes with changing designs



The footwear startup [ShiftWear](#) thinks that there's room to change the way shoes are designed and sold. Instead of buying what big brands have deemed fashionable, you could design your own patterns and emblazon them on the side of your high tops. The company's slogan? "A sneaker that gives the user complete creative control."

ShiftWear sneakers feature side panels made from flexible electronic paper like what is in an Amazon Kindle which connects to a smartphone app. Users can illustrate what they like to appear on the shoes, apply the design and switch it up whenever they want. The shoes display color images and animation and only draw power when the graphic changes (there is a battery embedded within the shoe that recharges when you walk, and e-Paper takes only a minuscule amount of power to retain an image in repose). Waterproof up to five meters, the sneakers have Kevlar-coated soles for durability.



How will the designs look on the sneaker outdoors?

It would have a natural paper like look to it and won't glow like LED technology or lighted fabrics. The colors and designs can be viewed under direct sunlight just as you would see designs on normal sneakers. In darkness, you won't see anything again just like a normal sneaker. If you turn on the back light, you can see designs in really dark lighting conditions. More details at <http://www.shiftwear.com/>

Watch the shoe in action at <https://youtu.be/wWf-hae4IU4>

Amazing Innovation- 42

Driver dressed like a seat



Anyone who has crossed a busy street likely knows the informal language between pedestrians and drivers. A driver might wave her hand to indicate to the pedestrian it's okay to cross, or a pedestrian could throw up his hand like a stop sign to signal he plans to cross first.

But what happens in the future, when self-driving vehicles operate without drivers—and in some cases, without anyone even in the vehicle itself?

At Ford, they believe developing self-driving vehicles is about more than just the technology itself, so they are working to design, test and advocate for a standard way for autonomous vehicles to easily communicate their intention to people on the streets and roads on which they will operate.

Ford teamed up with the [Virginia Tech Transportation Institute](#) to test their communications method and to explore how pedestrians and bicyclists react to self-driving vehicles with no human in the driver's seat.

Instead of relying on cameras to capture the pedestrian reactions, Ford decided to have someone in that seat.

So, **they dressed a human up in a seat suit to make it appear as though there was nobody inside** the simulated self-driving Ford Transit Connect.

This seat suit allowed Ford to collect real-world reactions to an autonomous vehicle driving on miles of public roads in northern Virginia, without actually using an autonomous vehicle.

The simulated self-driving Transit Connect was equipped with a light bar on top of the windshield—near where a pedestrian or bicyclist would look to make eye contact with the vehicle's driver. The signal slowly pulses a white light back and forth if it is yielding, blinks rapidly if it is about to accelerate from a stop, or remains completely solid if it is in active self-driving mode, meaning it is simply driving along the road like any other vehicle.

Watch the fun at <https://youtu.be/EwujR1ARsog>

Amazing Innovation- 43

Steering that changes colour when you sweat

Nissan is particularly concerned about the danger dehydration poses from behind the wheel. Looking to raise awareness about this particular issue, the company has developed a prototype seat-and-steering wheel combo that changes color when the driver is in need of a drink.

For the project Nissan has teamed up with Dutch design company Droog, which produces a sweat-sensitive textile coating that it has previously worked into [conceptual activewear](#) to warn athletes of dehydration. Nissan integrated it into a [Juke crossover](#), coating both the steering wheel and front seat to act as a warning system for thirsty drivers.

The idea is that when a person jumps behind the wheel after exercise with some sweat on their clothes or hands, the Soak coating will respond by **turning yellow if they are dehydrated, or blue if they are sufficiently hydrated.**

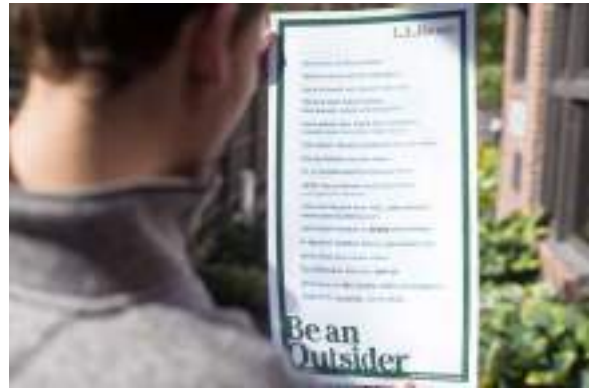
Nissan points to a number of studies that make some, well, pretty grand claims regarding the dangers of driving while dehydrated. One from 2013 placed an undisclosed number of subjects in a driving simulator, where dehydration led to more than double the number of road incidents compared to hydrated participants.

Those researchers say the amount of errors exhibited by the dehydrated drivers, like lane-drifting and late-braking, were on par with people with a blood-alcohol content of 0.08 percent. Nissan also cites a study suggesting that two thirds of drivers fail to recognize the symptoms of dehydration, such as slower reaction times and loss of focus, and another that found drinking water boosts the brain's performance.

Whatever the actual danger of driving while dehydrated, it is surely not as safe as driving while fully hydrated. And while Nissan says it has no plans to actually add the technology to its Juke crossover for now, scientists are learning more and more about how sweat can reveal information about our well-being, including things like [glucose levels](#) and [muscle fatigue](#). So tapping driver perspiration to one day make our roads a little safer might not be as far-fetched as it sounds.

You can check out the promo video for Nissan's sweat-sensing alert system in the video below.

<https://youtu.be/2KBQO-5PNAQ>



At a time when many Americans skip over ads, L.L. Bean has made its latest hard to resist - you can only read it if you're standing outside. The insert, in Friday's *New York Times*, appears to be a nearly blank piece of green trimmed, white paper. The few legible words tell the reader what they need to do. "Just bring this outside . . . No, seriously. Take this outside."

When readers venture into the sunlight, they are presented with an ode to the outdoors, the environment that's best suited for L.L. Bean's signature boots, though the words read more like a meditation than a sales pitch.

"Welcome to the outside," it begins, "where there are no strangers, only friends we haven't met yet."

The ad was made with photochromic ink, which is colorless indoors but turns different colors when exposed to ultraviolet light, usually from the sun or a black light.

Source: <http://www.adweek.com/creativity/l-l-bean-made-a-clever-newspaper-ad-that-you-can-only-read-outdoors/>

This Issue has Three Annexures

Purpose of Annexure is to serve only those who need it
and for ease of Onward forwards to those who may benefit.

Anx 1 – Questions and Answers on GATE aptitude
Target audience- anyone who prepares for any aptitude test.
This will be sent separately, only to students

Anx 2 – NBA Orientation
This will be circulated only to Faculty
By next week

Anx 3 – Choosing the right Journal for
Early Career Researchers
Sent to all in Mailing list

Alumni Info



Nandakumar Loganathan of 2010-14 batch, is now Sr.Engineer, Production Planning, at Royal Enfield. He has moved into Royal Enfield , after a three year stint as Asst Manager, at Rane TRW Occupant Safety Division. We wish him well in his new assignment.



Kailash Viswanathan, of 2012-16 batch, is currently, Trainee decision scientist in Mu Sigma Business Solutions Pvt. LTD



Praveen Ravi of 2012-16 batch is now doing MS at Arizona State University, where he works as Research Asst in the Photovoltaic reliability lab



Aswin Chandarsekaran (2008-12), is now, **Chief of Operations** at ABA corporatin Erode.

After graduating from SSN , he went abroad for Masters(M.Sc) in Business Management in University of Strathclyde, Glasgow.

After Masters, he joined ABA Corporation at Erode as Business Analyst. In 2015 he shifted to Usha Electronics , Erode, as Busniess Analyst. Since Sept 2016, he is Chief of Operations at ABA Corporation.



Vivek S of first batch (2007-11), is now Senior Engineer, Water Business at Bharat Heavy Electricals Limited. He is in BHEL since 2012. In between, he has also managed to complete M.Tech manufacturing management from BITS Pilani.

His learning never stops. He has just now (on Sept 3, 2017) completed a course on Drinking Water Treatment -a course of study offered by DelftX, an online learning initiative of Delft University of Technology through edX.

On June 8, 2017, he has completed a course on Urban Sewage treatment.

His paper has been presented in the Global Energy Technology Summit GETS 2016. The abstract of his paper is given below:

#644

The term waste water reuse is often used synonymously with the terms waste water recycling and waste water reclamation. Water reuse is defined as "using waste water or reclaimed water from one application to another application". Fresh water scarcity & stringent environmental norms against wasting water has increased the importance on recycling & reuse of water by waste water treatment systems in modern day world. In addition to conserving natural resources of water from depletion, reuse of waste water also helps in minimizing the environmental impact caused by discharge of waste water / effluents.

The major types of Water Reuse are as follows:

1. Urban reuse
2. Agricultural reuse
3. Recreational impoundments
4. Environmental reuse
5. Industrial reuse

This paper plans to highlight the importance & merits of the industrial water reuse concepts with case studies wherein, it was successfully implemented by BHEL at Raw Water Treatment Plant of capacity 4000 m³/hr (96 MLD), at OPAL, Dahej, Gujarat.

[See publication Industrial Water Reuse](#)



M.K.Eswar of 2012-16 batch is now Lead Layout Engineer at FL Smidth, Chennai



Velchandru Muthukumar of 2013-17 batch, is now software Analyst at Hexagon Capability Center, Hyderabad.

Forthcoming events

Robotics Design Challenge by DRDO

DRDO Robotics and Unmanned Systems Exposition (DRUSE)

- Defence Research and Development Organization (DRDO) wishes to harness the multifaceted talent available in the country on Robotics and Unmanned systems. DRDO aims to tap these indigenous capabilities to create a platform for the development of futuristic defence systems.
- The objective of this exposition is to identify and nurture novel ideas in different parts of our country. This is an exposition of ideas to support our defence forces to gain the decisive edge in future warfare.
- This exposition targets national talent among student community from engineering background currently undergoing UG or PG only.
- The aim of participants is to convince the screening committee on two primary fronts – (a) of the utility of the idea and, (b) the capability to convert that idea to a reality.
- **Who can Participate** : Engineering students presently pursuing UG or PG and led by a senior faculty (for competing and display of exhibits)
- **Submission** is now open. Last date Dec 15th 2017 **First prize value Rs.1.5 lakhs**

What Can Be Exhibited

- Innovative ideas
- Concepts through graphics
- Concepts/technologies depicted through 2D/3D models
- Simulation or Animation
- Concept paper presentation
- Mock up/working models
- Prototype
- Hardware
- Posters

For the attention of
Robotics Enthusiasts



The event is planned with different theme based technological challenges to facilitate participation from different categories of talent. The theme based Exposition is aimed to harness the potential ideas/concepts/technologies in any form (nascent, under development or developed) available nationwide with students. The proposed themes are as below

- **Mountain Climbing Robot**
- **Mobility in Snow Bound Area**
- **Soldier Assistance vehicle**
- **Casualty Evacuation**
- **Exoskeleton**
- **Surveillance of a Ship**
- **Self-Concealing UGV**
- **Mobility of UGV over land, air and water**
- **Underwater Survey System**
- **Surveillance in Multi-storey building**
- **Battlefield debris clearance**
- **Mine detection and clearance**
- **Robotic Assistive Device for divyang persons**
- **Any other defence application for Robotics and Unmanned Systems not covered above**



For a detailed description of the themes, visit <https://rac.gov.in/druse/index/themesdescription>
for more details on the competition, read <https://rac.gov.in/druse/index/faqs>

Forthcoming events

Workshops / Faculty Development programs

- 1 Department of Mechanical engineering, Saranathan College of Engineering, Trichy, is organizing Two days AICTE Sponsored Seminar on "Application of Intelligent Techniques in Manufacturing Process" on 16th and 17th November 2017. Last date for registration Nov 10, 2017.
- 2 International Workshop on Laser Additive Manufacturing and Surface Processing, is planned on 18th November 2017, at the Mechatronics and Instrumentation Lab, Indian Institute of Technology Indore (IIT-I), Simrol Campus, Indore-453552, Madhya Pradesh (M.P.). registration Rs.2,000. Last date November 8. Contact Dr. I. A. Palani Email: palaniia@iiti.ac.in
- 3 **Department of Mechanical Engineering of EGS Pillay Engineering College, Nagapattinam**, is organizing AICTE sponsored **"International Workshop on Sustainable Manufacturing"** (IWSM-2017) to be held during 24-25 Nov. 2017. Register before Nov 15. (fee Rs.500)
- 4 Two Day Training Programme on High Resolution Transmission Electron Microscopy (HRTEM), Scanning Electron Microscopy (SEM) and Scanning Probe Microscopy (SPM), 23-24 November 2017, is being conducted by PSG College of Technology and PSG Science and Technology Entrepreneurial Park, Coimbatore-641004. http://www.psgias.ac.in/wp-content/uploads/2017/10/EM_SPM20172.pdf
Registration Fees Rs.1500 for students Rs.2500 for faculty members
Deadline for Registration: **15th November 2017**
- 5 National Engineering College, kovilpatti, Thoothukudi District invites applications for participating in the 2 weeks Faculty Development programme (FDP) on Entrepreneurship, December 4th – 16th, 2017. Last date for registration 16-11-2017
- 6 The Department of Computer Science and Engineering, P A College of Engineering, Pollachi, Coimbatore-02, is organizing AICTE Sponsored Two Weeks FDP on Emphasizing Morals, Values, Ethics, and Character Education for Quality Teachers during 4th December – 17th December, 2017. The brochure and inline registration form of the workshop is made available at <http://www.pacolleges.org/images/demo/cse/AICTE%20Workshop.pdf> Last date 21-11-2017
- 7 Five Days Workshop on Composite Materials in Engineering Applications: Design and Manufacturing Perspective (CEEAA-2018), 15-19 January 2018, Indian Institute of Technology Mandi (IIT-M), Kamand-175005, Mandi, Himachal Pradesh. Faculty Members : **Rs, 6,000/-** . Students : **Rs. 3,000/-**
Last date of receiving application: **15th November 2017**
Website: <http://iitmandi.ac.in/workshops/CMEA/index.php>

Conferences

December 2017

- 1 The dept of Mech engg of IIT M is organising the 10th International Conference on "Precision, Meso, Micro and Nano Engineering (COPEN10 – 2017)", during December 7-9, 2017.
Details at <http://web.iitm.ac.in/copen2017/theme.html>
- 2 The Indian Institute of Welding is organizing the International Congress 2017 (IC2017) of the International Institute of welding during 7-9-Dec 2017 at the Chennai Trade Centre.

- 3 Aurora's Scientific Technological & Research Academy, Hyderabad is conducting its Second International Conference On Recent Innovations in Engineering and Technology (ICRIEAT) on 21-22 December 2017.
- 4 Cauvery Institute of Technology, Mandya, Karnataka, is organizing an International Conference on Emerging Trends in Mechanical Engineering (ETME-2017) during Dec27-28, 2017. Full paper submission by Nov 15, 2017. Accepted papers will be published in IJRAME (International Journal of Aeronautical and Mechanical engineering).

January 2018

- 5 The Department of Industrial Engineering, Anna University, is proposing to organise the third International Conference titled "International Conference on Advances in Industrial Engineering Applications" (ICAIEA 2018) during January 3 - 5, 2018 at College of Engineering, Guindy Campus, Anna University, Chennai . Last date for extended Abstracts Nov 11, 2017. Possibility of publication in Anx 1 journals.

February 2018

- 6 The Department of Chemical Engineering, SSNCE, is organizing the 3rd International Conference on Recent Advancements in **"Chemical, Environmental & Energy Engineering (RACEEE-2018)"** during 15-16 February 2018. Details at www.raceee2018.in. Accepted papers will be published in reputed Journals of Elsevier and Springer..
- 7 **The Department of Mechanical Engineering, SSN College of Engineering, is happy to announce an International conference on Engineering Materials, Metallurgy and Manufacturing (ICEMMM2018), Feb 15-16, 2018. Details at www.icemmm2018.com**
Abstracts by Nov 10.
- 8 Government College Autonomous, Rajamahendravaram Andhra Pradesh , in association with 'Conn Center for Renewable Energy Research, University of Louisville, KY-USA'. is organising an "International Conference on RENEWABLE ENERGY RESEARCH AND EDUCATION-2018 (RERE-2018)" during 9-10, February 2018 . Last date for abstract Dec 15th.
- 9 One Day National Conference on Chemistry Driven Clean Process and Alternate Energies - Scope and Challenges (NCCP-2018), 7th February 2018, Department of Chemistry & Centre for Clean Energy and Nano Convergence, Hindustan Institute of Technology and Science, Padur, Chennai-603103, Tamilnadu
- 10 International Conference on Materials for Energy and Environment (ICMEE-2018), 22-23 February 2018, Loyola Institute of Frontier Energy (LIFE), Loyola College, Chennai-600034,
Last date for submission of abstract: 10.12.2017
Last date for Registration: **17.01.2018**
Registration Fees Students and Research Scholars: **Rs.1500**
Faculty/Scientist/Post Doctoral Researchers/Industrialists: **Rs.2500**

March 2018

- 11 SRM University , Chennai (Madras), is organizing the 2nd International Conference on Advances in Mechanical Engineering (ICAME 2018, <http://mysrm.srmuniv.ac.in/icame-2018>) from March 22 – 24, 2018. For additional information please visit the conference website at <http://mysrm.srmuniv.ac.in/icame-2018>.

Prospective authors are invited to electronically submit abstracts of 500 - 1000 words via Email: icame2018.srm@gmail.com

April 2018

- 12 **2nd International Conference on Tribology (TURKEYTRIB'18)** is planned during April 18-20, 2018. Details at <http://www.turkeytribconferences.com/>

July 2018

- 13 **8th International Conference on Engineering Failure Analysis (ICEFA VIII)** will be held in Budapest, Hungary, 8-11 July 2018. **submit abstracts by 8 December 2017** . Run by Elsevier. Details at <https://www.elsevier.com/events/conferences/international-conference-on-engineering-failure-analysis>
- 14 **7th International Conference on Fracture Fatigue and Wear, FFW 2018** Ghent, Belgium, 9-10 July 2018. **Abstract submission** (deadline 12 January 2018) to FFW 2018 secretariat: ffw@ugent.be **Conference website:** <http://www.ffw.ugent.be/>

September 2018

- 15 The **4th International Conference on BioTribology (ICoBT 2018)** will be held in Montreal, Canada, on 26-29 September 2018. Submit abstracts by 20 April, 2018. <https://www.elsevier.com/events/conferences/international-conference-on-biotribology>

December 2018

- 16 The All India Manufacturing Technology, Design and Research (AIMTDR) conference 2018 , will be conducted during **13th-15th Dec 2018 – at Anna University**. Submission of paper 31 March 2018. <http://aimtdr2018.com/theme/>

Bosch Certified training for Students

The Bosch Centre at Rajalakshmi Engg College, Chennai offers Bosch certified week long training on Automotive -Aftermarket. Topics covered range from basics of diesel injection system , sensors, actuators, pumps, governors, CRDi engine, Vehicle system analyzer practice. Various batches are as below

No of Batches	From (Tuesday)	Till (Saturday)
Batch 1	14-11-2017	18-11-2017
Batch 2	21-11-2017	25-11-2017
Batch 3	28-11-2017	02-12-2017
Batch 4	05-12-2017	09-12-2017
Batch 5	12-11-2017	16-12-2017

Fee Details:

Inplant Training - ~~INR 6,000~~ **INR 3,600** (The cost includes training fee and certification only)_

Note: The listed cost does not cover boarding, lodging, and food.

Payment mode: CASH - Payable only at REC-BOSCH on the day of training.

Registration link: [Register here !](https://docs.google.com/forms/d/e/1FAIpQLSeXPN4DGBI3-OhaAKZr7Emw8LzqyRjKRS9-Feuqvl9YxomgmQ/viewform)

<https://docs.google.com/forms/d/e/1FAIpQLSeXPN4DGBI3-OhaAKZr7Emw8LzqyRjKRS9-Feuqvl9YxomgmQ/viewform>

Registration closes: On or Before 13.11.2017 (Monday)

1.Revised dates for proposal calls

Dr.Muthu Senthil Pandian
SSNResearch Centre



SERB-Science and Engineering Research Board has informed that applicants under Early Career Research (ECR) and Extra Mural Research (EMR) schemes have to apply only once a year in any one of the schemes, as per time lines given below:

Scheme	Revised Call Dates	
ECR	April 2018 (1 st to 30 th April)	October 2018 (1 st to 31 st October)
EMR	March 2018 (1 st to 31 st March)	September (1 st to 30 th September)

2.Research / Characterization Facilities at competitive rates

The Postgraduate and Research Department of Chemistry, Nirmalagiri College, Kannur, Kerala-670701, has several research / characterization facilities . These are available at competitive rates, for use by Scholars.

To avail these facilities please write to Dr.Nygill Thomas at nygill@gmail.com.

Some facilities that may be of use to many of us...

- Powder X-ray Diffractometer (XRD) Rigaku Miniflex 600
- Simultaneous Thermal Analyzer, NETZSCH (TG-DSC/DTA Apparatus)
- FTIR with ATR, Agilent
- Fluorescence Spectrophotometer with Accessories, Agilent
- UV-Vis NIR Spectrophotometer
- Fume hood, Microwave and Induction Reactor, Magnetic Stirrers, Hot Plate
- Hydrothermal Bombs, Flame torch, pH meters, Oven
- Electrophoresis, High Speed Centrifuges, Cooling centrifuge, Deep Freezer, PCR

3.Interesting e-book on Research

The organisation called Typeset declares in their website as below:

As early-career researchers, where you choose to publish your work will impact your career advancement, funding opportunities and professional reputation for years to come. Getting this wrong can be a huge setback for your career. It is thus important that you analyze each aspect of journal submission instead of relying on one resource as your holy grail, be it word-of-mouth, journal finder tools, or other resources available.

In this extensive guide, we provide you with everything you need to analyze the quality, credibility, author experience and the overall reputation of journals — all in one place. So let's get started. (provided as Anx 3)

<https://www.typeset.io/blog/choosing-the-right-journal-a-comprehensive-guide-for-early-career-researchers/>

Lisa bought a donkey from a farmer for £100.
The farmer agreed to deliver the donkey the next day.

In the morning he drove up and said, 'Sorry , but I have some bad news. The donkey's died.'

Lisa replied, 'Well just give me my money back then.'

The farmer said, 'Can't do that. I've already spent it.'

Lisa said, 'OK then, just bring me the dead donkey.'

The farmer asked, 'What are you going to do with him?'

Lisa said, 'I'm going to give him off in a lottery prize.'

The farmer said, 'You can't do that with a dead donkey!'

Lisa said, 'Sure I can. Watch me. I just won't tell anybody he's dead.'

A month later, the farmer met up with Lisa and asked, 'What happened with that dead donkey?'

Lisa said, 'I gave him off in a lottery. I sold 500 tickets at £2 each and made a profit of £898.'

The farmer said, 'Didn't anyone complain?'

Lisa said, 'Just the guy who won. So I gave him his £2 back.'

Moral of the story: Making money is not at all difficult – if one is smart enough!



Mr/Kishore Babu
Schwing Stetter

Thanks & Regards –
Kishore Babu
HR - Department
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Limited*





Recently I got a call out of the blue from an old friend. He was a good friend, but haven't been in touch for a long time. He started the conversation enquiring about me, my family and what the children are doing etc. etc. And he also talked about how he misses those good old days. Then he says we must catch up and call me when you are in his town, let us meet for a cup of coffee or dinner or drink etc. He also said that I should come home.

And then before hanging up, he asked me – do you have the coordinates of one of our common friends and if so share his email and mobile or home number please? And I said sure, no problem, will WhatsApp the number right away.

And I put the phone down and started reflecting on the conversation and I understood exactly why he called. It was for that number. The opening bits about “how is the family and long time is, must catch up etc. somehow begin to feel artificial. I hit the auto-delete button on all those lines, because by the end, I figured out why he called.

May be this has happened to some of you. Or perhaps you find this conversation eerily familiar because you were the one who made that call. Yes? Well time then to change the batting order.

Next time when you call or write to someone for a favor- ask- right up front. Get to the point. And once that is out of the way, get down to asking about his or her work, family and catching up. This way, the other person knows exactly why you called. And once that is done, he or she will appreciate the time you are taking to talk about all other things. He or she will believe you when you say all you do.

On introspection of this – I am reflecting my thoughts – why do most of us get the sequence wrong? It is probably because of a feeling in our minds that we will seem to be rather Selfish, calling only when we need something kind of people if we ask for the favor right away. So we try and pave the way with a few minutes of small talk, and hope that the person will think that is really why we called.

But you know what? Other people are smarter than we think. They understand.

This happens in giving feedback too. We are uncomfortable giving hard feedback. We fear for the person's self-confidence. So we first lace it with some positive stuff- and then get to the point. How does the recipient feel? By the time you are done, he or she knows the intent of the conversation was the hard feedback. He or she thinks you said the other stuff just like that. Perhaps you did not mean at all.

It pays to be upfront. It builds trust. Candour adds to your credibility. Respect the other person's intelligence. By delaying getting to the point, you won't really achieve anything. People respect honesty. Just like you do.

Remember the good old days of limited over cricket? Even though the objective was to score quick runs, teams would play cautiously in the beginning, preserve wickets and then slog in the end. Jayasuriya and Kaluwitharana and Mark Greatbatch changed all that, and attacked from the first ball. And cricket was never the same again. Maybe there is a lesson there for us all.

Next time when you are writing a mail or making a call or asking for something, get to the point first. And then say the rest. Change the batting order! Try it and see the difference.

Wishing you most & more

Have a great day

R.Ramakrishnan