Newsletter

Volume 8, Issue 11, November 2018

Aspire

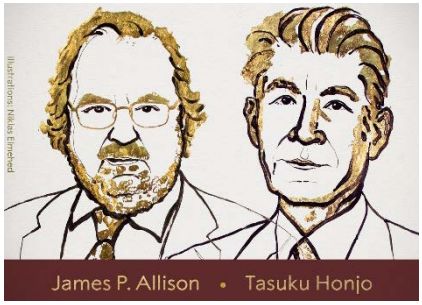
Mechanical Engineering

Achievements in Sports, Projects, Industry, Research and Education

All About Nobel Prize- Part 59

2018 Nobel Laureates

2018 Medicine Prize



Awarded to **James P. Allison** and **Tasuku Honjo** "for their discovery of **cancer therapy** by inhibition of negative immune regulation."

"We can cure cancer with it." Klas Kärre, member of the Nobel Committee, discusses the life-changing possibilities of this year's Nobel Prize awarded discovery - that different strategies for inhibiting the brakes on the immune system can be used in the treatment of cancer.

2018 Physics Prize

Awarded "for groundbreaking inventions in the field of **laser physics**" with one half to **Arthur Ashkin** "for the optical tweezers and their application to biological systems" and the other half jointly to **Gérard Mourou** and **Donna Strickland** "for their method of generating high-intensity, ultra-short optical pulses."

"It was a fun time in the field of short-pulse lasers." Donna Strickland never worked as hard or had as much fun as when she was performing the research that led her to the 2018 Nobel Prize in Physics. She is also the first female Physics Laureate in 55 years.

2018 Chemistry Prize

Awarded with one half to **Frances H. Arnold** "for the **directed evolution** of **enzymes**" and the other half jointly to **George P. Smith** and **Sir Gregory P. Winter** "for the **phage display** of **peptides and antibodies**."
The directed evolution of enzymes and the phage display of antibodies have allowed this year's Medicine Laureates to promote a greener chemicals industry, produce new materials, manufacture sustainable biofuels, mitigate disease and save lives.

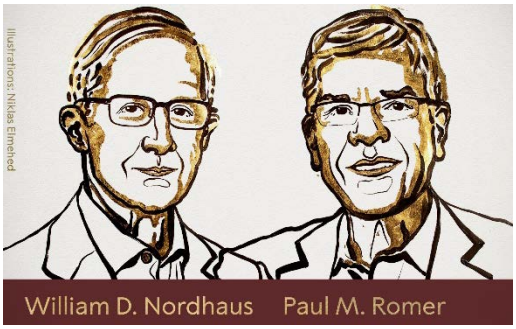
2018 Peace Prize

Awarded to **Denis Mukwege** and **Nadia Murad** "for their efforts **to end** the use of **sexual violence** as a weapon of war and armed conflict."

"I can see in the faces of many women how they are happy to be recognised." Denis Mukwege was performing his second operation of the day during his regular Friday clinic when he received the news that he had received the 2018 Nobel Peace Prize.

2018 Prize in Economic Sciences

Awarded to **William D. Nordhaus** "for integrating **climate change** into long-run **macroeconomic analysis**" and **Paul M. Romer** "for integrating **technological innovations** into long-run **macroeconomic analysis**."



"It's important that great technological ideas are spread to other countries." Per Krusell, member of the Prize Committee, explains this year's laureates' work on the causes and consequences of technological innovation and climate change.

Read More: https://www.nobelprize.org/

QUIZ!

Three new female laureates

This year three women have been added to the list of female laureates. Do you know when this last happened? Make a guess. Answer in the last page.

A) 2016 B) 2011 C)2009

Info to Alumni- Campus Update

Ayudha Pooja was celebrated on Wednesday, the 17th of Oct 2018.(Read more in the faculty write-up section)

A workshop on "Effective Leadership" was conducted for faculty on Oct 24, 2018. The training was conducted by Ms.Sara Kachwalla and Ms. Aishvarya Shah of "Heal Your Life" foundation.

To accommodate more first year students into NSS activity, Four additional NSS units have been proposed at SSNCE.

Two-Day International Conference on 'Inclusive and Equitable Quality Education in ELT' was organised jointly by the Departments of English, SSN College of Engineering and Anna University , during Oct 26-27.(Read more in the faculty write-up section)

External Recognition

Sathyajhit.S.S, Third Year, Mechanical Engineering, participated in the 43rd Yogasana Competition for national selection organised by Tamilnadu Yogasana Association recognized by Sports Development Authority of Tamilnadu and won 5th place in Athletic Yoga and 2nd place in Artistic Single. Prizes were given away by Tamilnadu Yoga State Secretary, Yogiraj Ramalingam [29, 30-09-2018]

Info to Alumni- Department Update

Dr.S.Sureshkumar conducted one day training for First year mech students, on "Design Thinking". (Details in the Annexure)

First year mech students were inducted into research, by mech faculty. Around thirty proposals have been submitted for internal funding. (Details in faculty write up section).

Dr.M.S.Alphin and Dr.S.Sureshkumar have been nominated as NSS officers, for the additional NSS units, that are being created.

Dr.G.Selvakumar and Dr.G.Satheeshkumar have been nominated as members of IQAC , a body that oversees quality improvement activities at the Institutional level.

Revision of syllabus is going on in full swing. Based on the revised curriculum, syllabus of various subjects are being scrutinised by focus teams (Sub-committees). Activity co-ordinated by Dr.M.S.Alphin under the guidance of Prof N.Nallusamy. (Details in faculty write up section)

External Recognition:

Dr. N. Nallusamy, Professor, was invited to review the following three technical papers for the IEEE-International Conference on Renewable Energy and Power Engineering (REPE 2018), to be held during November 24-26, 2018 in Toronto, Canada. [06.10.2018]

1. Paper ID 13: Enhancing the efficiency and technology of community kitchen for 5500 persons through Scheffler solar concentrator.
2. Paper ID 16: Improvement of thermal stratification inside a solar hot water storage tank during discharging process.
3. Paper ID 19: Performance investigation of exergy of VCRS working with liquified petroleum gas (LPG).

Dr.D.Ananthapadmanaban completed the second review for the paper- Density Effect of PTFE-Copper Powder Metallurgy Liner Material on the Perforation Performance of Shaped Charge Jets to be presented in CMSE 2019 International Conference to be held in Xian,Shangai during November,2018 [01.10.2018]

Paper titled Correlation between Mechanical Properties and Microstructure of Fe-Ti-Zn alloys fabricated by Powder Metallurgy authored by D. Arthur Jebastine Sunderraj(Part Time Research Scholar), D.Ananthapadmanaban, K. Arun Vasantha Geethan, S.Vijayananth, Dept of Mechanical Engineering has been accepted for poster presentation at AIMTDR International Conference to be held at Anna University during December,2018. [24.10.2018]

Dr.K.S.Vijay Sekar, Asso.Professor, edited a book titled " Advances in Manufacturing Processes" as part of the ICEMMM2018 Conference Book series " Lecture notes in Mechanical Engineering" published by Springer Nature, which is indexed in Scopus, with ISBN: 978-981-13-1723-1. The co - editors are Dr.Manoj Gupta, NUS and Dr.A.Arockiarajan, IITM. [26.10.2018]

Dr. M S Alphin, Associate Professor/Mech., was invited to review a paper for journal: Optics & Laser Technology, ISSN: 0030-3992, Elsevier.[04.10.2018]
Dr. Alphin M S, Associate Professor/Mech. served as a Doctoral committee member for the Presynopsis DC meeting of Mr. K John Joshua held at Karunya Instutute of Technology and Science, Coimbatore.[09.10.2018]

Research Publications

Dr. D.Ananthapadmanaban Assoc.Prof./Mech., published the following list of papers:

1. Preparation, Hardness studies and characterization of 88 Sn-7.5Zn-2.5Al-2In and 88 Sn-7 Zn-2Al-2.5 In Lead free soldering alloys in the in the journal of IOP Conf. Series: Materials Science and Engineering 402 (2018) 012159 doi:10.1088/1757-899X/402/1/012159 - (Indexed in Scopus.) Co-authors: Arthur Jebastian Sunderraj, Arun Vasantha Geetha. [01.10.2018]
2. Development of an expert system to monitor casting defects in Foundries in Springer Lecture Notes in Mechanical Engineering,pp101-109. Co-author: Amratya Kartik[01.10.2018]
3. Corrosion Studies on Friction stir welded Aluminium Alloy to Copper with Nickel interlayer in Springer Lecture Notes in Mechanical Engineering,pp283-297. Co-authors: E.Ravikumar,N.Arun Kumar ,V.Prabhakar [01.10.2018]
4. Comparative Hardness Studies and Microstructural Characterization of 87Sn-7Zn-3Al-3In and 87.5Sn-6Zn-2Al-2.5In Lead free solders in Springer Lecture Notes in Mechanical Engineering,pp 311-323. Co-authors: Arthur Jebastian, Arun Vasantha Geethan [01.10.2018]

Dr. A. S. Ramana (Asso Prof/Mech) published an article on “A Review on the Process Intensification Principles Applied to Solar Stills” in International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) Vol. 8, Special Issue 7, Oct 2018, 550-559 Co-authors: Hemanth Kumar, Suresh Kumar, Logesh Perumal, Manigandan.R, Methun.T [13.10.2018]

Dr. N. Nallusamy, Professor, published a technical paper titled "A review on combustion, performance and emission characteristics of reactivity controlled compression ignition (RCCI) engine" in the International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), Vol. 8, Special Issue 8, Aug 2018, 1-8. Co-author: Mr. M. Senthamil selvan, Velammal Engineering College, Chennai. [15.10.2018]

DC Meeting

Dr. N. Nallusamy, Professor, conducted the DC meeting for the part-time research scholars:

- Mr. R. Balaguru (18135997133) to recommend course work subjects to be undertaken by the scholar. [04.10.2018]
- Mr. V. Venkatesan to review the research progress of the PhD scholar. [15.10.2018]

Part time Ph.D., scholar Mr. Karthikeyan B, working under the guidance of Dr. K. Babu, Associate Prof./Mech, presented his seminar talk on "Experimental Investigation on The Effect of Nanofluids as a Coolant for Minimum Quantity Lubrication (MQL) in the Grinding of AISI 4340 Steel" in the Department of Mechanical Engineering. Subsequently the Doctoral Committee meeting was conducted. [30.10.2018]

Dr. M S Alphin, Associate Prof./Mech., Convened Doctoral Committee meeting for Full time Scholar Mr.Jain.A.R.Tony to discuss on thesis review comments and to assign Viva examiner panel. Dr. Dinakaran, Professor, Hindustan Institute of Technology & Science, Chennai and Dr K Rajkumar, Asso. Prof./Mech, SSN were present for the meeting. [01.10.2018]

Department Activity

Dr. M S Alphin, Associate Professor/ Mech. Convened Syllabus review meeting for B.E Mechanical Engineering (Autonomous) under the guidance of Dr. Nallusamy (Professor In-charge/ UG Syllabus) and Dr. Annamalai, Head of the Department. Faculty presented the syllabus stream-wise and the suggestions were recorded. [13.10.2018]

Workshop/Program Attended

Dr. M S Alphin and Dr. Vimal Sam Singh, Associate Professor/Mech., attended National Service Scheme (NSS) Program Officers Meeting conducted at Anna University, Chennai. They were nominated by SSN College of Engineering as new Program Officers for NSS. [25.10.2018]

Dr. Vimal Sam Singh

Dr M S Alphin, Dr. Satheesh Kumar G and Dr. Selvakumar G, Associate Prof./Mech., attend a National level Workshop on "Digitizing Higher Education for quality enhancement and teaching, learning and research organized by Vellore Institute of Technology, Vellore. [22, 23.10 2018] (More details in the faculty write up section.)

Industry Interaction

Dr. N. Lakshmi Narasimhan was invited for a Technical Discussion by Mr. Suresh, AGM Preethi Kitchen Appliances, Ponmar, Chennai. [15.10.2018] (Details in faculty write up section).

Student Activity

Pratheeshh Kumar, 4th Year Mech, won first prize in general quiz in Madras Medical College. [23-09-2018]

Ph.D. Viva-Voce Notice

Ph.D. Viva-Voce Notice

Title	Investigations on the influence of handle shape and size to overcome the vibration discomfort
Venue	Mechanical Engineering Seminar Hall, SSN College of Engineering
Date	08-11-2018 (Thursday) at 10.00 AM

B Jain A.R Tony
Research Scholar

Supervisor

Dr. M S ALPHIN,
Associate Professor, Mechanical Engineering.

Faculty Write up

Prof.VeA writes…

India Opens Centre for Fourth Industrial Revolution.

Source: https://www.narendramodi.in/pm-modi-inaugurates-centre-for-fourth-industrial-revolution-541840

As the world's largest democracy and the country with one of the highest number of scientists and engineers, India is a key political, social and economic player that will shape the course of the Fourth Industrial Revolution

As it prepares to embark on a massive digital transformation, India's ability to fully capitalize on the emerging technologies of the Fourth Industrial Revolution will be one of the leading drivers of global prosperity and peace in coming decades. To ensure India's success in this capacity, the creation of a Centre for the Fourth Industrial Revolution in India dedicated to the Fourth Industrial Revolution was announced by Prime Minister Narendra Modi on 23 January 2018 at the World Economic Forum Annual Meeting.

As promised, this centre was opened on Oct. 11, 2018. The Prime Minister, Shri Narendra Modi, attended, and delivered an address at the event to mark the launch of the Centre for the Fourth Industrial Revolution.

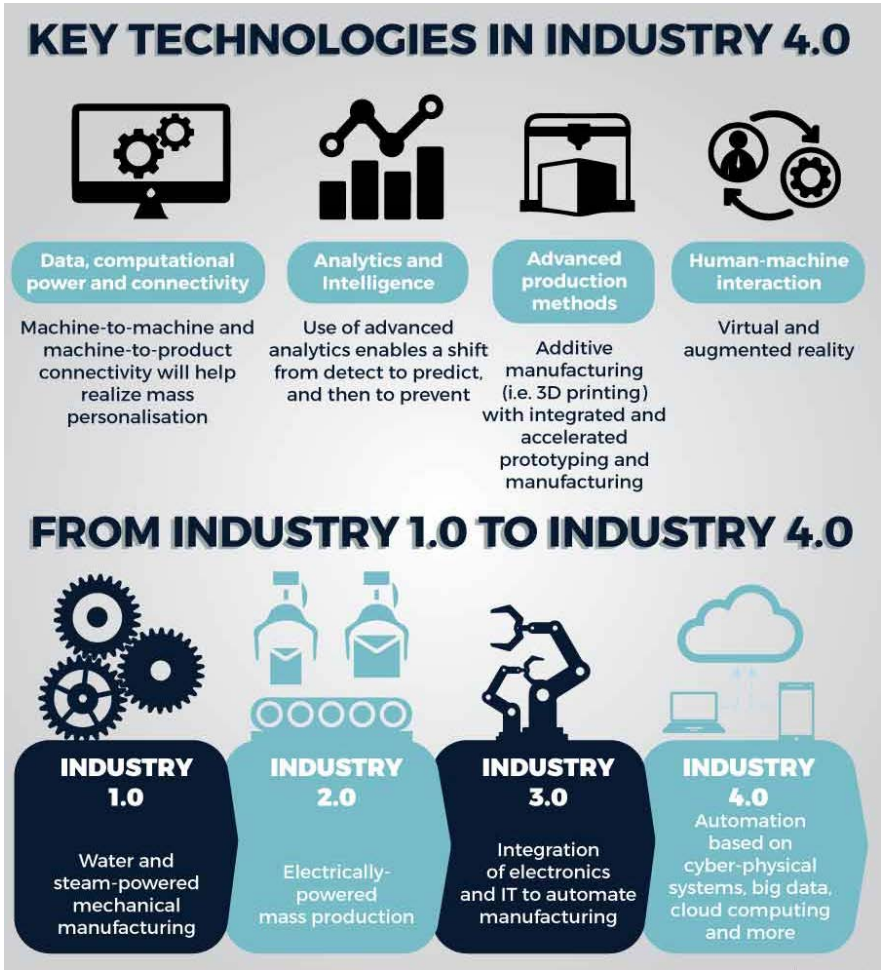
He said the components of "Industry 4.0" actually have the ability to transform the present and future of human life. He said the launch of this Centre, the fourth in the world after San Francisco, Tokyo and Beijing, opens the door to immense possibilities in the future.

He said emerging fields, including Artificial Intelligence, Machine Learning, Internet of Things, Blockchain, and Big Data, can take India to new heights of development, and improve the quality of life of its citizens. He said that for India, this is not just an industrial transformation, but a social transformation. He said Industry 4.0 has the strength to drive irreversible positive change in India. He added that it will help bring the required speed and scale to work being done in India. Watch the speech at https://youtu.be/5nte9rQfApg

The Prime Minister mentioned how the Digital India movement has brought data to villages of India. He explained how tele-density, internet coverage, and mobile internet subscriptions have increased in the recent past. He spoke of the rapid growth in number of Common Service Centres in India. He said that India has the highest mobile data consumption in the world, and is also the country where data is available at the lowest price. In this context he spoke of India's digital infrastructure, and its interfaces including Aadhaar, UPI, e-NAM, and GeM. He said that a national strategy for creating a robust infrastructure for research in Artificial Intelligence has been prepared a few months ago.

He said this new Centre will strengthen this process. He said that Industry 4.0, and the expansion of Artificial Intelligence, would lead to better healthcare, and reduce expenditure on health. He said it would also help farmers, and be of immense help in the agriculture sector. He mentioned other areas such as transportation and smart mobility, where it could play a key role. He said that as work progresses in India, in these areas, one of the targets is "Solve for India, Solve for the World.

What is Industry 4.0?



Technology is evolving faster than ever, and as it continuously changes, the world changes along with it. As we enter the era of the Fourth Industrial Revolution, it is important for people to come together to ensure that such technologies are used to benefit mankind.

The emerging technologies do not come without their risks. One of the major concerns for many is privacy. Controversies against Facebook in the past reveal that our data may not be so secure after all. Aside from that, developments in artificial intelligence (AI) and robotics show that there is a potential that such technologies could displace millions of jobs. A new study forecasts that by 2030, as many as 800 million jobs could be lost worldwide to automation.

How the risks of technology are mitigated and their benefits distributed evenly requires robust governance, one that is prepared to spearhead policies into the 21st century. Governance must be stable, interoperable, predictable and transparent enough to build confidence among investors, companies, scientists and the general public, but also agile enough to remain relevant in the face of rapid advances in technology.

However, this is not the case in most countries. Policies surrounding technology is often outdated or disproportionate with some areas regulated heavily while others are barely even recognized.

Seeing this need for a hub to bring together various people from different fields, the World Economic Forum (WEF) has set up a Centre for the Fourth Industrial Revolution in four countries – the United States (US), Japan, China and most recently India. These Centres act as a space where leading technology companies, dynamic start-ups, policy-makers, international organizations, regulators, business organizations, academia and civil society can collaborate to develop the agile policy norms and partnerships needed to stimulate the enormous potential of science and technology, deliver rapid growth and generate sustainable, positive impact for all.

This part reproduced from
https://theaseanpost.com/article/indias-new-fourth-industrial-revolution-centre

For more info on projects, pl refer https://weforum.ent.box.com/s/m6flkyngp785b5e458h9cu64422xj815

Faculty Write up

Prof. VeA writes…

Just had a chance to attend the inaugural function of the Two-Day International Conference on 'Inclusive and Equitable Quality Education in ELT', organised jointly by the Departments of English, SSN College of Engineering and Anna University on Oct 26.
--- VeA

Prof. Alan Maley, internationally renowned Author, inaugurated the conference and shared his thoughts on, 'Why do I believe what I believe about language learning and teaching?

Even though it was about language teaching, the issues discussed were how to engage students and make the learning happen. So, tips and techniques discussed, were applicable to teachers of all subjects.

He made a hilarious remark on how teacher's role is getting more bureaucratic in maintaining records for administrative purposes. He also gave an impressive list of books that made an impact on him.

Above all, his poetic reflections were very catchy:

It is not just what you know.
We learn our teachers, not just what they teach
So, let's be sure that we practice what we preach.

Students don't care how much you know,
Till they know how much you care.

Alan Maley worked for The British Council from 1962 to 1988, serving as English Language Officer in Yugoslavia, Ghana, Italy, France, and China, and as Regional Representative in South India (Madras).

From 1988 to 1993 he was Director-General of the Bell Educational Trust,Cambridge. From 1993 to 1998 he was Senior Fellow in the Department of English Language and Literature of the National University of Singapore.
From 1998 to 2003 he was Director of the graduate programme at Assumption University, Bangkok. He is currently a freelance consultant, and Series Editor for the Oxford University Press Resource Books for Teachers series.

Alan Maley

His publications include Resource Book for Teachers: Literature, Beyond Words, Sounds Interesting, Sounds Intriguing, Words, Variations on a Theme, and Drama Techniques in Language Learning (all with Alan Duff), The Mind's Eye (with Françoise Grellet and Alan Duff), Learning to Listen and Poem into Poem (with Sandra Moulding), Short and Sweet, and The English Teacher's Voice.

Later, there was a panel discussion on

How to enhance Learner Motivation in the Teaching of English at the Tertiary Level?'

Panel Discussion

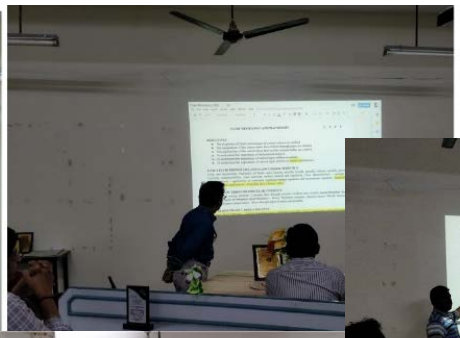
Faculty Write up

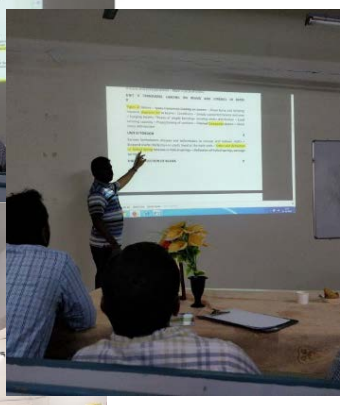
Dr. M. S Alphin Writes…

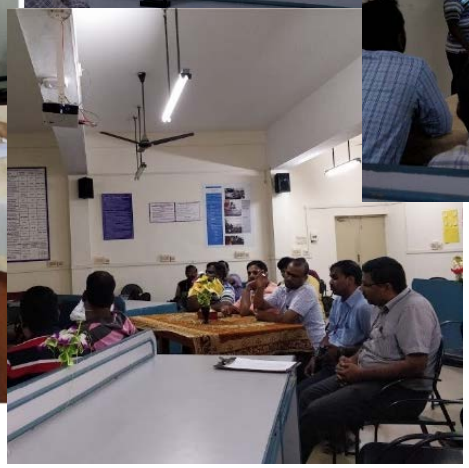
Dr. M S Alphin(Asso. Prof/Mech), convened B.E Mechanical Engineeering Automomous Syllabus review meeting on 13 Oct 2018 under the guidance of Dr. Nallusamy (Professor Incharge- UG Syllabus) and Dr.Annamalai (HoD/Mech.).

Faculty presented the syllabus prepared and uploaded in team drive by them in teams of their specialization. The session started with Thermal team followed by Design Team in FN and Manufacturing/ Industrial Engg Team presented their syllabus in AN.

The sessions were brainstorming with lot of emphasis on design thinking in the syllabus. The HoD was available for monitoring all the presentations.







Faculty Write up

Dr. S.Suresh Kumar Writes…

Inspiring Research through Information Sharing (IRIS)

Dr. S. Suresh Kumar has delivered a guest lecture titled **"Innovative New Product Research and Mechanical Engineering Failure Analysis"** to HCL- Tech BEE students on 26th October 2018.The lecture mainly covered the various mechanical engineering failures caused by loadings such as fatigue, impact, tensile and corrosion. Guidelines were discussed towards innovative new product development for rural peoples, automotive riders and physically handicapped peoples. In addition, the success stories of Valeo projects were shared to them in order to motivate the concept of team work and research innovation among them.

Faculty Write up

Dr. A. K. Lakshminarayanan(asso.prof/Mech) writes…

Dr.AKL

The Mechanical Engineering Department celebrated 'Ayudha Pooja' on the 17th of October 2018. The staff members gathered in the Workshop and participated in the celebration.

Faculty Write up

Dr. NLN writes…

Workshop on "Effective Leadership" held on 24.10.2018
"Small Changes can drive for a Big Change"

Ms. Sara A. Kachwalla, Certified Professional Coach, Ms. Aishvarya Shah CEO & Chief Trainer and also formal members of the International Academy for Leadership (IAF) were invited as resource persons for a one day workshop on "Effective leadership" exclusively for the faculty members of SSN at our campus on 24th Oct, 2018 between 10.00 a.m and 12.30 p.m.

The workshop commenced with a formal introduction of the two experts to the participants followed by the events that were exceptionally handled by both the experts throughout the session. The workshop ensured every participant to practically realize the "leader within" in a short span of time. A short video on how small changes could drive for a bigger change both in personal as well as at organizational level, captured the entire audience. Truly emotional and inspirational video message!!

The activities were well designed to make it lively, interactive and interesting involving every individual throughout the programme.

As Task-1, the participants were first asked to write down three major roles that they would like to take up in future in line with the growth of SSNCE. Then every individual was asked to interact with any one member and was asked to discuss with each other their roles given a span of 10 minutes. Following that, the cards with roles written by the members were exchanged and discussed among the entire members for about 5-8 minutes.

The next task (Task-2) involved the formation of about six groups and choose/recommend the right roles that would suit SSN from the list of roles that each of the teams had. Each group had a list of about 18 roles with them, out of which, the group had to select as many roles as possible that would suit SSN or reject as many as those not suited.

Ms. Sara through formal discussion, did a great job identifying all the upvoted roles under six unique categories or titles viz. 1) Formal Leaders 2) Game Changers 3) Self Leaders 4) Social Worker 5) Mentor and 6) Entrepreneur. Assuming SSN as a full circle or Wheel, Ms. Sara made each of the six titles represented as a spoke of the "SSN Wheel". The whole idea was to find out whether the wheel was balanced by the six spokes or not?

Each group was asked to pick among the six identified titles, a title of their choice. The groups were asked to make a brainstorm with their team members to come out with a proposed list of activities under the chosen title. It was made as a clear instruction that the proposed activities should be realizable/achievable that could contribute to the future growth of SSN. A nominated member from each group was given about 45 seconds to present on behalf of their team, the consolidated action plan based on their listed activities.

As a final task, each group had to rate all the six titles on a 1-10 point scale considering the current position of SSN specific to the titles. Ms. Sara and Ms. Aishvarya jointly assessed the ratings given and the average rating for each of the titles were marked on the spokes of the SSN Wheel. While the centre of the circle represented a zero scale, the extreme of each spoke represented a perfect "10". The points obtained based on the averaged ratings were joined to check for a perfect circular pattern (which is a representation of a balanced wheel). Though the pattern obtained was non-circular, the take-away from the workshop was the great attitude and feel of *how one could really contribute more towards the growth of SSN* as a whole, no matter big or small the quantum of commitment be. ***Even a Small Change can lead to a Big Change*** was the hidden lesson learnt.

Truly exceptional workshop and thanks on behalf of all participants to the two invited trainers, Organizers of the workshop and SSNCE.

Faculty Write up

Dr. N. Lakshmi Narasimhan writes…

Industrial Interaction

Preethi Kitchen Appliances Ltd., Ponmar, Chennai

Date: 15/10/2018 Venue: Company

Members Present

1. Dr. N. Lakshmi Narasimhan, Associate Professor/Mech, SSN Coll. Engg., Kalavakkam-603110.
2. Mr. S. R. Suresh, DGM (Engg. & Maintenanace), Preethi Kitchen Appliances, Chennai.
3. Mr. Parthiban, Endurance Lab, Preethi Kitchen Appliances, Chennai.

Summary:

Post the signing of an MOU with Preethi Kitchen Appliances (PKA) Ltd. (Chennai), the interaction with the company has been going great. Four of our faculty members and four UG students are currently engaged in different projects with the company. Shall share the experiences on the projects to Aspire readers on a later date.

Heartening to state that PKA has always been supportive involving our faculty members for joint project assignments attempting challenging industrial problems. In line with the context, Mr. Suresh (DGM, PKA) had invited Dr. N. Lakshmi Narasimhan for a technical discussion on a project related to thermal management. The discussion happened on Oct 15, 2018 at their premises. There exists a bright scope for involving students too as interns with full support of PKA on the execution of the project.

More interactions with PKA are expected in the roll and I am happy to extend my sincere thanks to the department as well as the institution for the support towards our Industrial interactions. Through the experience thus far, it is my personal opinion to share with the academic fraternity that at some point of time, frequent visits of faculty members to industries would become a priority and no doubt every visit would also become a game changer. Great opportunity for learning happens either side when the boundaries are crossed. My humble thanks to SSN and Preethi Kitchen Appliances Ltd. (Acquired by Philips India Ltd.) for the support.

Faculty Write up

Mrs. R.Rajeswari, AP/Mech, writes…

Efforts in getting first year inducted into research

When I was asked to co-ordinate first-year mech students internal project by HOD, I thought for a while and then accepted to do it as we have to handle kids out of school moving towards UG.

First, we decided to meet students of each section separately to brief on Internal Funded project. Then we changed the plan to meet all of them together. Hence a meeting was arranged on 5th October 2018 between 11.30am to 12.30 am at mini-auditorium.

HOD explained the advantages of doing a project at the earlier stages of under graduation and he briefed on the salient features of doing a project in SSN. Finally, he elaborated on various streams of mechanical engineering like manufacturing, materials, design, thermal, etc. and availability of projects with mech faculty.

Students were advised to form groups of not more than four in each group and register their batches according to their interest on which stream they would like to work.

At the end of the meet, students got excited and came to me to register their batches for submitting proposals.

Then, a request was sent to the faculty to suggest project ideas that students could pick up. Many faculties came up enthusiastically, with several project ideas. The interested faculty and interested students discussed and came up with a selection of projects suitable to the groups.

Totally 125 UG students have turned up with 31 projects. (This is approximately 70% of the total mech student strength). 4 PG projects have also been submitted, from first-year PG.

Finally, it was possible just because, our faculty was forthcoming readily with their project ideas to the students which enabled HOD to accommodate all the batches to their expectation.

That was a great experience. Initially, students were asking questions like “Madam, what is the difference between manufacturing and design?”. Now, in mech department, we have submitted 35 first-year student internal project proposals.

Faculty Write up

Dr M S Alphin writes…

IQAC NATIONAL SEMINAR

Dr M S Alphin, Dr G Selvakumar and Dr G Satheesh Kumar attended a National level Workshop on "Digitizing Higher education for quality enhancement and teaching, learning and research on 22-23rd October 2018" organized by IQAC, VIT, Vellore.

Prof. Jagannath Patil (Advisor-NAAC), Ashwin Fernandes (Reg. Director, QS Intel. Unit) and Prof. Nazi Nalim (Purdue University, USA) are some of the experts who shared their sessions in the workshop. The learning outcomes are shared here. The following major concepts were discussed in detail during the entire length of the event:

- NAAC guidelines on Ranking and Digitization
- Digitization of Placement & Training process
- Flipped classroom: From being Teacher-centric to Student-centric learning
- Is digitization really needed?
- Digital Library
- Research strategy using Digital tools
- Case studies on online laboratory
- MOOC framework and Pedagogy

All the speakers were from premier institutions like IIM, IIT, NITTTR and International Ranking agency. The Digital initiatives taken by the host institute was discussed in detail and it was one colossal task that they have meticulously and successfully developed from scratch to finish. Initially TCS was helping them out and later they opted out due to the dynamism of the requirements from VIT. So, the entire ERP system was developed by their internal cell constituted for this purpose. The admissions of 26000 students, their history of data, progress in academics and other domains, placements, alumni and other stakeholder's interaction are executed through their ERP. The transition of teacher's role from being **"Sage on the stage"** to currently being **"Guide by the side"** was also extensively discussed.

Dr M S Alphin, Dr G Selvakumar and Dr G Satheesh Kumar at VIT Vellore.

Faculty Write up

Training on MATLAB and Tool boxes
Report by Dr. K.S. Vijay Sekar, Associate Professor, Mechanical Department

Dates: 11th and 12th October
Venue: SSN School of Advanced Career Education
Time: 10 AM to 4 PM

The SSN School of Advanced Career Education, under the guidance of Dr. SV Albal, organized a 2 day workshop on MATLAB and SIMULINK, with the trainer from Design Tech. The training was attended by Dr.K.S.Vijay Sekar, Dr.S.Suresh Kumar, Dr.S.Somasundaram and Mr.Giridharan of the Mechanical Department. The training started with an introduction on the basic tools and menus available in MATLAB and SIMULINK and how to get access to the campus wide networking license that has been procured by SSN Management for the benefit of the Teachers and Student community, who can access it while inside the campus 24x7. The sessions focused on basics of the various tools and its navigational paths and specific queries by attendees on the use of tools for electronic and mechanical applications were addressed. The program was well arranged and conducted by the SSN School of Advanced Career Education. We wish to thank the organizing team and hope for more hands-on sessions in the near future from the MATHWORKS and Design Tech teams in specific areas of modelling and simulation pertaining to the Mechanical field.

Dr.K.S.Vijay Sekar, Dr.S.Somasundaram, Dr.S.Suresh Kumar and Mr.Giridharan in the Training

Faculty Write up

Dr. NLN writes…

Introducing Placement Coordinators of Batch 2020

As a department placement faculty coordinator, pleased to announce and introduce the upcoming Placement Coordinators of 2020 Batch. Though, it appears a bit early, we in the department consider placement activities to be very critical and challenging for each and every student. That needs a tremendous amount of planning, preparation, exhibition of leadership and many more. So, 2020 batch has already geared up for the event and formally the batch announced their Placement Coordinators to take care of the placement activities on their behalf. We consider placement coordinators as emerging leaders and one among the strong pillars of the department. *Welcoming aboard the "Game Changers" with wishes for reaching Placement Milestones in style.* All the Best for all the students of our department and hope the trend set by the senior Placement Coordinator's of Mech shall be followed and benchmarked by the new arrivals. Self and the four placement coordinators would like to thank the students of 2020 batch (presently in Third Year) for the selection. Due thanks to HOD/Mech and all faculty members for the kind and extensive support.

- Dr. N. Lakshmi Narasimhan, Associate Prof & Faculty Placement Coordinator/Mech

The four Placement coordinators and their voices.....

Mech A 3rd year

M AJAY KRISHNAN (312216114006)
I will focus on inviting more companies for placements and ensure that my classmates get placed.

A R BHUVVAN TEJA (312216114028)
I will be supportive to each and every student in all aspects and help them in getting placed in core companies.

Mech B 3rd Year

MOHINISH KUMAR P K (312216114066)
I will work towards ensuring good placements for all my classmates keeping their best interests at heart.

RAHUL B (312216114083)
I will work hard towards good placements and help my fellow mates with all that is required from my side to ensure it.

Student write up

Placement Write-up

-Debal Bhattacharjee
4th Year
Mechanical Engg.

I got placed in Hyundai Motor India Limited (HMIL) for the role of Graduate Engineer Trainee (GET). HMIL is a wholly owned subsidiary of Hyundai Motor Company. It is the second largest automobile manufacturer in India and the largest exporter of passenger cars.

Here is a brief write-up about the whole process.

Round 1: Online Test

The test was conducted on the AMCAT portal at our campus. There were seven sections- Quantitative Reasoning, Logical Reasoning, Verbal, Domain-based, Psychometric, Work competency, Motivation Evaluation. Each section had a time limit which was sufficient enough for that respective section.

The subsequent rounds were held in Rajalakshmi Engineering College (REC) as a pool campus recruitment.

Round 2: Group Discussion

Every group consisted of 13-15 members. We were given the liberty to choose our topic of discussion. We chose the topic – 'Is India ready for a cashless economy?'. 8 out of 13, from our group, went to the next round.

Round 3: Presentation

We were asked to prepare a Powerpoint presentation about ourselves. Maximum of 3 slides were to be presented within 3 mins. 8 students were called in a group and asked to present one by one. They were looking for confidence and creativity in the presentation. All 8 from our group got shortlisted for the next round.

I would advise the future aspirants to prepare the presentation in advance as it takes a significant amount of time. End of the 3rd round, 12 students were shortlisted for the Domain interview.

Round 4: Domain Interview

The panel included 3 interviewers. Questions were asked from projects, internships, and areas of interest. I was also asked a few common HR questions.

Four students were selected from this round.

Round 5: HR interview

It is the longest interview I have ever faced. It went on for forty-five minutes and I was asked situation based and behavioral questions. My answers were honest to a certain extent and included facts and figures about the company, their core values and how I align myself with these values. Few of the questions were really tricky and I was cautious while answering them.

Overall it was a very hectic process and our patience was tested very well.

Notes:

1. Better to be ready with presentation after the test.
2. A detailed research about the company would help in both the interviews.
3. Confidence, patience, honesty and diplomacy are the key attributes.

Student write up

Placement Write-up

-Karthikeyan G
4th Year
Mechanical Engg.

I recently got placed in Wabco for the role of Graduate Engineering Trainee. They had organized a pool campus drive where students from SSN, Crescent and CIT participated. Unlike most companies, the first round was a group discussion. The topic given to my group was to discuss solutions to resolve the Kashmir issue between India and Pakistan. The discussion went on for about twenty minutes between ten people. The key to clear this round is to make valid and diplomatic points in the few chances you get that can create an impact. The second round was an online test. The test was to asses our numerical, logical abilities and technical knowledge. The difficulty level was moderate compared to most core companies. The next rounds were scheduled for the next day. The third round was a technical interview. The Questions, in this round, were mainly from my projects. The interview went on for about forty-five minutes. The next round was an HR interview. The idea behind the HR interview is to assess your behavior and how you'll fit in the company. After that, we were asked to take a psychometric test followed by a telephonic interview with the HR head of Wabco India, the next day. Two days later the results were revealed. Three students (one from each college) were selected.

Key points:

- Brush through all your basic core subjects. (SOM, Thermodynamics, Manufacturing Technology, Metallurgy, etc.)
- Have a general awareness of important issues around the world.
- Know everything about your projects and internships.
- Use orthographic views and formulae while explaining concepts.
- Research about the company, their products, services, location of plants, etc.
- Listen to the pre-placement talk carefully.

Student write up

Saint Gobain Internship Write Up

Vinaya Krishna, III Year Mechanical

Between the 9th and 12th of October, I got the opportunity to take part in the Saint Gobain Internship Drive. Saint Gobain is regarded to have one of the most rigorous recruitment processes among the companies that visit our campus.

It was a three-step selection process which included an Online Test, a Group Dynamics round and, lastly, a Technical and HR interview. The first round was the Online Test, which was for a maximum duration of three hours and tested the candidate's logical reasoning, quantitative and technical aptitude. I found the technical section of the test to be relatively harder as the questions covered all branches of engineering.

The shortlisted candidates from the first round were split into two groups for the Group Dynamics round. In this round, we were given a problem-solving task. There was a puzzle we had to collectively solve. Each member of the group was given three distinct clues, which we could only share verbally with the rest of the group. The focus of this task was to gauge how effectively we could communicate and our ability to be a team player.

Being one of the four selected for the final round, the next hurdle was the Technical and HR interview. The interview was a 35 minute long and strenuous one. I was asked to talk about the internships I had done and other co-curricular activities. The technical questions revolved mostly around my resume. The HR Manager asked me about my short-term and long-term career plans, personal values and beliefs, etc.

This was my first step into the exhausting world of placements and, overall, it was a wonderful learning experience. I'd like to thank Dr.N Lakshmi Narasimhan Sir and the 3rd and 4th year student placement coordinators for their support.

Student write up

BYJU'S Placement Report **-** Arumai Seelan, Final year,Mech

I got placed in **BYJU'S** for the role of **Business Development Associate (BDA).** BYJU'S – The Learning App is the popular brand name for **Think and Learn Private Ltd**., a Bangalore based educational technology (ed tech) and online tutoring firm.

There were **two rounds** in the selection process. Here is a brief writeup about the whole process.

Round 1: Group Discussion

Totally 240 students attended the process and we were split in to 12 groups (20 students per group). We were given a choice that we can select the topic or else the HR will give us one. The topic which we had was – **'Is protection and care needed for Seven Sisters'.** The Group discussion went on for nearly 15 minutes and I was the **only person** from my group to get selected for the next round.

The 7 states located in the easternmost North east region of India (Assam, Arunachal Pradesh, Manipur, Meghalaya,.Mizoram, Nagaland and Tripura) are called as Seven Sisters of India. More info: https://vicinito.com/posts/why-are-the-north-eastern-states-called-seven-sisters/8592

Round 2: HR Round

After the group discussion, totally 12 (out of 240 students) got selected for the HR Round. I had an interview for about 10 minutes. Initially it was like a stress interview where I faced few typical technical questions. After that they tested my marketing skills and involvement towards the company.

Explaining my activities done in **SSN YRC CLUB, INVENTE** and I**NSTINCTS** helped me a lot while they tested my marketing and management skills.

Things you should know:

1. Current affairs and General Knowledge. **(For GD)**
2. Few marketing techniques (like sell me a pen, water bottle, etc).
3. Crispy ideas on activities that you have done related to marketing and management during your college or school days.

Tips:

1. Try to impress the HR during the Group discussion by giving a head start with a crispy talk related to the topic.
2. Speak with Confidence during the HR round even if you don't know the answer for any technical questions.
3. Mention any activities or works related to marketing and management that you have done during your college days.
4. Do not panic, maintain your cool in stress situation.
5. Be well prepared.

Questions asked during the HR Round:

1. State Zeroth Law of Thermodynamics.
2. State Second Law of Thermodynamics.

3. What does Bernoulli's equation relate?
4. Explain about enthalpy and entropy.
5. Why do you choose marketing while you have your degree in mechanical engineering?
6. Give three solid reasons for me to select you in Byju's.
7. Don't your parents oppose you for choosing marketing and management job instead of having core jobs?
8. Explain about your Presidency in SSN YRC Club.

Student write up

IRIS write-up

A report by B. Yuvaraj and S. Gayathri

We are studying Mech-automation Engineering under the course Tech-bee. We would like to share our experience of Dr. Suresh Kumar sir's IRIS class. His speech started in an inspiring manner by showing pictures and asking us to spot the animals in the picture. By this activity, he made all of us focus on the topic. He told us that focusing on activities will change our lives.

He also explained about teamwork with real-time examples. The main moto of Suresh sir is that all students should start innovating in their way of interest. He explained lots of innovations made by SSN mechanical students and about projects that won numerous competitions.

He explained about the company's testing mechanism and innovation like Willie, Fantassy, Pilomat and showed other videos. He finally explained about failure analysis and strength of materials in detail.

Finally, he said, "Anyone having an innovative idea, please meet me to find a proper way of converting your innovation into a successful project".

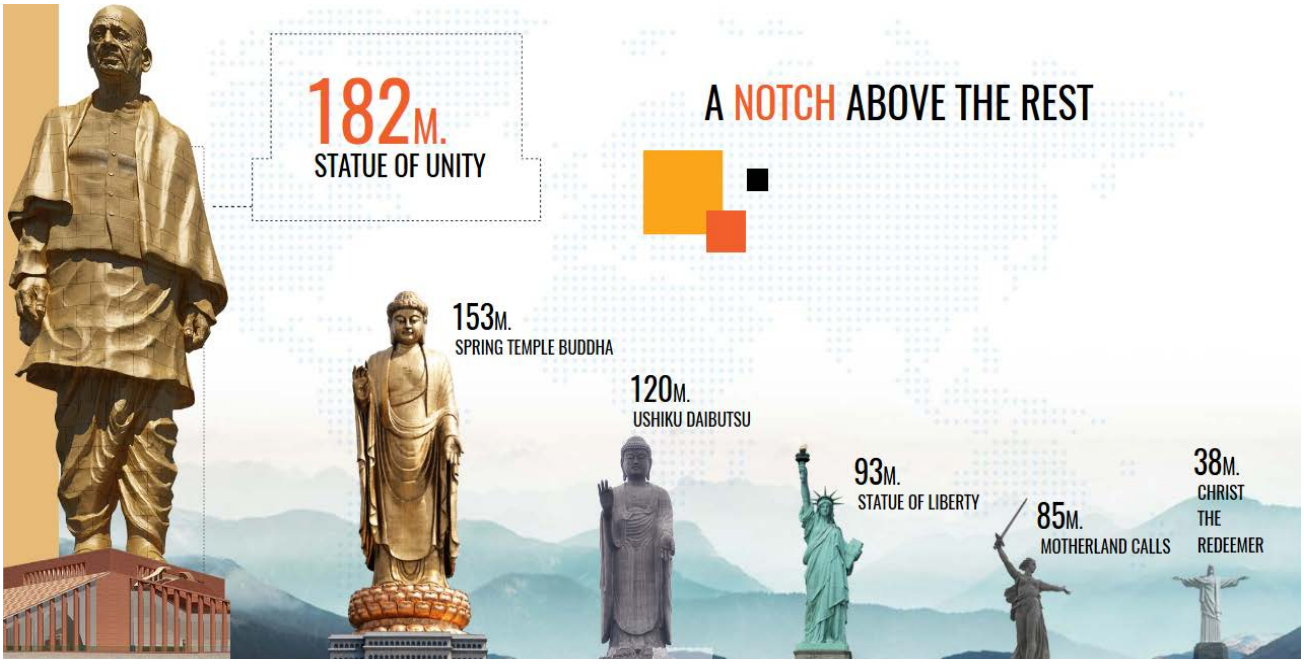
We have started brainstorming ideas for projects to solve important issues.

B. Yuvaraj

S. Gayathri

World's tallest statue comes up in India

An iconic 182 meter tall statue, a tribute to the Iron Man of India, is being built at the Sadhu-Bet Island, approximately 3.5kms south of Sardar Sarovar Dam at Kevadia in the Narmada district of Gujarat. A 3.5 km highway will be built to connect the island to Kevadia town in Gujarat. Work taken up by L&T, started in 2013.



As a memorial to Sardar Vallabhbhai Patel, the statue will not only remind every individual of our great nation's freedom struggle but will also inspire the people of our country to inculcate Sardar Vallabhbhai Patel's visionary ideologies of unity,

This inspiring memorial site, with a number of edu-tainment components, is located between the Vindhyachal and Satpuda Ranges rising weir Narmada River, impounded by Garudeshwar, the Sardar Sarovar Dam and the town of Kevadia.

The majesty of this grand monument will be enhanced by a picturesque backdrop. Its unique location will prove to be beneficial for eco-tourism and regional development.

The total project cost is estimated to be Rs. 2989 crore, and will be completed in four years.

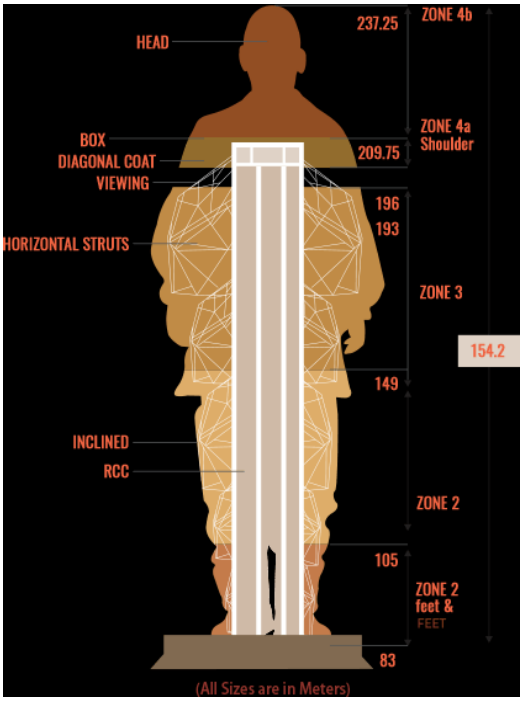
Sophisticated state of art technologies like Light Detection and Ranging Technology and Telescopic logging to assess rock joint are adopted.

Statue development through four stages of Mockup, state of the art three-dimensional scanning technique and computer numerical control production technique adopted to ensure accurate reproduction of minute details.

The Statue of Unity will comprise two semi-joined, composite concrete cylindrical cores, surrounded by a structural steel space frame to support the exterior cladding.

Approximately 1850 Metric Ton of Bronze cladding shall be erected without any external staging. Around 5,700 Mton of structural steel will be used.

The statue will have a viewing gallery at 153 m, which can accommodate up to 200 visitors at a go, and will offer an expansive view of the dam and environs. It will be able to withstand wind velocity up to 60 m/sec, vibration and earthquake



The Narmada, the fifth longest river in the Indian subcontinent, runs in a rift valley between the Vindhya and Satpura ranges. The Sardar Sarovar Dam and its 200 Km long reservoir, Satpura and Vindhya mountain ranges can be viewed from the gallery of the Statue.

Under Construction

Source: http://www.statueofunity.in/

Corporate Story 47

MSME FOCUS

GRM Enviro Tech Solutions
No.2 First Floor PRV Complex,
Kalingarayan street ext, Kattoor,
Ramnagar Post,
Coimbatore-641009.

As on their website:

About us:

GETS is one of the leading water treatment company in Coimbatore offering total water management solutions all across the world under one roof.Our reputation is based on the expertise and experience in a broad range of well proven processes. We provide international technology for water treatment to industrial, domestic requirements of water and waste water treatment and an extensive track record in the designing, supplying and construction of plants across the world for treatment of water, waste water, sewage water and sludge. We have an extensive portfolio of new, advanced and innovative technologies which have been developed to help meet the increasing demands for improvement in environment quality. Our team comprises of highly qualified environment engineers, experts and technocrats in the field of water treatment management.

Our Vision

The problem of water is local as well as global. The resources of water on earth are limited and are reducing every year. Due to the effects of global warming the frequency of rain has become unpredictable.

The state of our environment today is such that it needs all the help that we can give it. Our vision is provide that help!

Our Clients:

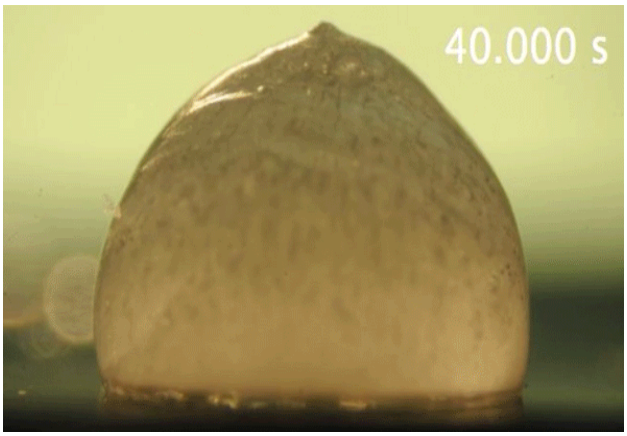
GRM Enviro Tech Solutions is hiring Mechanical Engineers (freshers) for the role Jr. Proposal Engineer.

If interested send your resume to getsenviro@gmail.com.

Website: http://www.getsenviro.com/

Amazing Innovation- 89

A new way to remove ice build-up without power or chemicals



From airplane wings to overhead power lines to the giant blades of wind turbines, a build-up of ice can cause problems ranging from impaired performance all the way to catastrophic failure. But preventing that build-up usually requires energy-intensive heating systems or chemical sprays that are environmentally harmful. Now, researchers have developed a completely passive, solar-powered way of combating ice build-up.
The system is remarkably simple, based on a three-layered material that can be applied or even sprayed onto the surfaces to be treated. It collects solar radiation, converts it to heat, and spreads that heat around so that the melting is not just confined to the areas exposed directly to the sunlight. And, once applied, it requires no further action or power source. It can even do its de-icing work at night, using artificial lighting.

The top layer is an absorber, which traps incoming sunlight and converts it to heat. The material the team used is highly efficient, absorbing 95 percent of the incident sunlight, and losing only 3 percent to re-radiation.
To compensate for the localization, the team added a spreader layer — a very thin layer of Aluminium, just 400 micrometres thick, which is heated by the absorber layer above it and very efficiently spreads that heat out laterally to cover the entire surface.
Finally, the bottom layer is simply foam insulation, to keep any of that heat from being wasted downward and keep it where it's needed, at the surface.
The three layers, all made of inexpensive commercially available material, are then bonded together, and can be bonded to the surface that needs to be protected. For some applications, the materials could instead be sprayed onto a surface, one layer at a time, the researchers say.

Source: http://news.mit.edu/2018/remove-ice-buildup-airplanes-wind-turbines-solar-power-0831

Amazing Innovation- 90

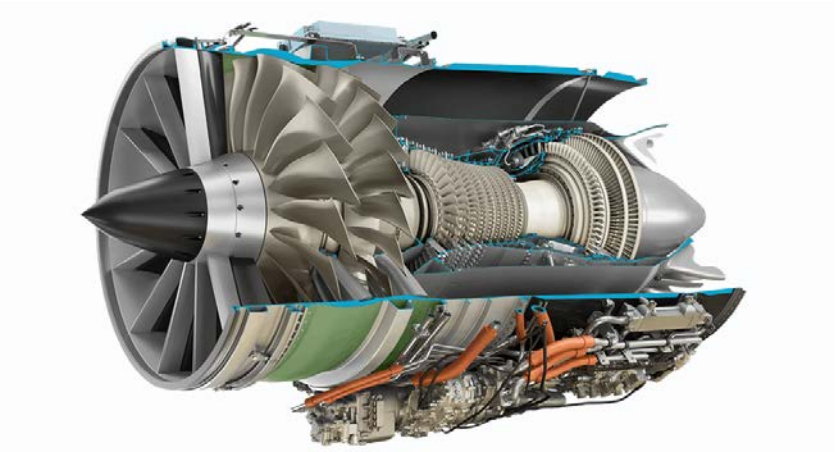
GE unveils new supersonic commercial jet engine

GE Aviation has given impetus to the revival of civilian supersonic flight by revealing a new family of engines designed to fly faster than the speed of sound. Called the Affinity, the new engine will be incorporated into the Aerion AS2 supersonic business jet, which is being developed in partnership with Lockheed Martin, GE Aviation and Honeywell, and could cut the time of a transatlantic flight by three hours.

Since the retirement of Concorde, supersonic passenger flight has become something of a lost art, but new initiatives by NASA and various companies promise a renaissance as new technologies tackle the problems of cost, fuel efficiency, and noise.

Key to this it the development of new engines that can do a better job than the old Rolls-Royce/Snecma Olympus 593 that hurled Concorde through the sky at up to Mach 1.8 (1,350 mph, 2,173 km/h). GE claims that the Affinity, which is based on the company's supersonic fighter jet experience and lessons learned from building engines for the Boeing 787 Dreamliner, will be up to the job.

GE isn't giving out any details at the moment, but it says that the new family of engines will operate at up to 60,000 ft (18,000 m) and be able to meet the new noise requirements currently under revision by various air authorities, so it will be able to fly subsonic over land as well as supersonic over water.



To do this, it will use Full Authority Digital Engine Control (FADEC), which is a computer system capable of overseeing all aspects of engine operations without the need for manual override. In addition, the new engines will work with Aerion's natural laminar flow concept, which uses a modestly swept leading edge on the wing and a new fuselage design to reduce air drag over the wing by up to 60 percent, and overall drag by 20 percent.

Aerion says that this will not only reduce operating costs, but appreciably increase the aircraft's range.

The AS2 is scheduled to make its first flight in 2023 and is aiming for certification in 2025.
Source: https://newatlas.com/ge-supersonic-commercial-engine/56876/

Amazing Innovation- 91

Power Bank Executive Diary
YesNo.in presents Power Bank Executive Diary with 16 GB Pen Drive. This useful product that not only gives you executive diary but also provides with various features including a pen drive, power bank slot, and business card holder.

- Type C Charger: Latest Android Type C charger for charging the high-end Android phones apart from the regular micro USB charger for android and Lightening charger for iPhone and iPad.
- Leather Powerbank: This power bank diary comes with the finest quality of PU Leather as the cover of the business diary. This Leather power bank notebook comes with Ultra-slim power bank and power bank cable integrated inside it.
- USB rechargeable power bank: The power bank can be charged with USB 2.0 and 3.0, The power bank can be fully charged within 40 minutes and It can provide power backup to your mobile devices when they run out of power.

- 16 GB Pendrive: This power bank diary is not only a power bank for a smartphone, but it comes with a 16 GB metallic pen drive.
- 4000 mAh Power Bank Battery.

Video: https://youtu.be/HSjjrbFTkbs

Source: https://yesno.in/products/power-bank-executive-diary?utm_source=EDM&utm_medium=email&utm_campaign=22Oct_RN

Amazing Innovation- 92

World's first ocean-going solar yacht could cruise indefinitely

It's quick, it's quiet, and it's covered in 300 square meters (3,229 sq ft) of solar panels. The 78-ft (24-m) electric SolarImpact yacht is a concept designed as the first of its kind – an ocean-going solar-powered yacht. An 800-kWh battery on board gives it 10 hours of cruising capability, which can be extended by topping up the battery when the Sun's shining.

The yacht's giant solar array, which covers the vast majority of its upward-facing surfaces, can generate up to 320 kWh a day if they're getting lots of sun. They can serve as the vessel's sole power source if conditions allow, and you're prepared to take your time.

Should the Sun not shine upon your voyage, there's a pair of 65-kW (87-hp) range-extending diesel engines on board as a backup. And the drive systems are automated, apparently using some sort of AI assistance, to the point where a single person can maneuver it. Certainly, the helm looks pretty simple for something of this size

Although this 70-ton aluminum-hulled beast boasts 1,000 kW (1,341 hp) of all-electric power and has an impressive maximum speed of 22 knots, if you're running all the regular systems solely on solar, you will be able to cruise indefinitely, but only at a slow 5 knots – which would take you around the world in about six months if there wasn't a whole lot of land in the way. Speed it up and the battery will run down.

The SolarImpact also has an interesting stabilizing technology rolled in – twin torpedo-shaped buoyancy hulls under the water surface that the company says reduce side-to-side rolling by as much as 90 percent, making it comfortable even when the waves are high. The interior is about as fancy as you'd expect, with reasonably luxurious accommodations for 10 guests and a crew of one.
Check out the yacht: https://youtu.be/wFPDQmtBLSU
Source: https://www.solarimpact-yacht.com/

Alumni Update 1

Radhakrishnan Venkataraman
B.E. Mechanical Engineering (2013-17)

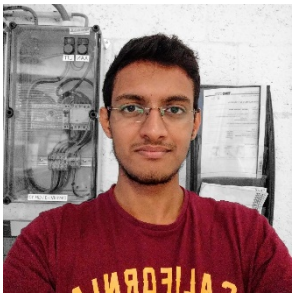
I worked for a year in GoFrugal Technologies in Online Sales and Marketing. I am currently pursuing my MBA in Marketing from SPJIMR, Mumbai.

I have currently completed 100 Days of my MBA journey and it has been an amazing ride so far. One of the most important things colleges and corporates look for in potential candidates is a balanced profile. There needs to be a good balance between academics, co-curricular, extra-curricular and positions of responsibility. Also, when you go for an interview you should be able to speak for at least 15 minutes about every single point in your resume.

Start working on your resume and LinkedIn profile once you enter your third year, and identify the gaps in them as they will definitely help you at every point.

Have fun and make the best use of your four years at SSN. It is never too late to step up and start working towards your goals.
For any queries with respect to placements or MBA Prep, you can send me a message on 8754507189.

Alumni Update 2



Arjun Anantharaman
M.Sc. Mechanical Engineering, TU Delft (2017-19)
B.E. Mechanical Engineering (2013-17)

Why Europe for MS:
There are three reasons why I think Europe is a great destination for postgraduate programs.

Firstly, many of the top-ranked universities are there over here, depending on which department you choose. For an example, the Fluids department at TU Delft is highly reputed and a lot depends on the professors working there.

Secondly, except for some universities (the ones in Texas), the tuition fee is much lesser (especially in Germany) compared to the other universities of the same caliber in the States. Thirdly, the job market is looking good in my opinion as there seems to be a shortage of skilled labor and companies are hiring a lot of international students. Let me emphasize that I am in no way implying jobs are just being handed out. It is just not as impossible as it is being marked out to be in Europe.
An unrelated but added benefit is that you can basically tour some of the most beautiful cities in the world when you're here.

TU Delft
TU Delft was always one of the universities high up in my list for masters. It is highly ranked for mechanical engineering and the fluid mechanics research is broad and comprehensive. Just a casual look through their Process and Energy page and the Multiphase systems research group should give a basic idea of what is going on here. Among the universities I was accepted in, taking into consideration factors such as the research, university reputation, tuition fees and the feedback from seniors already present there, it was a relatively easy decision.

My sub-area of interest became multiphase flow after taking the course over here. I've never done experimental work before, so I chose that to be the topic of my internship at an organization called TNO. I'm currently studying how the multiphase flow within a pipe system cause forces on the bends and the effect of that on the overall

system. Basically, the varied multiphase flow regimes can cause different interactions between the flow within the pipe and the walls, leading to severe vibrations which aren't favorable, to say the least.

After Masters
I have not a clue what I'm going to do as a Ph.D. or a job are the logical next steps. I'll take either at this point, depending on which is more suited to my interest. For now, I'm just tackling every day as it comes.

Advice to Juniors:
If you want to do a masters which are thesis oriented, try to focus on research and please go beyond the textbooks, as we end up only studying parts that come for the end semester exams.

In the end, everyone is going to have approximately the same GPA, which doesn't matter beyond a point (Higher is obviously better though) and the extra projects and activities that you undertake will set you apart from the thousands that will apply to these universities.

Also, the universities can be very arbitrary in the selection and do keep in mind that luck also plays a major role in your acceptance. I wish you guys all the best and hope you all get into the universities of your choice!

Alumni Info

Suraj Sakaria
2008-12 batch, Mechanical Engg
CEO MyIconicHome

Featured alumnus - Suraj Sakaria of 2008-12 batch, did his MBA in Chennai Business School during 2014-15. He is now CEO of "MyIconicHome", dealing with furniture and furnishings to make your home "a sweet home".

As on their website:

For all the house-proud people out there, Myiconichome.com brings to you some of the finest home furniture, furnishings, showpieces, home decor items, kitchenware, tableware, mattresses and many more collectibles which together make your home aesthetically and wonderfully iconic. Myiconichome.com has bloomed into a successful furniture and decor online shopping portal catering to a larger number of happy customers. Our loyal clientele and continuously increasing customer list have kept us in line with the ongoing trend and has made us extremely innovative. A home is not just a concrete layout of four walls but a haven where you spend your happy, sad, loving and cherishable moments together with your family. People spend fortunes in getting their houses tastefully designed and travel worldwide to get the best for their homes. Their homes are mere reflections of their personas, their beliefs, their tastes and their ideas. Understanding this sentiment, we at myiconichome.com strive to provide our customers with the best in home decor.

Forthcoming events

Workshop/FDP

November 2018

- Two days faculty workshop on Industrial Robotics will be organized by Department of Mechanical Engineering in association with Axis Global Institute of Industrial Training at St.Joseph's Institute of Technology on 9th & 10th of Nov 2018**.**

December 2018

- One Day Industry-Academia Conclave on Energy Storage Devices: Recent Advances & Future Challenges (IAC-2018) on 13 December 2018 will be organized by Department of Physics, Indian Institute of Technology (IIT) Roorkee.
- The Department of Mechanical Engineering at SRM Institute of Science and Technology has planned to organize a National Level Three Days Faculty development program on 'Recent Trends in Optimization' Scheduled during 6th to 8th, December 2018.
  This FDP is for the contemporary developments and emerging issues in the area of 'Recent Trends in Optimization'.

Conference

November 2018

- American Society for Mechanical Engineering is conducting ASME2019-13th International Conference on Energy Sustainability from July 15th to 18th at the Hyatt Regency in Bellevue, Washington. The conference is co-located with the Summer Heat Transfer Conference and co-sponsored by the AIChE. Abstracts are to be submitted by Nov 9th.

- Coimbatore Institute of Technology, India, PSG College of Technology, India, Western Norway University of Applied Sciences, Norway and the University of Jaffna Sri Lanka are jointly organizing an International Conference on Advanced Materials for Clean Energy and Health Applications (**AMCEHA 2019**) which is to be held from 6-8 February, 2019 at the University of Jaffna, Sri Lanka. The conference is organized in association with Ministry of Science, Technology, Research and other collaborating partners from Norway and India
  The deadline for the abstract submission is 10th November 2018.
  Please visit website http://conf.jfn.ac.lk/amceha/ for further details.
  Paper submission http://conf.jfn.ac.lk/amceha/index.php/abstracts/
  Registration http://conf.jfn.ac.lk/amceha/index.php/registration/
  Last date for registration: 20th December 2018

December 2018

- TRIBOINDIA – An International Conference in Tribology conducted by Veermata Jijabai Technical Institute (VJTI), Mumbai, India from 13th-15th December 2018. Submission of a Technical paper can be made online on the Tribology Society of India at the following link :
  http://tribologyindia.org/triboindia-abstract-submission.html
  Submissions can also be done by email on triboindia2018@vjti.ac.in
  Events include an Exhibition stall showcasing your products and services to the conference delegates during the conference and a business meet to present your products and services to the conference delegates for 20 minutes. Participants can attend the conference as a delegate.

- National Corrosion Council of India, CSIR-Central Electrochemical Research Institute, Karaikudi is conducting the 9th National Conference on Corrosion Control: Nation's Flair through Industrial Care from 5-7 December 2018 at the Mayfair Convention, Bhubaneswar, Odisha.

January 2019

- International Conference on Recent Advances in Materials, Manufacturing & Energy Systems (ICRAMMES) organized by the Department of Mechanical Engineering of VRSEC on **3-4th January 2019** in VRSEC, Vijayawada, AP, India. Our submission deadline for extended abstract is on 30th September 2018.

February 2019

- Amity University in collaboration with International Solar Alliance (ISA) is organizing the International Conference on 'Efficient Solar Power Generation and Energy Harvesting' (An Industry – Academia Meet) from 12th - 14th February 2019 at Amity University, Noida.

- CIPET is conducting the 10th International conference Advances in Polymeric materials, with a theme of "Innovations in Polymeric product development and manufacturing" from 8 to 10 February, 2019.

March 2019

- The Department of Mechanical Engineering of S.A. Engineering College is organizing **2 Days SERB sponsored International Conference on Recent Developments in Mechanical Engineering (ICRDME) 2019** on 21st & 22nd March 2019. Conference website: **www.icrdme.com**
  Abstract submission by Oct 5, 2018

- Department of Mechanical Engineering of Bannari Amman Institute of Technology is organizing a two day International Conference on Materials, Manufacturing and Machining (ICMMM 2019) from 8th– 9thMarch 2019**.** Last date for Full Paper Submission is 03.12.2018
  For more information visit www.icmmm19.com

- Department of Mechanical Engineering of SSNCE is organizing the Second International conference on "Sustainable Energy Resources, Materials and Technologies (ISERMAT 2019)" from March 14-15, 2019.

April 2019

- Department of Mechanical Engineering of SSNCE is conducting the International Conference on Mechanical Engineering Design (**ICMechD2019**) from 18th -19th April, 2019. The deadline for abstract is 28 February 2019. In addition, Early-Bird Registration at a reduced rate for delegates is available if paid before 30 December 2018. For more information, visit https://sites.google.com/ssn.edu.in/icmechd

Challenges/Contests

November 2018

Info from Mr.B.Jayakishan, Faculty in charge of SAE Club-

Mr. JKB

Auto Tech Review, associate partner SAEINDIA , has announced the 5th edition of the "Student Innovator of the Year" challenge, a part of the Indian Automotive Technology & Innovation Awards (IATIA).

IATIA invites undergraduate, graduate or post-graduate engineering students to participate and submit innovative ideas and solutions in any or all of the appended four areas:
MOBILITY / TRANSPORTATION

- Using Reinforcement learning for traffic management *(supported by Visteon)*
- Making Road Transport Smarter

AUTOMOBILE

- Improving Vehicle Efficiency

- Connected Technology for Passenger Safety

Prizes worth Rs 2 lacs to be won by winners. This competition is also supported by SAEINDIA, NASSCOM, Frost & Sullivan & FICCI. Entries can be submitted online. The last date for sending in entries is November 15, 2018.

To learn more about this, visit https://autotechreview.com/events/awards/iatia-2018/

May 2019

- Fentress Global Challenge: In line with the speculative nature of the competition, participants should seek to improve every dimension of the airport terminal building. All entries should delve into one or more broad topic related to airport architecture and the future of aviation such as mobility, urbanization, globalization, technology, flexibility, security, project feasibility, and passenger experience in 2075.

  For more details, visit https://fentressglobalchallenge.com/competition-brief

  Last date for submission: 31 May 2019

Smart India Hackathon

Smart India Hackathon 2019 has been launched at New Delhi by the HRD minister Sri. Prakash Javadekar. Please check the following link:
http://www.sih.gov.in/

Boeing Contest

Boeing - IIT National Aeromodelling Competition for college students in India is sponsored by Boeing, and conducted in collaboration with IIT Bombay, IIT Delhi, IIT Kanpur, IIT Kharagpur and IIT Madras. Logistics support for this event is provided by Skyfi Labs.
The competition is launched with the vision to provide a unified national platform for students interested in aerospace and related engineering disciplines - to demonstrate their aero-modelling expertise.
This would be a two-staged pan India Competition:

- Zonal Level: The Zonal would be held in conjunction with the Technical Festivals of IIT Bombay, IIT Kanpur, IIT Kharagpur and IIT Madras. The First three teams from each of the Zonal competitions, a total of 1iac2 teams from the Zonal competitions, will participate in the National level.
- National Level: The National Level Competition will be held at IIT Delhi for all the toppers from the Zonal Round to decide the champion.

For more information visit:
https://www.skyfilabs.com/boeing-competition-2019?utm_source=boeing_announcement&utm_medium=newsletter&utm_campaign=boeing_competition_2019&utm_content=competition_announcement

Auto info

ARAI Update (Q11819), comprising of following articles:

1. Centre of Excellence for E-mobility
2. Calibration of EMI/EMC Testing related Instruments under NABL
3. Development of Aluminium Superstructure City Bus – A Step towards Greener Environment
4. ARAI Efforts for Methanol Economy
5. ARAI's Designation as "Foreign Motor Vehicle Testing Institute" by NTSEL (National Traffic Safety and Environment Laboratory) National Agency for Automobile and Land Transport Technology, Japan
6. Symposium on International Automotive Technology, 2019 (SIAT 2019)

This e-publication is hosted on ARAI website < www.araiindia.com >. Please use below given link for browsing the contents / downloading the publication :
https://araiindia.com/cpanel/Files/NEW_1024201820958PMARAI-Update_Q11819.pdf

1. **DST - Call for Project Proposals (Materials Science and Computer Science) under India - Sweden joint Network Grant 2018-2019**

Focus

The main objective of the grant is support new or existing Indo-Swedish research projects that in the longer perspective may develop into long-term collaborations. The collaboration shall be based on the principle of mutual benefit, equality and commonly set objectives. The call for project grants is open for applications concerning research within these two sub focuses:

- Materials science
- Computer science

Last date for submission of Project Proposal: **6 December 2018**

Website Links:

http://www.dst.gov.in/callforproposals/india-sweden-joint-call-2018
http://www.dst.gov.in/

2. **International Conference on Materials & Spectroscopy (ICMS-2018), 11-12 December 2018, Saveetha Engineering College, Chennai**

Department of Physics, Saveetha Engineering College and Department of Nanotechnology, Bharath University jointly organizing an International Conference on Materials, Spectroscopy and their applications entitled "International Conference on Materials & Spectroscopy (ICMS- 2018)" during 11 & 12th December 2018.

Interdisciplinary research topics relevant to various disciplines of science and their applications in engineering will be covered in the conference.

Important Dates

Abstracts submission: **November 20th, 2018**
Selection of abstracts: **November 28th, 2018**
Official invitation: **December 2nd, 2018**
Submission of Full-Length Paper: **December 25th, 2018**
Live presentation: **December 11th & 12th, 2018**
The abstract and full paper can be sent to **physics@saveetha.ac.in**
https://secicms2018.wordpress.com/

3. **India-UK Second International Conference on Advanced Nanomaterials for Energy, Environment and Healthcare Applications (ANEH-2019), 4-6 February 2019**

Jointly Organized by Department of Physics, Bishop Heber College, Tiruchirappalli, Tamilnadu and Swansea University, United Kingdom, this conference aims to foster discussion among academia, industry, regulators and other stakeholders on globally challenged research areas such as sustainable health, clean water and affordable energy. The recent developments in nanotechnology have opened up new frontiers by creating new nanomaterials and structures which showed excellent performance in energy, environmental and healthcare technology applications. This conference provides a unique platform to discuss how to address globally challenging issues through nanomaterials.

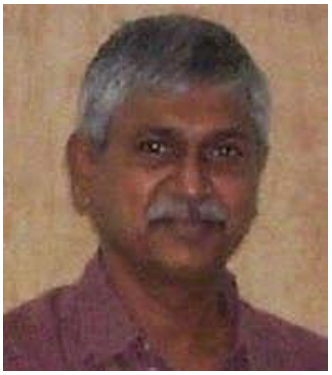
Important dates (Deadline)

Last date for submission of abstract - **30.11.2018**
Acceptance Notification - **15.12.2018**
Last date for registration - **30.12.2018**

Contact us:

Website: **https://bhu.edu.in/ANEH2019**
Email: **icaneh19@gmail.com**

Inspiring Life Stories



Mr. Kishore Babu

Schwing Stetter

Once in a physics class, the teacher asked the students, "Why do we have brakes in a car?"

Varied answers were received:

"To stop"

"To reduce speed"

"To avoid collision" etc.,

But the best answer was, "To enable you to drive faster"

Moral of the story: For a moment assume you have no brakes in your car then how fast will you drive your car? It's because of brakes that we can dare to accelerate, dare to go fast and reach destinations we desire.

At various points in life, we find our parents, teachers, mentors & friends etc. questioning our progress, direction or decision. We consider them as irritants or consider such inquiries as "brakes" to our ongoing work.

But, remember, it's because of such questions (periodical brakes) that you have managed to reach where you are today. Without brakes, you could have skid, lost direction or met with an unfortunate accident. Appreciate the "brakes" in your life. Use them wisely!

Contribution: Ms. B. Niranjana, Sr. Associate, Hanon Automotive System India Pvt Ltd.

Forwarded by-

Kishore Babu

HR - Department

SCHWING Stetter India Private Limited

Corporate Wisdom 59

Music Concerts and Leadership

I was recently watching on TV an excellent live concert of Carnatic Music. Very enjoyable one and soothing to ears , mind- giving peace.

As the concert of going on some thoughts ran in my mind on the people who are performing, seamless integration, each one's role clarity etc.

There are lot of similarities between a good Music concert and Leadership (Management). Leadership (Management) would comprise of people, their skills, competence, role clarity, timelines, egos, vision, challenges and targets. There should be a coordinated orchestra in managing and leading an enterprise, be it a family-owned entity or a corporate house and more so in a multi-national working organization.

For e.g. in a Carnatic music concert there is lead vocalist, accompanied by a percussionist who is called Mridangam artiste, a Violinist and at times may be other related instruments like a flute and Ghatam. It is a joint effort of a vocalist and the accompanying instruments playing in sync with each other at the right time, right tone, right level and with a right attitude that makes it melodious. The beauty about this is everyone knows what to do, when to do (when not to do), how to do and how long to do.

The vocalist starts first and then other instrumentalists join him. At most times all the artists perform together, yet there will be a time only the percussionist plays. When the fingers of person who plays Mridangam starts performing, the other artists observe it with rapt attention and joy. Probably this will follow the violin and then may be flute and ghatam.

If you analyze, everyone has an individual part to perform and they also had a part that they had to perform together as a " TEAM" . There are solos as well as a combination of TEAMWORK. This is what precisely need to happen in Management.

Leadership (Management) is not just a team of people; it is a conglomeration of individual aspirations, personal ideas, a person's expression to life or a prayer at work for some. Each of them needs their individual role and also a collective role, There needs to be a clear alignment and coordination between one individual role and that of entire organization. Everyone is important and the team is more than everyone.

The CEO or the Leader has to play his or her role, but cannot get only himself/herself into the limelight. As much as the CEO's or leader's role is important so is the role of the CFO. The CEO would come in as the vocalist, the CFO would come in as the Mridangam player, the head of technology would be the player of Ghatam, may be Head of marketing is Violinist. HR head would be another accompanying artist. Everyone is important and has a critical role to play.

Each of them gets applause, each of them gets exposure. All the team members get rewarded as much as all the artists get applauded. In fact, there is no management just with one person, nor there can be a music concert with a singer alone.

We all play our roles in sync then there is melody pleasing to ears and there is divinity. If any one feels that I am superior to the team and I will play when I want – Just imagine – It will be only Sound, Noise and not music.

To Summarize

- A Leader is both a singer and a Song writer.
- Make sure that everyone is on the same sheet of Music.
- Develop a simple theme, repeat it and keep improving it.
- Get the right players around you in the bus and get the wrong people out of the bus.
- Let others shine.
- Cultivate commitment and enthusiasm.
- Commit yourself to a bigger cause than yourself.

Togetherness leads to co-creation,
Collaboration leads to respect for individuals and
Overall Teamwork leads to success.
TEAM – " Together Everyone Achieves More "

Have a wonderful day & a great week
R.Ramakrishnan

Answer for QUIZ! : B) 2011

This issue has an Annexure-
Initiating students into Design Thinking

The purpose of adding an Annexure
is to enable forwarding specific content
to persons who may be interested
without the need to send the whole Newsletter
----------VeA

This edition of aspire was compiled by Nitin Joy, with support from Sowmya K, CT Alagappan and Srivasupradha R


Nitin Joy


Sowmya K


CT Alagappan


Srivasupradha R

Compiled and released by Editorial Board, Mech Feedback to annamalaive@ssn.edu.in