Newsletter

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Aspire

Mechanical Engineering

Achievements in Sports, Projects, Industry, Research and Education

All About Nobel Prize- Part 64

Malala Yousafzai

Malala Yousafzai was born on July 12, 1997, in Mingora, Swat Valley, Pakistan. She is the daughter of Ziauddin and Tor Pekai Yousafzai and has two younger brothers. At a very young age, Malala developed a thirst for knowledge. For years her father, a passionate education advocate himself, ran a learning institution in the city. Malala's native was controlled by the Taliban, which issued edicts forbidding women from being educated, forcing girls to leave schools and colleges. Those who wished to leave their home to go shopping had to be accompanied by a male relative, and were required to wear the burqa. Those who disobeyed were severely punished.

But Malala's primary objection was to the Taliban's prohibition of female education. Militants had destroyed over 150 schools in 2008 alone. "How dare the Taliban take away my basic right to education?", Malala asked her audience in a speech at Peshawar, covered by newspapers and television channels throughout the region.

In late 2008, BBC Urdu wanted to cover the growing influence of the Taliban over the Swat district. They decided to ask a schoolgirl to blog anonymously about her life there for which Malala was chosen. With her parent's support, she agreed to write a diary about the life under Taliban, despite the Taliban reprisals. In 2009, Malala and her family, with many locals went into exile from the Swat Valley when a government military operation attempted to clear the region of Taliban militants. Following the military's partial success in driving back the Taliban, Malala was able to return to Mingora later that year.

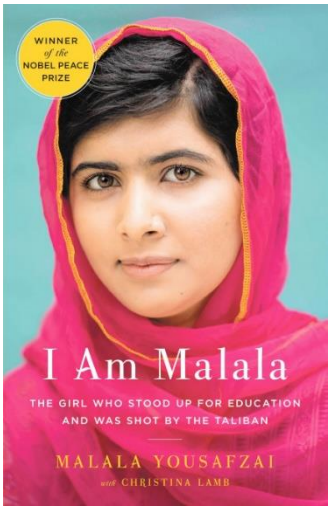
Later, she started appearing on television to advocate for female education. As she became more recognised, the dangers facing her increased. She received death threats in newspapers and via social media too. On 9 October 2012, a Taliban gunman shot Yousafzai as she rode home on a bus after taking an exam in Pakistan's Swat Valley. Malala was 15 years old at the time. She was shot with one bullet, which travelled 18 inches from the side of her left eye, through her neck and landed in her shoulder.

Flown to Britain for specialist treatment at the Queen Elizabeth Hospital in Birmingham, she underwent numerous surgeries and made a strong recovery. After months of surgeries and rehabilitation, Malala joined her family in U.K. Despite of having gone to death bed fighting for the educational rights of girls, she chose to continue her fight until every girl could go to school.

In October 2014, Malala was named a Nobel Peace Prize winner. At age 17, she became the youngest person to receive this prize. Accepting the award, Malala reaffirmed that "This award is not just for me. It is for those forgotten children who want education. It is for those frightened children who want peace. It is for those voiceless children who want change."

On 8th October, 2013, Yousafzai's autobiographical book, 'I Am Malala: The Story of the Girl Who Stood Up for Education and Was Shot by the Taliban', was published worldwide. The book details the early life of Yousafzai, her father's ownership of schools and activism, the rise and fall of the Tehrik-i-Taliban Pakistan in Swat

Valley and the assassination attempt made against Yousafzai, when she was aged 15, following her activism for female education. Education and was Shot by the Taliban, was published worldwide. The book details the early life of Yousafzai, her father's ownership of schools and activism, the rise and fall of the Tehrik-i-Taliban Pakistan in Swat Valley and the assassination attempt made against Yousafzai, when she was aged 15, following her activism for female education.



Currently studying Philosophy, Politics and Economics at the University of Oxford, Malala continues to remain a staunch promoter of education of girls and for all girls to become agents of change in their communities.

Source:
https://www.nobelprize.org/prizes/peace/2014/yousafzai/facts/

Info to Alumni- Campus Update

On March 2, 2019, the grand finale of Smart India Hackathon was inaugurated at SSN –

Sixteen teams from SSN recently participated in the Grand Finale of the Smart India Hackathon 2019 and seven of them were declared the winners of their respective problem statements. 4 teams of CSE, 2 teams of ECE and 1 team of IT won prizes in Hackathon conducted at various locations.
To celebrate this special feat, a felicitation for all the sixteen teams and the organizing team of the Smart India Hackathon at the SSN centre, was organized on 7th March.

The NSS Orientation Program was conducted for the first year students on March 5, 2019.

Instincts 2K19, the Annual Cultural Festival of SSN, was held between March 7 and March 9, 2019. (More info in the student write up section)

On March 15 2019, the 20th Sports Day celebrations were held at the Justice Pratap Singh Auditorium. (More info in the student write up section)

On March 15, 2019, the 23rd College Day function of the SSN Institutions was conducted. (More info in the student write up section)

On March 16, 2019, the Physics Department organized a National Conference on “Environmental monitoring, Impact assessment and Management”.

One day workshop on Recent Trends in Solar Energy Research and Applications was Held on 16 March 2019 by the Department of Chemical Engineering, SSN College of Engineering, Kalavakkam. (More info in the faculty write up section)

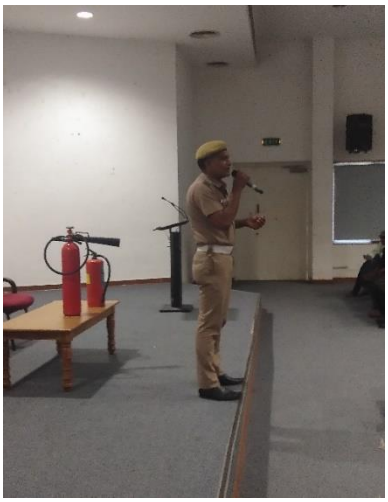
The 19th Graduation Day Ceremony was held at the Justice Pratap Singh Auditorium on March 17, 2019.

The Department of Chemistry organized a National Conference on “Advances in Functional Materials.” between 21-22 March, 2019.

Dr.Thiruvenkataswamy writes..

English Department has been conducting a 'one day workshop' for the English Teachers in the schools around Kalavakkam. The objective is to develop a rapport with the English Teachers in the area and help them in improving their teaching processes so that students benefit from it. The feedback from the previous workshops shows that the teachers find the workshop very useful to know current techniques in language teaching, network with other teachers in the area, be in touch with the English Department of SSN and thus go through a process of professional development.

This year, the workshop was conducted on March 6th, on the theme ' How to use a prose text in the English Class for imparting different language skills to the learners?'.



FIRE DRILL

A fire drill was conducted by Mr. Moorthy , Station Fire Officer, Siruseri fire station, on 20-3-2019. In this session he explained briefly about domestic fire accidents and how to handle the situation.

Info to Alumni- Alumni Update

Srivatsan Ramesh (2013-2017 Batch) from Columbia University, New York, has written a short column for TOI on Indian Students in the US. (Refer to TOI Page 6, Dated Wednesday, March 27, 2019)

Immigration Laws And H-1B Rules Are Not The Real Enemy, It's The Lack Of A Conducive Environment – A Chennai-Born Alumni From Columbia University Tells The Inside Story

EXCHANGE OF RESOURCES

WHY INDIAN STUDENTS IN US FIND IT HARD TO FIT IN

Soundarya Balasubramani

WHO HAS AN EDGE?

TOP FIVE ORIGIN COUNTRIES OF STUDENTS IN US

HIGH DEMAND

Aspire April 2019

Info to Alumni- Department Update

External Recognition:

Dr M.S Alphin

Dr. M S Alphin, Associate Professor presented two technical sessions in a one week faculty development program on Vehicle Dynamics, 05 Mar 2019 at Bannari Amman Institute of Technology, Sathyamangalam. [5.03.2019].

Dr M S Alphin, Associate Professor, delivered a technical lecture in a two day workshop on Vibration Measurement and Analysis organized by Sri Venkateshwara College of Engineering, Sriperumbudur. [8.03.2019]

Dr. Alphin M S, Associate Professor, was the resource person for one full day training program on "Geometric dimensioning and tolerancing (GD&T)" for employees of Mugugappa Group at Institution - Industry Interaction Centre (IIIC), Tube Investments of India Ltd, Murugappa Group.[15.03.2019] (More info in the faculty write up section)

Dr. M S Alphin, Associate Professor, delivered a technical lecture for Value added Program in Human factors in Design on 23 March 2019 at Vellore Institute of Technology, Vellore. [23.03.2019]

Dr M Nalla Mohamed

Dr.M.Nalla Mohamed delivered the technical talk on “Vehicle Dynamics” in the Faculty Development Training Program (FDTP) organized by the Department of Mechanical Engineering, Bannari Amman Institute of Technology, Sathyamangalam on 05.03.19. Around 50 faculty members from various engineering colleges had attended the program and enriched their knowledge in the topic. [5.03.2019]

Dr. S. Suresh Kumar has reviewed the technical paper titled “An Investigation on Projectile Nose Shape on Ballistic Limit of GLARE I and II” for the international Journal of “Thin Walled structures” on 13-03-2019.

Dr L. Poovazhagan, Assoc.Prof./Mech., invited as a judge for a national level Mechanical Engineering technical symposium, held at Arulmigu Meenakshi Amman College of Engineering, Kanchipuram. [08.03.2019]

Dr. S. Rajkumar, Associate Professor, reviewed a research paper titled "Adaptive Neuro fuzzy interface system (ANFIS) modeling of water content of biodiesel and diesel fuels" submitted to the "Energy Sources, Part A: Recovery, Utilization, and Environmental Effects", Published by Taylor and Francis. [18.03.2019]

Dr S Suresh Kumar

Dr L Poovazhagan

Dr S Rajkumar

Dr.D.Ananthapadmanaban, Associate Professor has been invited for a talk at CMSE 2019 Global Conference to be held in Sanya, China during November 12th to 15th,2019.

Research Activities

Rahul Roy

Dr Nallusamy

Mr. Rahul Roy (2018 passed out ME Energy) has joined as Research assistant to work on the project titled "Experimental and numerical investigation on effect of internal fins in spherical PCM capsules for solar heat storage LHS systems" under the guidance of Prof.N.Nallusamy

Dr S. Soma Sundaram

Dr. S. Soma Sundaram, published a paper titled "Numerical Simulation of Propagation of Unsteady Tribrachial Flames in Laminar Non-Premixed Jets" in "Journal of Informatics and Mathematical Sciences". The paper is co-authored by Nikhil Anto V., Sandeepak M., Santhosh Manikandan S. and Vetrivel S. [5.03.2019]

Dr D Ananthapadmanaban

Arthur Jebastian, D.Ananthapadmanaban, K.Arun Vasantha Geethan,Rahul Kumar presented a paper titled “Challenges during Manufacture of lead free alloys” in ISERMAT-2019 held at SSNCE. [14.03.2019-15.03.2019]

K.Arun Vasantha Geethan and D.Ananthapadmanaban's Chapter on “Role of intermetallics in Lead free solder alloys” has been accepted for publication by InTech open access publishers. [21.03.2019]

Dr K.L Harikrishna

Dr. KL. Harikrishna, Associate Professor, Presented a paper titled "Influence of Rare Earth Elements in Magnesium Alloy – A Review" in ISERMAT 2019 [14.03.2019]

Dr. L. Poovazhagan, Assoc.Prof./Mech., presented the following papers in the Second International Conference on Sustainable Energy Resources, Materials and Technologies (ISERMAT 2019).

1. Turning Experiments on Al/B4C Metal Matrix Nanocomposites
2. Optimizing Ultrasonic Power on Fabricating Aluminum Nanocomposites Reinforced With Boron Carbide Nanoparticles
3. Review on accumulative roll bonding (ARB) techniques for improving the mechanical properties of multi-layered materials
4. Ultrasonication Assisted Fabrication of Aluminum and Magnesium Matrix Nanocomposites - A Review

[14.03.2019-15.03.3019]

Mr. B. Jayakishan, Assistant Professor, published a paper titled Co-thermal liquefaction of Prosopis Juliflora biomass with paint sludge for liquid hydrocarbon production in Bioresource Technology, Elsevier, March -2019, (Clarivate Analytics IF: 5.8) [21.03.2019]

Mr B Jayakishan

Dr. K. Jayakumar, Associate Professor attended six days Short Term Course on "Recent advancements in high speed machining Technology and part inspection" on March 04 to 09,2019 at IIT Madras. [22.03.2019]

Dr K Jayakumar

Dr. K. Jayakumar, Associate Professor reviewed a research paper titled "Fabrication and Characterisation of Aloevera-Flax Fiber Reinforced epoxy composites" submitted to the International Journal - Journal of Industrial Textiles, published by SAGE Publications. [22.03.2019]

Dr. K. Jayakumar, Associate Professor presented following three papers in the Second International Conference on Sustainable Energy Resources, Materials and Technologies (ISERMAT-2019) held on 14-15 March, 2019. [22.03.2019]

1. Mechanical properties of AA 5754 hybrid metal matrix composite fabricated through Rheo-Squeeze Casting.
2. Machining of TiB2-SiC ceramic composites through WEDM process.
3. Experimental studies on the effect of drilling parameters on Monel alloy.

R.Rajasekaran, A.K.Lakshminarayanan, D.Ananthapadmanaban's paper on “Study On Inter-Granular Corrosion Susceptibility Of 316LN Austenitic Stainless Steel Weldments” has been accepted for publication in MERS 2019 National Conference for Research Scholars. This work is an output of the internally funded project on Intergranular Corrosion of 316 LN welds funded by SSN Trust and carried out during the period 2014-16. [27.03.2019]

Dr A K Lakshminarayanan

Industry Interaction

Dr. N. Lakshmi Narasimhan, Associate Prof/Mech, arranged an Industrial Visit for First Year M.E. (Manufacturing Engineering) and M.E. (Energy Engineering) students on 28.03.2019, to Preethi Kitchen Appliances (Acquired by Philips India), Thaiyur. Dr. K. Rajkumar, Associate Prof/Mech accompanied Dr. NLN and students for the visit. [28.03.2019] (More details in the faculty write up section)

Dr N Lakshmi Narasimhan

College Activities

The second International Conference on “Sustainable Energy Resources, Materials and Technologies – ISERMAT 2019 was conducted by the Mechanical Engineering department [14.03.2019-15.03.2019].

Dr. KL. Harikrishna, Associate Professor, acted as Session Chair in ISERMAT – 2019 [14.03.2019-15.03.2019]

The Knowledge Transfer session of the Mechanical Department was held on 19 March, 2019.

Dr. K. Jayakumar, Dr. A.K.Lakshminarayanan, Dr. K.L. Harikrishna, Dr. L. Poovazhagan conducted the 2nd National Conference - MECHANICAL ENGINEERING RESEARCH SEMINAR (MERS-2019). [29.03.2019]

Student Activity

Mithun Kumar S (2nd Year, Mech) volunteered for Instincts crowd committee [7-03-2019 to 9-03-2019].

Chidambaram A (3rd Year, Mech) attended the 13th SAE student convention and also participated in SIEMENS AMESIM simulation competition [23-03-2019 to 24-03-2019].

Harish Kumar A (3rd Year, Mech) won the BFKCT go kart competition and Asian E-bike Challenge as a part of SAE [28-02-2019].

Dhanush G (Final Year, Mech) volunteered for Instincts crowd committee [7-03-2019 to 9-03-2019].

Pratheeshhkumar (Final Year, Mech) won second place in CLRI general quiz [16-03-2019].

Rickymartin (Final Year, Mech) served as the team captain and driver for Team Precisio 2.0, which participated in Bharat Formula Karting Champions Trophy, Kari Speedway, Coimbatore. His team cleared Technical Inspection and was placed in the top 5 in Acceleration Test. [28-02-2019 to 02-03-2019].

Rickymartin (Final Year, Mech) served as the team captain and driver in Team Precisio which participated in Asian E-Bike Challenge, AITAM, Vizag. The team received the Best acceleration award and the Best Terrain award. He won the Best Student Award in Asian E-Bike Challenge [01-03-2019 to 04-03-2019].

Yashaswin Harathi (Final Year, Mech) won the best outgoing student award of SSNCE. (More details in the student write up section)

Admits into M.S and PhD Programs

The following final year students have received admits from prestigious universities around the world, for pursuing a Master's degree:

1. Sreemohan – Carnegie Mellon University and North Eastern University
2. Yashaswin Harathi – University of California, San Diego and Purdue University
3. Vasisht Valsraj – University of California, San Diego, Penn State University and Texas A&M University
4. Murali TS – Cornell University
5. C.G. Subramanian – City College of New York (Direct PhD program)
6. Alagappan CT – University of Texas, Dallas and University of Florida
7. Rahul Sudarshan – North Eastern University
8. Sowmya K – University of Florida, University of Minnesota, and TU Delft
9. Srivasupradha Ramesh - University of Minnesota Twin Cities, University of Texas
10. VP Hariprakash – Arizona State University, Washington University and Colorado State University
11. Vimaleswar B – University of Pennsylvania, University of California, San Diego & Texas A&M University
12. Shami Jose – Penn State University
13. Siddharth Krishna - University of California, San Diego
14. Pranav Shankar – Columbia University
15. SS Karthik – University of Florida, University of Washington, North Carolina State University
16. Sekkapan C – University of Washington, North Carolina State University, Warcester Polytechnic Institute.

Faculty write up

Dr.M.NallaMohamed, Asso Prof/Mech writes…

Dr M Nalla Mohamed

Guest lecture on "Agility in automotive - Future trends"

Dr.M.NallaMohamed, and Dr.S.Somasundaram jointly organised a guest lecture on 01.03.19 to third year Mechanical Engineering students. A guest lecture on "Agility in automotive - Future trends" was delivered by Mr. M. Manoharan, GM-Trucks, Product development department, Ashok Leyland.

The lecture began with an ice breaking session of various technical questions that are frequently asked in interviews. Few of the questions are

1. How is a differential function obtained in a bullock cart?
2. Why are the tyres black in colour?
3. Why water is allowed to spill out of a water tanker?

The next session was on trucks manufactured in the Ashok Leyland, the various types and their specific functions. Later the discussion moved on to usage of electronics in automotive systems. The various level of automation in aiding the driver was described in detail. The usage of artificial intelligence and internet of things and mobile connectivity in the automobile was described. The session was interactive and students learnt a lot from the sessions.

Answers:

1. Both wheels are not connected in the same axle.
2. Caron added during vulcanising.
3. To prevent the fall due to inertia of water.

Faculty Write Up

Dr. K. Subbaiah, Prof/Mech writes...

PhD Confirmation Process

			Scholar Details					
S.No	Regno	Name	degree	Faculty	Reg Year	Reg Sess	Supervisor	Status
1	1514299821	Naveen Kumar P	Ph.D.	Mech	2015	JUL	Supervisor	Confirmation completed
2	1514299826	Senthur Vaishnavan S	Ph.D.	Mech	2015	JUL	Supervisor	Confirmation completed
3	1519299710	Ramarajan A	Ph.D.	Mech	2015	JUL	Supervisor	Confirmation completed
4	1519299711	Shine K	Ph.D.	Mech	2015	JUL	Supervisor	Confirmation completed
5	1612299253	Balamurugan S	Ph.D.	Mech	2016	JAN	Supervisor	Confirmation completed
6	16122997253	Arunkumar D	Ph.D.	Mech	2016	JUL	Supervisor	Confirmation completed
7	1614299123	Sasi Lakshmikhanth R	Ph.D.	Mech	2016	JAN	Supervisor	Confirmation completed
8	1614299240	Crushan R	Ph.D.	Mech	2016	JAN	Supervisor	Confirmation completed
9	16142997110	Antony Prabu D	Ph.D.	Mech	2016	JUL	Supervisor	Confirmation completed
10	16142997125	Sankaralingam T	Ph.D.	Mech	2016	JUL	Supervisor	Course Work
11	1618299243	Nafeez Ahmed L	Ph.D.	Mech	2016	JAN	Supervisor	Confirmation completed
12	16222997264	Aarthi R	Ph.D.	Mech	2016	JUL	Supervisor	Confirmation completed

Dr K. Subbaiah

At Anna University, 11 out of the 12 PhD scholars who worked with me have successfully completed their Confirmation Process and have been awarded the PhD Scholar status. **The scholars include**: Naveen Kumar P, Senthur Vaishnavan S, Ramarajan A, Shine K, Balamurugan S, Arunkumar D, Sasi Lakshmikhanth R, Crushan R, Antony Prabu D, Nafeez Ahmed L, Aarthi R.

Faculty write up

Dr. N. Lakshmi Narasimhan, Assoc. Prof/Mech writes...

Dr N Lakshmi Narasimhan

Industrial Visit to Preethi Kitchen Appliances, Chennai

Dr. N. Lakshmi Narasimhan arranged an Industrial Visit for all the First Year M.E. (Manufacturing Engineering) and M.E. (Energy Engineering) students on 28.03.2019, to the Manufacturing Facility of Preethi Kitchen Appliances (Acquired by Philips India), Thaiyur near Kelambakkam.

Dr. NLN and Dr. K. Rajkumar accompanied the students for the visit. The team was received by Mr. Sasikumar, Manager, HR, PKA Ltd. After a short introduction about the company and Safety related guidelines by the HR, we were taken inside the plant. The shop floor Engineers incharge of their sections gave a nice demonstration on the process and other related operations. We visited the Electric Motor division for Mixer Grinders, Assembly line, Testing section, Packaging facility and so on. The visit was very useful and concluded with a high-tea. Overall that was a short and sweet visit. A special Thanks to Mr. S. Narayanamurthy, SGM (HR) for his kind consent on our request for an industrial visit. Special thanks to our past student Mr. Javed who is a GET at PKA now for all his briefing about the assembly line. My humble thanks to HOD/Mech, Principal and Management of our institution for the consent and Travel Arrangements. Special Thanks to Mr. Dhakshinamurthy for coordinating the transport arrangements.

Faculty write up

Dr. S Suresh Kumar, Assoc. Prof/Mech writes...

Dr. S Suresh Kumar

Titan Technology Tune – In 2.0 program

The research topic titled "**Ballistic performance of lightweight Aluminium and Magnesium Metal Foam**" has been shortlisted to exhibit the work in Titan Technology Tune –In program which is proposed to be held at Titan Company, Hosur. The image of the metal foam is shown below. The team members are Dr. S. Suresh Kumar along with final year Mechanical Engg students, Suraj R, Sabareeswar R, S siddharth Krishna and Vishal B.

Faculty write up

Dr. M S Alphin, Assoc. Prof/Mech writes…

TRAINING PROGRAM ON GEOMETRIC DIMENSIONING AND TOLERANCING

Dr M.S Alphin

Dr. Alphin M S, Associate Professor, was the resource person for one full day training program on "Geometric dimensioning and tolerancing (GD&T)" for employees of Mugugappa Group at Institution - Industry Interaction Centre (IIIC), Tube Investments of India Ltd, Murugappa Group.The training comprised of four session of lecture, Demonstration, discussions, problem solving. This kind of programs will bridge the gap between industry and Institutions.The facilities at IIIC is complete, with fully equipped air conditioned Training halls, well stacked Library, Audio Visual and other Training Aids, Guest house and Dining facilities. IIIC is ISO 9001 certified. The Centre is truly a "Place of Learning" for both TI and other Murugappa Group companies.

Faculty write up

Dr. M Suresh, Assoc. Prof/Mech writes...

Dr. M Suresh

ISERMAT2019

The second International Conference on "Sustainable Energy Resources, Materials and Technologies – ISERMAT 2019 was conducted by our department on March 14 and 15, 2019. Chief Guest, Dr. Xie Ming from Nanyang Technological University (NTU) Singapore and Guest of honour, Dr. R. Velraj, Professor from Anna University, inaugurated the conference and released the conference proceedings.

In his inaugural address, Dr. Xie Ming spoke about the landscape of manufacturing and industrial revolutions and the landscape of robotics and automation. He also presented a roadmap of robotics applications for achieving robot-integrated manufacturing. While inaugurating the conference, Dr. Velraj appreciated the theme of the conference and emphasized the need of energy storage for sustained growth of renewable energy resources.

Dr. S. Karuppuchamy, Professor and Head, Department of Energy Science, Alagappa University, Karaikudi, Dr. D. Vasudevan, Principal, PSNA College of Engineering and Technology, Dindigul and Dr. A.K. Lakshminarayanan from our department delivered keynote lectures during the conference.

Dr. Karuppuchamy reported a widely applicable and relatively simple approach for the successful preparation of nanostructured semiconductor oxide thin films and discussed the promising applications of low cost Perovskite solar cells. Dr. Vasudevan listed various contemporary researches in biodiesel production, its suitability to the existing engines and comparison with standard diesel, emission standards and highlighted the impact made by their outcomes. Dr. Lakshminarayanan's speech created an awareness on the developments of relatively new Friction Stir Welding process and its variants.

The conference provided major technical sessions in the areas of Alternate fuels and IC engines, heat transfer, solar energy and energy storage, composite materials, welding, manufacturing and machining, optimization and simulation, electrical and structural engineering. A total of 122 technical papers were presented by the faculty, scholars and students during these 2 days.

Department of Science and Technology (DST) sponsored the conference by providing a fund of 1 lakh rupees.

Faculty write up

Dr. A K Lakshminarayanan, Assoc. Prof/Mech writes…

MERS-2019

The Second National Conference for ***Mechanical Engineering Research Scholars*** **(MERS-2019)** was successfully organized by the Department of Mechanical Engineering, SSN College of Engineering on 29th March 2019 (Friday) with the financial support from SSN Management.

A total of 83 research abstracts were received from various institutions including IIT Madras, Veltech University, Saveetha University, SRM University, AKT engineering college, Annamalai University, Indur *Institute of Engineering &Technology, Telangana* and SSNCE.

After peer review, out of 83 abstracts received, 59 research abstracts were selected for the oral presentation in the conference and included in the conference proceedings. Three research papers submitted by IIT Madras, VelTech and Indur Institute were awarded with cash price with certificate for their best oral presentations.

The Keynote Lecture was delivered by **Dr. M.Vasudevan**, **Scientific Officer – H+ and Head,** Advanced Welding Process and Modelling Section, Materials Technology Division, Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam.

As the conveners of this conference, we heartily express deep sense of gratitude to our Management, Principal, Head of Department, Keynote Speaker, Participants, Session chairs, Office bearers and all those who helped us to organize this National Conference and made it a grand success.

Dr. A. K. Lakshminarayanan

Dr. K.L. Harikrishna

Dr. K. Jayakumar

Dr. L. Poovazhagan

Mr. B. Jayakishan, Assis. Prof/Mech writes...

Mr. B. Jayakishan

Report for Workshop on Design and Fabrication of DIY – GoKart

The SAE chapter of SSN College of Engineering and Madrasi Strokz – an educational organisation actively involved in fabrication projects and workshops jointly organized a three day workshop on "Design and Fabrication of DIY Go-Kart" during 21 - 23 Feb, 2019 at the Department of Mechanical Engineering, SSN CE, Chennai. Madrasi Strokz is an MSME certified organization focused on the real and updated technical development of undergraduate and diploma engineering students to research and develop innovative projects inspiring them to think out of the box.

The objectives of the workshop were to impart working knowledge to students for designing and fabricating an actual Go Kart in-order to participate in national and international Go Kart design competitions.

The workshop was handled by Mr. G. Kamal Raj, founder of Madrasi Strokz and his team for the entire three days. On the first day, the students were introduced to power tools and their method of operation. The hands-on experience gave the students working knowledge on several fabrication processes such as cutting, grinding, buffing, drilling and welding. The volunteers from Madrasi Strokz took utmost care to keep our students safe from these intricate procedures. Various safety measures were taken to prevent mishaps. After refreshments, the students were given a very analytical explanation of a normal Internal Combustion Engine. The students enjoyed this interactive session very much and were left wanting more. Later that day, the students were asked to dismantle a small bike engine, examine the parts and put it back together. The students did a good job and felt this as a refreshing way of learning, compared to classroom study.

Day two of the workshop saw the students fizzing with excitement as they learnt that they were going to start fabrication of the Go-Kart. The students were split into two teams with a strength of seventeen each. Both teams were given a detailed explanation about the dimensions and specifications of the vehicle. Equipped with skills learnt the previous day, the students, under the watchful eyes of their instructors, took turns to cut, grind and weld metal rods to make up the frame of the Kart. As this was a tiring process, both teams worked alternatively and were given breaks in between with plenty of refreshments.

The third and final day of the workshop revealed the staggering progress made by the students, with both teams completing the frame of the Go-Kart together by midday. After lunch, all the students gathered in the seminar hall, where they were given an extensive demonstration of the working of a simple 4-speed manual transmission gearbox. Every small detail and function of each component of the engine dismantled on day one was also mentioned. After this, the students had a small online quiz to see how much they had understood from the workshop. Overall, the students had a great time and a lot of useful information were acquired by them. The SSN SAE club thanks Madrasi Strokz and SSNCE for jointly conducting this workshop, and look forward for more such events in the future.

Dr.V.Jaikumar, Assoc. Prof/Chemical Dept. writes...

One day workshop on Recent Trends in Solar Energy Research and Applications

Dr. V Jaikumar

A one day workshop on Recent Trends in Solar Energy Research and Applications was held on 16th March 2019, by the Department of Chemical Engineering, SSN College of Engineering, Kalavakkam. The conference was attended by participants from various colleges such as SRM institute of science and technology, Chennai, Kumaraguru College of Technology, Coimbatore, Annamalai University, Chidambaram, St Annes College of Engg, Panruti and SSN College of Engg.

After the inauguration by the Convener Dr.V.Jaikumar, Associate Professor, the first lecture was delivered by **Dr R Ramaprabha,Associate Professor, Department of Electrical and Electronics Engg. SSN College of Engg. On the topic "recent trends in solar energy systems"** with a brief understanding of the solar panels and grid connections etc.

The next lecture was given by **Dr R Seyezhai,Associate Professor, Department of Electrical and Electronics Engg. SSN College of Engg. on the topic "Standalone photovoltaic systems".**
After a tea break a visit to SSN research center was arranged.

The solar energy research facilities and laboratory was shown and explained by each lab in charges and also accompanied by Dr.Muthu Senthil Pandian and Govindaraj

- Photovoltaic devices
- Solar Thermal Loop

Amorphous silicon thin films for microbolometer application and Amorphous Silicon Thin Film PhotoVoltaics facilities shown to the participants.

After Lunch break the afternoon session guest lecture was given by **Dr Aravind Kumar Chandiran,Asistant Professor, Department of chemical Engg. IIT Madras, Chennai & Solar Fuels Division - Indian Solar Energy Harnessing Center, IITM on the topic "Metal organic frameworks for solar energy conversion"**

Followed by another guest lecture by **Dr. KothandaramanRamanujam, Associate Professor, Department of Chemistry, Indian Institute of Technology – Madras on the topic "A new process for quick fabrication of dye sensitized solar cells".**

After question and answer session for about 15 to 20 minutes followed by a tea break, Valedictory function was held with certificates distribution to all the participants given by the guest from IITM.

Faculty Write Up

Dr. S. Suresh Kumar, Assoc. Prof/Mech writes...

Design Thinking Workshop

Dr. S Suresh Kumar

Dr. S. Suresh Kumar has attended two days "**Design Thinking Workshop**" conducted by **Ministry of Micro, Small and Medium Enterprises (Government of India) MSME**, Chennai on 9th and 10th February 2019. The main objective of the workshop was to feel the importance of Design Thinking (DT) in the field of product design and service sectors. Around twenty participants from various industry were attended the workshop. The workshop covered the importance of design thinking for business innovation, discovering of business challenges, tools available for customer empathy and risk assessment, shortlisting of workable solutions, performing financial analysis of the solution and design for services etc.

The four major sessions of the two day workshop are as follows

Day1 : morning session	Introduction to DT, its phases and customer need identification methods were covered
Day1 : Afternoon session	Ideas to start a new startup companies were discussed and the participants were instructed to assume/select a new problem or business idea to apply the concepts of DT.
Day2 : Forenoon session	The application of DT phases (Empathy, Ideate, Define, prototyping and Testing) for new business innovation and running of business was discussed. Prototypes were fabricated using simple chart model, clays and card boards to better explain the business model to others
Day2 : Afternoon session	Individual and group presentation about their team business was organized. Challenges for new business innovation and implementation was discussed in detail.

How might we improve the organic farming business in cities? was the problem statement considered by our team and solutions (terrace farming, using waste PET bottles) were identified using DT process.

Faculty Write Up

Dr.N.LakshmiNarasimhan writes..

Alumni support in getting Internships

Alumni have been helping us in getting Internships. Some examples are..

a) A couple of days back, happened by chance to contact our previous Placement Coordinator from 2016 passed out batch, Raghul B. who is with Ashok Leyland since then. I requested him to arrange for an internship and I am pleased to let you know that two internships have been arranged at Hosur this summer at AL for two weeks period through Raghul.

b) With the help of Alumnus Arjun Shyam Sundar, we have been able to get ten internships on "Digital Factory Internship" with GME, Ford Motor Private Limited, Perungudi.

c) Santosh, our PG alumni , who is currently at IITM, has forwarded internship opportunities and four of our students have been shortlisted for next step.

Student Write Up

Placement Write Up
SANMAR

Nirmal Kumar, Final Year/Mech, writes..

I received an offer from Sanmar for Technical Sales role. The entire placement process was a bit long. It was a pool campus process.

First round:

The first round was an Aptitude round held at Sairam Engineering College in Mid December. It had two sections with 48 logical reasoning questions and 60 Technical aptitude questions. Each section had a time limit of 60 minutes. The technical aptitude questions were mostly taken from previous year GATE questions on Design of Machine Elements, SOM, FM and Manufacturing Technology. The questions were of medium difficulty. They were more of derivatives and finding relations but time constraint was the key.
The subsequent rounds took place at Sanmar Office, Karapakkam in early February. The Pre Placement Talk went for half an hour and we were informed about their requirements. The company expects the candidate to stay in the organization for 5 years. The candidates were split into two batches depending on Technical Sales / Operations role. The other candidates were from VIT, SRM, etc.

Second round:

My GD consists of 5 panel members and 15 candidates. The topic was "**How Artificial Intelligence can affect employment?**". We were informed that the GD will be evaluated on the basis of:

- Initiation
- Communicating the idea
- Creativity
- Consistence on your stance

The GD lasted for 10 minutes. Many candidates communicated similar points and focused on taking more chances to speak. I conveyed two different ideas helping the discussion progress in a new direction.

Third round:

The next round was an HR round. Questions were focused mainly on family background, appearance for GATE exam, higher studies, interest towards marketing, flexibility, extra-curricular activities, etc.

Fourth round:

The technical round also started with the same HR questions. In addition to, I was asked to explain my projects and ideas presented for Innovation Challenges.

Fifth round:

The candidates clearing the technical round were asked to attend advanced technical round. I was asked questions based on my final year project.

- What is meant by impact strength?
- What is the impact strength of Magnesium?
- What method do you use in your project to measure impact strength?
- Apart from Bullet penetration test, what other simple methods can be used to calculate impact strength?

- Why is sloped armor preferred over vertical armor?
- What are the motions associated with a bullet when it is fired?

Feedback from Interviewers:

All three interviewers gave common feedback during interviews that the resume was impressive and clearly communicated the skills that we expected for the job role. Thanks to my mentor Dr. Vimal Sam Singh for spending multiple sessions on helping me with resume writing.

For Future Aspirants:

- Be calm and composed.
- Read Newspaper regularly to get more ideas to speak in GD.
- Be clear with your vision for the next 5 years. Do not try to manipulate, as the interviewers will easily figure out.
- Answer with a learning motive when you are asked questions on a skill you haven't developed yet.

All the Best!

I thank our HOD Dr. V.E. Annamalai, Placement cell, Dr. N.Lakshmi Narasimhan, Department faculties, Placement coordinators and friends for consistent support throughout the placement season.

Niranjan, Final Year/Mech, writes..

I have been offered the operations role at Sanmar. The first round was an aptitude round consisting of logical reasoning and technical core questions. Most of the technical questions were previous years GATE questions. The second round was HR interview. The third round was technical interview. They asked to solve the real time problems and also engineering graphics questions. This third was an elimination round. The fourth round also was technical interview. They asked the questions from my area of interest and from my resume.

Student Write Up

Renius Abraham, Final Year/Mech, writes..

Placement Write Up
TVS Tyres

TVS first round was group discussion with questions on general mechanical applications. This round had elimination and selected students had to go through the next round of AMCAT test with general aptitude, verbal ability and technical questions. This is a major elimination round in which the selected student ratio was 1:7.

Technical interview, followed by HR interview, were conducted for the selected students and technical interview had questions from all major mechanical subjects which we should have prepared for before the entire process. HR interview was only a conversation about my future goals, parents and other hobbies. I had to put in a lot of effort to stand apart from others. I started practicing aptitude a few months before placements started and that helped me bag this offer.

Student Write Up

Ananth Devarajan
3rd Year, Mechanical

Tamil Nadu Table Tennis State Championship

The Tamil Nadu Table Tennis State Championship was held in Chennai from the 16th to 18th of November, 2018 at the ICF stadium, Chennai. Around 1000 people from various districts within Tamil Nadu had participated in this tournament. Seven age category events were conducted for both the men and women starting from the U-9 category up till the U-21 category including the open men's, women's and the corporate category. The event consisted of seven rounds in total and I managed to win all the seven rounds in the U-21 category. I played against Preyesh in the finals who just at the age of 13, is the current U-16 number one as well as the U-18 number one in the state. From this tournament I personally learnt to never underestimate an opponent who is way behind me in terms of experience, age and as well in terms of the quality of the game and never to be overconfident about winning. The facilities provided to us during the tournament were absolutely amazing for example the stadium was air conditioned, the tables and balls provided for us to play were of top quality and the schedule that was followed by the organisers was also beneficial for the players. Personally, it was an amazing experience for me to play in a top-level tournament like this and I hope that I would get to play more tournaments like this in the future.

Students Write

Saran Prasanth
Akshay Kanna
Third year, Mechanical Engineering

INSTINCTS 2K19

The annual extravaganza, the cultural fest of our college, INSTINCTS 2K19, was held from 7th to 9th March. This three day festival saw participants coming in from various institutes around the state. The theme for this year was “Reliving the 90s” and various decorative work was done throughout the campus in relevance to the theme.

Kollywood actors like GV Prakash Kumar and Raiza Wilson were present for the inauguration ceremony along with the team of their next film. They had all come over for the event to announce the title of their new project, since the director of the movie Mr. Kamal Prakash is an alumnus of our college. This was then followed by the release of the “Saaral (Tamil Mandram) magazine”. Following this, the celebrity variety show took place in the main auditorium which had performers from famous tamil TV channels.The SSN Photography Club organised an event of it’s own for all the photo-enthusiasts out there which is the “LET”(Let The Experts Talk). The best photographers in the business were invited to share their experiences with all the aspiring photographers. They also conducted a photography workshop without charging any fee. The day came to a close with “Thaikkudam Bridge”, a famous band from Kerala performing in the Pro-show, which was sponsored by Coke Studios. This high-octane performance was one of the biggest highlights of this year’s cultural event.

The second day started with one of the most sought after events, “The Reels of Fire”, a short film competition, was judged by well known directors from the Kollywood fraternity. It received submissions from around the country, and for the first time, short films in other Indian languages such as Kannada and Malayalam were accepted. The student variety show was the next event and it is another flagship event in which teams from various colleges from all over the city and state participate to exhibit their artistic skills. The final event of the day was the “Choreo Nite, which saw a number of quality dance teams battling against each other to come out on top.

The third and final day started with the “Tamil Pattimandram” which was judged by Mr Suki Sivam. “SSN Idol” was the next event in line. The event was highly competitive and entertaining as the participants put up a great show.To mark the end of the cultural fest, large number of lanterns were lit and sent to the sky after which the student’s favourite, DJ night took place. The cultural fest ended on high spirits.

Over 60 events were organised by the students this year and the fest on the whole saw an increase in number of events and a general increase in participation as compared to the previous years. The footfall only seems to be increasing every year.

Student Write Up

R. R. Saran Prasanth, Third year, Mechanical Engineering

SPORTS DAY

The sports day for this year was held on the 15th of March. The occasion was graced by Shri. Karn Sharma, Indian cricketer and 3 time winner of the IPL, who presided over the function.

The function started with the Principal, Dr. S. Salivahanan, addressing the gathering and welcoming the chief guest. The chief guest was asked to talk a few words and he motivated the students with a very short but positive speech. Dr. P. Balaji then took the stage to talk about the achievers that SSN has been proud to have over the years. A short video clip was played which threw light upon all the sports facilities that the college offers to the students.

Finally, all the participants who had won in various sport events that were conducted for both the students and the faculty members (teaching and non-teaching) over the course of the semester were awarded with medals and certificates which were presented to them by the chief guest, Shri. Karn Sharma and the President, Ms. Kala Vijayakumar. The overall championship for the current academic year was bagged by the Red House (3rd year).

The Vote of Thanks was delivered by Mr. Vignesh Nagarajan (4th year, IT), Sports secretary for the year to end the function.

Student Write Up

Vinaya Krishna, Third year, Mechanical Engineering

College Day

On 15th March 2019, the much awaited College Day Celebrations of the SSN Institutions was held at the Justice Prathap Singh Auditorium. Mr. V. Vishnu, IAS, Executive Director, Tamil Nadu Skill Development Corporation presided over the event as the chief guest. The faculty, staff, students and research scholars had come together to celebrate and felicitate the students for their achievements throughout the academic year.

The programme started with a welcome address by Mr B. Srinivasan, Dean, SSN School of Management. The Principal, Dr. S. Salivahanan, presented the Annual College Report. He concluded his speech with an eye-opening message on how students should face the hurdles that await them in the outside world. Following this, the various Department Association Presidents presented their respective annual reports. The representatives of the Entrepreneurship Development Cell, SSN Model United Nations Society and Extracurricular Activities also presented their annual reports. Next, the chief guest, Mr V. Vishnu was introduced and, in his speech, he shared anecdotes from the early years of his career and encouraged the students to put their best foot forward in all their endeavours.

The students were honoured for their achievements in, both, academics and extracurricular activities. Medals were presented to the rank holders of each department and students were also felicitated for their contribution to various college clubs. Yashaswin Harathi of the Mechanical Engineering Department received the prestigious Best Outgoing Student of SSN CE Award. The programme concluded with Dr. S.Thiruvenkataswami, Head of the English Department, delivering the Vote of Thanks.

Yashaswin Harathi writes..

I am extremely honored to have received such a prestigious award, The Best Outgoing Student of SSNCE. I feel humbled and also at the same time priviledged. I am earnestly grateful for the recognition I have received for my work and contribution to the college. Winning this award would not have been possible without the inspiration I have received from the HoD and professors. I thank them for their constant support and guidance.

ADIFO: The hyper-agile, omnidirectional, supersonic flying saucer

At low speed, it operates like a quadcopter, at high speed, it's a jet-propelled, highly efficient supersonic aircraft whose entire body acts as a low-drag wing. Those are the claims of the Romanian creators of this flying saucer that's designed to offer unprecedented aerial agility across a broad range of speeds.

ADIFO, or the All-Directional Flying Object, is a flying machine designed to change the actual paradigm of flight. ADIFO is a disc-shaped aircraft whose entire surface is a wing. Specifically, it's shaped to mimic the back half of a dolphin airfoil, radiating out in all directions from the center. The outer edge tapers to a thin ring, making it extremely slippery in horizontal flight.
Slow speed maneuvers are handled by four ducted fans, letting the ADIFO operate like a regular quadcopter drone. There are also two jets on the back (replaced by additional electric fans on the prototype) that provide horizontal thrust, and which can also vector individually to achieve a high degree of agility in level flight. At high speeds, small discs can come out and cover over the quadcopter fans for an even smoother profile, and likewise the legs can retract. The final propulsive touch is a set of two lateral thrust nozzles pointed out to each side, which operate like the reaction control system thrusters on a spacecraft. In horizontal flight, these allow the ADIFO to rapidly push itself sideways in either direction, or to rotate extremely quickly as it flies. That, according to Sabie, who is the creator of this marvel, gives it maneuvering capabilities unmatched by anything else in the air, without the need for separate wings, ailerons, rudders or flaps.

There's more: it'll fly upside down, either in quad mode or in horizontal flight, with the right jets it'll be extremely efficient as it goes transonic and supersonic, and Sabie says the team's modelling suggests there will be no traditional sonic boom created when it does. ADIFO team claims it has the potential to democratize supersonic flight if it gets built into a single or multi-seat manned aircraft with a hybrid electric/jet propulsion system. It'll be interesting to see how the team builds pilot visibility into the mix, and what sort of control scheme you'll need to handle the flying saucer's variety of flight modes and control options.

Source: https://newatlas.com/adifo-flying-saucer-romanian/

Corporate Story 52

STS MANUFACTURING PVT LTD

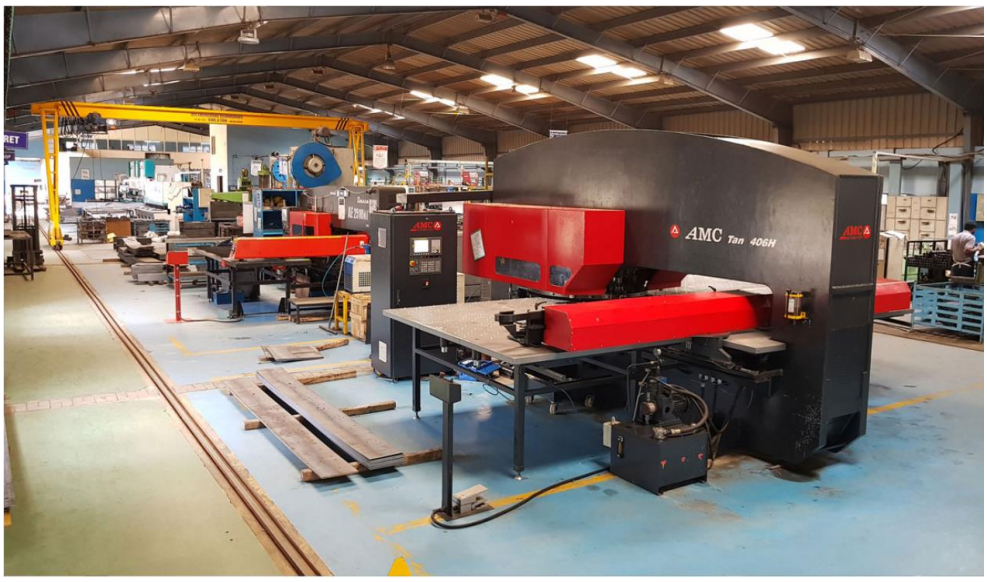
STS MANUFACTURING PVT LTD

From the website:

STS MANUFACTURING PVT LTD spreading over a sprawling area of 60,000 Sq Ft in Hosur,Tamil Nadu. A dedicated work force of 200 strong technical team is engaged in providing value for money to clients/business associates. STS MANUFACTURING PVT LTD has been one of the leading manufacturers of automobile parts.It is well known in industrial circles for its superior products, timely delivery and the interest in new product development.

In reference to the existing infrastructure, the manufacturing unit is equipped with the latest machines and technology spread over 22000 SqFt & 1.15 Acre of un-built to perform engineering activities. AN ISO 14001 Environmental Management System for upkeeping of the industrial safety standards. The high precision machines and technology ensure flawless production and accuracy in the manufactured components as per the desired standards. The production of components is followed by thorough testing using sophisticated quality testing equipment to ensure supply of only high quality and zero defect free products.

The infrastructural set up comprises the manufacturing unit, quality check unit, heat treatment unit and dispatch unit. The products are sent for manufacturing after in-depth engineering analysis. The manufacturing unit and quality department boast of modern facilities required for lean manufacturing.



At our state-of-the-art manufacturing units, our qualified professionals accomplish the manufacturing process keeping in mind the deadline for dispatch and delivery of products. Their list of clients include manufacturing giants such as Ashok Leyland, Royal Enfield, L&T and Fleetgaurd.

If interested to work here, mail your resumes to: karunakaran.k@stsmpl.in

Amazing Innovation- 109

ABLECHAIRS

AbleChair is a revolutionary way to give people with disabilities the chance to regain such an important part of their lives. The AbleChair is a versatile wheelchair, combining the benefits of mobility, therapy, position control, and transfers. It allows users to be put in any number of positions through a wireless phone app for added convenience and enables users to save and recall their favorite positions with the touch of a button. The therapeutic benefits of the AbleChair are priceless.

The AbleChair has full range independent adjustment of tilt angle and seat angle, providing flexible and practically limitless positions to perfectly suit wheelchair users. Benefits include:

- Pressure relief maintaining range of motion
- Helps to manage spasticity and increases sitting tolerance
- Reduce transfers as the users can get into comfortable positions
- Improves bone density
- Provide means for weight shifts
- Stretches muscles, increases blood circulation and improves lung function
- Eliminate poor postures resulting from fatigue
- This wheelchair has the ability to lower the seat completely to the ground.
- The AbleChair is the only wheelchair on the market that offers gait therapy with controlled weight bearing.

Source: https://www.ablechair.spinoflex.com/

Amazing Innovation- 110

QUE COLLAPSIBLE BOTTLES

A travel bottle that's both collapsible and fashionable, so you can take it with you and stay hydrated in style. Committment to creating a community of sustainability which balances mindfulness, design, and exploration is essential and thus the advantage of travelling with such collapsible bottles which would occupy travel baggage space come in handy with this. These are BPA-free & plastic-free, dishwasher safe, taste & odor free, lightweight & compact, wide mouth, fits ice cubes, safe under high temperatures and shockproof and are available in two sizes

with attractive colours perfectly fitting today's lifestyle.

Source: https://www.quebottle.com/

Amazing Innovation- 111

BLOODHOUND : The Supersonic Car

From March 2019, the Bloodhound LSR project has a new headquarters - the UK Land Speed Rover Centre – in Berkeley, Gloucestershire, and a new parent company, Grafton LSR Limited. The Bloodhound team is now preparing to go to South Africa; initially for high speed tests and then to set a new world speed record.

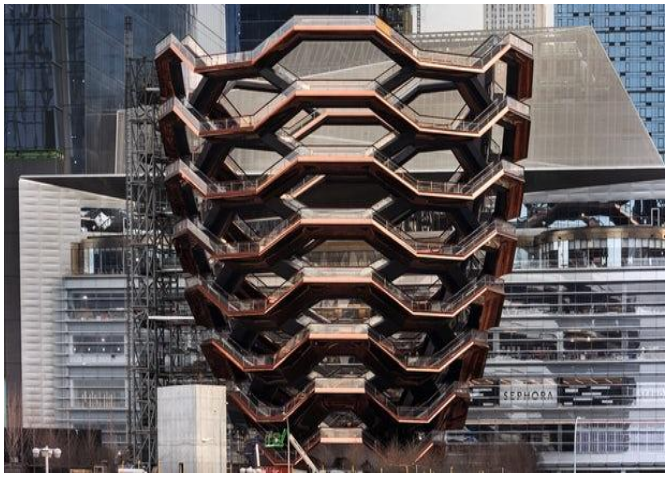
The current world land speed record of 763.035 mph (1,227.985 km/h) was set over 20 years ago by a British team including Bloodhound LSR driver Andy Green. Advances in engineering design, materials and computational fluid dynamics (CFD) since the last record was broken mean we can be confident of breaking that record with Bloodhound LSR.

The project is helping to push boundaries and demonstrate pioneering new technologies. Many of the aspects of our land speed record car have required engineers to think in new ways and manufacturers to develop novel production and testing methods.

Source: http://www.bloodhoundlsr.com/revitalised-bloodhound-gets-new-livery-and-headquarters/

Amazing Innovation- 112

STEEL STEPS TO NOWHERE



Heatherwick Studio's Vessel is finally complete and has now opened to the public in Manhattan, New York City. Rising to a height of 150 ft (45 m), the copper-coloured steel structure comprises 54 interconnecting flights of stairs, 2,500 steps, and 80 landings, offering views of the city and the Hudson River. Construction has taken almost two years and was a painstaking process that involved the steel structure being fabricated by specialists in Italy, then shipped across the ocean in sections. It was then transferred to the site by barge and put into position by crane.

Source:https://newatlas.com/heatherwick-studio-vessel-opens/58949/

Alumni Update 1

Karthik Srinivas

TS Murali

TS Murali, final year, writes on his Alumni Documentation series…

This time, I cover yet another interesting alumnus Karthik Srinivas from the batch of 2015. Karthik was a highly motivated student showing great enthusiasm for research. His activities include interning at Bharat Electronics and IGCAR Kalpakkam. At IGCAR, the project was to design a mechanism for seating the hexagonal fuel rod into its corresponding mating part [1]. He was an active member of the SSN Music club and a part of the CrankX organizing team (prior to Invente, the department symposium went by the name "CrankX").

He filed a patent in his final year with the invention titled, "Thermo Hydrodynamic Rotor" which is a novel polymeric multi-scale heat engine rotor designed to convert a minimal thermal potential into mechanical shaft power (4989/CHE/2014). He has three publications to his credit.

Owing to his research interests, he decided to pursue a direct Ph.D. in the Department of Engineering Science and Mechanics at Pennsylvania State University immediately after bachelors. Here, he focusses on tribology, corrosion and mechanical evaluation of materials.

In his documentation, he gives useful information about direct Ph.D. and the prospects at Penn State.

For any suggestion or comments regarding the series, please write/reply to murali15054@mech.ssn.edu.in. We seek ways to make the series as efficient as possible with better questions.

Alumni Update 2

Exploring Education

Vishal , Mech Engg, 2012-16 batch, (From a mail to VeA)

One of our Alumni, Vishal Vasanth has got admit from Harvard University and London School of Economics- both are very prestigious Institutions.
Vishal; is the guy who started "Warhorse" a public speaking training school and is doing well with School training. After two years into education field, he decided to learn more on education management. Through this admission, he is shifting to a higher degree on Education Management. This is the guy who initiated the first MUN (Model United Nations) in our college. In the years to come, he will be a great leader in the field of education. Our wishes for his career.----VeA

Hi there,

The last time I wrote to you, I was in Nagaland. I have traveled quite a bit more after that and I am approaching the end of my trip. (Leg 3 and 4 in the previous edition of Aspire)

LEG 5: DHARWAD

I traveled 48 hours straight to go from Cherrapunji (I had gone there to take a small break from Nagaland) to Dharwad in Karnataka.

I found out that Dharwad is the hub of Hindustani classical music in the south and has a thriving culture which supports music. I was working in this school called Kalkeri Sangeet Vidyalaya which has a very interesting philosophy. They prefer to educate their students on music rather than academics because they believe these under-privileged kids from the village of Kalkeri near Dharward would do much better being equipped in a skill and lifestyle like music rather than academics. I was there for three days and it was completely musical. The children practice music for at least 6 hours a day and kids as young as 8 are fluent in sitar, tabla and singing. This is a Kannada medium school and yet somehow, I managed to take a class in trigonometry for the kids in grade 10. My visit to this school really does put into perspective how important skills based education actually is and how amazing dharwad pedas are.

LEG 4: CENTRAL MAHARASHTRA

I flew into Nagpur and was on a bus to Wardha. I was very excited for this trip because I was aware of the immense knowledge I was going to gain from it. Mission Samriddhi, an amazing organisation which works in education, livelihood development, water, sanitation and panchayat empowerment has a base in Wardha and I was to stay there. In a sense, Wardha can be called the NGO capital of the country. Some of the first NGOs in pre and post independent India started here. Gandhiji came to Wardha in the late 1930s and set up his ashram in Sevagram (8kms from Wardha) and from here began the Khadi revolution. I visited Magan Sangralaya Samiti and Gram Seva Sadan, organisations which are as old as this country itself and understood how they are empowering local communities. The gandhian logic of make local, buy local is very much prevalent today and is becoming increasingly important to bridge a wide economic gap between rural and urban populations.

With a bout of fever, I was off to Pune to visit this village called Hivre Bazaar and I think this short visit will remain the highlight of my trip. Hivre Bazaar is India's richest village despite being in a region that receives a maximum of 300 mm rainfall a year. Out of a population of roughly 400 families, there are at least 100 rupee millionaires with per capita income/month being INR 40000 (Being from a bustling city, I have never earned that much.) I was fascinated by this and thanks to Mission Samriddhi, I was able to get a guided tour of the village. Their efforts are absolutely awe-inspiring.

I will attach a link to a documentary if you are interested to know more about the village. The reason this village has been able to transform itself like this is because they take collective decisions at the panchayat level. The village becomes greater than the individual. For example, the panchayat collectively decided that they will stop growing water intensive crops like Sugarcane and cotton and today grow vegetables, flowers and also practice dairy farming. They even have a water budget where they account for how much water the village will use and make and practice some of the most advanced water-shed management techniques.

My trip to this village inspired me on what I want to research on when I go to study which is the power of community mobilisation and collective action. Do check out that documentary in this link: https://www.youtube.com/watch?v=H53Od0tvoXI

From Maharashtra, I am heading to Rajasthan to work at Barefoot college and then spending two weeks in Uttar Pradesh before heading to a tribal village in Odisha.

In other news, I found out recently that I got into Harvard to study International education policy and I wanted to share the good news with you all.

Lots of love,

Vishal

Alumni Update 3

Alumnus moves to Saudi Arabia

Logesh Sammandan writes--

I am happy to share that I have been transferred to Saudi Arabia through IANDT Chennai. IANDT opened a new branch office in Saudi. I went for that branch to take care of training division.

I am working as a NDT trainer for Level 2 and level 3 for Magnetic particle testing, penetrant testing, ultrasonic testing, radiographic testing, and advanced testing like Phased array ultrasonic testing and Time of flight diffraction testing.

Forthcoming events

Workshop/ Faculty Development Programs

April 2019

- One day workshop on "**Paradigm Shift in Automotive Industry – Challenges for Supply Chain**" on 5th April , 2019 , Friday at VIT, Chennai.

- The Department of Mechanical Engineering is organizing a 2-week workshop on "**Recent Advances in solar energy technologies for sustainable Development"** during 29-04-2019 to 11-05-2019 at NIT Trichy.

  Register at https://docs.google.com/forms/d/e/1FAIpQLScs1CCA0FXpAJ15YbIEt1mWq-LUfoY0L0FE2IUPKo0oncXlxg/viewform

- Symposium on "Critical Non-Ferrous Metals: Establishing the Value Chain" will be held under the aegis of the Indian Institute of Metals on 15-04-2019 and 16-04-2019 at IIT Bombay.

  Visit : (https://www.me.iitb.ac.in/~cnfm2019/) for more details.

May 2019

- Coimbatore Institute of Technology, Coimbatore, is organizing a one week Faculty Development Programme on, "**Thermal Measurements and Process Control**" from 27th to 31st May, 2019. Register on or before 24th April 2019. Contact samsolomon@cit.edu.in

Conference

April 2019

- Jyothi Engineering College, affiliated to APJ Abdul Kalam Technological University. Thrissur District, Kerala, is organising an **"International conference on Advancements in Mechanical Engineering (ICAME 2019) - Challenges towards Sustainable Development"** on April 10-11, 2019**.**

- Department of Mechanical Engineering- SSNCE is organizing the International Conference on Mechanical Engineering Design (ICMechD2019) during 25-26 April 2019.
  The deadline for abstract is 28 February 2019. All accepted papers for the conference will be published in refereed Springer journal.

  Website: https://sites.google.com/ssn.edu.in/icmechd

- Mechanical Engineering Department, at PSG College of Technology is organizing a **10thNational Conference on New & Renewable Energy Technologies on** 26 April, 2019.

June 2019

- The Centre for Product Design and Manufacturing, Indian Institute of Science, Bangalore, is organizing an **International Conference on Industry 4.0 and Advanced Manufacturing** (I-4AM 2019) on 28th and 29th June 2019 for which call for papers deadline is 31st March 2019.

July 2019

- The 1st International Conference on Mechanical Power Transmission (ICMPT 2019) will be held at IIT Madras Campus, Chennai, India during 11-13 July 2019. More information is available at ICMPT 2019.

- The 11th International Exergy, Energy and Environment Symposium (IEEES-11) is organised by the Department of Automobile Engineering, SRM Institute of Science & Technology, Chennai, INDIA, during 14-18 July 2019. More info: http://www.srmuniv.ac.in/ieees-11

September 2019

- Bannari Amman Institute of Technology, Sathyamangalam, Erode Dt ,is organizing an **International Conference on Advances in Materials Processing and Characterization** on 10th and 11th September 2019. Conference website http://icampc.com

- The Department of Chemical Engineering of SSNCE is organizing the First International Conference on Recent Trends in "Clean Technologies for Sustainable Environment (CTSE-19) during 26-27 September 2019. Details in conference website- www.cleantechssn.com.

December 2019

- Department of Mechanical Engineering of the Indian Institute of Science (IISc) Bangalore, is conducting The International Conference on Industrial Tribology during 1-4 December 2019. Complete details of the event at- http://tribologyindia.org/.
- National conference on **Fluid Mechanics and Fluid Power**, 9-11 Dec 2019 at PSG tech, Coimbatore.

- Indian Institute of Technology (IIT) Bombay, is organizing the 7th International Conference on Advances in Energy Research (ICAER). The conference will be held from 10th to 12th December 2019 at VMCC, IIT Bombay.
  Website- http://www.ese.iitb.ac.in/icaer2019/conference.html#content1-1g

- The 7th International Conference on Advances in Energy Research (ICAER) organized by the Department of Energy Science and Engineering, Indian Institute of Technology (IIT) Bombay, will be held from 10th to 12th December 2019 at VMCC, IIT Bombay, Mumbai, India.

  Considering the many requests received for postponing the deadline for full paper submission, the deadline has been extended to 15 March 2019.Please note that there is **no separate abstract submission.** You may please directly submit your full paper using the conference submission platform, the details of which may be found at: http://www.ese.iitb.ac.in/icaer2019/authors.html#content1-2a.

- Department of Biomedical Engineering, PSG College of Technology, Coimbatore proudly announce the conduct of **International Conference on Engineering in Medicine and Life Sciences (ICEMLS-2019)** during **19 - 21 December, 2019. Paper submission-on or before 30 August , at link** https://easychair.org/account/signin

September 2020

- 9th International Conference on Fracture of Polymers, Composites and Adhesives, organised by the European Structural Integrity Society - Technical Committee 4 and Elsevier. The conference will take place at Eurotel Victoria, Les Diablerets, Switzerland, from 6-10 September 2020.

Challenges/Contests

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

Research News from MSP

Dr Muthu Senthil Pandian
SSN Research Centre

1. SERB - Schedule of Call for Proposals

1. Start-up Research Grant (SRG) and Early Career Research Award (ECRA): **1st April to 30th April 2019**
2. Empowerment and Equity Opportunities for Excellence in Science (EMEQ): **10th April to 9th May 2019**
3. Teachers Associateship for Research Excellence (TARE): **15th April to 14th May 2019**
4. National Postdoctoral Fellowship (NPDF): **1st May to 30th May 2019s**
5. Core Research Grant (CRG): **10th May to 10th June 2019**

Website Links:

http://www.serb.gov.in/home.php
http://www.serb.gov.in/pdfs/what-new/Schedule-of-Call-for-Proposals.pdf

2. DST - Call for Joint Project Proposals: India-Czech Bilateral Scientific and Technological Cooperation – 2019

The Department of Science and Technology (DST), Govt. of India and the Ministry of Education, Youth and Sports (MEYS) of the Republic of Czech invite joint R&D proposals under the **IndiaCzech** Scientific and Technological Cooperation Programme during March 15, 2019 to **July 31, 2019.**

Who are Eligible and Subject Areas?

1. Scientists/Faculty Members working in regular capacity in recognized universities/deemed universities, academic institutes and national research & development laboratories/ institutes can apply as Principal Investigator (PI). One CO-PI is mandatory to be part of proposed project. However, number of CO-PI may be more than one as per rationale of project objectives and desired expertise.
2. The Indian PI should not be retiring during the proposed duration of the project.
3. The proposal should include research partners as PI and CO-PI from Czech research institutes/ universities with clear demarcation of objectives to be carried out by both research teams.
4. In order to qualify for such funding, investigators are required to have a concrete and sound research proposal targeting the interest of both the nations on any of the following areas:

The priority areas for this Call mutually agreed are as given below:
a) Information and communication technologies;
b) Natural sciences and biotechnology;
c) New materials and nanotechnology;
d) Medical sciences (including pharmaceutical sciences) and food safety;
e) Research of climate change, environment and energy.

Website links:

http://www.dst.gov.in/callforproposals/call-joint-project-proposals-2019-india-czech-bilateral-scientific-and
http://www.dst.gov.in/sites/default/files/Call%20for%20India-Czech%20Joint%20S%26amp%3BT%20Proposals-2019.pdf
http://www.dst.gov.in/

3. Young Scientist Research Programme (YSRP-2019)

Raja Ramanna Centre for Advanced Technology, Indore is a premier unit of Department of Atomic Energy, Government of India, engaged in R & D activities in front line research areas of **Accelerator science, Laser science, related technologies and applications**. The Centre runs a **Young Scientist Research Program** to expose young students to various frontiers in science and technology during the summer each year. This year the program will be held during **13 May to 5 July 2019**.

The research activities of the Centre include:
The research activities carried out by the centre include commissioning of two synchrotron radiation sources, electron and proton accelerators, scientific study of lasers like Nd:YAG, software development to support research programs and application of light propagation in biomedicine.

Eligibility:
Nationality: The applicant must be an Indian citizen.

Students who are presently in the first year of M.Sc. (Physics), or in the fourth year of integrated M.Sc. (Physics) or in the third year of B.E./B.Tech. (Engineering Physics/ Mechanical Engineering/ Electrical Engineering/ Electronics Engineering/ Metallurgy/ Computer Science/ Information Technology) are eligible to apply.

Financial Support:
Selected candidates will be paid round-trip train fare by II class (sleeper) and a consolidated stipend of **Rupees 5000/-** on successful completion of YSRP programme. In addition, free accommodation will be provided at the RRCAT Guest House. Those selected for the programme will work on a project during their 8 weeks stay at the Centre from **13 May to 5 July 2019**. At the end of the research programme, the participating students are required to give a presentation on their project/ research work and submit a project report.

Last date for submission of online application: **5th April 2019**

Website Links:
http://www.rrcat.gov.in/hrd/advt/ysrp.html#
https://www.info-rrcat.ernet.in/ysrp/Step1.php

4. DST - Call for Project Proposals - Scheme for Young Scientists and Technologists (SYST-2019)

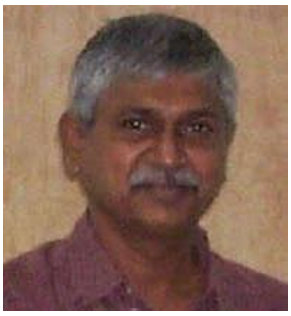
Eligibility:
1. The applicant should possess at least Master's Degree in any S/T stream. Those having Ph.D. will be given preference.
2. The candidate should be less than 35 years of the age on the last date of submission of the application to DST. However, age relaxation of 5 years would be given to Women and differently-abled applicants and those belongs to SC/ST/OBC category.
3. The applicant not in regular position should align himself or herself with an academic institution of repute, S&T based agencies including reputed voluntary organization with minimum 5 years in existence for implementation of S&T based projects. Mentor should be at permanent/regular position.

Last date for submission of project proposal: **20 April 2019**

Download Project Format:
http://www.scienceandsociety-dst.org/downloads.htm

Website Links:
http://www.dst.gov.in/callforproposals/scheme-young-scientists-and-technologists-0
http://www.dst.gov.in/sites/default/files/SYST_2019_2-01.pdf
www.dst.gov.in

Tell Me Something Good



Brothers who cofounded a $100 million company say the question their mom asked every night at dinner is what inspired their business

Bert and John Jacobs, the brothers who cofounded the $100 million Life Is Good T-shirt company, grew up the youngest of six children in a lower middle-class family in Boston.

When the brothers were in elementary school, their parents were in a near-death car accident from which their mother managed to escape with just a few broken bones — but their father lost the use of his right hand.

The stress and frustration from his physical therapy caused him to develop a harsh temper, they explain in their new book "Life Is Good."

"He did a lot of yelling when we were in grade school," John told Business Insider. And life certainly wasn't perfect.

"There were often difficult things happening around the house," the brothers write.

But their mom, Joan, still believed life was good. So, every night as the family sat around the dinner table, she would ask her six kids to tell her something good that happened that day.

"As simple as mom's words were, they changed the energy in the room," the brothers write. "Before we knew it, we were all riffing on the best, funniest, or most bizarre part of our day."

John says that this daily exercise prevented them from developing a victim's mentality of "Oh, you wouldn't believe this horrible thing that happened to me today." Instead of griping about a teacher or homework assignment, he says that they would be laughing about a silly haircut a classmate got that day, or a neat project they worked on at school.

"That optimism was something that our family always had, even when we had little else," they write.

Growing up with a mother like theirs — one who sang in the kitchen, told animated stories, and acted out children's books for them, no matter what bad situation they were going through — taught them an important lesson: Being happy isn't dependent on your circumstances.

"She showed us that optimism is a courageous choice you can make every day, especially in the face of adversity."

They say her unwavering positive outlook on life is what inspired Life Is Good — their $100 million company the mission of which is to spread the power of optimism, with the tagline, "Life is not perfect. Life is not easy. Life is good."

Since their mother's daily question served them so well in life, John says he and his brother now ask their employees the same thing when they all come together — "Tell me something good" — and the results have been very positive.

"It leads to ideas, which lead to progress, which leads to building on successes, instead of dwelling on challenges."

Takeaways from the story: Try this at your home and/or office and see the difference....Life is Good! Only you can make it!

Thanks & Regards –

Kishore Babu

HR – Department

SCHWING Stetter India Private Limited

Corporate Wisdom 64

Corporate Wisdom- Trust and its dimensions

What most people mean by trust is really the combination of three factors. If any one of the factors is missing or neglected, trust as a whole is significantly diminished.

Trust is the result of repeated experience over time. Everyone has a "trust account." Every day through your attitude and actions you make deposits into or withdrawals from your trust account with others. People will trust you when they repeatedly experience your integrity, your ability, and when they believe that you understand and that you care.

· **Character**. This is ethical trust. It is established when people have confidence in your integrity. People trust your character when they have repeated experience of consistency between what you say and what you do. People trust your character when they experience you being trustworthy in big things and little things.

· **Competence**. This is technical trust. It is established when people have confidence in your ability. People trust your competence when they have repeated experience of your knowledge and skills and your ability to achieve goals and solve problems.

· **Connection**. This is personal trust. It is established when people feel that you are personally engaged and believe you will act in their best interest. People trust you personally and feel connected when they have repeated experience of you listening, understanding, caring, and acting in their best interest.

Beware of passive withdrawals. Some leaders undermine trust not because they actively engage in negative actions, but because they fail to pay attention to the factors that build trust. And remember that trust accounts are personal. What feels like a withdrawal or deposit to one person may not be so to another…and it's the other person's view that matters. Withdrawals often have a greater impact than deposits. Trust is much easier to break than it is to build.

We tend to judge ourselves by our intentions. Others tend to judge us by how they actually experience us. Sometimes there is a gap between our intentions and how people actually experience us. Perception takes over intention every time! It is important to be aware of and to manage this gap.

High trust is a performance accelerator. Low trust is a performance decelerator. In fact, low trust operates as a "tax" on results, increasing the effort required to produce positive outcomes and diminishing their overall effect. This is why developing an atmosphere of trust is so critically important to team work and group performance.

#WishingMostAndMore

Have a great a day !

R.Ramakrishnan

Group Chairman Office

GMR Group –Delhi

This issue has two Annexures-

1. Valedictory Function
2. Alumni Documentation – Ramya Ramalingan

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.

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This edition of Aspire was compiled by Vinaya Krishna, with support from Saran Prasanth, Mohitha U, Anupa Sri and Akshay Kanna.

Vinaya Krishna

Saran Prasanth

Akshay Kanna

Anupa Sri

Mohitha U