Newsletter

Volume 9, Issue 12, December 2019

SSN

Mechanical Engineering

Aspire

Achievements in Sports, Projects, Industry, Research and Education

All About Nobel Prize- Part 72

Hermann Muller

Revolutionising Genetics

Hermann Joseph Muller is American geneticist best remembered for his demonstration that mutations and hereditary changes can be caused by X rays striking the genes and chromosomes of living cells. His discovery of artificially induced mutations in genes had far-reaching consequences, and he was awarded the Nobel Prize for Physiology or Medicine in 1946.

Muller attended Columbia University from 1907 to 1909. At Columbia his interest in genetics was fired first by E.B. Wilson, the founder of the cellular approach to heredity, and later by T.H. Morgan, who had just introduced the fruit fly *Drosophila* as a tool in experimental genetics. The possibility of consciously guiding the evolution of man was the initial motive in Muller's scientific work and social attitudes. His early experience at Columbia convinced him that the first necessary prerequisite was a better understanding of the processes of heredity and variation.

A laboratory assistantship in zoology in 1912 allowed him to spend part of his time doing research on *Drosophila* at Columbia. He produced a series of papers, now classic, on the mechanism of crossing-over of genes, obtaining his Ph.D. in 1916. His dissertation established the principle of the linear linkage of genes in heredity. The work of the *Drosophila* group, headed by Morgan, was summarized in 1915 in the book *The Mechanism of Mendelian Heredity,* which is a cornerstone of classical genetics.

After three years at the Rice Institute, Houston, Texas, and an interlude at Columbia as instructor, Muller in 1920 became associate professor (later professor) at the University of Texas, Austin, where he remained until 1932. The 12 years that he spent at Austin were scientifically the most productive in Muller's life. His studies of the processes and frequencies of mutations enabled Muller to form a picture of the arrangements and recombinations of genes and later led to his experimental induction of genetic mutations through the use of X rays in 1926. This highly original discovery established his international reputation as a geneticist and eventually won him the Nobel Prize. At this time Muller was able to demonstrate that mutations are the result of breakages in chromosomes and of changes in individual genes. In 1931 he was elected to the U.S. National Academy of Sciences.

After undergoing a nervous breakdown in 1932 due to personal pressures, Muller spent one year at the Kaiser Wilhelm (now Max Planck) Institute in Berlin, where he investigated various physical models for explaining mutations in genes. In 1933 he moved to Leningrad (now St. Petersburg) and then to Moscow at the invitation of N.I. Vavilov, head of the Institute of Genetics there. Muller was a socialist, and he initially viewed the Soviet Union as a progressive, experimental society that could pursue important research in genetics and eugenics. But by this time the false doctrines of the biologist T.D. Lysenko were becoming politically powerful, bringing to an end valid Soviet scientific research in genetics.

Muller fought Lysenkoism whenever possible, but he ultimately had to leave the Soviet Union in 1937. He spent three years at the Institute of Animal Genetics in Edinburgh, returning to the United States in August 1940. On returning to the United States, Muller obtained temporary positions at Amherst College, Massachusetts (1941–45), and, finally, a professorship in zoology (1945–67) at Indiana University, Bloomington.

The award of the Nobel Prize to Muller in 1946 increased his opportunities to publicize one of his major concerns—the dangers posed by accumulating spontaneous mutations in the human gene pool as a result of industrial processes and radiation. He was foremost in promoting public awareness of the dangers of radiation to future generations.

Source: https://www.nobelprize.org/prizes/medicine/1946/muller/

Info to Alumni- Campus Update

On 5th November 2019, the Whistleblower policy was launched with the following message:

"The principles of Trust through Transparency and Accountability are at the core of SSN Institutions existence. To ensure strict compliance with ethical and legal standards we are pleased to launch the Whistle blower Policy (Attached herewith). The same is also available in the college website.
The Whistle blower mechanism is intended to encourage employees and other stakeholders to make good faith reports of suspected fraud, corruption, or any other improper activity within the organization to designated officials through the channels described in the attached policy which will then be investigated by an independent Ombudsman function and will be taken to appropriate closure. We are also pleased to inform that an external agency**, "Thought Arbitrage Consulting"**, has been appointed to act as the Independent Ombudsman function to investigate all such complaints received under the Whistle blower mechanism. We would thus encourage all our employees and stakeholders to make judicious use of the policy provisions to report any unethical and improper practices, at the organizational level or at the Individual level, as per the policy guidelines."

Between the 5th and 6th November 2019, Recertification audit for ISO9001-2015 by TUV was conducted and SSN was recommended for recertification.

Dr Srinivas Gumparthi

On 13th November 2019, Diabetic health education and screening camp was organized at SSN. The event was coordinated by Mr Gnananandan, Sr. Manager, HR.

Mr. C. Gnananandan

The "CanDo" workshop was organized by NSS team on 13th November 2019 for school students. (Details in Faculty write up section)

On 14th November 2019, the President of SSN Institutions, Mrs Kala Vijayakumar, handed over sanction letter for faculty projects. 29 projects have been sanctioned for a total value of **Rs. 99 lakhs**.

Mrs Kala Vijayakumar

The following professors from the Mechanical Department have received an approval for their proposals: Dr.R.Rajeswari (Rs.5.5 lakhs) , Dr.S.Sureshkumar (Rs.4.5 lakhs), Dr.K.S.Vijaysekar (Rs.2 lakhs)

Dr S Suresh Kumar

Dr R Rajeswari

Dr K S Vijaysekar

Dr Jerome, Scientifique attaché of the French Embassy visited our campus on 15th November 2019. He shared all available opportunities for collaboration with French Universities. Details of available Indo –French Schemes can be found at www.cefipra.org

The International Conference on Graph Theory and its Applications was held by the department of Mathematics at SSNCE between 20th and 21st November 2019. The conference was organized by Dr.S.Sampathkumar (Asst. Prof/Math) and Dr.P Venugopal (HoD/Maths).

Principal Dr S Salivahanan writes…

Dear All,

This is to inform that the **Smart India Hackathon (SIH) 2020** announcement was made and problem statements part – 1 has been released. The tentative dates for SIH 2020 are 14, 15 March 2020.
The details can be found in the url https://www.sih.gov.in/about and announcement in the url https://www.sih.gov.in/pdf/PS_Newspaperad_Color.pdf

The last date for entering selected teams at SIH portal by college SPOCs is 25 January, 2020. The students are instructed to identify the suitable problem statements and approach SPOCs and register their teams.

The guidelines for idea submission can be found in the url https://www.sih.gov.in/pdf/IdeasubmissionprocessSIH2020.pdf

Key points for idea submission:

- Team of 6 students is mandatory of which at least one should be a female candidate.
- The team leader of a team cannot participate as a team member in any other team
- Internal Hackathon will be conducted to shortlist the teams
- Team & idea details once entered cannot be altered.
- The team name should be unique and MUST NOT contain the name of your institute in any form.

Dr. S. Joseph Gladwin, Associate Professor, Department of ECE and **Dr. K. Madheswari**, Asso. Prof./CSE are appointed as 'College SPOC' for Smart India Hackathon 2020.

Info to Alumni- Department Update

EXTERNAL RECOGNITION:

Dr. N.Lakshmi Narasimhan

Dr. N.Lakshmi Narasimhan, Associate Professor, received the sanction letter from M/s Preethi Kitchen Appliances on a Grant of Rs. 70,000/- towards organizing a Joint Technical Event "TECHNOVATE 2020" scheduled this Jan 2020 [07.11.2019] (Details in Faculty write up section)

Dr. N. Lakshmi Narasimhan, Associate Professor, was invited as a Special Guest by Preethi Kitchen Appliances Ltd. (PKAL), Chennai at their Corporate Office for declaring open the Technnovate 2020, a technical event to be jointly organized by our department and PKAL [27.11.2019]

Dr. S. Suresh Kumar has delivered an invited lecture titled **"Smart Factories"** at Panimalar Engineering College, Chennai. [11.11.2019-23.11.2019]

Dr. S Suresh Kumar

Dr. K. Jayakumar, Associate Professor reviewed a paper titled "Effect of Banana, Coir and Bagasse Fly Ash Filled with Hybrid Fiber Epoxy based Composites for Mechanical Applications" for the Journal of Industrial Textiles (SAGE Publications) [18.11.2019]

Dr. K. Jayakumar

Dr. A K Lakshminarayanan

Prof. Madan Kumar Jha, Chairman, GATE-JAM 2020, IIT Kharagpur had requested our inputs for GATE syllabus revision. We have submitted our inputs for their consideration.

Dr. A.K.Lakshminarayanan, delivered a guest lecture titled "Green and sustainable welding technique to join exotic materials" in a Two Days National Workshop on "Green and Sustainable Manufacturing" organized by SRM Institute of Science and Technology, Kattankulathur, Chennai [18.11.2019-19.11.2019]

University Rank Holders

The following students have bagged ranks in the Anna University examinations of April / May 2019.

312215114126 Yashaswin Harathi - 10th

312215114108 Suraj R - 17th

312215114104 Siddharth Krishna.S - 19th

Yashaswin Harathi

Suraj R

Siddharth Krishna.S

RESEARCH ACTIVITIES:

Arthur Jebastine Sunderraj D, Arun Vasantha Geethan K, Ananthapadmanaban D published a paper titled SEM and EDAX Evaluation of Al-Fe Alloy in the International Journal of Engineering and Advanced Technology (Volume-9 Issue-1, October 2019). The Journal is Scopus indexed [05.11.2019]

Dr. D. Ananthapadmanaban

Dr. S. Soma Sundaram, published a paper titled, "Numerical studies on the effect of orientation of a heated trapezoidal bluff body" in AIP Conference Proceedings 2161, 020004 (2019). The paper was co-authored by Ashwin Shriram Raja and Adithya Vignesh [11.11.2019]

Dr. S .Soma Sundaram

Dr. A.K. Lakshminarayanan's Scholar, Mr. R.Rajasekaran (Reg. No: 17132991236) presented his Second Seminar on "Effect of Welding Processes on Mechanical Properties, Microstructural Characteristics and Stress Corrosion Cracking Behaviour of 316LN Austenitic Stainless Steel" [20-11-2019]

A research paper titled "Enhancement of properties of pure lead via underwater friction stir processing for thermoelectric and battery applications" authored by SEKKAPPAN, C., VALSARAJ, V., LAKSHMINARAYANAN, A. K. is published in the journal of Kovove materialy - Metallic Materials (Clarivate analytics impact factor: 0.593). At this moment, the authors thank the SSN management for the financial support through students internally funded project.

Dr. M.Nalla mohamed and PhD scholar R.sivapirasad published a paper in the AIP conference proceeding titled "CFD simulation for the design of combustor in turbocharger test rig"

Dr. M Nalla Mohamed

Ph. D seminar presentation by Mr. Rakeshkumar A (Register number: 17172991229), part-time scholar of Dr.R.Damodaram , on "Microstructure and Mechanical Properties of Friction stir Welded Alloy 718 Joints." [23-11-2019]

Dr. R Damodaram

Mr C Arun Prakash and Sakthi Vigneshwaran of Final Year presented a paper at the International Conference on Innovative Technologies in Mechanical Engineering held at KIET Group of Institutions, Ghaziabad in association with Cranfield University, UK. Their paper won the **best paper award** in the conference.

Mr C Arun Prakash

Dr G Selvakumar, Associate Professor has published the following papers in SCI (Clarivate Analytics) Listed Journals.

1. Renjin J Bright, Selvakumar G, Sumathi M and Lenin N, (2019), "Development, Mechanical Characterization and Analysis of Dry Sliding Wear Behavior of AA6082 - Metakaolin Metal Matrix Composites", Materials Research Express. Vol. 6, No. 12. IF = **1.449.**

Dr G Selvakumar

2. **G Selvakumar**, V Balasubramanian, S Vijayan and N Lenin (2019), “Effects of multi-pass cutting during wire electrical discharging”, Materials Testing. Vol. 61, No. 9, pp. 901-906. IF = **0.521.**

Dr G Selvakumar has delivered an expert talk on ‘**S**elf **A**ssessment **R**eport (SAR) Preparation – Tips & Tricks’ on 27.11.2019 at Civil Engineering Department., SSNCE. [27.11.2019]

PROJECT PROPOSALS

Submitted proposals:

Dr. M S Alphin

Dr. M S Alphin, Associate Professor, submitted a research proposal for Funding to Department of Science and Technology, Govt of India, SERB-SUPRA (Scientific and Useful Profound Research Advancement) scheme for 50 Lakhs. The research focus is on Automotive technology. Co.Investigator: Dr. L. Sivachandiran, SRM Institute of Science and Technology, Kattankulathur [29.11.2019]

Dr. Satheesh Kumar Gopal and Dr. Vijayan. S, the faculty coordinators for the student team comprising of Aditya Bucha (lead), S Aravind, Shailesh Kumar, Sarvesh S.V, Raghasudhan K and Kevin J Thelly together have submitted a BPlan titled "Waste Management using Smart Dustbin with Anti-Theft Mechanism" for the IICDC 2019 contest (https://innovate.mygov.in/iicdc2019/) [30.10.2019]

Dr. Satheesh Kumar Gopal and Dr. S. Vijayan along with Dr. V. Mahesh, Dr. S.V. Jansi Rani, Dr. R. Priyadharsini, Dr. B. Geethanjali, Dr. R. Sundareswaran and Dr. K. Sathish Kumar together have submitted a proposal for SUPRA scheme titled “Quantum characteristics of Chronic-illness-reversal through augmented meditation” for a budget of INR 2,01,41,200/- [29.11.2019]

Dr. K S Jayakumar

Dr Satheesh Kumar Gopal attended the PAC meeting on 19th November at Gurgaon-122001 (Haryana) for presenting the proposal titled “Sustainable Skill Development Centre – A Knowledge Route” submitted to DST STI Hub scheme along with Dr. K.S Jayakumar, Dr.K.L Harikrishna and Dr. N.P Rajesh[25.09.2019]

Dr. S. Vijayan

Dr. S. Vijayan, Dr. S. Sasirekha, Dr. Satheesh Kumar Gopal and Dr. T. Shanmughapriya of SSN along with Dr. Constantin Blome, University of Sussex, United Kingdom, Dr. Nachiappan Subramanian, University of Sussex, United Kingdom and Dr. Manoj Dora, Brunel Business School, Brunel University London have submitted a proposal titled "Zero food waste cultural awareness through cold chain educational game" to SPARC scheme, DST for an amount of Rs. 74,10,000/- [30.10.2019]

Dr. G. Satheesh Kumar

Dr. S. Vijayan, Dr. Satheesh Kumar Gopal and Dr. Srinath Rajagopalan (Civil) along with Dr. Jun Jie Chong and Dr. Kheng Lim Goh of New Castle University have submitted a proposal titled " Cost-Effective and Eco-Friendly portable concrete production system for fabricating bricks to improve build environment from waste materials", to the SPARC scheme, DST for an amount of Rs. 80,56,000/- [11.06.2019]

DC MEET:

Dr. S. Suresh Kumar has attended a Comprehensive Viva Voce Examination for Mr. K. Srikanth (15PHD1093) at VIT-Chennai. The research topic of the scholar was “Effect of Shape Imperfections on Fatigue Life of Pipe Bends with Cyclic Bending Load” [06.11.2019]

Dr. B. Anand Ronald, Associate Professor, attended the DC meeting of a scholar registered under Anna University at Velammal Engg. College [23.11.2019]

Dr. K. Jayakumar, Associate Professor, conducted the second DC meeting for his part-time Ph.D. scholar Mr.T. Suresh [30.11.2019]

Dr. B. Anand Ronald

PROGRAMS ATTENDED:

Dr R Prakash

Dr.R.Prakash attended AICTE sponsored Short Term Training Program on Prospects and Challenges in Biofuels and Bioenergy (STTP-PCBB 2019) at St. Joseph's College of Engineering, Chennai from [11.11.2019-16.11.2019]

Dr. KL. Harikrishna

Dr. KL. Harikrishna, Associate Professor, attended One week Faculty Development Program on "Development, Characterization and Analysis of Composites" at VNR VJ Institute of Engineering and Technology, Hyderabad [19.11.2019 - 23.11.2019] (Details in Faculty write up section)

Dr G Selvakumar, Associate Professor in Mechanical Engineering Department has attended AICTE Sponsored FDP on "Internet of Things and Advanced Technologies in Manufacturing" during at Panimalar Engineering College, Chennai – 600123 [11.11.2019 - 23.11.2019]

Dr.M.Nalla Mohamed has participated in FDP on "Recent trends in metallurgy" organized by Department of Nano science and technology,Mepco Schlenk Engineering College,Sivakasi [25.11.2019-30.11.2019]

STUDENT ACTIVITIES:

1. Hemanth Kumar, 3rd year, attended an Inplant training at Bluestar Limited [29.11.2019]

2. S.B.Krishanth, 3rd year, attended an Inplant training at Combat Vehicles Research and Development Establishment (CVRDE), Avadi, Chennai [29.11.2019]

3. Arun S, 4th year, won a gold medal at the State Level Roller Skating Championships 2019 [11.11.2019]

Faculty Write Up

Dr N Nallusamy, Prof/Mech, writes…

Dr. N. Nallusamy

"I am happy to inform you that my paper (co-author: Mr. V. Venkatesan, Part-time research scholar) titled "Pine oil-soapnut oil methyl ester blends: A hybrid biofuel approach to completely eliminate the use of diesel in a twin cylinder off-road tractor diesel engine" has been published in the international journal "Fuel" with good impact factor.
Journal Metrics

- CiteScore: **5.80**
- Impact Factor: **5.128**
- 5-Year Impact Factor: **5.223**
- Source Normalized Impact per Paper (SNIP): **2.012**
- SCImago Journal Rank (SJR): **1.745**

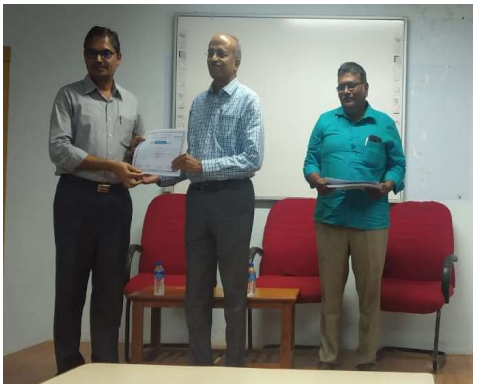
Paper was published online on 8th November 2019."
DOI information: 10.1016/j.fuel.2019.116500

Faculty Write Up

Dr N Nallusamy, Prof/Mech, writes…

Short Term Training Programme (STTP) on "Computer Aided Engineering (CAE): Tools and Techniques"

Dr. N. Nallusamy and Dr. K. S. Jayakumar attended 5-day STTP on "Computer Aided Engineering (CAE): Tools and Techniques" conducted by Pondicherry Engineering College (PEC), Puducherry from 18.11.2019 to 22.11.2019. Thirty-three participants attended the STTP.



CAE or Computer-Aided Engineering is a term used to describe the procedure of the entire product engineering process, from design and virtual testing with sophisticated analytical algorithms to the planning of manufacturing. CAE is the next step in not only designing a product, but also supporting the engineering process, as it allows to perform tests and simulations of the product's physical properties without needing a physical prototype. In the context of CAE, the most commonly used simulation analysis types include Finite Element Analysis, Computational Fluid Dynamics, Thermal Analysis, Multibody Dynamics and Optimizations.

The standard CAE workflow is to first generate an initial design and then simulate the CAD geometry. The simulation results are then evaluated and used to improve the design. This process is repeated until all the product's requirements are met and virtually confirmed. In case of any weak spots or areas where the digital prototype's performance doesn't match the expectations, engineers and designers can improve the CAD model and check the effects of their change by testing the updated design in a new simulation. This process supports faster product development as there is no need for building physical prototypes in early development stages. Simulating with CAE methods will only take a few hours at most, in comparison to days or probably weeks that building a physical prototype would require.

When planning to integrate simulation techniques into the product development process, it is important to know about the environment (forces, temperatures, etc.) that the product is going to be exposed to. Knowing these conditions is crucial to properly set up a simulation. The predictive value of any simulation can only be the precision of the boundary conditions made.

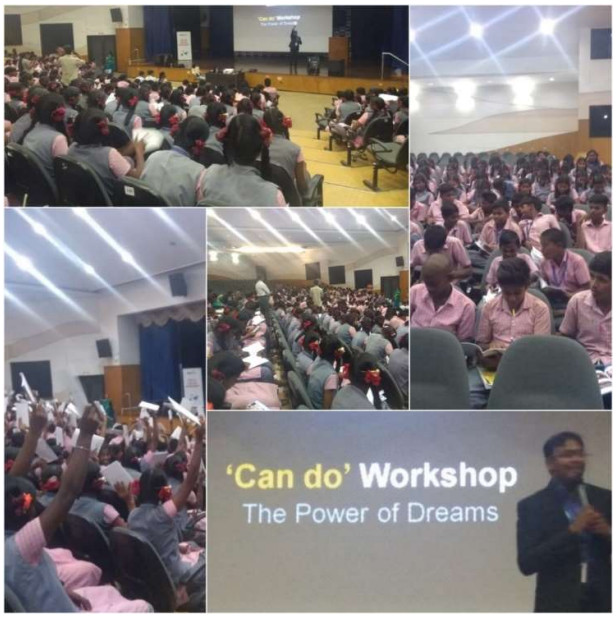
To meet the above requirements, the STTP lectures discussed the following topics: CAE process automation, Basics of CAD, FEA, Design of Thermal systems, Mechanical vibration analysis, Introduction to FEA Analysis and its models, Curve fitting methods, Demo on solving problems using ANSYS, CAD-Embedded CFD, Optimization in Manufacturing process, Optimization of friction stir welding and its FEA analysis, Fuzzy logic, and optimization of Biodiesel storage system.

Faculty Write Up

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

Dr. M S Alphin

'CAN DO' Program



Sri Sivasubramaniya Nadar College of Engineering -NSS and Intellect - formerly Polaris (Ullas trust) jointly organized ' CAN DO' program for Government school Students around our Institution in SSN Main Auditorium on 13 November 2019.

The primary motive of Ullas and SSN is to recognize academic excellence in students from the economically challenged sections of our society and encourage the "Can do" spirit towards chasing their dreams and aspirations. Very early in its evolution, so the program decided to focus its energies on students during the most vulnerable stage in their journey – adolescence! This would translate into students from Class (Grade) 9th. About 350 students from Government Schools of Thiruporur, Kelambakkam and Paiyanoor attended the workshop. This workshop will be followed by Personal training in their own school by our SSN- NSS and Ullas Voulteers.

Faculty Write Up

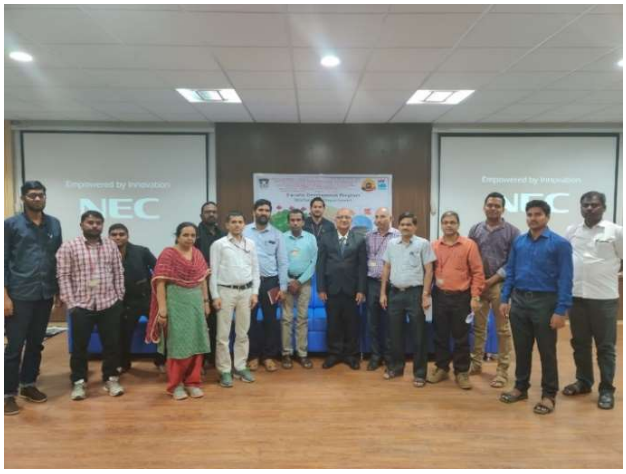
Dr K L Harikrishna, Assoc. Prof/Mech, writes…

Dr. KL. Harikrishna

Faculty Development Program on "Development, Characterization and Analysis of Composites"

I attended one-week faculty development program on Development, Characterization and Analysis of Composites conducted by VNR Vignan Jyothi Institute of Engineering & Technology, Hyderabad from 19.11.2019 to 23.11.2019.

Experts - Prof. A. Varadharajulu, Centre for Composite Materials International Research, KU, Tamilnadu, Dr. N. Kishore Nath Scientist "G" from DRDO, Hyderabad, Prof. P. Rameshbabu Osmania University, Hyderabad, Dr. K S Rao,Kelvin Labs Hyderabad, Dr. C. Thirmal Centre for Nano science & Technology, Dr.P. Kishore Kumar VBIT Hyderabad, Dr. Ajay Kumar K, VNR AJIET, Hyderabad delivered their lecture in this program. Also, there was a Hands-on session on Nano Composites (Polymers). Mr. Jalagam Ravinder Rao, Director, Mech Eng, Hyderabad, delivered his lecture on "Simulation of composites using Ansys19.0". This FDP was totally focused on Polymer Matrix Composites and had a chance to see the real polymer composites.



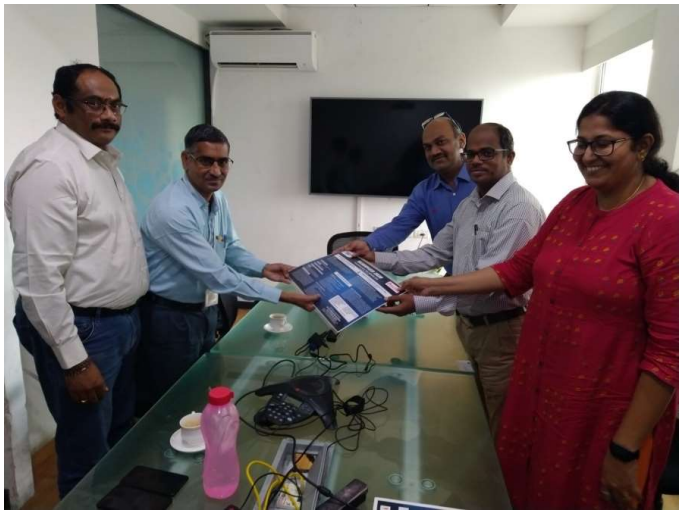
Faculty Write Up

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

TECHNNOVATE2020

Dr. N. Lakshmi Narasimhan, Associate Professor, was invited as a Special Guest by Preethi Kitchen Appliances Ltd. (PKAL), Chennai at their Corporate Office on 27.11.2019 for declaring open the Technnovate2020 a technical event to be jointly organized by our department and PKAL. Members present: Mr. S. Srinivasan (CEO, PKAL), A. Subramanian (Director Ind. operations), Ms. A. Sripriya (Consumer Marketing Manager), Mr. N. Sivasankaran (Project Lead) and Dr. N. Lakshmi Narasimhan (SSNCE).

Dr. N. Lakshmi Narasimhan sharing his views with the CEO of Preethi Kitchen Appliances and Team Members on 27.11.2019 at PKAL Corporate Office, Chennai.



Dr. NLN receives the Official Copy of Technovate2020 poster from the esteemed members of PKAL. Right: Mr. S. Srinivasan, CEO, PKAL, A. Subramanian, Director Ind. operations, Ms. A. Sripriya Consumer Marketing Manager. Left. Mr. N. Sivasankaran (Project Lead) and Dr. N. Lakshmi Narasimhan (SSNCE).

Placement Write Up

WABCO

The WABCO selection process was a pool campus drive with around 130 students (UG & PG) from SSN, B.S. Abdur Rahman Crescent Institute of Science and Technology and Pondicherry Engineering College. All the students were asked to assemble at Crescent College on the first day, October 17, 2019. Two of our students, Rahul B and Deepak S were placed in the organization, after 5 rounds of intense screening.

ROUND 1: GROUP DISCUSSION

The Group Discussion round was a usual one. The students were clubbed into a group of 20 and provided a specific topic for each GD. All of them were given 10 sec each initially to take their stance on the topic and once everyone put forth their opening stance, the floor was open for a time of 20 mins for discussion. The GD was a crucial round as they selected only 2 or 3 from each group.

Rahul writes…
"One must always be a bit patient in a GD and once you get a chance to talk, you must try to squeeze in all your thoughts relevant to the topic in a short, crisp and structured manner. You must not be too dominant and keep talking and take your own sweet time. You must listen to what others discuss and quote them when you talk the next time and also help out any of your group mate who is struggling to initiate his statement by giving him a chance. These will add value to you as a team player. I personally feel that was a key for me to get through the GD."

ROUND 2: ONLINE TEST

The online test was quite different from other company tests as it did not have usual quantitative aptitude and logical questions. First section was an arithmetic round. Second section involved completing the sequence and the third, a vision test. The fourth and fifth consisted of logical and technical MCQs respectively. Only 3 students from SSN Mechanical department cleared the test. Due to this, they were called to the WABCO Technology Centre India, Porur for interviews, the next day.

ROUND 3: TECHNICAL INTERVIEW

Deepak writes…

"The third round was the technical interview held at their office on Day 2. No direct technical questions like 'What are the laws of thermodynamics?' were asked. Questions were asked from the resume, current trends like 'electrification of vehicles'. I was also asked to redesign a feature of a pen, in order to test my critical thinking. During interviews, do not abruptly say "NO" as an answer at the first instance of the question. Think about it for a few seconds and try to express some ideas which is even peripheral to the question, and that will expose your thinking ability skills to the interviewer. Presence of mind and calm composure during the interviews fetched me the job. "

ROUND 4: PSYCHOMETRIC TEST

This was a psychometric test. The round was just to check whether the candidate suited the company's culture by asking case study questions like "Do you like to work alone or as a team?", "Do you get distracted during a boring conversation?"
There was no elimination in this round.

ROUND 5: HR INTERVIEW

The initial interview with the HR of the WTCI lasted for about 15 mins. They were asked questions like "What do you know about WABCO?", "What are your aspirations?", "How do you see yourself in the next 5 years" etc.
The selected candidates were also told that they would be having a telephonic conversation with VP – HR India.
The VP- HR contacted Rahul and Deepak the next working day and asked few basic questions about their families and aspirations. It was a casual conversation. Towards the end, he welcomed them to join WABCO.

Placement Write Up

Technip FMC

Technip FMC visited the SSN campus on October 18, 2019 for recruitment of Graduate Engineering Trainee (GET). Three of our students from the Mechanical Engineering department, Arun Rajesh, Rakesh Kumar and Suraj Jacob Chandy received placement offers and have shared their experiences with us below.

ROUND 1: ONLINE APTITUDE TEST

A 90-minute AMCAT online test was conducted on September 28th and, consisted of four sections, Quantitative and logical aptitude, English vocabulary and comprehension, Technical aptitude and Personality test.
"Quants and verbal were basics from RS Aggarwal. Technical testing was basic core related questions focused on Design, Thermal and Strength of Materials. All topics asked were general and if you decide to prepare in advance instead of when the companies come, you will surely be able to get through. The test lasted for about an hour and at the end of the test was a psychometry test to measure individuals' mental capabilities and behavioural style. Answer this as honest as possible and to impress someone with your answers." – Suraj Jacob Chandy

ROUND 2: GROUP DISCUSSION

18 students were selected for this round and they were split into two large groups and were given separate topics to discuss.
“It was a non-elimination round. There were 7-8 students in a group. Each group was given 30 minutes to discuss the given topic. Our group was given the topic, ‘Will Artificial Intelligence increase the job opportunities or decrease it?’ Everyone got a chance and enough time to state their stance.” – Arun Rajesh

ROUND 3: TECHNICAL AND HR INTERVIEW

We had one panel with 3 members who interviewed all 18 students. One of them HR and the other two were heads of Department of Engineering division. They started out with very basic questions which involved introduction of the individual.

“It was a friendly interview panel and the discussion went on for around 35 minutes. Most of the questions were from my resume. Prepare well in advance for the "tell me about yourself" question and narrate it like a story, connect each and every activity in your resume in a way that they don't get bored and while telling about your interpersonal skills try to give some real life examples. Ensure you are aware of what the organization works on. I contacted one of my seniors, who was working in Technip to know about the company culture, work etc .and I stated this point during my interview which made the interviewer to think that I had taken efforts to know about the company. Finally, be confident, calm and composed during all the rounds and be honest, both in what you speak and what you state in your resume.” – Rakesh Kumar J

Placement Write Up

MRF (Madras Rubber Factory)

The MRF placement drive began on September 23, 2019 at the SSN campus and culminated with the final round of interviews held at the MRF office on November 4, 2019. Three students, Rupesh S, Niranj Kumar and Gautham S Nair received the job offer from the organization.

ROUND 1: ONLINE TECHNICAL TEST

"The first round was technical aptitude which consisted of 20 questions. Questions were from Fluid Mechanics, Manufacturing Technology, Automobile Engineering, Strength of Materials, Design of Transmission Elements (especially belt, rope drives and bearings) and there were one or two questions related to tyres also. I suggest RS Khurmi book of aptitude for preparation as many questions were taken directly from this book. You will be automatically redirected to the next round if you score above the minimum cut off which will be set already." – Niranj Kumar VK

ROUND 2: APTITUDE AND PSYCHOMETRY

Out of 72 (Mechanical + EEE) who appeared for first round, close to 45 were redirected to the next round. The second round consisted of 30 aptitude questions. Difficulty level was moderate. Aptitude was followed by psychometry, followed by a scheduling activity. There was no elimination in this round.

ROUND 3: GROUP DISCUSSION

There were 3 groups and the GD lasted only for about 12-14 minutes and everyone hardly had a chance or two. These three rounds happened in a day. Results were announced after a month and 4 students were called for a face to face interview at the office in Mount Road. They were selected based on the cumulative score obtained in the first three rounds.

8 other students from VIT were also present for the process at the MRF office. Another GD was conducted and the topic was "Is it necessary to have an in-house R&D Department within a company?" There weren't any elimination in this round. The head of R&D was present during the GD to monitor the discussion.

ROUND 4: TECHNICAL INTERVIEW

This was the technical interview round. There were two panels and questions differed based on the panels.
"I was asked about my projects, what I knew about tyres, and they tried to find out if I have any plans of leaving for Masters and my willingness to work with the company. Be thorough with your resume. Explain your projects and their applications clearly. Answer precisely. Be bold and speak with confidence." – Rupesh S

ROUND 5: HR INTERVIEW

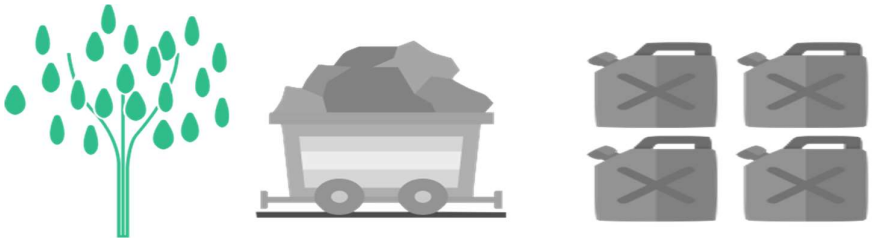
The HR round hardly lasted for 8 minutes. The students were asked about their family background and location constraints. Results were announced a week later and all the 3 who attended the interview received the offer.
"Previous experiences I had during placements helped a lot. I looked into the mistakes I made and worked on wherever I could. I enjoyed the interviews and this might have helped me to stay calm and present. The inputs which I received from my friends who already got placed, placement coordinators, professors and from everyone at the department gave an edge and I'm grateful to them for their help. " – Gautam S Nair

Mech Marvel - 60

The Wind Tree

With its totemic design, the Wind Tree developed by the new world wind, is already a star asset for companies and communities that want to highlight their engagement in a greener future. It is Ideal for communities or businesses and is a major asset to produce and consume green energy while respecting aesthetics and urban strategies. Setting up the tree can be done by selecting the colours of the leaves and trunk and other options can be added. This tree produces 10.8 KW power.

Other alternatives which the company provides are the modular tree that allows one to combine 18, 24 or 30 Aeroleafs. Whatever its configuration is, it can be set up on the roadside and in public or private gardens. It produces power between 5 and 9.4 KW.



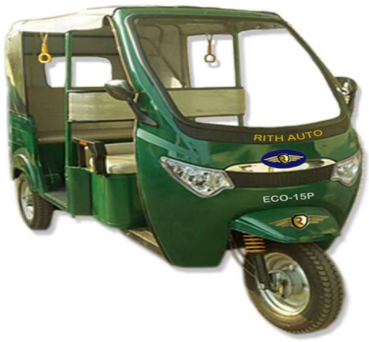
1 Wind Bush = **576** of coal/year = **28**fifteen-litre jerry cans of fuel/year

Another one is called the bush which is an optimized combination of 12 Aeroleafs equipped with photovoltaic petals mounted on 4 trunks integral with each other. It is particularly relevant for sunny and small spaces. It can be installed alone or in line, in aisle or on the edge and a simple base is enough to keep it on the ground.

Source: http://newworldwind.com/en/

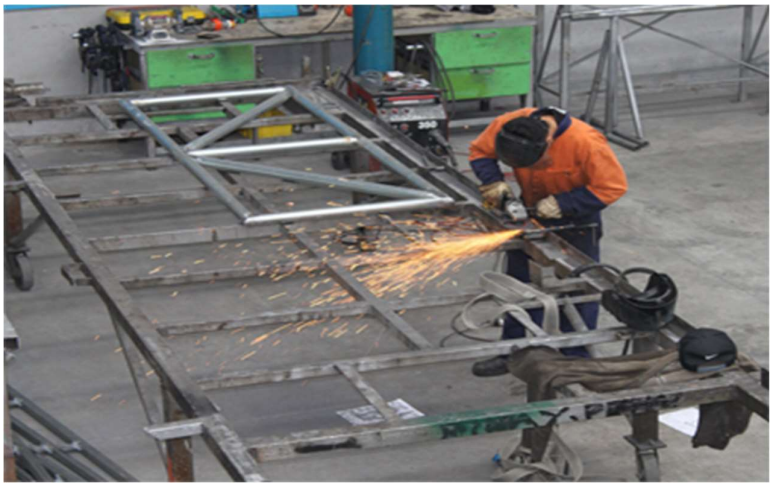
RITH AUTO

Rith Auto is the EV manufacturing company established by SSV Technologies Pvt Ltd in Andhra Pradesh. It was established in 2014 with a vision to manufacture eco-friendly and economically viable electric vehicles. They currently manufacture electric auto rickshaws, loading trucks and garbage trucks and are eyeing to start manufacturing electric cars in the near future.



Apart from manufacturing, they also provide services such as EV charging stations, troubleshooting, water washing, battery sales and general servicing in their service stations located around Andhra Pradesh. Their vehicles are certified by EEC, SAE and BIS and come with a promise of good quality and long service period.

Website: http://www.rithauto.com/index.php
If interested to work here, contact: info@rithauto.com



Amazing Innovation- 141

Fire triggered Fire extinguisher

Elide Fire Ball is a revolutionary self-detonating device designed to extinguish fire. It has rapidly asserted itself as a standard product on the fire safety market during the last years.

It was created as a response to the continuous increasing densities of urban communities which face a huge risk of potential disasters caused by fire. There is an overplus of computer processing equipment needed today meaning that the necessity of proactive fire safety measures is constantly growing. Elide Fire Ball has all the required qualities to outshadow all its predecessors and it will assert by itself as the star product of the market. Elide Fire Ball is composed of a lightweight casing of rigid plastic foam with an abrasion-resistant exterior sheathing. Within its interior there is an explosive yield detonator and a variety of fire-retardant chemical agents, including dry powders, two-part reactants and liquid components.

How it works

Active use when a fire breaks out, simply throw the ball into the fire. It will naturally fall into the base of the flame and activate within 3 to 10 seconds. Neither mechanical operations nor training or special skills are required. The fire ball is 152 mm in diameter with a weight of 1.5 kg, extremely easy to handle. Passive use having placed the ball over / on top of fire risk areas, in case of fire the ball will automatically deploy (3-10 seconds after contact with the flame) and put out the fire on a 8-10 square meters.

Main features

- Easy to use
- Compact and lightweight
- Self-activating
- No inspection required

Source: http://www.elidefire.eu.com/

Amazing Innovation- 142

The Encompass Brush

Encompass is a revolutionary half-mouth toothbrush that provides an effortless, intuitive, and optimal clean EVERY TIME—and in just 20 seconds. Encompass is not a gimmicky toothbrush designed to help you brush your teeth quickly with little thought to its actual effectiveness or viability. Encompass is designed by dental professionals as a true medical device and to adhere to both regulatory and American Dental Association (ADA) criteria and standards for safety and effectiveness.

With Encompass, you don't have to be perfect to brush perfectly every time. The only toothbrush of its kind, Encompass self-adjusts for a custom fit to ensure an ideal cleaning even if you have braces or

crooked, misaligned, or missing teeth. Because it does the brushing for you, Encompass can also provide anyone with limited dexterity a dignified and simplified solution to oral care.

How does it work?

Instead of cleaning 1-2 teeth at a time, Encompass uniformly cleans half your teeth at once. The patented air pump system quietly drives the Encompass brush head at an impressive rate of 100 brushstrokes per second. The unique J-shaped brush head with individual “flex fingers” and longitudinal flex point self-adjust to your mouth and teeth, providing a custom fit and ensuring proper bristle contact for every tooth—including along the gum line and hard-to-reach areas.

Source: https://www.indiegogo.com/projects/encompass-brush-smarter-better-faster/#/

Amazing Innovation- 143

Self-Sanitizing Door Handle

Two graduates from the University of Hong Kong have come forward with a door handle that uses UV light to constantly sterilize itself and claim their solution to be more effective than current chemical-based cleaning techniques.

The students were motivated by an outbreak of the severe acute respiratory syndrome (SARS) in the early 2000s, which was due to a virus spread by small mammals in China. The epidemic sickened over 8,000 people in 2003 and claimed the lives of 774, mostly in China and Hong Kong, according to the World Health Organization.

To reduce the spread of such viruses, Wong and Li developed the "self-sanitizing door handle" out of a glass tube in the middle and two aluminium caps at both ends. The handle is covered by a special photo-catalytic coating made from titanium dioxide and is powered by an internal generator that converts kinetic energy (door movement) into light energy to continuously power the UV light. In lab tests, the UV door handle was able to destroy around 99.8 percent of microbes.

Source: https://www.techspot.com/news/82276-students-develop-self-sanitizing-door-handle.html

Amazing Innovation- 144

Remote Controlled Life Saving Float

U-Safe is a lifesaving buoy that can drive itself around in the water by remote control, meaning it can reach a victim quickly, and transport them to safety if need be. The U-shaped U-safe is a battery powered device you can use in place of any lifesaving "donut." When it's thrown in the water, it propels itself using a pair of electric turbines that take in water and fire it out the back.

A remote control thumbstick gives an operator the ability to drive it as a small watercraft - and it's quite nippy as it makes its way across the water. It looks like about the quickest way we can imagine to get a piece of lifesaving gear out to a distressed person in the water, particularly in difficult surf. Once a victim has been reached, the U-safe has enough power to help drag them back toward safety - which could make it very handy on large ships that might have to launch a rescue boat otherwise.

Source:https://newatlas.com/noras-u-safe-powered-lifesaving-buoy/47533/

Alumni Update 1

Jose Rohan

Chennai now has a Lost and Found website "lostfoundtn.com"

The NGO "Chennai society of Inventors and Ecofreaks", which was founded by our alumni Jose Rohan, from 2014-2018 batch and currently employed at FreshWorks, has launched a new initiative 'lostfoundtn.com" for the easy retrieval of lost items.

"This is a website where people who have lost their items can post and describe about them, and people who have found other people's items can do the same. By doing so, a connect is established between the finder and the person who has lost the item. This helps in easy and quick retrieval of lost items.
The idea for the website came to Jose when his cousin had misplaced his pendrive in a public place. The pendrive had contained some crucial backup work documents and losing it had resulted in a serious escalation. As of now, only the areas of Chennai have been listed,however the NGO has plans to expand the coverage to other major cities in the state as well.

"Chennai society of Inventors and Ecofreaks" is a humanitarian engineering based NGO and focusses on executing community projects and raising awareness about climate change. Having previously released magazines to create scientific and environmental awareness among the people of Chennai, the NGO has now plans to further execute similar scientific projects across the state. To know more about their upcoming projects, please do visit www.csie.in or write to them at chennaisocietyofinventors@gmail.com.

Alumni Update 2

Prassanna Balasubramaniam writes…

Hello SSNites! It's been almost 7 years since I graduated from SSN and I'm glad to be connecting with all of you.

Given the current situation of the Automobile Industry, I just want to help you guys get some clarity on it based on the experiences that I have gained over the past years by working at Daimler India and Ford Motor Company (Smart Mobility Team), USA. The future of any industry is unpredictable. Though we have been raised to crave and achieve predictability and certainty, the real opportunity now lies in managing the uncertainty.

The Automobile Industry is now shifting from product based to service-based industry in many aspects. This doesn't mean that it is the end of production or manufacturing. It just means that in future, the car sales will be influenced by companies that own mobility platforms. The World is moving towards Smart Mobility and in the future, the competitors of the conventional automobile manufacturers like Daimler, Ford and Volkswagen would be companies like Google, Uber and Apple. This is something that we need to realize to survive in the industry. We get to enjoy variety of services at affordable (relative scale) cost and convenience. When was the last time you called a cab and bargained? Think.

The opportunities in this case have expanded from just Technical Manufacturing, Sales and Customer service to Tech Platform Management.

If you were to send me back in time to my college days, I would do certain things to make sure that I am well equipped to satisfy the demands of the industry and I want to list out these things to make it easier for you all,

1. Obtaining grades are important but then it's not the main motive. You have to be conceptually strong and for this make sure that you always try to understand concepts properly while learning them.
2. It's very important to be able to apply all these concepts and learnings in the actual World.
3. Expand your horizon of learning. Use the Internet to understand the Industry and how it is progressing.
4. Learn how to create a business plan.
5. Learn finance. Start with learning to analyse balance sheets and cash flows (I know that all these things sound complex but they are easier than they appear)
6. Network with all the departments. It is very important to have an idea of how their streams are evolving as the industry expects the employees to have knowledge on a wide variety of things.
7. Never be afraid to lose. You have to start somewhere. Be it whatever you do, never hesitate to lose. Learn from the mistakes that you made earlier and keep improving yourself.
8. This is not related to the industry or studies, but always makes sure that you do things that you would not regret later in life.
9. Never lose a friend!

Cheers! Feel free to contact me at any point of time in case you need some guidance on LinkedIn: **Prassanna Balasubramaniam**

Forthcoming events

Workshop/Seminar

December 2019

- Indian Institute of Information Technology Design and Manufacturing (IIITDM), Kancheepuram, Chennai (under Ministry of HRD, Govt. of India) is organizing a AICTE sponsored short term courses on the forthcoming session. The details of the courses are as follows:

  a) AICTE sponsored STTP on "Kinematic Analysis and Synthesis of Robot Mechanisms during **16-21 Dec 2019**. http://iiitdm.ac.in/Others/STTP.php
  b) AICTE sponsored Short Term Course (STC) on "Power Electronic converters and Controllers for EV and Smartgrid" **18th–22nd December, 2019** - Brochure - Registration link

- The Centre for Intellectual Property Rights (CIPR), Anna University is organizing a "Certificate Course on Effective Patent Search and Drafting – 2019 (PAT DRAFT 2019)" from **2nd to 6th December 2019** at College of Engineering Guindy, Anna University, Chennai – 600 025.

- DST-SERB Sponsored Two days research facility training program for Research Scholars on "Hybrid Casting Approach for Fabricating Metal Matrix Nanocomposites", coordinated by Dr.L.Poovazhagan and Dr.K.Rajkumar, at SSN mech dept., during **Dec 13 and 14, 2019.**

- DST-SERB Sponsored Two days National Level Seminar on "Role of Smart Materials in aerospace and Engineeringapplication" will be held in St.Joseph's College of Engineering, Chennai, Tamilnadu on **December 16 and 17, 2019.**

- Faculty Development Program (FDP) / Short Term Course on 'FEM and Modal Analysis in Engineering (FEMMAE-19)' is being organized by the Departments of Mechanical Engineering of Dr. B R AmbedkarNational Institute of Technology, Jalandhar (Punjab) during **24th-28th December 2019**.

Training/Internships

- Career Development Centre of SSN plans to conduct a placement orientation training for all pre-final year students from 02-11 December, 2019.

- NPTEL courses are on. Refer for mails from HoD and start registering.

- Mygov internships https://innovate.mygov.in/mygov-internship/

Conference

January 2020

- Coimbatore Institute of Technology, Coimbatore, is organizing a 2 Days National Conference on Mathematical Modelling and Computation on **3rd and 4th January 2020**. The Conference aims at bringing together researchers, experts, faculty, post graduate and under graduate students to share their reflections on Mathematical Modelling and computation in the broad field of Engineering and Technology. The registration is only through the conference website www.citmechconference2020.com

- CIT - Teaching Learning Centre, Coimbatore Institute of Technology , (CIT-TLC) is organizing a three – day Research Support Conclave 2020 RSC 2020, (Facilitating Cutting Edge Research and Network) **January 8 –10, 2020**

  details**:** https://sites.google.com/view/rsc2020
  brochure**:** https://drive.google.com/open?id=1N0mNd7MJVRarRLPn1BvDFPVfly_WcyB3

- Manipal Academy of Banking, Bangalore, is organizing the International Conference on Maintenance and Intelligent Asset Management, ICMIAM2020 https://conference.manipal.edu/ICMIAM2020/. The conference will be held on the **17th and 18th January 2020.** For more details, please visit https://conference.manipal.edu/ICMIAM2020/ .

February 2019

- **NTPC Limited** is organizing the International O&M Conference,"Indian Power Stations - 2020(IPS-2020)",on **February 13-14,2020** in Raipur(Chattisgarh),India. Papers may please be submitted latest by **31st Dec'2019.**

- The Institution of Engineers (India) and Jadavpur University will be jointly organising the International Conference on "Energy and Sustainable Development 2020" at Jadavpur University, Kolkata during **February 14-15, 2020** as a part of Centenary Celebration of IEI.
- The Department of Mechanical Engineering, GLA University, Mathura, Uttar Pradesh, India, is organizing the 10th International Conference on "Materials Processing and Characterization" (ICMPC-2020) from **21st to 23rd of Feb 2020** at GLA University, Mathura. Manuscript must be as per template in link: https://www.materialstoday.com/proceedings-template. Steps for paper submission (on or before **Dec 31**)

- The 3rd International Conference on Advances in Mechanical Engineering (ICAME 2020) to be held in the Department of Mechanical Engineering, SRM Institute of Science and Technology, Kattankulathur, Chennai, during **February 24-29, 2020.**

  Details: https://www.srmist.edu.in/icame-2020/

- Department of Mechanical Engineering, PSG College Technology, Coimbatore, Tamilnadu, India is organizing an AICTE sponsored International Conference on "Development and

Management of Smart Cities and Homes (ICDMSCH 2020)" which will be held during **February 27-28, 2020.**

March 2019

- ASM International Chennai Chapter in association with The International Federation for Heat Treatment and Surface Engineering (IFHTSE) is organizing the 6th Asian Heat Treatment & Surface Engineering conference-Expo 2020 during **5th - 7th March 2020** in Chennai, India. Abstract submission by **15th Dec, 2019**. Abstracts of approximately 500 words should be submitted: **conf@6achtse.org**
-
- The Twelfth International Conference on Information, Process, and Knowledge Management, eKNOW 2020, is planned during **March 22 -26, 2020**, at Barcelona, Spain. This conference has a special track on **KMI 4.0: Toward Industry 4.0 by Knowledge Management.** Submit papers by Dec 3, 2019 **https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=eKNOW+2020+Special**

- Republic Polytechnic, Singapore, is organizing The 6th International PBL Symposium 2020 (6th IPBLS2020), during **March 25-27, 2020.**

April 2020

- International Conference on Advances in Materials and Manufacturing (ICAMM-2020), which will be held in SSN College of Engineering, Chennai, INDIA on **9-10 April 2020**.The ICAMM-2020 website(https://www.icamm2020.com/) is now available for abstract submission. If you would like to submit an abstract, you can use the link https://www.icamm2020.com/abstract-submission

May 2020

- The Institute for Sustainable and Environmental Chemistry, Leuphana University Lüneburg, Germany is organizing the fifth Green and Sustainable Chemistry Conference in Bonn, Germany, during **May10-13, 2020.** Submission open till **Dec 4**. Energy Conversion and Storage is a main theme.

June 2020

- The 6th International EcoSummit Congress - EcoSummit 2020 – Building a sustainable and desirable future: Adapting to a changing land and sea-scape , will take place at The Gold Coast Convention Centre, Gold Coast, Australia, from **21st – 25th June 2020**.

- The University of Cincinnati, College of Engineering and Applied Science, is hosting the 2020 ASME International Manufacturing Science and Engineering Conference (MSEC), during **June 22 – 26, 2020,** at Cincinnati, Ohio. As part of the conference, a Symposium on Internet and Digital Twins Technology for Smart Manufacturing is also planned. For details, visit **https://event.asme.org/MSEC/**

- University of Cincinnati, is organizing North American Manufacturing Research Conference-48, during **June 22-26, 2020.** Six Tracks on **Manufacturing Systems, Manufacturing Processes, Material Removal, Additive Manufacturing, Smart Manufacturing – Processes, Systems and Integration and Industrial Applications and Manufacturing Education.** Submission at the link https://namrc.sme.org/call-for-papers/?_zs=xVXof1&_zl=gjDF6 (info from Akhilnandh Ramesh-Alumnus)

September 2020

- The Third Malaysian International Tribology Conference will be held during **Sept 28-30, 2020** at Langkawi islands. MITC2020 official website: www.mitc2020.mytribos.org
  Submission page: https://www.mitc2020.mytribos.org/page-3/
  Submission link: https://cmt3.research.microsoft.com/MITC2020

Challenges

- Car cooling challenge https://www.ennomotive.com/car-cooling-system/

- Futurepreneur Grand Challenge aims to encourage college students towards entrepreneurship by making them identify micro / tiny entrepreneurs across Tamil Nadu with exciting and inspiring backgrounds who have overcome odds and challenges to get their businesses running. The students will form as team to identify one or more entrepreneurs around your locality whom they will study, analyse and showcase in this Grand Challenge along with the entrepreneurs. This grand challenge aims at representing the mass entrepreneurs across sectors. http://www.ictacademy.in/Futurepreneur

- Dept of administrative reforms and public grievances DARPG has announced an online hackathon
  https://innovate.mygov.in/darpg-challenge/ . Online Event will be conducted after announcement on 05-NOV-2019 . There would be time of 60 days from the launch of the Hackathon to register and submit solution prototype in one or more categories

- A Joint National Level Technical Innovation Contest for Engineering Students
  Organized Jointly by SSN College of Engineering , & PreethiKitchen Appliances Pvt Ltd.,
  Presentation Date: Jan 10, 2020

  Venue: SSN College of Engineering, OMR, Rajiv Gandhi Salai,
  Near Kelambakkam (Chennai), Kalavakkam – 603110. Tamil Nadu

  TECHNOVATE 2020 is an Innovation Contest aimed at nurturing the Creativity & Technical skill sets of budding Engineers to solve real time Industrial Problems. The scope of this contest is limited to Problems of Priority listed out by Preethi Kitchen Appliances Pvt Ltd (PKAL), Chennai. There are Plenty of Challenges & Opportunities on innovation, improvement of existing products, new product design and so on in the context of household appliances. PKAL welcomes through this contest, “Bright Ideas from Bright Students across various disciplines” to take up the challenges and grab an opportunity to team up with the industry to solve real time problems. Winners of this contest will be guided by the industry for live projects and an exclusive demonstration contest will be held for them on March 20, 2020.
  https://technovate2020.com/

Research News from MSP

Dr Muthu Senthil Pandian

1. The Department of Science and Technology (DST)

Government of India and the Ministry of Science and Technology of the State of Israel (MOST) have jointly invited joint research proposals from Indian-Israeli research teams on Advanced materials for next gen solar energy utilization and energy storage & Quantum devices And Quantum Technologies for sensing imaging and communication.
The Indian researchers should submit the completed application form latest by **5th December 2019**. For further details the applicants can visit www.onlinedst.gov.in.

Website Links:
https://dst.gov.in/pressrelease/dst-calls-indo-israel-joint-research
https://dst.gov.in/sites/default/files/India%20Israel%20joint%20research%20%281%29-converted.pdf

2. The Department of Science & Technology (DST), Government of India and the Ministry of Innovative Development of the Republic of Uzbekistan (hereinafter referred to as the "Implementing Agencies") hereby invite Uzbek and Indian scientists/researchers to submit proposals for Joint Research Projects in the following scientific areas:

i. Agriculture and Food Science and Technology
ii. Engineering Sciences
iii. Information and Communication Technology, Applied Mathematics and Data Science and Technology
iv. Health and Medical Technology
v. Materials Sciences
vi. Life Sciences and Biotechnology
vii. Physics and Astrophysics
viii. Energy, water, climate and natural resources

Last Date for Submission of Application: **14th February 2020**

Website Links:
https://dst.gov.in/news/india-uzbekistan-joint-call-proposals-2019
https://dst.gov.in/sites/default/files/Uzbekistan-Call-2019.pdf

Other Dept Round Up

Dr.Chitra Babu, HoD/CSE writes ...

Dr. Chitra Babu

TN POLICE HACKATHON

I am happy to share the news that our III year students Jyothishmathi and Mohanasundar have won First prize in the first-ever hackathon that was organized by Tamilnadu Police. Four teams had participated from our department in this hackathon. Among 100+ teams, where even professionals participated, our students have bagged the first prize Rs.50000 cash award.

You can find more information in the following link:
https://www.thehindu.com/news/national/tamil-nadu/ssn-college-wins-top-prize-at-tn-police-hackathon/article30064482.ece

The Flat Tires

A couple of years ago, my family returned from a long Thanksgiving trip in which we rented a car, we found our actual car right where we had left it in the rental company's parking lot ... but it had 2 Flat Tires!

I started airing up both tires with the rental company's air compressor but became frustrated. This thing had to be the slowest air pump ever sold. It took a full 20 minutes to air up the two tires! Once both tires were good enough to drive, I was on my way to the tire store to fix my problem. Of course, there was heavy traffic and it seemed that I got stopped at every red light.

Once I arrived at the tire store, it took much longer to fix than they initially estimated and to top it all off, there was no Wi-Fi in the lobby for Pete's sake. Could this day get any worse?

Well, the tire company ended up fixing both tires for free. Amazingly, instead of taking advantage of me and trying to sell me new tires, they said that it would be months before I'd need new tires so I should use that time to watch for coupons to use when it was actually time to get new tires.

We often forget that ***it's not happy people who are thankful, but thankful people who are happy.***

I had gotten frustrated with a slow air compressor but wasn't grateful that the rental car company even had an air compressor to loan me so I wouldn't have to pay for a tow truck. I was frustrated when I hit red lights but wasn't grateful for any of the green lights. I was frustrated by the longer wait at the tire store but wasn't grateful for the fact that they fixed the tires for free and didn't try to up-sell me even though I wasn't their customer.

These were just minor inconveniences. They were not real problems. As Captain Jack Sparrow said in *Pirates of the Caribbean*, ***"The problem is not the problem. The problem is our attitude toward the problem."***

Since that day with two flat tires, I am often reminded that I can't always control my circumstances but I can always control how I react to those circumstances. I get to choose my response to things. I don't have to allow any situation to affect my mood.

Just remember that ***"A bad attitude can be like a flat tire. We won't get very far until we change it."***

Jamy Bechler
Motivational Speaker & Team Consultant

Corporate Wisdom 72

Lessons from the Hotel Industry

Most of us have visited the 5 star hotels like JW Marriott, ITC, Accor group, IHG, Taj etc. Every hotel is lovely and we expect to be.

When we visit these hotels either for business reasons or stay or attending a workshop or conference we are normally mentioned in a higher floor of the hotel. We move up and down from the lobby to the say 10th or 11th floor and head down to the café for lunch – and head back up post a sumptuous meal.

When we travel back to the higher floor, generally it comes to our mind how marvellous the elevators are: It took virtually no time to get from the lobby to floor number 10! And the elevators were so good, that it wasn't like we felt the sudden thrust of a jet taking off. It was a smooth, no fuss ride that took us quickly from the lobby to the 10th floor.

If we really get deeper into this, the Floor number 10 wasn't actually the 10th floor. It was in fact the first floor of the hotel. The Hotel decided to refer to it as the 10th floor! Now many hotels probably take liberties with floor numbers. But I couldn't help thinking how this simple renaming of floors impacted all of us – and our thinking.

Because we believed we were going from the lobby to the 10th floor in a jiffy, we were quick to think of how good the elevators were! And how magnificent the hotel was.

We probably see a variant of the 10th floor phenomenon at work in our lives. Many organizations use a variant of the 10th floor idea to keep employees happy.

In the good old days, becoming a Vice-President of the company was a big deal. It probably took three decades of dedicated service to get to that exalted position. But those were the good old days. As people's expectations of growth and career velocity zoomed, organizations increased the number of levels to make sure employees got promoted more often. So, you could now become a VP before you turned 30. Of course, post that, you'd become Senior VP & then Exec VP. And then… the list would go on. But truth be told, there was joy in being able to tell your mother-in-law that you'd become a VP at 30.

Shopping on the internet can give you a taste of this too. You will find sellers offering you an online program (or a book or a product) for a massive 90% discount! So, you pay only $9 for something that costs $99. Needless to say, the seller just decided that the regular price would be $99. Ah, the joys of saving $90!.

All of which goes to show that it's still true that our beliefs shape our reality. Thinking you are on the 10th floor can make you feel good about the views, and the breeze and the elevator speeds too. Belief is big. So maybe we all need to take a leaf out of the Hotel book and find ways of tweaking the world around us to help change beliefs. Other people's. And our own too.

Helping people see the world differently can be quite simple really. As simple as renaming floor 1 as 10!

How you see the world makes no difference to the world , but it makes all the DIFFERENCE TO YOU!

#WishingMostAndMore

R.Ramakrishnan
Group Chairman Office

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

Vinaya Krishna

Saran Prasanth

Akshay Kanna

Anupa Sri

Mohitha U.M

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