Newsletter

Volume 8, Issue 10, October 2018

SSN Mechanical

Aspire

Achievements in Sports, Projects, Industry, Research and Education

All About Nobel Prize- Part 58

Predictions for 2018

Predicting the Nobel Awardees - "Citation Laureates" by Clarivate Analytics.

Each year since 2002, analysts at Clarivate Analytics have drawn on Web of Science publication and citation data to identify influential researchers in the research areas recognized by Nobel Prizes: Physiology or Medicine, Physics, Chemistry, and Economics. Again, this year, individuals whose research reports have been cited at high frequency – typically in the top .01% – and whose contributions to science has been transformative, even revolutionary, have been selected to join the hall of Citation Laureates.
Authors of extremely highly cited papers (to be cited 2,000 times or more is a rarity indeed) are usually members of their national academies of sciences, hold high appointments in universities and other research institutes, or have received many top international prizes in their fields. They often go on to receive Nobel honors. While peer review remains the principal method to recognize research excellence, a parallel approach of appraising the citation record often provides important corroborating evidence to supplement peer review.

This year 11 of the 17 honorees are based at leading North American academic institutions; others come from the UK, France, Germany, Spain, Japan and South Korea. Two of the 17 are women.

Clarivate Analytics

The 2018 Citation Laureates are:

Physiology or Medicine

Napoleone Ferrara, University of California, San Diego, CA, for the discovery of vascular endothelial growth factor (VEGF), a key regulator of angiogenesis, the process in which new blood vessels are formed, both in healthy tissue and in cancerous cells. Ferrera's work has led to the development of drugs that inhibit blood-vessel growth in cancer and in blinding eye disorders such as age-related macular degeneration.

Minoru Kanehisa, Kyoto University, Kyoto, Japan, for contributions to bioinformatics, specifically for his development of the Kyoto Encyclopedia of Genes and Genomes (KEGG). This database of protein pathways involved in gene expression allows genomicists and other researchers to collect, compare, and interpret data on cellular processes – for example, those that underlie disease.

Solomon H. Snyder, Johns Hopkins University, Baltimore, MD, for his identification of receptors for many neurotransmitters and psychotropic agents, including brain receptors associated with opiates. His insights have been applied in the development of many common prescription drugs, such as compounds for pain control.

Physics

David Awschalom, University of Chicago, IL, and Arthur C. Gossard, University of California, Santa Barbara, CA, for observation of the spin Hall effect in semiconductors. This insight into how electrons behave under the influence of magnetic fields promises application in many areas, including quantum computing.

Sandra M. Faber, University of California, Santa Cruz, CA, for pioneering methods to determine the age, size and distance of galaxies and for other contributions to cosmology, including work on the "cold dark matter" believed to constitute the universe's "missing" matter.

Yury Gogotsi, Drexel University, Philadelphia, PA, Rodney S. Ruoff, IBS CMCM Center and Ulsan National Institute of Science and Technology, South Korea, and Patrice Simon, Université Paul Sabatier Toulouse III – CNRS, Toulouse, France, for discoveries advancing the understanding and development of carbon-based materials including for capacitive energy storage and understanding the mechanisms of operation of supercapacitors.

Chemistry

Eric N. Jacobsen, Harvard University, Cambridge, MA, for contributions to catalytic reactions for organic synthesis, especially for the development of Jacobsen epoxidation.

George M. Sheldrick, Georg-August-Universitat Gottingen, for his enormous influence in structural crystallography through the introduction and maintenance of the SHELX system of computer programs.

JoAnne Stubbe, MIT, Cambridge, MA, for her discovery that ribonucleotide reductases transform ribonucleotides into deoxyribonucleotides by a free-radical mechanism. These deoxyribonucleotides, in turn, are fundamental to the synthesis and repair of DNA.

Economics

Manuel Arellano, CEMFI, Madrid, Spain, and Stephen R. Bond, Oxford University, UK, for contributions to panel data analysis, especially the Arellano-Bond estimator. This method exploits time patterns in panel data to estimate the economic response to a change in a policy or other variable, while controlling for permanent unobserved confounding variation.

Wesley M. Cohen, Duke University, Durham, NC, and Daniel A. Levinthal, University of Pennsylvania, Philadelphia, PA, for their introduction and development of the concept of absorptive capacity (i.e., the ability of firms to evaluate, assimilate, and apply external knowledge) and its contribution to advancing our understanding of the innovative performance of firms, industries and nations.

David M. Kreps, Stanford University, Stanford, CA, for contributions to dynamic economic phenomena, in choice theory, finance, game theory, and organization theory.

Source: https://clarivate.com/2018-citation-laureates/

Watch the Official Nobel Announcements live:

1st October 2:45 PM
Announcement of the Nobel Prize in Physiology or Medicine 2018:
https://www.youtube.com/watch?v=gqwFR5AmpZ4

2nd October 3:00 PM
Announcement of the Nobel Prize in Physics 2018:
https://www.youtube.com/watch?v=VaLDsBS5jVE

3rd October 3:00 PM
Announcement of the Nobel Prize in Chemistry 2018:
https://www.youtube.com/watch?v=yc97ATQvVow

5th October 2:15 PM
Announcement of the Nobel Peace Prize 2018:
https://www.youtube.com/watch?v=C_GCp8z3St8

8th October 3:00 PM
Announcement of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2018:
https://www.youtube.com/watch?v=MVr2uWMjoPk

Info to Alumni- Campus Update

Dr. K.Babu

Dr. AKL

- Teachers Day was celebrated on September 5th. Best Teacher Awards were given.
  In Mechanical Department, Dr.K.Babu and Dr.A.K.Lakshminarayanan received best teacher awards.
- PG programs of the first Autonomous batch started on Sept 7
- This year's edition of SSN MUN 2018 was held during 14 - 16 September 2018
- National Level Tech Symposium was conducted during Sept 21-22. (A write up on mech activities is attached as an Annexure)

Amit Tyagi writes…

1.SSN faculty Dr. Rajini, Professor, EEE and Ms. Krishnaveni, Asst. Prof. EEE have been featured in the media for developing a low cost pulsed electric field that can extend shelf life of liquid products. Please join me in congratulating them.

Dr. Rajini

Ms. Krishnaveni

2.The following US Universities visited SSN campus on 17th September:

- Nova South Eastern University
- University of New Mexico
- ST. Cloud State University- Will be talking about their Engineering and Management Programs.
- Saint Martin's University

They talked about tips to study abroad, and understanding what admission representatives are looking for in an application. They addressed students' questions including program/degree selection, research and internship opportunities and most importantly scholarships available for them.

Sr.Manager Placement-Sriram writes…

The job market is looking good and we are definitely seeing signs of revival based on recruitment trends this year. We saw 78% increase in hiring numbers of mass recruiters and the highest number of selections is from the Department of Mechanical Engineering. Sixty percent of the students have already been placed. The first phase of campus recruitment is getting over by October 12th, 2018. We expect good turnout of core engineering companies in the second phase of campus recruitment beginning December. In the end, we will outperform the percentage of placement registered for 2018 batch.
We plan to start Placement Orientation and Training programs for 2020 batch in December-January.

Mr. Krishnan Arumugham (IT-Infra Manager) writes..

As part of Campus wide activity, we have conducted an awareness creation session on Active Directory (AD) Implementation, at mech dept, on 26-9-2018. Concepts of Active Directory, Benefits and Outcome to all the Users, Groups, Work Stations, Servers in One Domain with Control and Monitoring tools, Implementation Plan, Known Impacts, Mitigation Plan & Stake holder engagement were discussed in detail.

Users raised a lot of questions which were addressed during the Q&A Session . All the User Perspectives & Doubts were well taken in to consideration for fine tuning during the implementation program. Clarifying with examples helped to improve the awareness and confidence levels of the user group.

External Recognition

- S. Arun of Third year mech won medal in Skating. (His Interview in the student write-up section)

Info to Alumni- Department Update

External Recognition:

Dr. N. Nallusamy, Professor, was invited to review the technical paper titled "Comparative Analysis of Performance, Combustion and Emission Phenomenon of a CI Engine fueled with Algal and Cotton Seed Biodiesel" for the journal "Heliyon", Elsevier Publications.[27.09.2018]

R.Vimal Samsingh, Associate Professor was invited to review a paper titled 'Evaluation of parametric models dedicated to a magnetorheological actuator including uncertainty and sensitivity analyses' for the Journal of 'ASCE-ASME Risk and Uncertainty in Engineering Systems Part B: Mechanical Engineering [24-9-2018]

Dr.D.Ananthapadmanaban completed the second review of the following papers to be presented at AIMTDR 2018 International Conference at Anna University during December,2018:

1. Microstructure and Flexural Behaviour of Microwave Processed Functionally Graded Clads.
2. Thickness evolution during end forming operations of friction stir processed AA 6063-T6 at different tool geometries. [05.09.2018]

Dr.D.Ananthapadmanaban,Associate Professor,Dept of Mechanical Engineering has completed the second review of the paper titled Effect of Eutectic Phase on Microstructure and Mechanical Properties of Al-Zn-Ni-Mg-Cu Cast Aluminum Alloy to be presented in CMSE 2018,An International Conference to be held in Shaanxi,China during November,2018.[05.09.2018]

Research Publications

Dr. K. Jayakumar, Associate Professor, published following two papers in Lecture Notes in Mechanical Engineering-International Journal (Springer Nature Singapore) which is listed in Scopus.[12.09.2018]

1. Synthesis and Characterization of TiB2–SiC ceramic composite produced through Spark Plasma Sintering. 2018. https://doi.org/10.1007/978-981-13-1780-4_13, pp. 127-135. (Co-author: P. G. HariKrishnan, PG Student-Passed out).

a. Mechanical and Tribological Properties of A356/Al2O3/MoS2 Hybrid Composites Synthesized Through Combined Stir and Squeeze Casting, 2018. https://doi.org/10.1007/978-981-13-1780-4_13, pp. 115-125. (Co-authors : Dr. K. Sekar (NITC) and Dr. M. Manohar (VSSC, ISRO)).

Dr.L.Poovazhagan, Assoc.Prof./Mech., published the following list of papers in the "International journal of lecture notes in mechanical engineering-Springer". This journal is indexed by Scopus. [13.09.18]

1. Microstructure Evolution and Mechanical Properties of Al 1050/Al 5083 Laminate Composites Produced by Accumulative Roll Bonding Process, L. Poovazhagan, P.Ruthran, S. Sreyas, A. Thamizharasan, S. Thejas, Lecture notes in mechanical engineering, (Springer-Scopus), volume: Advances in Materials and Metallurgy, 2019 (29-37).
2. Microstructure and Abrasive Wear Behavior of Copper–Boron Carbide Nanocomposites, L. Poovazhagan, H. Jeffrey Thomas, M. Selvaraj, Lecture notes in mechanical engineering, (Springer-Scopus), volume: Advances in Materials and Metallurgy, 2019 (47-55).
3. Influence of Tool Electrodes on machinability of Stainless Steel 420 using Electrochemical Micro machining process, T. Geethapriyan, Poovazhagan Lakshmanan, M. Prakash, M. Mohammed Iqbal, S.Suraj, Lecture notes in mechanical engineering, (Springer-Scopus), volume: Advances in Manufacturing Processes, 2019 (441-456).
4. Wire electrical discharge machining integrity studies on the Aluminium Nano composite, K.Rajkumar, L.Poovazhagan, G.Selvakumar, B.Muthukumar, Lecture notes in mechanical engineering, (Springer-Scopus), volume: Advances in Manufacturing Processes, 2019 (543-554).

Dr.K.S.Vijay Sekar, Asso.Prof, published a paper titled " Finite Element Analysis of Tool Particle Interaction, Particle Volume Fraction, Size, Shape and Distribution in Machining of A356/SiCp", In Materials Today: Proceedings, Vol.5, pp. 16800-16806, which is indexed in Scopus. The coauthors are Y.J.Nithiya Sandhiya, Thamizharasan.M.M, Ajay Subramanyam.B.V(PG Alumni), S.Suresh Kumar (Asso. Prof, Mechanical). [20.09.2018]

Dr.K.S.Vijay Sekar

Dr. SSK

Dr.K.S.Vijay Sekar, Asso.Prof, published a paper titled, "Influence of Friction Coefficient and Failure Model in 3D FEA Simulation of Drilling of Glass Fiber Reinforced Polymer Composites", in Lecture notes in Mechanical Engineering, Springer, pp.81-90, 2018, indexed in Scopus. The coauthor is C.Prakash (PhD Scholar). [20.09.2018]

Dr. A.S. Ramana

Dr.K.S.Vijay Sekar, Asso.Prof, published a paper titled" Finite Element Analysis of High-Speed Machining of CFRP Material", in Lecture notes in Mechanical Engineering, Springer, pp.137-147, 2018, Scopus indexed. The coauthors are K. Gobivel (PhD Scholar) and G.Prabhakaran. [20.09.2018]

Dr. A.S. Ramana and J. Arun Jacob Packianathan published an article on Experimental Investigation on Heat transfer Analysis of Fins Published in Advances in Manufacturing Processes Select Proceedings of ICEMMM 2018 Vol.2, PP 413-419.[22.9.18]

Dr.Dhananchezian

Dr.Dhananchezian M (2018) ,Associate Professor, published a paper titled Effectiveness of cryogenic cooling in turning of Inconel 625 alloy, Springer Lecture Notes in Mechanical Engineering - Advances in Manufacturing Processes, pp. 591 – 597. [28.09.2018]

Dr.R.Vimal Samsingh ,Associate Professor, published a paper titled “Artificial intelligence based defect classification for weld joints" in the journal of IOP Conf. Series: Materials Science and Engineering 402 (2018) 012159 doi:10.1088/1757-899X/402/1/012159 - (Indexed in Scopus.)-
Co- Authors : Dr.S.Estherflorence , Vimaleswar Babureddy [25.09.2018]

DC Meeting

Dr.D.Ananthapadmanaban, Associate Professor,Dept of Mechanical Engineering conducted DC Meeting for his part time research scholar I.Suresh Raj [27.09.18]

Dr. M S Alphin, Associate Profesor/Mech. Convened DC Meeting - Synopsis Submission for the Full time Research Scholar Mr. Velmurugan D. Dr. Rajmohan, Associate Professor, Anna University and Dr. Bharanidaran, Associate Professor, Vellore Institute of Technology, Vellore attended the meeting. Mr. Velmurugan has submitted his synopsis for his thesis to Anna University in the Title: Investigations of some biomechanical characteristics in zirconia dental implants. [14.09.2018]

Department Activity

Mrs.R.Rajeswari

Dr.K.S.Vijay Sekar, Dr.K.Babu and Mrs.R.Rajeswari of the Mechanical Department won the First prize in the Antakshri event held on the occasion of the Teacher's day. [11.09.2018]

Dr.K.S.Vijay Sekar, Dr.G.Satheesh Kumar and Mr .C.Arun Prakash of the Mechanical Department won the Third prize in the Quiz event held on the Teacher's Day.[11.09.2018]

Dr.G.Satheesh Kumar

Student Activity

Kalaivanan M, second year, Volunteer for paper presentation and bottle rocket for Invente [21,22/09/2018]

P J Abdul Rahman, second year, Volunteer for Poseidon event during Invente. [21,22/09/2018]

Vimaleswar Babureddy, published paper titled "Artificial intelligence-based defect classification of weld joints" In IOP conference series Material Science and Engineering. [27/09/2018]

Ricky Martin R, fourth year,
1. Participated in 5km Tamil Marathon at Besant Nagar for Tamil and environmental awareness and received finisher medal
2. Event manager for Nitro GP for Invente.
3. Participated and topped in National Superkarting Championship in Hasten Gokarting Track at Hyderabad. We finished the final race at 5th position at endurance and completed every static and dynamic event successfully.
[1-09-2018 to 27-09-2018]

Namratha G, fourth year, Event manager for Mechathlon and Volunteer for decorations during Invente. [21,22/09/2018]

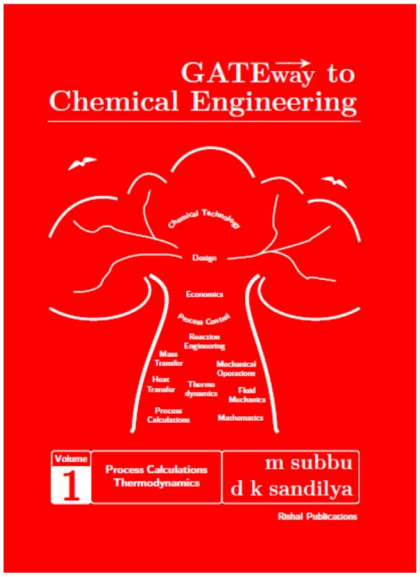
Praveen Ravichandran, fourth year, Event head for Mechathlon during Invente. [21,22/09/2018]

Arunkumar R, fourth year, Crowd Committee Head during Invente. [21,22/09/2018]

S.S.Kartiik, fourth year, Volunteer for Chennai Mission in helping the underprivileged in achieving their dreams by funding various NGOs supporting them. [24-08-2018 to 07-10-2018]

Other Dept Round-up

Dr.M.Subramanian of Chemical dept has brought out a five volume set GATE preparation for Chemical engg graduates. The unique feature is that he has involved two of his students as co-authors. ----VeA



Dr.M.Subramanian writes…

I am very happy to inform you that I have authored a book titled "GATEway to Chemical Engineering". This book, consisting of about 1450 pages, is based predominantly on the solutions to GATE-Chemical Engineering questions of 2000-2018 exams, and typical questions of other sources as well.

Typical questions from other streams of engineering such as Mechanical, Civil, BioTech, are too added. The book consists of elaborate notes for the essential topics, objective type questions, problems with solutions, and questions for practice. This book is a set of 5 volumes, each volume with 2-3 subjects thereby covering the entire core subjects of chemical engineering, including mathematics.

Vol 1 Process Calculations and thermodynamics
Vol 2 Fluid Mechanics, Mechanical operations and Mathematics
Vol 3 Heat transfer and Mass transfer
Vol 4 Reaction Engg and Process control
Vol 5 Process Economics, Equipment design and Chemical Technology

It's a work of totally 5 authors, with myself being the first (main) author of every volume, with additional one co-author for each volume. The two co-authors are my Ph.D colleagues of IITM, namely: (i) Dr. D. Krishna Sandilya, Indian Institute of Technology, (ISM) Dhanbad, and Dr. K. Nagarajan, Rajalakshmi Engineering College, Chennai. The other two co-authors are our Chemical engineering department's students of 2017 passed-out batch, namely Mr. S. Siddarth, and Mr. R. Pavan Kumar, who are currently working at IOCL Panipat, and BPCL Cochin respectively.

Teachers Day greetings from Prime Minister

Dear Teacher,

Teachers' Day greetings to you, and the entire fraternity of hardworking teachers educating millions of young minds across India.

A grateful nation pays tributes to Dr. S. Radhakrishnan, our former President and a distinguished teacher as well as academic, on his birth anniversary today.

If there is one role that shapes society most profoundly, it is that of the teachers. This is both a great privilege as well as a responsibility and I am happy that our teachers are fulfilling their duty with boundless dedication.

As teachers, you inspire as well as inform, educate as well as enlighten. Your influence on the life of a student is tremendous. The values inculcated by teachers stay with the students for life. No wonder the great Dr. APJ Abdul Kalam said, "Teaching is a very noble profession that shapes the character, calibre and future of an individual."

The 21st century will be shaped by societies that accord topmost importance to education, research, and innovation. Needless to say, this makes the role of our teachers extremely vital.

In a rapidly changing world, the boundaries of necessary knowledge are ever-expanding and the role of technology is growing by the day. I am sure you are keeping up-to-date with the latest advances in technology and further connecting your students with the technological trends.

The Government of India is undertaking numerous efforts to bring a paradigm shift in the education sector. Thanks to the monumental efforts of teachers like you, the focus has successfully shifted from outlays to outcomes, from teaching to learning. The emphasis on skill development has received a significant push due to the Atal Tinkering Labs. Numerous universities are being set up across India so that no youngster is denied the joys of quality education.

On 2nd October, we mark the start of the 150th birth anniversary celebrations of Mahatma Gandhi. It would be wonderful if the teaching community takes the lead in furthering the thoughts and noble ideals of Bapu in an innovative manner, among the students. Here, I would like to appreciate the stupendous role of the teaching community in strengthening the Swachh Bharat Mission. I am sure you will continue this great work in the times to come as well.

In the year 2022, we mark 75 years of freedom. Let us devote the coming four years towards fulfilling the dreams and vision of those who gave their lives for our freedom. I urge you to focus on any issue close to your heart, mobilise local communities and make a positive difference in the lives of those around you. This would be a fitting tribute to our freedom fighters and further the resolve to build a New India.

Once again, on Teachers' Day, I wish all the teachers in all roles - teachers in schools and universities, coaches and mentors, managers, leaders and even Mothers - a very happy Teachers' Day. We are proud of you for everything you do!

Yours,
Narendra Modi

Faculty Write up

Dr. Nallusamy writes…

Report of Automotive Training on Two Wheeler Engines

Automotive Training programme was conducted on 11th August 2018 and 8th September 2018 for second year Mechanical Engineering students. Twenty-five students from 'A' section and twenty students from 'B' section were participated in the practical training programme. The trainer explained the functions of various components of two-wheeler bike engines, working of two stroke and four stroke engines and gear mechanism through video lecture. Then the students were given hands on training on dismantling and assembling of bike engines by the trainer and technicians.

Workshop coordinators: Dr. N. Nallusamy and Dr. R. Prakash

Dr. N Nallusamy

Dr. R. Prakash

Faculty Write up

Springer Publishes ICEMMM2018 Conference Papers in Two Book Volumes

Report by: Dr.K.S.Vijay Sekar, Convener, ICEMMM2018

We are happy to annouce that the proceedings of the International Conference on Engineering Materials, Metallurgy and Manufacturing, ICEMMM 2018 Conference conducted by the Department of Mechanical Engineering, SSN College of Engineering, between February 15-16, 2018 has been published by Springer.

The proceedings have come out in two book volumes titled" Advances in materials and metallurgy" and " Advances in manufacturing processes" in the Journal series titled " Lecture notes in Mechanical Engineering". The journal which specializes in publishing proceedings of reputed Interntional conferences is indexed in Scopus.

All the papers presented in the conference were peer reviewed by the technical committee members drawn from within the institution as well as domain experts from other reputed institutions. The peer reviewed papers were forwarded to Springer. The publisher was kind enough to allot the publishing work to a dedicated team, who continued to interact with the Editorial team to get the work going smoothly and in time bound fashion.

We are grateful to the Editorial team members - Dr.Manoj Gupta(NUS, Singapore), Dr.I.Sridhar (NTU, Singapore), Dr.M.Vasudevan (IGCAR) and Dr.Arockiarajan (IITM, Chennai) for their valuable contributions in the creation of these books.

We are grateful to our HOD - Dr.VE Annamalai, Technical committe members and Reviewers from within and outside the organisation for their valuable comments and time spent on the reviews, which has helped reduce the burden of the Editorial team. We are also thankful of the contributions of the Programme committee members during the conference days.

We express our immense gratitude to the President - Mrs.Kala Vijayakumar for enabling us to organise the conference, Principal - Dr.S.Salivahanan for his guidance and Dean - Dr. P.Ramasamy for his support in making the ICEMMM2018 event a grand success.

We are extremely thankful to Springer Publications and to the entire dedicated team at their office for coordinating with us and helping bring out the book volumes within a period of six months from the conference dates. We would like to place on record that Springer has not charged a single rupee for the publications, having done it entirely on its own costs. Such noble intentions need wide coverage and we hope we can continue to journey with a reputed publisher like Springer. We would also like to emphasis that not a single rupee was charged from any author towards publication costs.

Last but not the least, we express our thanks to all the contributing authors, without whose presence we could not have conducted a succesful conference.

We thank one and all.

ICEMMM 2018 organizing Team

Coveners:

Dr.K.S.Vijay Sekar
Dr. A.K. Lakshminarayanan

Co-Conveners
Dr.L. Poovazhagan
Dr.M. Dhananchezhian
Dr. K. Jayakumar
The two books can be accessed through the following links:
https://www.springer.com/in/book/9789811317231
https://www.springer.com/in/book/9789811317798

Faculty Write up

Three day hands on workshop on Manufacturing Simulation Software organised by DHIO, Bengaluru at Hotel IV Sanctum, Bengaluru between Sep 27 and 29, 2018.

Report by Dr.K.S.Vijay Sekar, Asso.Professor

I had the opportunity to participate in a 3 day workshop conducted by DHIO, who specialize in numerical simulation softwares with expertise in Casting, Forging, Welding and Machining, in a Train the Trainer methodology. The sessions were a nice blend of theory of elasticity, plasticity, fundamental of casting, forging, welding, machining, in the forenoon sessions and hands on practical sessions on dedicated laptops for each individual in the afternoon sessions. The program was organised with lots of enthusiasm by a thoroughly professional team and one never noticed how much time elapsed since we sat for the day at 9 am and usually wound by 6 pm.

On Day 1, we were introduced to the Casting process, its types, principles, with main focus on the die casting process from a seasoned person named Mr. Suriyanarayan, who is a casting expert and in the field for more than 45 years, having his own consultancy firm in Coimbatore. He brought to the table, his experiences in working with many leading industries and how he has handled many failure analysis problems and how his intuition and understanding has led to cost savings for the industry. In the afternoon, Mr.Santosh, Director DHIO handled the practical session on ZCast Pro, a casting simulation software and took us step by step into the modelling and analysis of casting processes covering extensively die casting, sand casting and investment casting methods.

On Day 2, we were introduced to the theory of elasticity and plasticity, whose understanding is needed to evaluate the results of the metal forming process, especially forging, which derives its principles from plasticity theorems and mechanics. In the afternoon session, we were introduced to AFDEX, a forging simulation software, which virtually covers all the different types of forging and metal forming processes such as Rolling, extrusion, forging,

drawing etc. The hands on was exciting as we worked on premodelled case studies of industrial problems with special focus on ring rolling, wire drawing and sheetmetal trimming and bending.
On Day 3, the forenoon and afternoon sessions were spent on Forging case studies, welding fundamentals and machining mechanics. An introduction to VIRFAC, a welding simulation software was given and the procedure to model and analyse a welding problem was delivered. This was followed by a glimpse of machining simulation which is treated as a metal forming process involving an upper die as the cutting tool and the lower die as the workpiece with new layers being created after every tool pass. The program ended with the distribution of certificates and thanksgiving.
Overall, the program was an eyeopener in the way hands on workshops must be conducted, with focus on the training needs, strict adherence to timings and willingness to clarify even the most simple of doubts in right earnest, most importantly providing dedicated laptops and access to the softwares for the 3 day session and sharing the lecture notes to all participants at the end of the workshop. DHIO is a professional organisation and one would be happy to have them for a workshop at SSN in the near future.

Faculty Write up

Mr. C. Arun Prakash (Assistant Prof/Mech) writes..

A session on higher studies abroad and GRE preparations- 12th of September 2018

C. Arun Prakash

Mr. Aman Jain, one of the founding members of Gyandhan, gave a talk on higher studies abroad and the problems faced by students who want to pursue higher studies abroad. He also gave productive solutions which were given by their organization.

About Gyandhan:

Gyandhan is India's first and only education focused financing platform which provides comprehensive financing solutions.

About the speaker

Mr.Aman Jain is an IIT Kanpur Alumnus who has been working with Gyandhan since its inception where he heads Gyandhan's operations and customer experience.

About the seminar

Mr.Aman Jain started the seminar by talking about the different options available for students. It turned out to be quiet an eye opener for many students. He discussed about the various advantages and disadvantages of working abroad as well as in India. He stated at one point that the hike every year in India is about 10-12% whereas in the United States is about 3-5%. He also spoke about the cost of living abroad can be a potential problem. He, thus, advised that a person with an initial salary of 10-12 lac/annum would have a better growth in India rather than abroad. In order to help students choose the right career options, Gyandhan has devised a tool called admit probability model (which is available in their website to all). He said that this tool is very effective for students who are unaware of their probability of getting admitted to a university.

The seminar went on to talk about the processing of applications. This involves writing of SOP and getting an authentic LOR, which plays an important role in admit process.

The last and the most important topic of the seminar was about getting a loan at lower interest. The loan scheme provided by Gyandhan is student friendly in which the student need not pay the interest for the whole of principal. Instead the student need only pay the interest for the part of principal he/she has used during the duration of study. Also, the loan repayment time is around 10-15 years from the time of graduation.

The seminar concluded with the addressing of various queries of the students.

Faculty Write up

Dr.S.Vijayan(Asso. Prof) writes…

First call - for the International Conference on Mechanical Engineering Design (ICMechD2019)

It is our great pleasure to invite you to submit your abstract for the International Conference on Mechanical Engineering Design (**ICMechD2019**), which will be held in SSN College of Engineering, Chennai, INDIA on 18-19 April 2019.

The ICMechD2019 website https://sites.google.com/ssn.edu.in/icmechd is now available for abstract submission. The deadline for abstract is 28 February 2019. Selected papers for the conference will be published in refereed / peer reviewed journal papers (List of journals will be updated shortly in the conference website).

If you would like to submit an abstract, you can use the link https://goo.gl/forms/1DGpXVtcqLWUMM3g1

The ICMechD2019 Scientific Programme will include invited and contributed papers and distinguished plenary lectures.

In addition, Early-Bird Registration at a reduced rate for delegates is available if paid before 30 December 2018.

If you and/or your company are interested in exhibiting, please contact the ICMechD2019 Conveners icmechd@gmail.com

Faculty Write up

Dr. M. Suresh(Asso. Prof) writes..

Second International conference on "Sustainable Energy Resources, Materials and Technologies (ISERMAT 2019)" March 14-15, 2019- Dept of Mechanical Engineering, SSNCE

The objective of the conference is to promote the exchange of ideas and knowledge on the methods and technologies for increasing the sustained growth of energy, transport, water and environment systems. The conference aims to attract scientists, professional engineers, faculty members, research scholars and engineering students from all over India/abroad and give them the opportunity to present and publish their work, discuss, exchange ideas and knowledge as well as network for future collaborations. The conference includes keynote lectures and oral presentations on different topics. We are looking forward to organizing an exciting and memorable conference with valuable technical programs.

Last date for receipt of abstract: December 17, 2018

For more details: https://www.isermat2019.com/

Scholar Write up

P.Sabarinathan, Full Time Research Scholar writes—

I have attended a one week short term course on **"Waste management"** at **National Institute of Technology, Tiruchirappalli**.(during 24th to 28th September 2018) . This program was organized by **Department of Energy and Environment**. This course mainly focusing on various types of waste generated in India and rules and regulations for disposal of wastes.

About the course

Before attending this course, I was not aware of the wastes which we generate in everyday life. The main key point which I observed from every key speaker was, the segregation of waste consumes more energy and cost for managing the wastes. So, from home itself we should segregate the wastes into degradable and non-degradable waste. It will be very much useful for the workers who are working for segregating these wastes.

Mostly the session was concerned on the municipal solid waste disposal and generation of bio gas from these types of wastes.

Key points from this course

- Paper cups we are using which consist of wax coating on the surface which will be very harmful to everyone who uses it. So, try to avoid using paper cups.
- 85% of hospital waste or non-hazardous but improper segregation leads everything into hazardous waste.

From this course I have learnt how to segregate the household wastes and aware of how improper disposal of household waste affects our eco system.

Lab visit in NIT- Trichy

Student write up

Placement Write-up (TheMathCompany)

- S. Deva Prashant, Bharath G, Nitin Joy

4th Year Mechanical

S. Deva Prashant writes…

I was recently placed as an Analyst in TheMathCompany, A Data Analytics firm. What sets them apart from the other firms is that they take a step further in helping their clients build their own in-house analytics centres.

The process involved an Online Test, Group Dynamics round, Problem Solving Test, Technical and HR Interview. The online test was moderately easy. It tested our Aptitude, Analytical and Logical skills. The further rounds were mostly based on our inherent understanding of Analytics. I was able to effortlessly tackle the problems put forth to me. The panel members were also cooperative and understanding and guided along the way. In the GD round, we were asked to choose one of the two Marketing Strategies for a company. It was not like our conventional GD and we have come with exact ideas to convince the clients. The Problem Solving test included 5 questions with descriptive answers. The questions were around determining the mathematical relationships between two dependent variables and listing out the approaches upon which you'd measure the success of a sale. The technical interview was based upon the test answers,resume and simple guesstimate and strategy problems. The HR round was very relaxed for me and I don't remember any other time where I had been this honest. The round ended with a good laugh and I left satisfied.

A few pointers to students would be to explore their Analytical domain and try to understand the scope of marketing in their day-to-day products. This would give you enough skill to tackle the problems. Best of Luck!

Bharath G writes…

It was placement day and I was very excited being a startup enthusiast and wanted to be a part of the company. Before it all began the recruiters from the company addressed the shortlisted candidates with a brief presentation which covered everything from how they started and the journey since then; what the company has to offer for engineers and what they look for in us; the working environment and what not! They made sure everyone understands how's it going to be working with Mathcompany. DESIGN, SOLVE, ENABLE and therefore THE MATHCOMPANY!

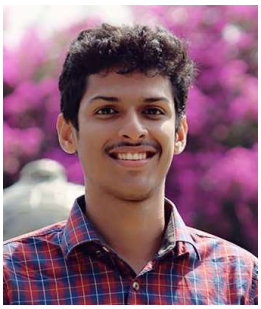
They seemed very happy with the kind of response from the audience. We were split into groups already by the people from the company and were asked to report to GD rooms. Each group had a team of 7 or 8 members and had 2 evaluators. It wasn't exactly a group discussion but a group dynamic in which we were asked to collectively solve a problem and give them plausible solutions. (For an example, one of the groups had to provide solutions to improve the sales of a popular restaurant with the evaluators being the clients from the restaurant.)

After all the groups had completed the second round, 30 were asked to stay back for the problem-solving round followed by the Technical Interview. The HR round was short and questions were pretty normal like any HR interview, although for me, the round was challenging because I was asked to solve another case for an online e-commerce website and I fared well. The HR also wanted to test my basic understanding of data analytics. It was a great experience although it was a long day.

Nitin Joy writes…

The first round had an aptitude test which was moderately challenging with questions predominantly from Verbal, DI, LR and Quants. After clearing the first round, the shortlists were split into groups for GD (Group Dynamics). In GD the focus was on new ideas and the ability to work as a team. I thank the Student Placement Coordinators for their initiative in organizing Mock-GD on the previous day, which was very useful.

The shortlists from the GD round were given a set of 5 problems to be solved in 30 minutes. The questions included drawing relations using graphs and deriving basic mathematical equations. Following this, the students were sent for Technical Interview. My panel questioned me on the answers I had given in the problem-solving test, basic C programming, Internal Funded Project and 2 case studies to check my business acumen.



Being shortlisted, I was forwarded to the HR interview. The HR panel asked me about my family background, my willingness to learn new tools and software and my interest in the field of Data Analytics. I thank Dr. N. Lakshmi Narasimhan, Student Placement Coordinators and CDC- Placement Officers for their motivation and flawless organization.

Student write up

Frame it, People!

-Bharath G

4th Year Mechanical 'A'

These were the words we were uttering to everyone who turned towards us during 'Invente 3.0'. We are a bunch of like-minded entrepreneurs who want to make a difference. We stuck to the idea of converting moments to memories, through cool and innovative frames. We didn't initially have the thought of starting up so early but we decided to go with it, as there's no better place to launch your start-up other than 'Invente 3.0', where you get to promote your idea to people from different colleges. We were fortunate enough to get the opportunity to market our product in four workshops, each belonging to different departments, with the help of their respective department heads. Next day, we got an opportunity to be part of the 'Start-up Expo' where we had a healthy interaction with people from big start-ups and we got to know a lot about their ideas and how they became who they're now. They were kind enough to give us a few tips.

On the whole, we consider our launch to be a huge success not just because we got a good number of orders but also a great exposure.

Student write up

External Recognition

Skating Champion!

Arun Sathianarayanan, a third year Mechanical Engineering student of SSN College of Engineering has secured a silver medal in the solo dance event in the 18th Asian Roller-Skating Championships held in Namwon, South Korea from 4th-11th September 2018.

Arun being an avid skater and trained in many disciplines within skating, chose to compete in the solo dance event in the International championship. He was recently interviewed by a reporter on his achievement.

Despite being an individual event, Arun had many people to thank for their support as well as their encouragement. Other than his coach from India, Mr. Pavan Kumar Akula, he also trained under an international coach, Mr. Hugo Chaputo from Portugal. He has worked with Mr. John Lehni of USA who was his mentor and guide. Further, he believes the contribution of his costume designer Mr. Shiva of D.S Aiyyalu and physical fitness trainer, Renshi Bala from Mindcare, was imperative for his success. The support extended by the Tamilnadu Roller-Skating Association and the Roller-Skating Federation of India towards his goal cannot be left, unmentioned.

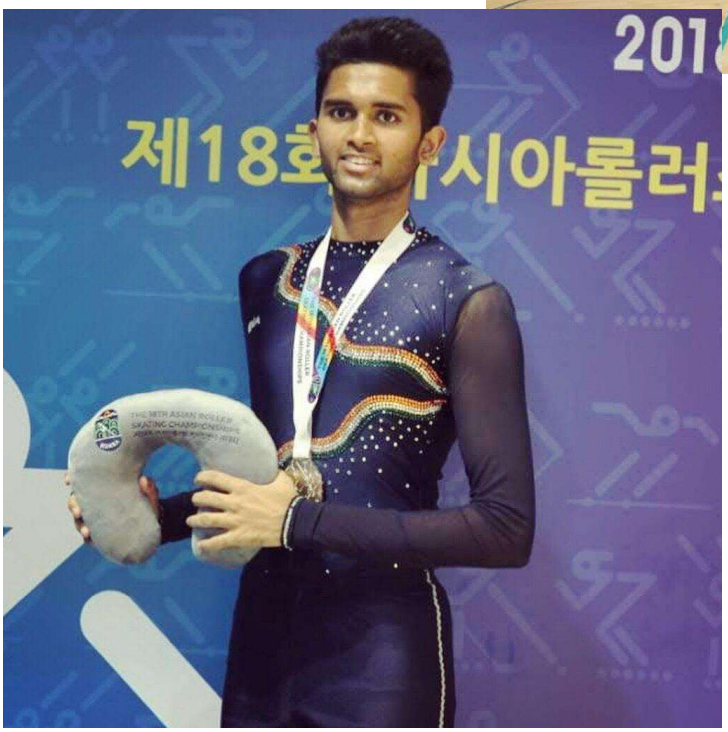
Arun suffered a bout of dengue in the last leg of training when he was in Chandigarh, before he flew to South Korea. He was hospitalized for more than a week. Despite his doctor advising him to take rest after the fever had subsided, he convinced them that he would feel better in the skating rink than away. If he had not returned to the last day of the training, he might have been left out of team from India.

Arun stresses that each day of practice and training is important. He says that his target was the Gold medal. Unfortunately, he could not practice for ten days owing to his health. Had he been able to do so, he would have surely bagged the gold.

His event, the Solo dance, comprises of the Style dance and Free dance. Arun, missed the valuable lead in the style dance when Kuan lee of Taipei overtook him. In the free dance event, both secured similar scores.

When asked about this sport, Arun says he would like to see more people take up skating whether as a means of relaxation or as a serious sport. He describes it as a great sport for health and wellness encapsulated with the thrill of speed, the ingenuity of new techniques and the creativity of art. He says that there are many rinks in Chennai and suggest that if we can construct rinks abiding by international specifications, India can bag more and more international medals.

When asked of the future, Arun says he needs to change his style of preparation since the competition has become intense. He says he will start working for the upcoming world championships in 2019, the 2020 Asian Championships, the Asian Games 2022 and the Olympics in 2024 as well, if the sport is a part of it!



Student write up

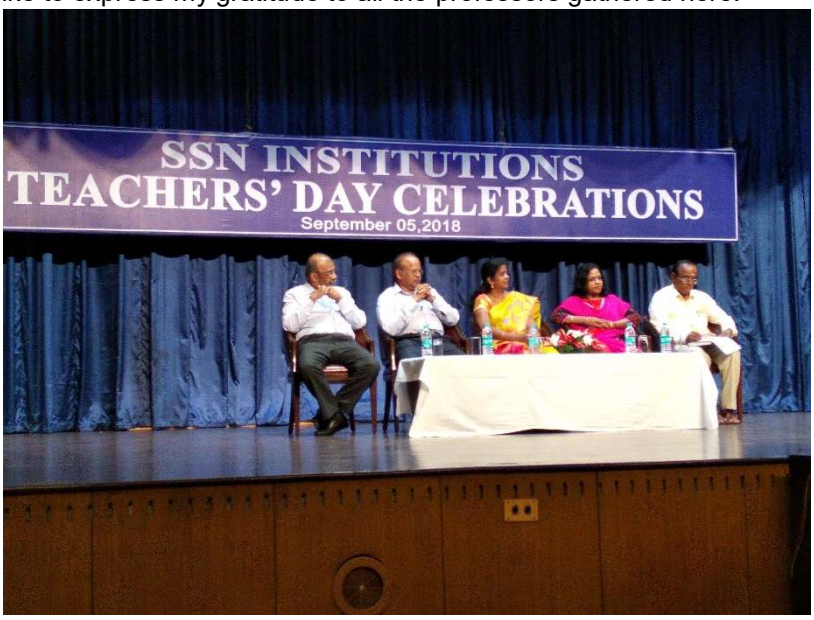
Teachers Day Speech

Mohinish Kumar P.K, 3rd Year Mech writes..

One child, one teacher; one book and one pen can change the world. These are words from Malala Yousafzai, the Pakistani education activist.

Matha, Pitha, Guru, Dheivam. These are words from our folklore. In the fast-paced modern world where both parents work in some IT company or another and get back home late at night, there isn't much parent - child interaction due to which children don't learn as much or as fast the previous generation did. This is where the teachers step in and fill in the shoes, acting as a compass that navigates children through the rough sea of life. As Aristotle once said, those who educate children must be honoured more than their parents; for parents give them the gift of life, teachers give them the art of living well.

Teachers have the heavy burden of ensuring that their students are mentally sound, socially responsible, academically proficient and capable of rational thought. Being able to guide hundreds of students each year towards the right goals and to teach them to differentiate between right and wrong, to stand by one's morals and shape a student in all aspects of life is truly a Herculean task. For this, on behalf of the student community I would like to express my gratitude to all the professors gathered here.



In my humble opinion, a teacher isn't someone who walks into a classroom, demands silence and lectures about the subject until the bell rings, but someone who takes a blank canvas and makes a masterpiece out of it. Someone who is capable of taking the most undisciplined, rude child and making a man out of him. For in the absence of teacher's, we would be nothing more than savages, with no sense of morality, righteousness, knowledge and progress.

Behind every great man is a woman, they say. Behind every great person is an even greater person, a teacher. The best teacher teaches from the heart, not the book.

Student write up

SSN MUN 2k18

A write up by Ganapathy Ramanathan, ECE, 4th Year

SSN Model United Nations was hosted by the students of SSN College of Engineering on the 14th,15th and 16th of September 2018. A national level simulation of the United Nations, the fifth edition of SSNMUN features five profoundly significant councils including the Security Council, UNGA DISEC, UN Emergency Special Session, UN Human Rights Council and the Munich Security Council which aim to encourage the diplomatic discussion of affairs concerning the world at large.

The event was a grand success, with about 200 students from colleges all over the country participating and framing solutions for various problems that plague the world today.

The Heated Razor by GilletteLabs

“The Heated Razor by GilletteLabs - thoughtfully crafted to deliver the comfort of a hot towel with every stroke. Featuring warming technology that heats in less than a second to provide continuous soothing warmth on your skin. Your mornings deserve more.” - Gillette

Gillette has rolled out a few figures to support its venture into heated razor blades. According to the company, 54 percent of men run blades under hot water before shaving, 47 percent shave after showering and 15 percent use a hot towel before they shave. Perhaps most startling, 71 percent say their shave should be enjoyable (who are these masochists making up the other 29 percent?).

Shaving can be a bit repetitive. Boring, even. It's like lather, rinse, repeat. Razor, trim, repeat. Whether you're using an electric shaver or an old-fashioned blade, heading to the shop or doing it at home, shaving can kind of feel like a mundanely formulaic process.

That's not how it should be. Shaving is an extension of your grooming routine, which is a relaxing agent of self-care.

GilletteLabs, Gillette's innovative new product design venture, is hoping to remind you of that. And the brand's first product seeks to restore the sense of fun luxury to shaving.

The new heated razor delivers instant warmth in less than one second with the push of a button. It makes for a barbershop-style hot shave with every stroke. The razor comes with a slew of creative features, each with a specific purpose to help maintain your comfort. Once fired up, the Heated Razor is said to reach the user's desired temperature setting in less than a second, with a choice of either 113° F (45 °C) or 122 °F (50 °C). The heat is distributed by a bar built into the razor head beneath the blade array, meaning it should warm up your skin ahead of contact as it is pulled across the surface.

The razor is fully waterproof and comes with the shifting head found on Gillette's other razors, allowing it to rotate to maintain solid contact as it encounters the contours of the face. The warmth level can be changed by simply holding down the power button, and each charge is said to be good for six uses.

Worried you'll get burned? There are adjustable temperature levels and automatic overheat protection to ensure you stay safe.It's also got advanced five-blade technology, which Gillette calls its "most advanced" blades, as well as wireless magnetic charging, waterproof capabilities, and a sleek, aerodynamic handle.

It's not quite available everywhere, though. The new heated razor is going to be sold on IndieGogo at first, so it comes in limited quantities. Diehard grooming fans will be able to get their hands on it with their pledges.

You can check out the pitch video below, which has to be right up there in terms of over dramatization of everyday products (the company has apparently traveled the world to immerse itself in the culture of heat and warmth).

Source:

https://www.indiegogo.com/projects/the-heated-razor-by-gillettelabs-sold-out?utm_content=campaigns_one_column3_cta&utm_source=sailthru&utm_medium=email&utm_campaign=%23/#/

Corporate Story 46

MSME FOCUS

GREEVA is a company that combines world class engineering expertise with new technology to deliver the most innovative solutions to serve customer needs. Creative and Innovative, GREEVA, provides **design, analysis and manufacturing solutions** to a wide range of customer in the **automotive, aerospace, marine and consumer product industries.**

As on their site:

Greeva Software Solution (P) Ltd is a specialist engineering services & solutions company servicing clients across a range of engineering segments helping improve their engineering efficiency, support their global footprint and improve their competitiveness. Leveraging technology, domain knowledge, & our robust work planning methodology to ensure an effective global delivery model for engineering projects, we have emerged as a partner-of-choice for leading international companies.Greeva also provides expert and innovative staffing solutions to leading global as well as Indian organization to recruit the finest temporary and permanent talent available across industry sectors through its network offices in major cities across India.

Mission

To continuously create a higher standard of service by taking massive action in performing beyond the expected call of duty with a sense of urgency; to always be committed to providing first-rate service exceeding the expectation of our customers, competition and co-workers.

Vision

Our fundamental business strategy is building long-term client relationships. With more than 10 Years in the industry, we have attracted and retained clients by providing superior customer value-in fact, over 90 percent of our work is repeat business from loyal clients. This strategy yields cost advantages, profits, and growth for us, allowing us to also attract and retain investors and thus fuel further growth.

Greeva is hiring Engineers! If interested send your resume to: hr@greeva.com

http://www.greeva.com/index.html

Amazing Innovation- 85

moonr - THE 'FLOATING' BACKPACK.

The Moonr is the latest re-invention of the backpack. Inspired by technology used by the U.S. Army - we developed, optimized a much more improved patent-pending system that makes your loaded backpack seamlessly float in FOUR directions - adopting to the natural physics of your movements.

Developed by German engineers and extensively tested & optimized by medical doctors in Germany - we finally finished building the perfect, much more optimized 'floating backpack.

We designed a rail-based suspension system that can guarantee a physiological, two degree of freedom suspension of the backpack's load - without the need for a complicated, fail-prone spring adjustment mechanism. In fact, we designed an extremely lightweight, rigid suspension system with a smart array of differentially actuated spring layers that allow a wide variety of loads to be carried in suspension, without the need to do any adjustments to the springs. Using state-of-the-art prototyping and industrial-grade hardware components, we created a modular suspension system that, as a unique and patent-pending feature, incorporates a spring array that results in a differential stabilization of the two axes' movements (vertical axis sliding and rotation) depending on the load that is applied to the pack.

Source: https://www.kickstarter.com/projects/1411873651/moonr-the-floating-backpack

Amazing Innovation- 86

Engineers develop first method for controlling Nano-motors

Engineers have developed the world's first method for controlling the motion of Nano-motors with simple visible light as the stimulus.

The capability of mechanical reconfiguration could lead to a new class of controllable Nano-electromechanical and Nano-robotic devices for a variety of fields including drug delivery, optical sensing, communication, molecule release, detection, nanoparticle separation and microfluidic automation.

The finding, made by Donglei (Emma) Fan, associate professor at the Cockrell School of Engineering's Department of Mechanical Engineering, and Ph.D. candidate Zexi Liang, demonstrates how, depending on the intensity, light can instantly increase, stop and even reverse the rotation orientation of silicon Nano-motors in an electric field. This effect and the underlying physical principles have been unveiled for the first time. It switches mechanical motion of rotary Nano-motors among various modes instantaneously and effectively.

The researchers published their findings in the Sept. 14 issue of *Science Advances*.

Nano-motors, which are Nano-scale devices capable of converting energy into movement at the cellular and molecular levels, have the potential to be used in everything from drug delivery to nanoparticle separation.

Using light from a laser or light projector at strengths varying from visible to infrared, the UT researchers' novel technique for reconfiguring the motion of Nano-motors is efficient and simple in its function. Nano-motors with tuneable speed have already been researched as drug delivery vessels, but using light to adjust the mechanical motions has far wider implications for Nano motors and nanotechnology research more generally.

Fan describes the working principle of reconfigurable electric Nano motors as a mechanical analogy of electric transistors, the basic building blocks of microchips in cell phones, computers, laptops and other electronic devices that switch on demand to external stimuli.

They were able to distinguish semiconductor and metal nanomaterial just by observing their different mechanical motions in response to light with a conventional optical microscope. This distinction was made in a non-contact and non-destructive manner compared to the prevailing destructive contact-based electric measurements.

The discovery of light acting as a switch for adjusting the mechanical behaviours of Nano motors was based on examinations of the interactions of light, an electric field and semiconductor nanoparticles at play in a water-based solution.

Source: https://www.nextbigfuture.com/2018/09/first-method-for-controlling-nanomotors.html

Amazing Innovation- 87

Fujifilm flips the script with a rotating projector lens

Projectors come in some pretty compact sizes these days, but higher quality options still come in relatively bulky packages that need to be housed somewhere. A newly announced projector from Fujifilm will allow for both vertical and horizontal orientations thanks to a clever, first-of-its-kind rotating lens.

The projector will feature one of Fujifilm's Fujinon lenses attached to a two-axis rotatable arm, which it bills as a world first setup. This allows the user to direct the image up, down, forwards, backwards, left and right, without having to move the main unit itself.

This means not only can it project images on walls, floors and ceilings, it can do so whether installed vertically or horizontally, allowing it to be slid under a low table, wedged in upright alongside a couch or wherever happens to be convenient for the space.

Fujifilm says the projector will have a footprint of 18 cm across when horizontal and just 5 cm when vertical (7 and 2 inches). It will also pack an ultra-short throw lens capable of projecting images on a 100-inch screen from as close as 75 cm (29.5 in).

Source: http://www.fujifilm.com/news/n180925_01.html

Amazing Innovation- 88

reTyre bike tires feature interchangeable skins

Serious cyclists will often swap back and forth between different tires, depending on the type of riding they plan on doing and getting those tires on and off of the rims is a hassle. That's why the reTyre system was developed, with its zip-on tire skins.

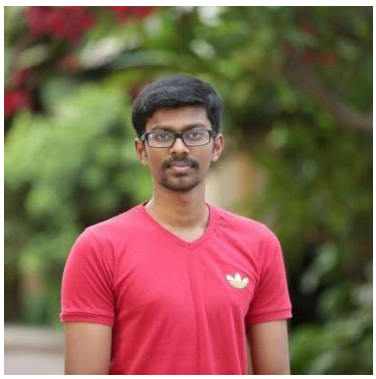
At the heart of the Norwegian-designed system is a set of 568-gram smooth-tread base tires that mount on the rims in the usual way, and stay on the bike full-time – they're not tubeless, although a tubeless version is in the works. These can be used on their own, for commuting or touring.

There are also, however, a variety of rubber "skins" that can be zippered on over top of the tires, each skin featuring a different type of tread. These can reportedly be installed or removed within seconds, they won't slide back and forth against the underlying base tire, and the zipper's tab gets locked in place once it's done up.

It's still early in the game, with the skin choices currently consisting of a knobby all-terrain model, along with a carbide-studded model for winter riding. Down the road, there are plans for skins with embedded LEDs and electronics that communicate with the rider's smartphone, along with models made from special materials such as coconut fibers and 100-percent recyclable rubber.

Source: https://www.kickstarter.com/projects/870651719/retyre-one-the-worlds-first-zip-on-bicycle-tire-sy?ref=Fundedtoday&utm_medium=referral&utm_source=reviewnewatlase.fnd.to

Alumni Update



Vishakaraj Shanmugavel, of 2013-17 batch, is currently doing his Masters in Industrial Engineering, at Ohio State university.
He is Currently working on the Resting state functional Magnetic Resonance Images (rs-fMRI) for classification of patients suffering from psychiatric conditions such as schizophrenia
- Implementing various algorithms such as Random forests, Support Vector Machines (SVM), Convolutional Neural Networks and reached accuracy of 72%
- Trying to find alternate algorithms to improve the classification accuracy

Diwakar Manickavelu of 2012-16 batch , is now Vehicle Upperbody Architect at Renault Nissan Technology and Business Centre India Pvt Ltd

He writes...
It is with much happiness I let you know that I have secured admission in FH Aachen University of Applied Sciences, Germany for the course M.Sc in International Automotive Engineering. I thank, from the bottom of my heart, for all the support and guidance I have received from you personally and from the college.
I am moving to Germany this month end to start my next phase of the career. I am sure that I will be touch with you Sir. Please let me know also, if I can be of any help. I will try to do the best I can. Thank you once again.

Akshaii Narayanan, of 2013-17 batch is currently doing his masters in Industrial Engg at North Carolina State University. He is currently focussing on Industrial and Systems Engineering field related to manufacturing automation, quality and logistics.

Alumni Writes

Srinivasan Gopalan, 2012-2016 batch of Mechanical Engineering.
From a mail to VeA…

Srinivasan Gopalan writes…

On the 11th of September, I successfully defended my master thesis titled "Renovating Houses in The Netherlands to nearly Zero Energy standard: Important drivers of economic feasibility". The research experience over the last year was very enriching. With this I have graduated the MSc program Sustainable Energy Technology from TU Delft. At this moment, I would like to thank you for providing LORs when I was applying for graduate schools abroad.

When we met back in January, you had asked me to prepare a list of some suggestions that I feel could help improve the studying pattern amongst our students. Please find attached with this e-mail, the document enlisting them. I have written them from a perspective of what measures could have made me study better or prepare me for an education system that I experienced here in The Netherlands over the last 2 years.

- I think the fundamental problem is the fact that the semester exams can be passed by studying from books written by many local authors for just 4-5 days. This inhibits learning the concepts from the various courses and encourages learning for the sake of exams. Assignments (both group and individual) can keep the students engaged throughout the duration of the semester. Many courses here are completely assignment-based.
- In my time of study, the assignments that covered half of the marks for the internal assessment corresponding to each unit test were based on the 16 mark questions. The unit tests were also based on the 16 mark and 2 mark questions. If the UT questions and assignments are better designed to test the concepts than practice for the end semester examinations, then that would inculcate learning.
- For one particular course here in TU Delft, the professor implemented a strategy called as “flipped classroom”. The lectures for the entire course were available online as videos which could be covered before the class hours. The time intended for class hours were used for problem solving and the classes were very engaging. In one of the previous versions of Aspire, I had read that NLN sir was recording audios for Fluid Mechanics lectures. Such initiatives will definitely help in the cause.
- The art of writing a scientific report and learning about plagiarism and referencing is something that could be inculcated along with the courses.
- Maybe literature reviews could also be given as assignments. I remember Dr. K. Rajkumar giving us such assignments for our course on Process Planning. That could also help draw the students towards research and projects.
- As discussed in January, the number of lectures per week for a course can be assigned in accordance with its credit weightage.
- The practical sessions can be made a bit more interactive than just taking readings. The existence of printed record material can be changed. A procedural sheet is sufficient to perform experiments. Students could be asked to report the results in the form of a paper by answering questions put forward by the professors. Such a practice is followed for laboratory sessions here at TU Delft. Viva discussions at the end of each lab session could also be useful.
- Raising the bar of passing an examination is another possibility. 6 is the passing grade out of 10 here in NL.

Forthcoming events

Workshop/FDP

October 2018

- IIT Varanasi is organizing a short term course on Efficient energy conversion in harmony with environment, during Oct 29-Nov3, 2018. Last date for registration 6-10-2018.

- SSN Incubation Centre in association with ASSOCHAM and Indian Patent Office is organising an Intellectual Property Awareness Program at SSN campus. This workshop will be held on 1st October 2018 between 9.00 a.m. and 3.00 p.m. at the Mini Auditorium. All Research Scholars are requested to attend.

Conference

November 2018

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

December 2018

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

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

January 2019

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

February 2019

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

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

March 2019

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

Abstract submission by Oct 5, 2018

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

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

April 2019

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

Challenges/Contests

May 2019

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

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

  Last date for submission: 31 May 2019

Smart India Hackathon
Smart India Hackathon 2019 has been launched at New Delhi by the HRD minister Sri. Prakash Javadekar. Please check the following link:
http://www.uniindia.com/smart-india-hackathon-3rd-edition-launched/india/news/1334501.html

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

This would be a two-staged pan India Competition:

- Zonal Level: The Zonal would be held in conjunction with the Technical Festivals of IIT Bombay, IIT Kanpur, IIT Kharagpur and IIT Madras. The First three teams from each of the Zonal competitions, a total of 12 teams from the Zonal competitions, will participate in the National level.
- National Level: The National Level Competition will be held at IIT Delhi for all the toppers from the Zonal Round to decide the champion.

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

SSN Innovation Centre invites research proposals from Alumni

SSN is known for its 250 acre beautiful campus with state- of –the- art infrastructure facilities. SSN presents an opportunity for all the alumni to come forward and take part in research projects to make SSN a Smart Campus.

- SSN will fund promising projects from those received after due scrutiny and the projects have to be executed by the SSN students on campus and mentored by the corresponding alumni and get faculty assistance.
- Once the projects have been finalised they will be floated to the students for them to express interest in working for them and alumni can interview and shortlist from among the interested projects
- The end result of the above will be a workable model which can be scaled up for campus requirements

Note : The IPR generated from the above will be in the name of SSN with alumnus and the students jointly recognised as inventors of such IPR.

Interested alumni can share their details on the below Google form

https://goo.gl/forms/4WUyAQe7XYMEM0783

Economic Times Campus Stars 2018-19

Debal Bhattacharjee, 4th year, Mechanical Engineering writes…

ETCS is India's largest program that identifies and rewards the brightest engineering minds in the country. The first edition of ETCS (completed last year) attracted participation from over 25,394 students and 2,000+ engineering colleges. The second edition, registrations for which are already open, is expected to be much bigger than the first one.

About ET Campus Stars 2018-19
The program, launched in partnership with Aspiring Minds (Assessment Partner) and Bennett University (Knowledge Partner), is open to participation from engineering students who are in the third or final year of an undergraduate engineering course from any of the AICTE approved colleges. ETCS 2018-19 consists of four phases:

- Phase 1: Registration and online psychometric test
- Phase 2: Online test to assess functional knowledge
- Phase 3: On-ground assessment of group dynamics and leadership
- Phase 4: One-on-one interaction with Program Jury

Each phase would be followed by a shortlisting process. The students who move to Phase 4 will be interviewed by one of the CEOs on the program's Jury Panel. To know more about the Program phases, Process and Jury Panel, please visit www.etcampusstars.com.

Why participate in ETCS?
ETCS is not only the largest but also the most intensive program to identify the best engineering talent. Acknowledged as a 'life-changing' experience by the last year's participants, ETCS offers the following gratifications to students:

- Self-discovery of core strengths/ limitations on a globally-validated and industry-endorsed process
- Opportunity to benchmark oneself against other engineering students across the country
- Inspiring and enriching exclusive interaction with CEOs- once in a life-time opportunity!
- A chance to be featured in The Economic Times and gain nation-wide recognition
- Opportunity to jump-start the career early-on

How to participate?
To participate, students of third and final year engineering have to register on www.etcampusstars.com and complete the online test (Phase 1) **on or before 26 October 2018**. They can also engage with ET Campus Stars community on Facebook www.facebook.com/ETCampusStar and Twitter www.twitter.com/ETCampusStars

Research News from MSP

1. **DST - Call for Project Proposal (CFP -2) under India - Israel Industrial R&D and Technological Innovation Fund (I4F - 2018-2019)**

Types of projects eligible for funding support

1. R&D projects, focused on development of new products, processes or technologies
2. Projects focused on the adaptation and customization of a product to markets

Last date for submission of project proposal: **24th November 2018**

Focus Sectors

1. Energy
2. Agriculture
3. Information and Communication Technology (ICT)
4. Water
5. Health Care

Website links:

http://www.dst.gov.in/callforproposals/call-proposal-cfp-2-under-india-israel-industrial-rd-and-technological-innovation

www.dst.gov.in

2. **5th International Conference on Nanoscience and Nanotechnology (ICONN-2019), 28-30 January 2019, Department of Physics and Nanotechnology, SRM Institute of Science and Technology, Kattankulathur-603203, Chennai, Tamil Nadu**

The 5th International Conference on Nanoscience and Nanotechnology (ICONN-2019) will be organized by SRM Institute of Science and Technology (SRM IST- formerly known as SRM University) in association with Shizuoka University, Japan; National Chiao Tung University, Taiwan; GNS, New Zealand; CSIR-National Physical Laboratory, India; Asian Consortium on Computational Materials Science (ACCMS) and The Institute of Engineering and Technology (IET). The Conference will be held at SRM-IST in Kattankulathur, Tamil Nadu from 28th to 30th January 2019.

The conference aims at providing a platform to gather researchers and scientists to assess recent trends and developments in Nanoscience and Nanotechnology for promising applications.

Manuscripts submitted to ICONN-2019 will be peer reviewed and accepted papers will be published in the special issue of **Applied Surface Science (IF- 4.439), Materials Science in Semiconductor Processing (IF- 2.5) and Materials Research Express (IF- 1.15).**

Last Date for submission of Abstracts: **30-09-2018**

For further details contact

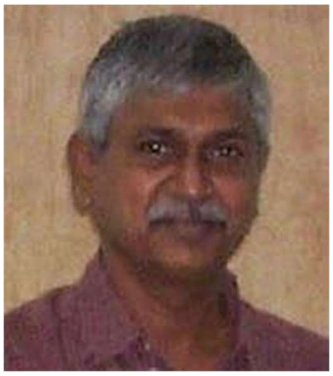
Conference Secretariat - ICONN 2019

Phone : +91-044-27417835 Extn : 7831, 7875

E-mail : iconn.2019@ktr.srmuniv.ac.in,

Website : http://www.srmuniv.ac.in/iconn-2019/

Inspiring Life Stories



Mr. Kishore Babu

Schwing Stetter

It all started one lazy Sunday afternoon in a small town near Toronto in Canada.

Two school-going friends had a crazy idea. They rounded up three goats from the neighborhood and painted the numbers 1, 2 and 4 on their sides.

That night they let the goats loose inside their school building.

The next morning, when the authorities entered the school, they could smell something was wrong.

They soon saw goat droppings on the stairs and near the entrance and realized that some goats had entered the building.

A search was immediately launched and very soon, the three goats were found.

But the authorities were worried, where was goat No. 3? They spent the rest of the day looking for goat No.3.

The school declared classes off for the students for the rest of the day.

The teachers, helpers, guards, canteen staffs, boys were all busy looking for the goat No. 3, which, of course, was never found. Simply because, it did not exist.

Moral of the story: Those among us, who in spite of having a good life are always feeling a "lack of fulfilment" are actually looking for the elusive, missing, non-existent Goat No.3.

Let's Stop worrying about goat No.3 and enjoy the life....and don't let the non-existent imaginary goat number 3 to waste your time and happiness

Source- https://www.wattpad.com/story/121222574-the-missing-goat/parts

Thanks & Regards –

Kishore Babu

HR - Department

SCHWING Stetter India Private Limited

Corporate Wisdom 58

The Shot Clock

All of us enjoy the sport Basketball and it is a thrilling sport. In 1950s this sport was in trouble. Games were beginning to drag, excitement was dwindling, and crowds were staying away. Wondering why? Well, once a team got a lead in the game, it would try and hold on to the ball for as long as it could, passing listlessly from one team mate to another, depriving the opponents of a chance to catch up. They wouldn't bother with shooting and scoring points, so much so that in one NBA game, the score line at the end read 19-18. The people watching this game started coming down.

Knowing this downfall and attraction towards this game coming down, in 1954 came an innovation that transformed basketball. The Shot Clock. Danny Biasone is the man credited with changing the face of basketball. He introduced the clock – a countdown timer really - and a new rule came into force. Now, once a team got possession of the ball, they had 24 seconds in which to take a shot at the basket, failing which the ball would automatically pass over to the opposing team. Result? Both teams now began to furiously try to score points throughout the game. There was never a dull moment, and often, the winner was decided only in the dying moments of the game. The impact was dramatic. The pace of the game picked up. Average points per game went up from 79 to 107. And attendance at games went up 40 per cent.

Now the shot clock has been back in the news in the past few months. Tennis authorities are experimenting with a shot clock – no doubt to put an end to the endless ball bouncing and underwear adjusting we see before every serve. And golf is toying with the shot clock too, to try and speed up the game, and get golfers to make a move on without a million practice swings.

But it strikes me that more than tennis and golf, **it's you and I who need to get our own shot clocks.** And yes, every business needs them too.

Now let us come to the same concept for businesses. We've seen several examples of businesses that built a dominant share - and a large, profitable enterprise - and then sat back and rested on their laurels. They didn't innovate, they didn't feel the need to do anything new. And they died. Maybe a shot clock could have reminded Kodak that if they don't change, if they don't move forward, they will risk losing the customer and their entire camera film business. Maybe that would have goaded Kodak to go digital and saved them from bankruptcy.

As individuals, we are sometimes guilty of falling into the trap too. We are in a role where we have delivered, done well, and then we take our foot off the pedal and move into cruise control mode. Our teams pick up that change. The organization reflects the slackening up. And business begins to go south. We could all do with a shot clock that would remind us that sitting pretty on past successes is not an option. We need to make progress, grow and learn in order to stay relevant. And if we don't do that, we risk losing what we have so carefully built up.

And I am sure we all need that shot clock in our personal lives too. To remind us to invest time with the family. Go out on that dinner date with the spouse. Be there with the children. A countdown timer that says "You better do this quickly – or else!" would work wonders I am sure.

Time then, to get your own little shot clock. Before it's too late.

#WishingMostAndMore

This issue has an Annexure-
Invente 2k18

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

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

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