Newsletter

Volume 8, Issue 6, June 2018

SSN Mechanical

Aspire

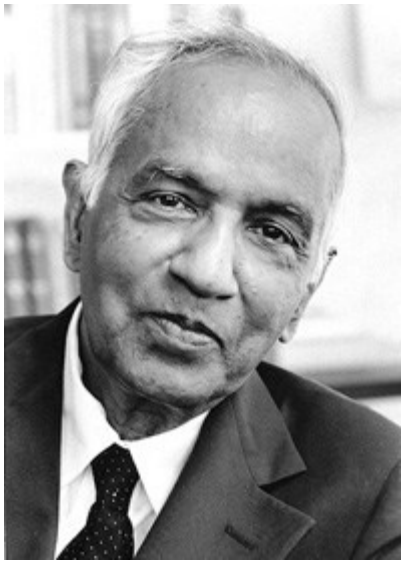
Achievements in Sports, Projects, Industry, Research and Education

All About Nobel Prize- Part 54

The Chandrasekhar Limit

Stars in the universe form from clouds of gas and dust. When these clouds are pulled together by gravitational force, energy is released in the form of heat. And when a high enough temperature is reached, reactions among the atomic nuclei in the star's interior begin. Beginning in the 1930s, Subramanyan Chandrasekhar formulated theories for the development that stars subsequently undergo.

What happens to a star when it runs out of fuel and dies? In the 1920s, scientists assumed that when a star burns off all its energy supply its light fades, leaving behind the burnt-out and dense remains known as a white dwarf. Subrahmanyan Chandrasekhar was the first to show how the fate of a star lies in its own birth mass.



On a long sea voyage from India to England in 1930, Chandrasekhar passed the time by developing a theory that proposed that a stable white dwarf couldn't be the fate of stars above a certain critical mass. According to his calculations, stars more than 1.4 times the mass of the Sun, which became known as the Chandrasekhar limit, must collapse under the force of their own weight, and be destined for a more spectacular fate.

It would take a generation of scientists to pinpoint precisely the fate of these larger stars, but in time it was proved that they do indeed go out with a bang, dying in a mammoth explosion called a supernova. If the original star was up to 2-3 times the mass of the Sun, the collapsed corpses left behind from the explosion end up as highly dense neutron stars. Stars that are more than 2-3 times the mass of the Sun suffer an even more exotic death - the force of gravity becomes so strong that matter disappears entirely into a black hole.

Trained as a physicist at Presidency College, in Madras, India and at the University of Cambridge, in England, he was one of the first scientists to combine the disciplines of physics and astronomy.

Chandrasekhar adopted a highly unusual approach to his research, investigating a fresh field of study each decade, such as how stars die, how radiation passes through a star's atmosphere and the theory of black holes. Each decade he followed a similar routine; writing a series of papers that solved the unsolved problems in that field, before finally publishing a book that summarized his results and presented the whole field in a new and clearer light. However, it is mainly for his earliest triumph, inspired on the journey that began his voyage through the stars, that Chandrasekhar was awarded the 1983 Nobel Prize in Physics.

"Chandra probably thought longer and deeper about our universe than anyone since Einstein," said Martin Rees, Great Britain’s Astronomer Royal.

Reproduced from Nobelprize.org

Info to Alumni- Campus Update

Info from Principal:

Dr. S. Salivahanan

1. We are pleased to inform that the Syndicate of Anna University has recommended the award of fresh autonomous status to our institution under the UGC Scheme for autonomous colleges for a period of 10 years w.e.f. 2018-19 to 2027-28.

2. Sir Timothy John Berners-Lee, the founder of the World Wide Web (WWW), Turing Award Winner and one of the foremost authorities in Computer Science domain visited our campus on 18th of May 2018. He delivered a talk to SSN faculty, students & select academic and industry guests at the Justice Prathap Singh Auditorium in SSN Campus. (More details in the Annexure)

3. SSN is gearing up to start job oriented and job guaranteed diploma programs, in collaboration with HCL. (More details in Faculty write up section)

Info from Dean, Research:

Dr.P.Ramasamy

Research Facility Sharing

Dr.P.Ramasamy, Dean Research writes.....

1. President has instructed that all the research equipment of various departments should be accessible to all the users of our Institution.
2. The research equipment as received from various departments, have been compiled into a list, and circulated to all HoDs.
3. Any researcher can contact the HoD of the respective department for using the research equipment of the department.
4. Kindly ensure proper and safe use of equipment.
5. HoDs have been requested to maintain details of extending their equipment use to other departments, in a register.

Info to Alumni- Department Update

External Recognition

R.Vimal Samsingh

Dr. S .Soma Sundaram

R.Vimal Samsingh, Assistant Professor reviewed a paper entitled Drill String Failure - Identification, Modelling and Experimental Characterization for the Journal of ASCE-ASME Risk and Uncertainty in Engineering Systems Part B: Mechanical Engineering[03.5.2018]

Dr. S .Soma Sundaram, Associate Professor, reviewed a paper for the journal International Journal of Aeroacoustics.[22.05.2018]

Dr.L.Poovazhagan

Dr.L.Poovazhagan, Assoc.Prof./Mech., invited as a session chair at the International Conference on Automobile, Marine and Mechanical Engineering, held at Sri Venkateshwara college of engineering, Sriperumbudur on [04.05.2018]

Dr.L.Poovazhagan, Assoc.Prof./Mech., invited as an external examiner for final year project viva-voce examination held at SRM institute of science and technology, Kattankulathur [02.05.2018]

Dr.L.Poovazhagan, Assoc.Prof./Mech., appointed as a TQM board group chairman for Anna university central valuation held at Loyola ICAM college of engineering and technology, Chennai [12.05.2018 to 15.05.2018]

Dr.L.Poovazhagan, Assoc.Prof./Mech., invited as an external examiner for final year project viva-voce examination held at Crescent institute of science and technology, Vandalur [10.05.2018]

Dr M S Alphin, Associate Professor, was invited as Session Chair for the 3rd International Conference on Recent Trends in Engineering and Technology 2018, held at St Joseph's Institute of Technology, Chennai [05.05.2018].

Dr. K. Jayakumar

Dr. K. Jayakumar, Associate Professor has been invited as External Examiner to review B.E Final year project work at SRM University, Kattankulathur.[04.05.2018]

Research Publications

Dr.Ananthapadmanaban

Dr.Ananthapadmanaban(Assoc.Prof), Dr.Vijayan(Assoc.Prof), Dr.Periasamy, Mr.Raja Velu presented a paper titled "Selection of appropriate friction welding parameters while welding Aluminium to Steel" in the International Conference ICAMME 2018 Conducted by Sri Venkateshwara College of Engineering [04.05.2018].

Dr.Vijayan

Dr. N. Nallusamy, Professor and Mr. Senthamil Selvan (Part-time Research Scholar) presented the technical paper titled "A Review on Combustion, Performance and Emission Characteristics of Reactivity Controlled Compression Ignition (RCCI) Engine", in International Conference on Automobile, Marine and Mechanical Engineering (ICAMME-2018) held at Sri Venkateswara College of Engineering, Pennalur, Chennai - 602 117, [4 – 5.05.2018].

Dr. N. Nallusamy

Dr. N. Nallusamy, Professor and Mr. Muralidharan (Part-time Research Scholar) presented the technical paper titled "Techniques adopted to improve the productivity of a Solar Still - A Review", in International Conference on Desalination (InDA - 2018) held at National Institute of Technology (NIT), Tiruchirapalli, TN, India, [20-21.04.2018]

Dileep Karnam and Dr. K. Babu, presented the technical paper, An Experimental Investigation on Turning of AISI 4140 Using Minimum Quantity Lubrication with CNT Nanofluid, International Conference on Automobile, Marine and Mechanical Engineering – ICAMME 2018, Sri Venkateswara College of Engineering, Chennai. [04-4.05.2018]

K. Babu

Dr. K. Babu and R. Arularasan, presented the technical paper , Quenching Performance of Low Carbon Steel in Graphene Nanofluids, International Conference on Automobile, Marine and Mechanical Engineering –ICAMME 2018, Sri Venkateswara College of Engineering, Chennai.[04-04.05.2018]

Dr.K. Rajkumar (Assoc. Prof), K.M. Nambiraj, A. Gnanavelbabu, P. Sabarinathan, published a paper, Machining characteristics evaluation of aluminium composites based on cBN and PCD inserts, Materials Today: Proceedings 5 (2018) 8424–8430 SNIP 0.387

Dr.K. Rajkumar

Dr.K. Rajkumar (Assoc. Prof), N. A. Thushal, A. Gnanavelbabu, P. Sabarinathan, published a paper, Experimental investigations on the Wire Electrochemical Micro Machining (WECM) integrity of AA6061-TiB2 composite, Materials Today: Proceedings 5 (2018) 6990–6998

A.Gnanavelbabu, C.Muthazhagan, K.Rajkumar(Assoc. Prof). Prof, S.Ayyanar, P.Loganathan, published a paper, Experimental Investigation and Reliability Analysis on Wear Performance of AA6061-B4C-Nanographite Hybrid Composites, Materials Today: Proceedings 5 (2018) 8436–8445

Project Info

Dr.Koteswara Rao has received a sanction letter for his project on "Optimizing the ballistic performance of AA705 Thick Plate Friction Stir Welds".
Funding Agency: Armament research Board
Amount Rs.18.78 Lakhs
Co-PI - Dr.R.Damodaram.
Duration: Three years.

Dr.Koteswara Rao

Dr.R.Damodaram

Industrial Interaction

Dr. N. Lakshmi Narasimhan, Assoc. Prof/Mech, had a technical discussion with Mr. Ajai Joshi, Product Development Engineer, Murugappa-Morgan Thermal Ceramics Ltd., on two specific problems faced by the company. [15.05.2018]

Dr. N. Lakshmi Narasimhan, Associate Prof/Mech, arranged for a GET campus placement drive of M/s Preethi Kitchen Appliances with a CTC of about 3 LPA for the 2018 passed outs of Mech.[16.05.2018]

Events Attended

Dr. N. Lakshmi Narasimhan and Dr. S. Suresh Kumar Associate Profs/Mech, attended a three day FDP on "Design The Thinking", organized by School of Design Thinking (Intellect India), Siruseri, Chennai, [09-11.05.2018]

Internship Opportunity

Dr. N. Lakshmi Narasimhan, Associate Prof/Mech, got an internship for:

1) III Year Mech Student Yogesha at NDT Intn'l, Chennai. He started his internship from 21.05.2018.
2) Five students of II Year Mech (Sirajudeen, Pradeepkumar, Balakrishnan R, Akhil Kuriakose and Subash) at SVP Lasers India, Chennai. Their internship commences from June 4, 2018.
3) two students of III Year Mech (Dineshkanna and Sathishkumar M) at TVS Brakes India, Sholingur. Their internship commences from May 23, 2018.

Student Activity

Pranav Shankar.S , 3rd year Mechanical:

Internship at IIT Indore:

I was given the opportunity to intern under Dr.I.A.Palani from the Mechanical Department of IIT Indore. The project given to me was the Development of Biomimetic hand using Shape Memory Alloy (SMA) as actuators. SMA's are materials which have the tendency to regain their original shape when heated above the phase transition temperature. The SMA's were used as actuators in mimicking the movement of my fingers in another 3D printed hand. This project has lot of applications in the medical field. [16/05 TO 20/06]

External Recognition

Message from Dr.M.S.Alphin:

Dr M S Alphin

- Anna University has released the rank list of students who passed out in 2017.
- Overall, 107 SSN students have obtained University ranks.
- Mech has managed to get 16 ranks.
- The First rank in Both ME Manufacturing and ME Energy are from SSN.

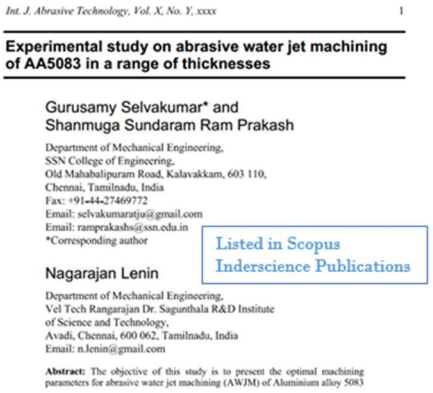
Congrats to all rank holders.

	B.E. Mechanical Engineering		
S.No	**Student Name**	**CGPA**	**Rank**
1	Ram Kishore V	9.08	15
2	Shravan V	8.98	21
3	Aravind B	8.97	22
4	Aravind S	8.96	23
5	Bhaarath Ramesh	8.96	23
6	Vigneshwar S	8.96	23
7	Surya Bharathi T	8.93	26
8	Siddharth N S	8.92	27
9	Tarun Subramanian	8.76	43
10	Keshavakrishnan S	8.76	43
11	Padma Shravan M	8.76	43
12	Kishore Kumar V	8.76	43
13	Arjun A	8.76	43
14	Aravindh Kumar R	8.75	44
15	Sreyas Sairam S	8.71	48
16	Mohammed Shajeeth S	8.71	48
	M.E. Energy Engineering		
S.No	**Student Name**	**CGPA**	**Rank**
1	Arun S	9.21	1
2	Gowthama Krishnan M	8.90	2
	M.E. Manufacturing Engineering		
S.No	**Student Name**	**CGPA**	**Rank**
1	Raghavan .S.P	9.04	1
2	Arulprasath.s.P	8.82	5

Faculty Write up

Publication Details – Write up (S. Ram Prakash, Research scholar)

Dr. G. Selvakumar
Supervisor



Int. J. Abrasive Technology, Vol. X, No. Y, xxxx 1

Experimental study on abrasive water jet machining of AA5083 in a range of thicknesses

Gurusamy Selvakumar* and
Shanmuga Sundaram Ram Prakash

Department of Mechanical Engineering,
SSN College of Engineering,
Old Mahabalipuram Road, Kalavakkam, 603 110,
Chennai, Tamilnadu, India
Fax: +91-44-27469772
Email: selvakumaratju@gmail.com
Email: ramprakashs@ssn.edu.in
*Corresponding author

Nagarajan Lenin

Department of Mechanical Engineering,
Vel Tech Rangarajan Dr. Sagunthala R&D Institute
of Science and Technology,
Avadi, Chennai, 600 062, Tamilnadu, India
Email: n.lenin@gmail.com

Abstract: The objective of this study is to present the optimal machining parameters for abrasive water jet machining (AWJM) of Aluminium alloy 5083

Listed in Scopus
Inderscience Publications

Mr. S. Ram Prakash
Research Scholar

I am pleased to inform you that our papers titled “Investigation on machining and surface characteristics of **AA5083** for cryogenic applications by adopting trim cut in WEDM” published in **Journal of the Brazilian Society of Mechanical Sciences and Engineering,** Springer Publication (as Co - author) and “Experimental study on abrasive water jet machining of **AA5083** in a range of thicknesses” published in **International Journal of Abrasive technology,** Inderscience Publishers. I express my heartfelt gratitude to my supervisor for his steadfast guidance on nurtuting me to publish these papers.

“Thanks is a word, Gratitude is an emotion”

Journal of the Brazilian Society of Mechanical Sciences and Engineering (2018)40:267
https://doi.org/10.1007/s40430-018-1192-7

TECHNICAL PAPER

CrossMark

Investigation on machining and surface characteristics of AA5083 for cryogenic applications by adopting trim cut in WEDM

G. Selvakumar[1] · K. G. Thiruppathi Kuttalingam[2] · S. Ram Prakash[1]

Listed in Thomson Reuters
IF = 1.235
Springer publication

Received: 21 November 2017 / Accepted: 16 April 2018

Abstract
This paper presents the experimental investigation on wire electrical discharge machining (WEDM) of aluminum alloy

Meeting with Mr. Ajay Joshi (Application Development, MMTCL)
Venue: Dept. of Mechanical Engineering, SSN College of Engineering, Kalavakkam-603110.
Date: 15/05/18 **Time:**10.30 a.m. - 1.00 p.m.

Members Present:

1. Dr. N. Lakshmi Narasimhan
   Associate Prof/Mech, SSNCE.

2. Mr. Ajay Joshi
   Application Development, Morgan Advanced Materials
   Murugappa Morgan Thermal Ceramics Ltd
   Post box No. 1570, Dare House Complex,
   Old No. 234, New No. 2, NSC Bose Road, Chennai - 600001.

Dr. N. Lakshmi Narasimhan

Introduction

The meeting commenced with a self introduction of the members and a brief about the company by Mr. Ajay Joshi. In response, Dr. NLN briefed about the activities of dept. of Mech, SSNCE specifically on the fields of Thermal Engineering and Materials.

As pre-stated over mail a couple of days ago by Mr. Ajay, the problems of prime importance to the company were detailed. In response to the queries, Dr. NLN presented his views, comments and suggestions.

Mr. Ajay Joshi brought out in detail, what was expected from the joint projects planned with the dept. of Mech, SSNCE. The discussion extended to a little brainstorming on the advantages & shortfalls of their existing approach for the problems addressed. In response to Dr. NLN's views, Mr. Ajay highlighted their customer reach out initiatives to find a suitable market opportunity where the focus could be made in future for joint R&D.

Joint R&D

Based on the discussions and need of the company, it has been agreed to jointly carry out possible R&D works utilising the expertise available in the Dept. of Mech, SSNCE. Dr. NLN has agreed to jointly work with Mr. Ajay & Team MMTCL on certain topics related to heat transfer. In response, Mr. Ajay has agreed to provide more inputs after due interactions with their team and customers.

Invitation to Dr. NLN

Mr. Ajay Joshi placed an invitation to Dr. NLN for a presentation on few project topics in the month of June 2018.

Student Projects/Internships

Mr. Ajay Joshi welcomed the involvement of students both UG/PG in projects or as interns.

Sign-Off

The meeting got over with a note of thanks exchanged between the members and due acknowledgements to SSNCE and MMTCL for the interaction and hospitality.

I personally would like to thank Dr. V.E. Annamalai (HOD/Mech) for introducing Ajay Joshi. My Special Thanks to our Principal and Management for providing the ecosystem for such Industry-Institute interactions at our campus.

- Compiled by Dr. N. Lakshmi Narasimhan

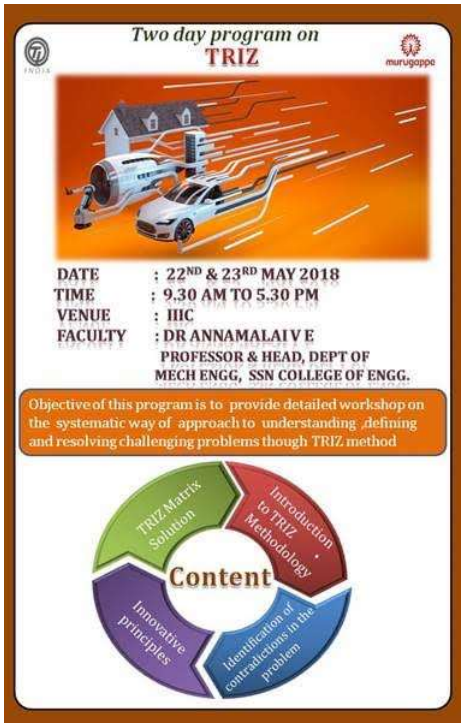
Faculty write up

TRIZ Training at Tube Investments of India Ltd.

Prof.VE.Annamalai was invited by Tube Investments of India, to train their staff on Innovation, Creativity and TRIZ. The training happened during May 22 & 23.

21 Management staff from Carborundum Universal and Tube Investments of India Ltd, took part in the training. The program was to highlight Alsthuller's approach of developing problems as Contradictions and then resolving them using TRIZ matrix.

Thanks to Mr.T.C. Kannappan, Dy.Manager, TQM, of Institution Industry Interaction Centre (IIIC), who co-ordinated the program.



The announcement

A problem-solving session in progress

Faculty write up

A report on Tech Bee Program

One of the benefits of being Autonomous is the right to offer Certificate Programs. SSN is preparing to offer its First Certificate Program, in collaboration with HCL. The HCL TechBee program is now enhanced into a fifteen months program with a diploma from SSN.

Plus Two students are taken in and trained for employment in HCL. This is a job Guaranteed program. The program is expected to start by mid June. There are four streams.

Mech is also gearing up to offer one program, focussing on Materials Technology. With specific focus on materials, their processing, engg graphics, CAD, and Metrology along with necessary hands on Practical sessions, the program is designed to be an intense course that can fast forward the candidate's capability to take up jobs. It also has two trimesters of Project work and on the job training by HCL. Surely, one will become job ready.

At SSN, this program is anchored by Dr.SV.Albal

Dr.SV.Albal

HCL promises the following

- Job Assurance with HCL post successful completion of the program
- During the first year of training, you can get a stipend of INR 10,000 per month
- Opportunity to start your career earlier vis-à-vis your peers and become financially independent
- Access to best-in-class training, infrastructure & subject matter experts
- Improve your capability in English language, Professional and Business Skills through interactive Personality Development sessions
- Exciting career growth with HCL
- Opportunity to pursue higher education program along with your full-time job

For more details, pl visit http://www.hcltss.com/our-programs/class-12/

Faculty write up

Faculty Development Program – Design Thinking

Dr. N. Lakshmi Narasimhan and Dr. S. Suresh Kumar attended a faculty development program on "Design Thinking" organized by Intellect Design Arena Ltd, Chennai. Around 25 participants from various academic institutions participated for the three-day (May 9th to 11th 2018) FDP. The concept of "Design Thinking" is a future focused problem-solving approach that has been making waves in the country for a few years now. Intellect Design Arena Ltd, has been pioneers in this area and they have been working on design mind and design thinking application for several years.

Prior to attend the workshop, participants were instructed to come with their own career roadmap, solution to a particular situation and case studies. Each participant described their career plan in front of the gathering. Various exercises such as case studies, paragraph reading, innovative thinking, industry walk through, brainstorming, health cautious and meditation were assigned to the participants for self-realization. Different "situation handling" exercises were also given to the participants in order to emphasize the concept of design optimization. In addition, the FDP highlighted the importance of customer requirements (students), faculty behaviors and class room decorum etc. Special exercises were allocated to improve the reading habit of the participants, decision making under critical environments, activity planning and innovative thinking.

The coordinators of the FDP have assured their cooperation and support for further extension of this course to the academic institutions. Thanks to Dr. Anbu Rathinavel, Head – School of Design Thinking & Chief Design Officer - Intellect Design Arena Ltd, for his interest towards academic institutions to attend the FDP.

Dr. S. Suresh Kumar

Dr.N.LakshmiNarasimhan writes- The programme was very useful and interesting. The techniques *exposed to* during the event will be helpful for organizing my thought process while addressing challenges or problems in professional or personal career. Thanks for the opportunity given. Our sincere thanks to Mr.B.Srinivasan for referring us to this program and to our Principal for nominating us.

Faculty write up

Report on STTP

Dr. M. Nalla Mohamed, Associate professor, Department of Mechanical Engineering attended a Five-day short term training program on Composite Structures: Theory, Manufacturing, Mechanics & FE Modelling during May 7-11,2018 orgainized by Mepco Schlenk Engineering College,Sivakasi in association with FRP Institute, Chennai.

On the first day (07/05/18) the programme started with the inaugural function and the organizer addressed about the “Overview of Composite materials” followed by the keynote address on the topic “Promoting entrepreneurship in the field of Fiber Reinforced Plastics”.

On the following days, the theory Sessions were delivered by eminent researchers in the field of PMCs and all the hands-on Training sessions were handled at Workshop by Industry experts. Computational experiences were provided by hands-on Training in Finite Element Modelling of Composites using ANSYS, ACP, LS-PrePost at CAD Laboratory. All the training sessions were interactive and very useful to my research work.

Dr. M. Nalla Mohamed

Research scholar write up

Report on ICILSM 2018

Praveen Kumar.A,
Senior Research Fellow

Second International Conference on Impact loading of Structures and Materials (ICILSM 2018) was held during May 7th -11th 2018 in Xi'an, China. The conference was hosted by Northwestern Polytechnical University, China. The event started with welcome reception on the first day of the conference. The second day started with the inaugural function followed by the plenary lectures by eminent speakers in our domain of impact engineering. The editors of various reputed journals have given lectures about recent trends in impact and ballistic fields.

During the next three subsequent days, more than 150 presentations by researchers from 23 countries and regions all over the world were scheduled in 35 sessions and covered all the sub-domains in our community of impact engineering. Some of the interesting topics includes Material behavior at high strain rates (lightweight alloys, composites, polymers, metals, foams, ceramics, biological materials), structural failure under impact, energy absorbing systems and crashworthiness and Vehicle safety (automotive, railways, aerospace, motorcycles and bicycles, naval).

On 9th May, I have made an oral presentation on my research topic **"Investigations on the energy absorption characteristics of hybrid composite wrapped combined geometry tubes for vehicular frontal crash protection"** in the session "Structural failure under impact, energy absorbing systems and crashworthiness' at Taibai Shan Hall. This session was chaired by professor Dr. D. Ruan from Swinburne University of Technology. She appreciated about the work and gave her insightful suggestions to be carried out in future.

On 10th May, the conference organizers had arranged for a lab tour to the Shaanxi State Key Laboratory of Space Flight Dynamics at the Northwestern Polytechnical University. Various major equipment's such as Drop mass impact testing setup, Gas gun setup and Split Hopkinson material testing setup were demonstrated and brief discussions on their research works were also shared by the research scholars. This session was very useful and interactive.

Gas gun setup

Drop mass impact testing machine

On the last day of the conference, I had a discussion with Hoon Huh, a Professor from School of Korea Advanced Mechanical and Aerospace Engineering. He suggested some innovative ideas and I have requested to visit his KAIST impact lab, which is one of the famous impact labs in the world. Also, I have visited some of the renowned historical places around the Xi'an city.

I would like to express my sincere thanks to the management, Head, Department of Mechanical engineering and my supervisor Dr. M. Nalla Mohamed for permitting to attend the conference. I also thank the DST-SERB for providing me financial grant to attend the above-mentioned conference by sanctioning an amount of Rs. 1,17,000 towards air fare, registration fee and visa fees. (Ref.: File Number: ITS/2018/000645).

Economic Times Campus Stars
A write up by Debal Bhattacharjee, 3rd year, Mechanical Engineering

The program started back in November 2017. The information about the program was shared through college mail. As it was the first time Campus Stars program was held, there was not much information about it. Let me share my experience and hope it will be helpful for future aspirants.
There were 4 phases which took place within a period of 5 months. The first phase was an online psychometric test which consisted questions from situations pertaining to college and work life.
The next phase was also in online mode. A video interview followed by a domain test was conducted. Although, later they marked the video interview as optional. The selection was done on the basis of score of the domain test. There were 20 questions from various mechanical engineering topics.
The selected candidates moved into the pre-final stage or phase 3. This was a group task and the venue was fixed by the organizers. Before the group tasks, there was a domain test similar to phase 2. It was conducted on *AMCAT* portal. Following the test was a group discussion among 13 candidates. I was one of the top 3 performers and we were made the leaders for the next round which was a trading game. 3 teams were formed, each having a leader. The game evaluated us for the leadership qualities, teamwork and ability to perform within a short deadline.
The game was pretty interesting and my team was able to complete the given task. 2 of us got selected for the final round to be held in Bangalore.
In the final phase, we got the opportunity to meet *Mr. Tejas Goenka, Executive Director of Tally Solutions Private Limited*. He interviewed 8 candidates in his office in Bangalore. My interview lasted for 15 minutes and questions were asked from mechanical engineering, taxation system and traffic in India, and few puzzles to end with. Mr.Goenka had a friendly approach and there was no stress on me at any given time during the time.
The results were out on first week of May. There were two lists published in the website. One was the '**CLASS OF 2017-18**' and the other was '**CHALLENGERS 2017-18**'. I secured a position in the list of '**CHALLENGERS 2017-18**'. As of now I did not hear from them about any perks. More information can be found out on their website.
Overall, it was really a great experience performing and competing against my peer group from various other reputed colleges. I would urge all my batch mates and juniors to participate in the next event.
I would also like to thank our student counsellor, S Nanda, for helping me out with inputs for the interview.

Student write up

Inplant training at Ford

- Ankit Kumar (III Year Mechanical 'A')

A five-day workshop by FORD INDIA PVT LTD was conducted at FORD Vehicle Assembly Plant, Chennai. It mainly dealt with the life cycle of a car from planning to manufacturing and marketing. Every day we had two sessions: Morning and Afternoon.

On the first day, we had basic discussion on automobile parts and functioning and then we visited Blanking and Stamping Department, where the manufacturing process starts.
On the second day, morning session we visited Painting Shop Department and learned the process of painting the Car Bodies. Afternoon, we visited Body Shop Department where we saw how small parts received from Stamping Department are assembled to make a complete body.
On day three, we visited TCF (Trim-Chassis-Final) Department, where we saw how all the other accessories and engine parts are assembled to a car body and a complete car is manufactured. Later we visited Quality Department and witnessed how they check the quality of the final product.
On day four, we spent the whole day on material handling, supply chain and Engine Assembly Plant.
On the last day, we had a few group activities conducted by the HR of the company.

Student write up

Internship at Dow Chemicals

- Namratha G (III Year Mechanical 'A')

The Dow Chemical Company, commonly referred to as Dow is an American Multinational chemical corporation headquartered in Midland, Michigan, United States, and predecessor of the merger company DuPont. They are producers of a wide range of chemicals such as polyethylene, polypropylene, surfactants, paints and coatings, inks, agrochemicals etc.

K. Sowmya and I (G. Namratha) from 3rd year are interning in Dow for the next two months along with 11 other students from various institutes like ACT, MIT and IIT Madras. This internship has given us an overview of how other disciplines interface with a chemical manufacturer such as Dow. Unlike other companies, Dow has its own EPC (Engineering Procurement Construction) which calls for engineers from various disciplines to support the chemical plant.

Through this article I wish to give the readers an insight of a mechanical engineer's role in a chemical company.

- Mechanical
- PCE (Process Containment Equipment) - Design of equipment such as pumps, compressors, heat exchangers, boilers etc. based on the operating conditions.
- Piping-

(a) Selection of materials based on the type of fluid, service conditions and the parameters of flow.

(b) The layout team is responsible for fixing the position of all the equipment based on the process flow given by the process engineering team. (SP3D software)

(c) The stress team performs an analysis of the induced stresses due to sustained, expansion (thermal) and occasional (winds and seismic) loads, determining the location and types of supports that are required to withstand the service conditions under designed pressure and temperature. (CAESAR II software)

The eight-week program includes projects, presentations, plant visits and cross discipline interactions that are helping us gain exposure to the industrial world.

Mech Marvel – 42

NASA's Supersonic X-Plane

NASA and Lockheed Martin Aeronautics Co. are working together to build an experimental plane (or "X-plane") called the Low-Boom Flight Demonstration (LBFD), which will reduce the sonic boom synonymous with high-speed flight to "a gentle thump". The X-plane will be about the length of an NBA basketball court, will fit a single pilot and will fly at about 940 mph (1,510 km/h) at an altitude of 55,000 feet (16,800 meters). If all goes according to plan, spectators on the ground should barely be able to hear the plane as it rips through the sound barrier high overhead. (The speed of sound, also known as Mach 1, varies depending on air pressure and temperature but is roughly measured at about 758 mph or 1,220 km/h.)

NASA has been designing the plane for several years and studying sonic booms since the 1940s. The trick to evading those thunderous, midair roars is in the LBFD's sleek design, NASA said.

Sonic booms occur because air reacts to a speeding plane much like water reacts to a boat: The plane pushes air molecules aside as it passes, compressing them together into waves. If the plane is traveling at supersonic speeds, the resulting shock waves spread out in every direction at the speed of sound — creating a continuous, thunderous boom audible for miles around. The bigger the aircraft, the more air is displaced, and the louder the boom.

The LBFD's sleek shape will scatter those shock waves in a way that prevents them from converging into such ear-shattering blasts, NASA officials said. The design has already been tested in computer simulations and wind-tunnel experiments, but it will soon get its first exposure in the open air.

Source: Live Science More Info: NASA

Corporate Story 42

MSME FOCUS

Satpuda Engineering Pvt. Ltd

Satpuda Engineering Pvt. Ltd is a company manufacturing tubular and sheet metal fabricated assemblies and components. Driven by 3 core values- Innovation, Quality and Safety. Original Equipment Manufacturer (OEM) to blue chip companies from industries like Automobile, Diagnostic instruments, Switchgear and Construction & road building equipment.

With an experience of over two decades, Satpuda is today reckoned a trusted brand with its ability to provide quality & cost-effective manufacturing services. With a team of qualified managers, engineers and well-trained technicians to give the best quality and service anytime and every time.

Manufacturing Processes

- Motorized Pipe/Rod Bending
- Punching, Blanking, Piercing, Forming, Crimping and Flaring.
- Sheet Bending
- Co2 Welding & Argon Welding
- Profile Cutting
- Shearing
- Pipe Cutting
- Spot Welding
- Powder Coating
- CNC Turret Punching
- CNC Laser Cutting
- Water-jet Cutting
- Riveting
- Drilling, Tapping, Milling & Turning
- Surface Grinding
- Electroplating & Electropolishing

Manufacturer of:

1. Tubular & Sheet-Metal Fabricated Assemblies
2. Sheet-Metal Press Components
3. Material Handling Trolleys
4. Hospital Furniture

Their site reads as below;

- Over 25 years of experience in the field of tubular & sheet metal fabrication enables us to develop & cost effectively produce quality products by using cost effective & innovative production techniques and processes and waste elimination.

- Technically expert team, skilled and experienced workforce enables us to develop and consistently produce quality products by thoroughly understanding the requirement of the customer and with minimum customer involvement.

- Robust & organization wide systems enable to consistently provide on-time deliveries, achieve high standards of quality control and reduce customer response time.

- By utilizing a highly selective and flexible group of vendors for high productivity & accuracy operations like CNC turret punching, CNC laser cutting, Water-jet cutting etc. we are able to produce quality products at competitive prices. Our vendor network is approved by companies like TransAsia Bio Medicals Ltd., Mahindra & Mahindra Ltd., Atlas Copco India Ltd. and Lucy Electric India Pvt. Ltd. thus ensuring high quality output.

Work with Satpuda Engineering Pvt. Ltd

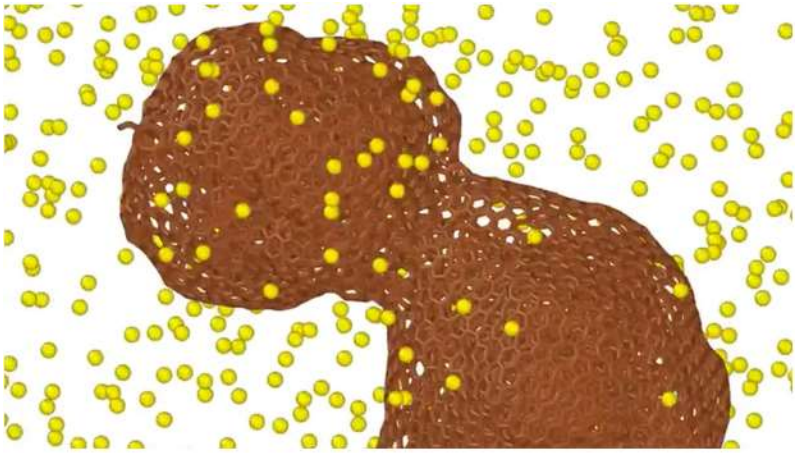
Every day at Satpuda Engineering Pvt. Ltd. (S.E.P.L) offer unique opportunities for personal and professional development along with a work culture that embraces diversity. S.E.P.L invest in people in a way that leadership, innovation, integrity and knowledge growth become a way of life. Whether you are looking for an internship or a job opening to progress your career, at S.E.P.L. you can shape your own career growth path.

Please fill in your details in the link below if you are interested.

http://www.satpudaindia.com/careers.php

Amazing Innovation- 69

Broken Nano diamonds create a super-long-lasting, very-low-friction dry lubricant

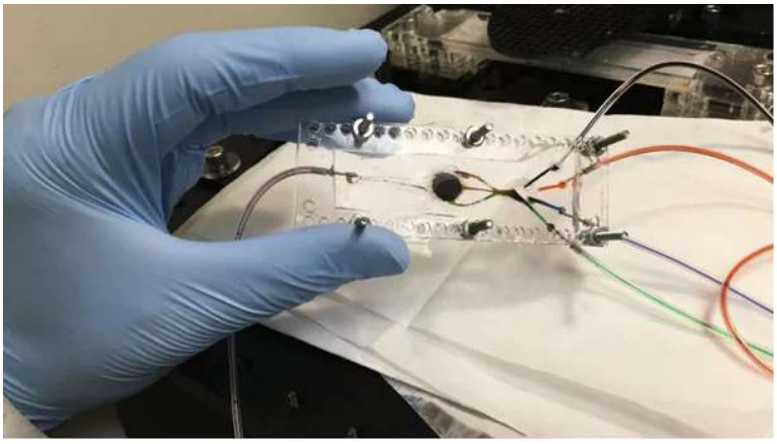


“Broken Nano diamonds are forever," or so says a team of scientists at the US Department of Energy's (DOE) Argonne National Laboratory. By combining broken nanodiamonds with two-dimensional molybdenum disulphide layers, they've managed to produce a self-generating, very-low-friction dry lubricant with hundreds of applications that lasts practically forever. About three years ago, a team led by Anirudha Sumant of the Nanoscience and Technology division of Argonne found that by mixing graphene with nanodiamonds, it was possible for the first time on an engineering scale to produce super lubricity or near-zero friction. Now Sumant's team has taken this a step further by replacing the graphene with molybdenum disulphide – another common dry lubricant that's widely used in space industries because it performs well in a vacuum. According to the team, the lubricant is also relatively inexpensive because, though molybdenum disulphide is more expensive than graphene, very little of it is needed for the proper effect to take place. Also, there are no hazardous chemicals involved and the lubricant is self-generating, so it effectively repairs itself during use.

The team sees the new, patented lubricant technology as having a wide range of applications, including bearings, pump seals, wind turbines, and magnetic disc drives. Source: Argonne National Laboratory

Amazing Innovation- 70

Breakthrough 3D bio-printer puts artificial tissue on the table

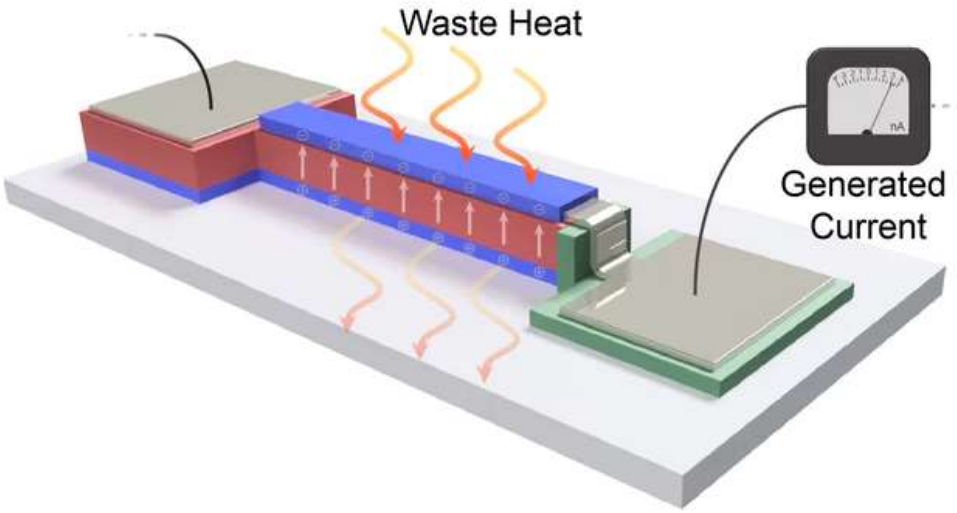


In a move that could one day lead to artificial transplant organs and sophisticated regenerative therapies, a UCLA team led by bioengineer Ali Khademhosseini has developed a new technique for printing complex bio-tissues using multiple materials. Using a specially modified 3D printer, it promises to one day create therapeutic biomaterials on demand. Organ transplants and other advanced tissue treatments face a seemingly impassable bottleneck. This is a light-based process where hydrogel mixed with stem cells is laid down by a 3D printer as a beam of light causes molecular bonds to form, hardening the gel. So far, the printer has been used to create simple shapes, 3D simulations of muscle tissue and muscle-skeleton connective tissues, as well as fake tumors complete with blood vessels. In addition, the structures have been implanted in rats without being rejected. Source: UCLA

Amazing Innovation- 71

Nanofilm recycles electronic waste heat as electricity

Waste heat generated by electronics is a big problem. Not only can it damage components if it gets out of hand, but it represents a large amount of energy going to waste. Now scientists at the University of California, Berkeley have developed a thin film that could be built into computers, cars or factories to capture and recycle the energy from waste heat. The UC Berkeley team wanted to create a device that could tap into what's known as low-quality waste heat, which involves temperatures below 100° C (212° F). To do so, the new film works on the principle of pyroelectric energy conversion, which can work with lower temperatures and more gradual changes. That makes it ideal for use in electronics. The team built prototype devices that supplied heat and electric fields to pyroelectric films just 50 to 100 nanometers thick, and measured the temperature and amount of electricity they generated.



Source: University of California, Berkeley

Amazing Innovation- 72

Drone safety system stops props before they cut fingers

Known as Safety Rotor, the system was developed by a team from Australia's University of Queensland, led by Dr. Paul Pounds.It incorporates four lightweight plastic hoops, each one of which is mounted on one of the drone's sets of rotors, extending out to surround the rotor blades. The spinning of the rotors causes the hoops to spin with them, but because the hoops are mounted via a low-friction bearing on the rotor shaft, they don't spin as fast (or thus as dangerously) as the rotors, and can be stopped independently of them.

Should an appendage such as a finger accidentally wander towards one of the rotors, it will get hit by the hoop before making contact with the rotor blade itself. This causes the hoop to stop rotating, which is instantly detected by an infrared optical sensor mounted below the hoop, on the drone's rotor arm. That sensor subsequently prompts the microcontroller driving the rotor's motor to apply an electrodynamic braking system. This will stop the blades from spinning, in less than 0.06 of a second from the time that the finger touches the hoop.

Source: UniQuest

Some Engineers have a strong passion towards Society and move away from Engineering. Such a rare example from mech-
Vishnu Varatharajan of 2011-15 batch, is now doing MA- Political Science and Government (2017-19) in University of Madras. He is also a Freelance Translator at People's Archive of Rural India
While in college, he was a Student reporter / photographer during 2012-13, in the prestigeous Vikatan Group. He has written several articles in Vikatan Publications.

Recently, Vishnu has presented a paper on "Course Correction in Progress: A Study on Representation of Women in Indian Political System" in the National Seminar on "Redefining the Socio-Political Dynamics in India", organised by the department of Political Science, LN Government College, Thiruvallur, Tamil Nadu.

Sanjeev Nivedan of 2011-15 batch, completed his Masters in Automotive technology from Eindhoven University of Technology, in 2017 and is now working as Associate Accounts Executive at Freshworks Inc (Formerly Freshdesk)

His page reads as
Surprising as it may seem, I like to be reminded now and again that I do not know enough. It's a humbling feeling; a call, announcing that a chance to learn awaits. Like Matthew McConaughey said in his Oscar acceptance speech, I will always aim to better myself and keep failing to do so, because that keeps me with someone to keep on chasing. I will never be my hero, but I'll never stop trying to be.

G.S.Deepak Kumar of 2011-15 batch, joined Rane in 2015.
Then he moved to Great Lakes Institute of Management, for Post Graduate Program in Business Analytics & Business Intelligence (2017-18)
Now he is Data Analyst at Flex.

Vignesh Ram of 2010-14 batch, is now Data Scientist at Ashok Leyland. He has completed his MBA in Business Analytics and Intelligence during 2017-18 from IIM Bangalore.

Forthcoming events

Workshop/Seminar

June 2018

- The Mechanical Engineering Department, Institute of Technology, Nirma University, Ahmedabad will be organizing an ISTE approved Short Term Training Program on "Advances in Thermal and Fluid Science" under the auspices of Centre for Quality Assurance and Academic Development (CQAAD) , during 18 June – 30 June, 2018. Last date to register **June 9th**.
  Further information available at http://www.nirmauni.ac.in/ITNU/EVENTS
- Mechanical Engineering Department Visvesvaraya National Institute of Technology, Nagpur is conducting a six-day training program on Finite Element Modelling-Research and Industrial Applications(FEMRIA-2018), **21st-26th June, 2018**

July 2018

- Department of Mechanical Engineering, S.A. Engineering College Campus is organizing 2 Days DRDO sponsored National Workshop on "**Recent trends in Fabrication & Characterization of Nano Composites**" **on 5th & 6th July 2018** in **S.A. Engineering College** Campus. Email: workshopmech@saec.ac.in

Conference

August 2018

- Department of Physics, Periyar University, Salem, is organizing the 2nd International Conference on Recent Trends in Applied Science and Technology (ICRTAST-2018), during 23-25 August 2018. **Abstracts must be submitted by 21.06.2018**
- Conference on **Next Generation Forging Technologies, 3rd August 2018**, 0900 Hrs, Hotel Crowne Plaza, Chennai This conference is chaired by **Mr S Sakthi Kumar**, MD & CEO, thyssenkrupp Forged Technologies-India Region. Delegate fee Rs. 3000 per participant for Educational Institution.

December 2018

- 19th ISME Conference on Advances in Mechanical Engineering with theme "Mechanical Systems and Sustainability". The conference is being organized by Department of Mechanical Engineering, NIT, Jalandhar during **20th-22nd Dec, 2018.**
  Contact: www.nitj.ac.in/isme2018/
  Last date for submission: **June 15**

February 2019

- 6th international conference on Recent Advances in Composite Materials (ICRACM-2019) will be held at Indian Institute of Technology (BHU), Varanasi-221005, India from 25th to 28th February. The ICRACM-series aims at bringing together the academicians and researchers in various disciplines to share knowledge and exchange views, for useful industrial applications of composite materials.
  Contact: www.iitbhu.ac.in/institute/notification/ICRACM-2019.pdf
  Last date for submission:**25 August 2018**
- International Conference and Exhibition on Energy and Environment: Challenges and Opportunities (ENCO-2019), 20-22 February 2019, CSIR-Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad-826015, New Delhi
  Abstract submission Deadline: **30th June 2018**
  Website Links:
  http://www.enco2019.org/
  http://cimfr.nic.in/upload_files/event_news/1517398156_ENCO2019CallforPapers.pdf
  http://www.cimfr.nic.in/=

Challenges/Contests

June 2018

- Government e-Marketplace (GeM), has been envisioned by Government of India as the National Procurement Portal of India. It's a clarion call for all the users of GeM- buyers, sellers or other users to capture their experience on GeM in a short video. Shoot a maximum 3 minutes video explaining how GeM made the whole process (buying or selling) easy and more convenient for you. More info https://www.mygov.in/task/speak-be-voice-gem-video-making-contest/ Last day of submission is **June 15, 2018**

- In view of forthcoming International Day of Yoga 2018, Ministry of AYUSH is conducting a Yoga Jingle/Caller Tune contest with the motive "Let every phone call ring in the spirit of Yoga".
  The participants should can upload their entry as a high quality audio file to any media platform such as SoundCloud, YouTube, Google Drive, Dropbox etc. and enter the publicly accessible link in the comments section.
  https://www.mygov.in/task/yoga-jinglecaller-tune-contest-ministry-ayush/
  Last date of submission is **9th June, 2018**

- The Mechanical Engineering Department of IITDM Kancheepuram is organizing the International Student Robot Competition(ISRC) as a part of International Conference RoSMa2018. This is the First edition of ISRC and we are inviting the Participants from various institutions across globe.
  Contact: http://iiitdm.ac.in/rosma2018/robotcomp.html
  Last date for registering is **June 15**

July 2018

- Tech Brief presents "Create The Future Design Contest 2018"
  Submission deadline - **July 2, 2018**

Choose one of seven categories for your entry:

- **Aerospace & Defense** -- Product innovations with applications in the aerospace, aviation, and/or defense markets.
- **Automotive/Transportation** -- Products that enable movement of people and goods from one place to another.
- **Consumer Products** -- Products that increase quality of life in the workplace, at home, during leisure time, or while traveling.
- **Electronics/Sensors/IoT** -- Products that improve computing, communications, sensing, test, and other fields that rely on advances in electronic components, boards and systems; products that enable an interconnected world – the Internet of Things (IoT).
- **Robotics/Automation/Manufacturing** -- Products that speed, improve, and/or automate work, manufacturing, and research & development (R&D).
- **Medical** -- Products that improve the efficiency and quality of healthcare.
- **Sustainable Technologies** -- Products that reduce dependence on non-renewable energy resources, as well as products designed for other purposes using environmentally friendly materials or manufacturing processes.

Provide a description of your entry (up to 500 words) in the form of a technical abstract, in English. Your description should cover how the entry works, what makes it novel, how it would be produced, and where it would be applied.
Contest Website: https://contest.techbriefs.com/

Online Courses

Info from Dr. Prakash

Dr. R.Prakash

The online courses of NPTEL are about to start in July. Students are requested to choose and register for courses that may add value to their resume. The Tentative Course List (July - Nov 2018), start date, syllabus and dates of exams- data available at https://docs.google.com/spreadsheets/d/e/2PACX-1vQrnLO4ocWndT-busWy_e9cpujxYGg3Cc3THic_EB4EG6wvTx4yFpYxmzrl0BQ_rbrMEpL3jz8wvKMH/pubhtml

Research News from MSP

1. Analytical Facilities and Services in CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabd-500007, Telangana

CSIR-IICT offers following Analytical infrastructure facilities and services to Scientists and other users from academic institutes, R&D organizations and Industries in carrying out their research work.

Facilities Available

1. Raman Spectroscopy
2. VSM
3. Electron Microscope **(FESEM, HRTEM, XPS)**, Surface Analysis
4. X-Ray Analysis **(Single Crystal XRD, Powder XRD, X-Ray Fluorescence (XRF)**)
5. Thermal Analysis **(TG-DTA, DSC)**
6. FTIR
7. Elemental Analysis
8. Mass Spectrometry and Analytical Separations
9. HPLC and GPC
10. NMR Spectroscopy
11. Surface Adsorption
12. Toxicology and Pharmacology
13. Pharmacology and Toxicology Bioactivity Studies

Please go to the website link given below and click the individual links **(Facilities, Services, Contact Us and Sample Submission)** and get the more details.

Website Links:

http://www.iictindia.org/Analytical/Analservices.aspx
http://www.iictindia.org/Analytical/docs/RequestFormForAnalyticalServices-Feb2018.pdf

2. Sophisticated Analytical Instrument Facility (SAIF) at CSIR-Institute of Minerals & Materials Technology (CSIR-IMMT), Bhubaneswar-751013, Odisha

Characterization Available

1. X-Ray Diffraction (XRD)
2. Scanning Electron Microscope (SEM)
3. Electron Probe Micro Analyser (EPMA)
4. Field Emission Scanning Electron Microscope (FESEM)
5. Raman Spectrometer
6. Fourier Transform Infrared Spectrometer (FTIR)
7. Thermogravimeteric and Differential Scanning Calorimeter (TG-DSC)

FACILITY NAME	PARAMETER/TYPE OF OUTPUT
Electron Probe Micro Analyzer	Morphology and structure by SEI; Composition image by BSI; Qualitative or semi-quantitative spot/area elemental analysis by WDX; line scanning; elemental image mapping
Field Emission-Scanning Electron Microscope	Morphology and structure by SEI; Composition image by BSI; Qualitative spot/area elemental analysis by EDS; line scanning; elemental image mapping
Fourier Transform Infrared Spectrometer	Infrared Spectra
Raman Spectrometer	Raman Spectra (vis-532 nm / IR-785 nm]
Scanning Electron Microscope	Only morphology and structural features with secondary electron image (SEI); without EDX/BSI
Thermogravimetric Differential Scanning Calorimeter	TG-DSC curves; Room Temp. to 1400 °C (@10 degree/min)
	TG-DSC curves; Room Temp. to 1400 °C (@5 degree/min)
X-ray Diffraction	X-ray Diffractogram, raw data Normal Powder method (@2 degrees/min)
	Thin-Film Mode (@1 degree/min)

Website Links
Instrument Status: http://saif.immt.res.in/instrument-status.aspx#
Online Registration for External Users: http://saif.immt.res.in/user-regs.aspx
Charges: http://saif.immt.res.in/charges.aspx

3. United States - India Science and Technology Endowment Fund (USISTEF): Commercializing Technologies for Societal Impact - 9th Call for Applications 2018-19

The fund aims to select and financially support promising joint U.S.-India entrepreneurial initiatives that address the theme of "Commercializing Technologies for Societal Impact" through a competitive grant program.

The **9th Call for Proposals** under this program has recently been announced and online submission is currently open with a deadline of **15th June 2018**.

Website Links:
Home: http://www.usistef.org/
Login: https://iusstf-ef.ciieindia.org/login
Brochure: http://www.usistef.org/pdf/brochure-april-2018.pdf
SERB: http://www.serb.gov.in/home.php

4. NASI Scopus Young Scientists Awards-2018, The National Academy of Sciences

The program honours **outstanding young researchers in India** who are building their careers in academic research, helping them gain recognition for their work. As of 2017, **101 winners** across nine scientific disciplines have been announced.

Application Process
The application, complete in all respect with the supporting documents, must be submitted to Elsevier latest by **30th June 2018**.

Website Links
http://www.dst.gov.in/callforproposals/advertisement-nomination-candidates-nasi-scopus-young-scientists-awards-2018
https://www.elsevier.com/en-in/solutions/scopus/scopus-awards-2018

5. INSA - Call for Nomination of Indian scientists under Bilateral Exchange Programme-2019, Indian National Science Academy (INSA), New Delhi-110002

Applications are invited from outstanding scientists/ researchers holding Ph.D. degree and having regular positions in recognized S&T institutions/universities and actively engaged in research

The hard copy of application duly completed and endorsed by the Head of the Institution should be submitted latest **by 31st July 2018**

For More Info : http://www.insaindia.res.in

6. SERB - Call for Proposals under Core Research Grant Scheme - 2018

The scheme provides core research support to active researchers to undertake research and development in frontier areas of Science and Engineering. This scheme will open on Jun 01 2018. Eligible Researchers can submit the proposals till **Jun 30 2018.**

Website Links:
http://serbonline.in/SERB/emr?HomePage=New
http://serbonline.in/SERB/HomePage#call

7. DST - Joint Call for project proposals 2018 - Indo-Danish Research and Innovation Cooperation in the areas of Renewable Energy

Innovation Fund Denmark (IFD) and Department of Science and Technology (DST) have agreed to launch a call for joint projects with a view to further develop and strengthen the Danish-Indian research cooperation in the areas Renewable Energy.

Prioritised research and innovation areas

Renewable Energy: Development and integration of renewable energy based solutions and energy efficiency in electricity and heating systems

Deadline and Submission
The proposal, in English, must be submitted to both DST and IFD no later than 12:00 hrs (Danish time) and 15.30 hrs (IST) on **14th August 2018**.

Website Links:
http://www.dst.gov.in/callforproposals/joint-call-project-proposals-2018-indo-danish-research-and-innovation-cooperation
http://www.dst.gov.in/sites/default/files/Indo-Danish%20Joint%20Call_2018.pdf

Calibration Facility at NIT-Trichy

The calibration facilities are established in DEE (CL-DEE), NIT, Trichy, with a vision to provide the necessary Calibration service to academic and research institutions. To strengthen and standardize the activities of the calibration laboratory, the laboratory is now **accredited with NABL certification** which follows the guidelines of ISO/IEC 17025:2008.

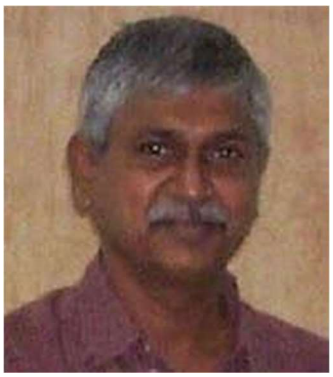
We can do the **Uncertainty analysis** of thermocouples, RTD sensor, pressure gauges (Pneumatic / hydraulic), energy meter, clamp meter, ammeter, the voltmeter and Multimeter at the nominal cost. Instrument calibration is intended to eliminate bias in an instrument's readings. This will be very useful for your research publication
Herewith enclosed the calibration brochure for your kind information.

Further details, see the link below

http://www.nitt.edu/home/academics/departments/dee/cc

Email: cldeethebest@gmail.com

Inspiring Life Stories



Mr. Kishore Babu

Schwing Stetter

In the eighteenth century, in a stormy night, a huge tree got uprooted and fell across a busy road in Baltimore in the state of Maryland in the USA. A team of soldiers were deputed to clear the block. They cut the branches of the tree and tried their best to move the large log from the road. But they could not move it as it was very heavy. Their superior officer, a stout and strong man on horseback, was watching their work, giving strong directions and stern commands, without any physical participation in the work.

A passer-by on a white horse saw the scene. He asked the officer why he did not lend a helping hand to the sweating soldiers instead of giving loud oral orders. The officer replied in a rage, "I am the officer in command of this operation. I am their superior officer. It is below my dignity to work with them."

The traveller readily removed his hat and coat and joined the soldiers. Toiling together, after much effort, they could remove the log and clear the block on the road.

While departing, the traveller told the officer, "When you have a difficult work, you can call me. I will come to help you."

"Who are you?" asked the officer.

"I am George Washington," replied the stranger as he speeded on his horse. The officer was struck with wonder and shame. The stranger was the President of the USA and the Commander-in-Chief of the US military.

George Washington (1732-1799) who commanded the American forces during the historic War of independence was the first President of the USA. He was a principled leader, a great statesman and a renowned philanthropist.

Moral of the story: A leader is one who knows the way, shows the way and goes the way. He should not be like passive sign boards which show the way silently, without active involvement in the movement……..

Thanks & Regards – Kishore Babu HR - Department

SCHWING Stetter India Private Limited

Corporate Wisdom 54

Expressing Appreciation

Expressing appreciation is one of the most important things you can do in any relationship. But it is also one of the things we forget. Showing how much we appreciate people in our lives reminds them how much we care. A simple expression of gratitude can completely change our relationships.

It includes simple phrases that will help you praise people and encourage them to repeat their positive behavior.

People want to believe their efforts deserve praise, and they are willing to go to great lengths to receive it. Yet expressing appreciation is one of the most neglected acts in relationships. When you observe people doing good things, let them know you recognize it. Here are some simple phrases that will help you praise people and encourage them to repeat their positive behavior.

- I appreciate the way you…
- I am impressed with …
- You are terrific , because…
- Thanks for going all out when you…
- One of the things I enjoy most about you is…
- I admire your…
- Great job with…
- I really enjoy working with you because …
- Our team could not be successful without your…
- Thank you for your…
- You made my day when..
- You can be proud of your..
- You did an outstanding job of …
- It is evident you have the ability to …
- I like your…
- You deserve a pat on the back for ….
- You should be proud of yourself for ….
- I admire the way you take the time to …
- You are really good at ….

- You have got my support with…
- What is a great idea !
- It is evident you have a special knack of …
- You were a great help when…
- I enjoy being with you because you…
- It is fun watching you…
- I know you can do it …
- I believe in you…
- Your commitment to …… is appreciated

Think about it! The power of positive praise is limited only by its lack of use. Silent appreciation doesn't mean much. Let others know your positive regards toward them. They will live up to your compliment.

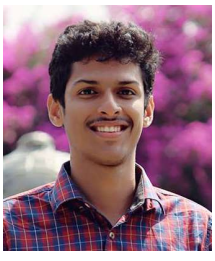
" Develop an attitude of gratitude , and give thanks for EVERYTHING that happens to you, knowing every step forward is a step toward achieving something bigger and better than the current situation"

#WishingMostAndMore
Have a wonderful day & great weekend
R.Ramakrishnan

This issue has an Annexure- The Founder of World Wide Web- Exclusive Talk

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

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


Nitin Joy


Sowmya K


CT Alagappan


Srivasupradha R