ASPIRE

ACHIEVEMENTS IN SPORTS. PROJECTS, INDUSTRY, RESEARCH AND EDUCATION

MONTHLY NEWSLETTER

DEPARTMENT OF MECHANICAL ENGINEERING

VOLUME - 13 ISSUE - 10 OCTOBER 2023

SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING

RAJIV GANDHI SALAI(OMR), KALAVAKKAM, CHENNAI, TAMIL NADU

FROM THE HOD'S DESK...

We are happy to bring out the October edition of Aspire!!

We profile Charles Louis Alphonse Laveran, who was awarded the Nobel Prize in medicine in 1907, for his pioneering work in the discovery of the malaria parasite.

It was a moment of reckoning for SSN, when Clarivate announced the India citation rewards 2023, a proud achievement for the vibrant research culture nurtured by the management under the dynamic leadership of our President, Dr Kala Vijayakumar.

The SSN innovation day was celebrated with a display of forty projects across eight departments, that was judged by experts from industry and it was heartening to see Mechanical department win the First prize, for an innovative product to prevent carpal tunnel syndrome.

Our students secured campus placements in top companies like McKinsey, Ashok Leyland and Wood, do an internship in NLC and share their experiences. Faculty continue to publish in high impact journals and actively participate in workshops and Conferences organized by IITM, QS iGauge.

Student Hari Madhavan wins the SRM International FIDE rapid chess event and Mithila shares her NGO experience, teaching underprivileged students. Final year students share their GRE sojourn, while our alumni share their Masters stint in Germany.

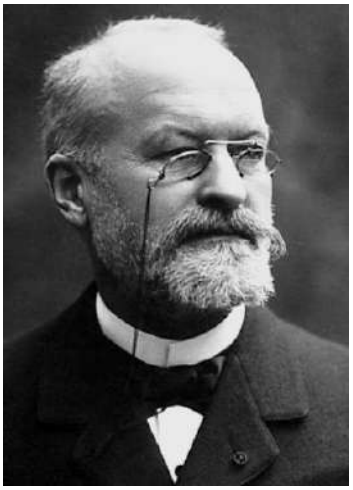
Happy October to All!!

Best Wishes,

KSV

vijaysekarks@ssn.edu.in

CHARLES LAVERAN: PIONEERING MALARIA RESEARCH



Charles Louis Alphonse Laveran was a French army surgeon and parasitologist whose groundbreaking work in the late 19th century significantly contributed to our understanding of infectious diseases, particularly malaria. His pioneering discoveries earned him the Nobel Prize in Physiology or Medicine in 1907.

Malaria and Protozoa: During his service as a military doctor, Laveran was stationed in Algeria, where he encountered the devastating effects of malaria, a disease responsible for the suffering and death of countless soldiers. His observations of malaria-infected patients led him to suspect that the disease was caused by a parasitic microorganism, which at the time was a controversial idea.

In 1880, Laveran made a groundbreaking discovery. While examining blood samples from malaria-infected patients under a microscope, he observed tiny, thread-like structures moving within red blood cells. These structures, he realized, were the causative agents of malaria. Laveran correctly identified them as protozoa of the genus Plasmodium, making the connection between these parasites and the disease.

Nobel Prize in Physiology or Medicine: Charles Louis Alphonse Laveran's groundbreaking discovery of the malaria parasite earned him the Nobel Prize in Physiology or Medicine in 1907. He was awarded the prize "in recognition of his work on the role played by protozoa in causing diseases."

Laveran's discovery revolutionized the understanding and treatment of malaria. It paved the way for further research into the disease's transmission and led to the development of more effective treatments and preventative measures. Charles Louis Alphonse Laveran's Nobel Prize recognized not only his individual achievements but also the importance of his work in advancing our knowledge of infectious diseases. His legacy continues to inspire researchers and healthcare professionals in the ongoing fight against malaria and other parasitic illnesses, making the world a healthier and safer place for all.

CAMPUS UPDATE

INDIA RESEARCH EXCELLENCE- CITATION AWARDS'23

Clarivate Plc (NYSE: CLVT), a global leader in connecting people and organizations to intelligence they can trust to transform their world, on 26th September announced recipients of the India Research Excellence – Citation Awards 2023. Nine researchers and 11 institutions received this year's awards for their outstanding contribution to research.

Clarivate first established the India Research Excellence – Citation Awards in 2004. The awards are based on deep analysis of data compiled from the Web of Science citation database and InCites Benchmarking & Analytics. The analysis considered highly cited research publications in addition to a series of other bibliometric indicators and a qualitative review of the research output. An expert panel at the Institute for Scientific Information (ISI) took the metrics and qualitative review into consideration when awarding the recipients.

The 2023 awards are based on analysis of publication output during 2017 to 2022. The lifetime achievement category considered research contributions from 1980 onwards.

"Without continuous progress, words such as achievement and success have no meaning. And to improve means change; to succeed means continuous changes".

Such continuous changes have brought SSN Institution to this creamy layer. Yes, we are indeed proud that our college has Received India Research Excellence Citation Awards 2023 powered by Clarivate for the quality publications and citation under college category. Our president Dr Kala Vijayakumar and Vice principal Dr S Radha, received the award.

CAMPUS UPDATE

DEPARTMENT UPDATE

PLACEMENT UPDATE – BATCH 2024

TOTAL PLACEMENT COUNT: 16

7 OF OUR STUDENTS GOT PLACED IN WOOD

ABISHEK M

ARVIND KARTHIKEYAN K

B. MAALOLAN

GOWTHAMRAJHAA C.A.

MOHAMED HASIM S

SHRINATH J

VINEET GOSWAMI

WOOD SERVES A BROAD RANGE OF INDUSTRIAL MARKETS INCLUDING UPSTREAM, MIDSTREAM, AND DOWNSTREAM OIL AND GAS, CHEMICALS, ENVIRONMENT AND INFRASTRUCTURE, POWER AND PROCESS, CLEAN ENERGY, MINING, AND GENERAL INDUSTRIAL SECTORS. THE COMPANY HAS OPERATIONS IN AFRICA, ASIA, AUSTRALIA, EUROPE, AND THE AMERICAS.

DEPARTMENT UPDATE

KISHORE KUMAR AND N. SHYAM NANDHAN GOT PLACED IN ASHOK LEYLAND

Ashok Leyland

KISHORE KUMAR ***N. SHYAM NANDHAN***

ASHOK LEYLAND IS AN INDIAN MULTINATIONAL AUTOMOTIVE MANUFACTURER, WITH THEIR HEADQUARTERS IN CHENNAI. IT IS OWNED BY THE HINDUJA GROUP. IT WAS FOUNDED IN 1948 AS ASHOK MOTORS WHICH BECAME ASHOK LEYLAND IN THE YEAR 1955.

DEPARTMENT UPDATE

ARUNESH GOT PLACED IN MCKINSEY & COMPANY

ARUNESH

McKinsey & Company is a global management consulting firm founded in 1926 by University of Chicago professor James O. McKinsey, that offers professional services to corporations, governments, and other organizations.

DEPARTMENT UPDATE

International Journal Publication - SCI /Clarivate Indexed

Sivashanmugam, N., K. L. Harikrishna, SR Koteswara Rao, SJ Samuel Justin, and P. Wilson. "Mechanical and corrosion characteristics of micro-arc oxidized magnesium alloy (ZE41) friction stir welds in modified SBF." *Physica Scripta* 98, no. 10 (2023): 105901. Clarivate Impact Factor: 2.9

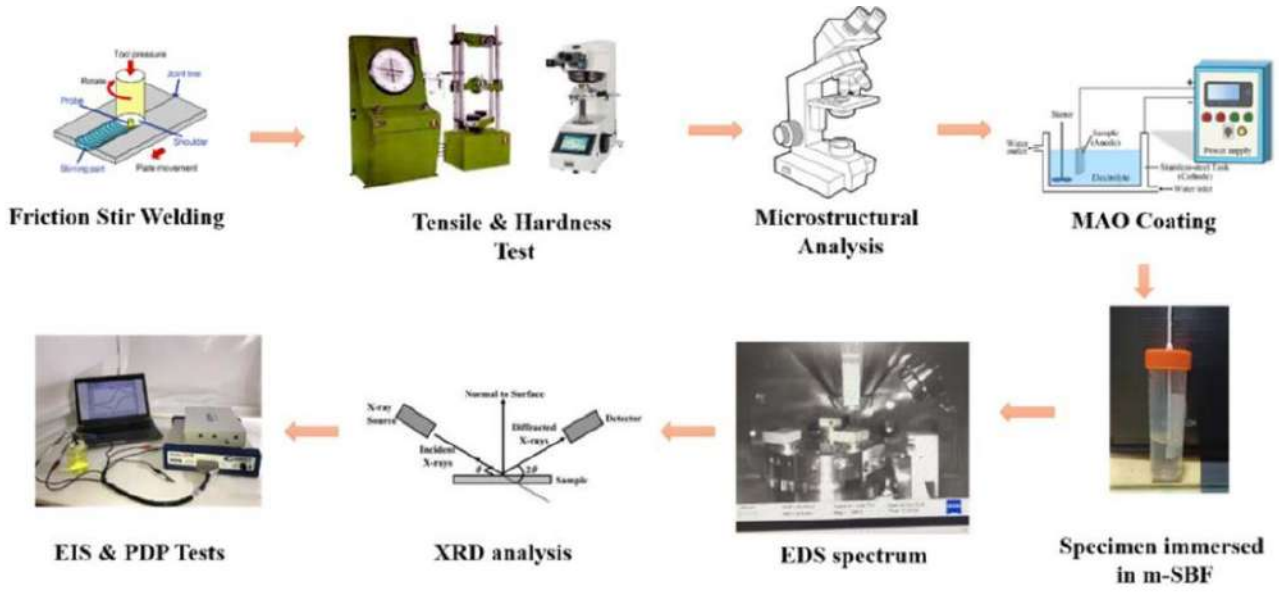


Figure 1. Schematic diagram.

DEPARTMENT UPDATE

International Journal Publication - SCI /Clarivate Indexed

KL, Hari Krishna. "Manufacturing and characterisation of magnesium composites reinforced by nanoparticles: a review." *Materials Science and Technology* 39.15 (2023): 1858-1876. Clarivate Impact Factor: 1.8

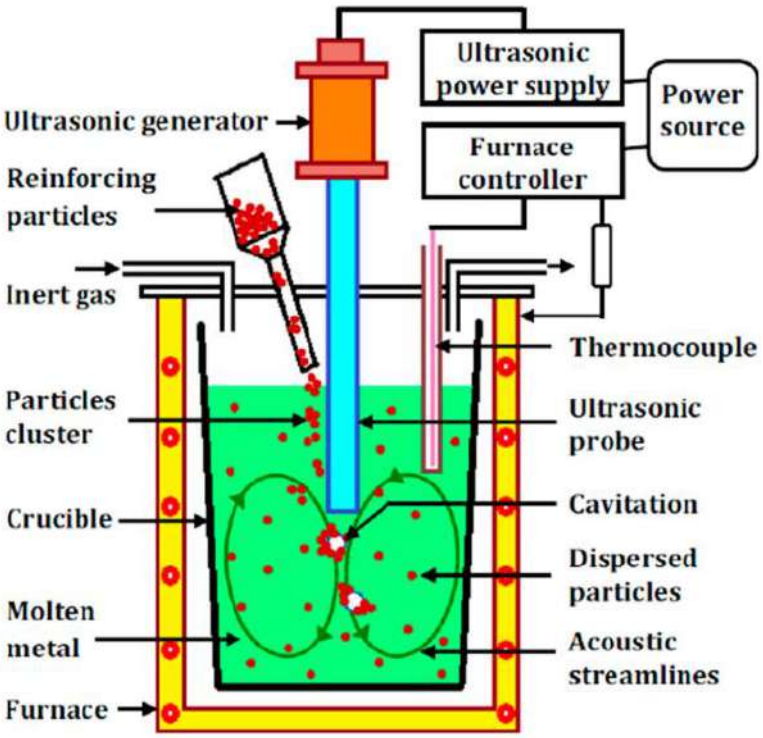


Figure 1. A schematic representation of a basic contact-type ultrasonic cavitation-based system configuration for use in composite fabrication is provided [35].

DEPARTMENT UPDATE

International Journal Publication - SCI /Clarivate Indexed

Venkatesh G, Sundararajan Rajkumar and Geetha N.B." Experimental and numerical investigations on the influence of phase change materials on heat transfer reduction across the roof of a building". Energy Sources, Part A: Recovery, Utilization, and Environmental Effects. 45(4), pp.10554-10568, (2023). Clarivate Impact Factor: 2.9

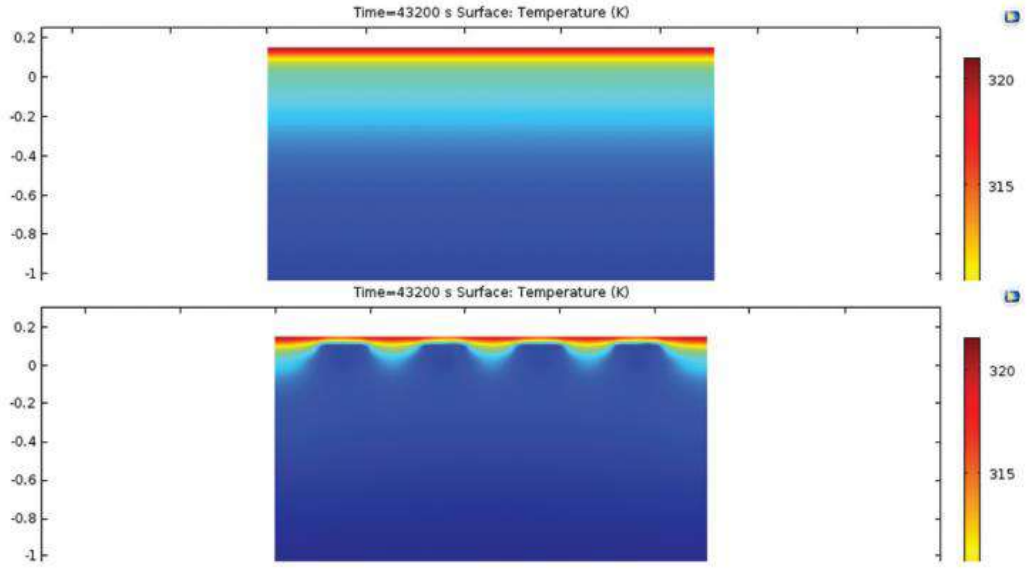


Figure 7. Temperature distribution across (a) plain roof and (b) the PCM roof.

DEPARTMENT UPDATE

International Journal Publication - SCI /Clarivate Indexed

Ramesh Kumar, K., and M. Selvaraj. "Novel Deep Learning Model for Predicting Wind Velocity and Power Estimation in Advanced INVELOX Wind Turbines." *Journal of Applied Fluid Mechanics* 16.6 (2023): 1256-1268. Clarivate Impact Factor: 1.5

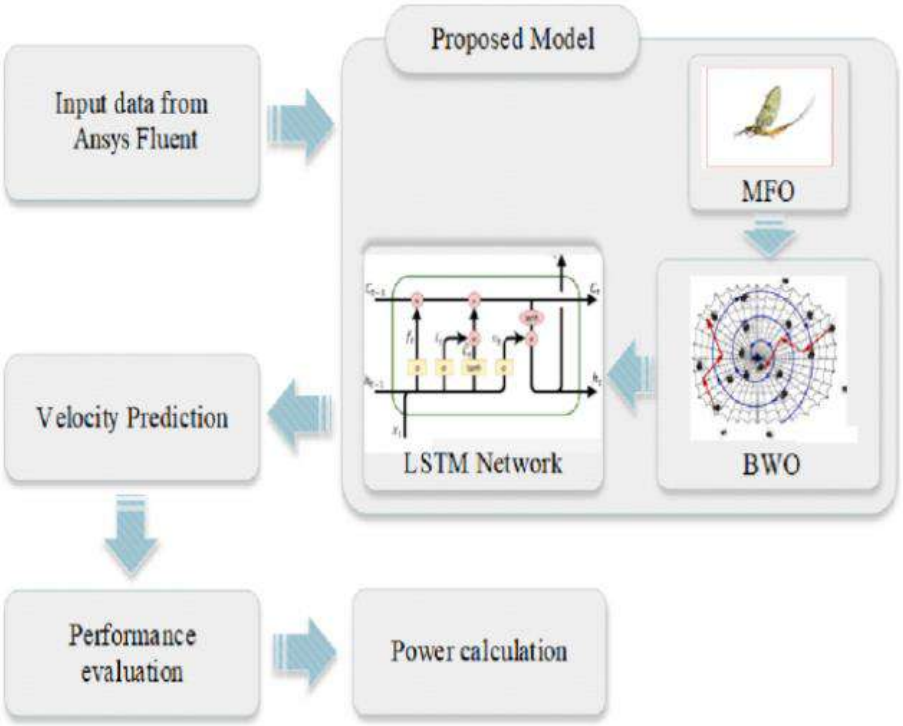


Fig. 1. Process flow structure of the proposed DL model.

DEPARTMENT UPDATE

International Journal Publication - SCI /Clarivate Indexed

Kumar, Santosh, Abir Saha, and Divya Zindani. "Agro-waste-based polymeric composite laminates for aerospace cabin interior and identification of their optimal configuration." *Biomass Conversion and Biorefinery* (2023): 1-17. Clarivate Impact Factor: 4.1

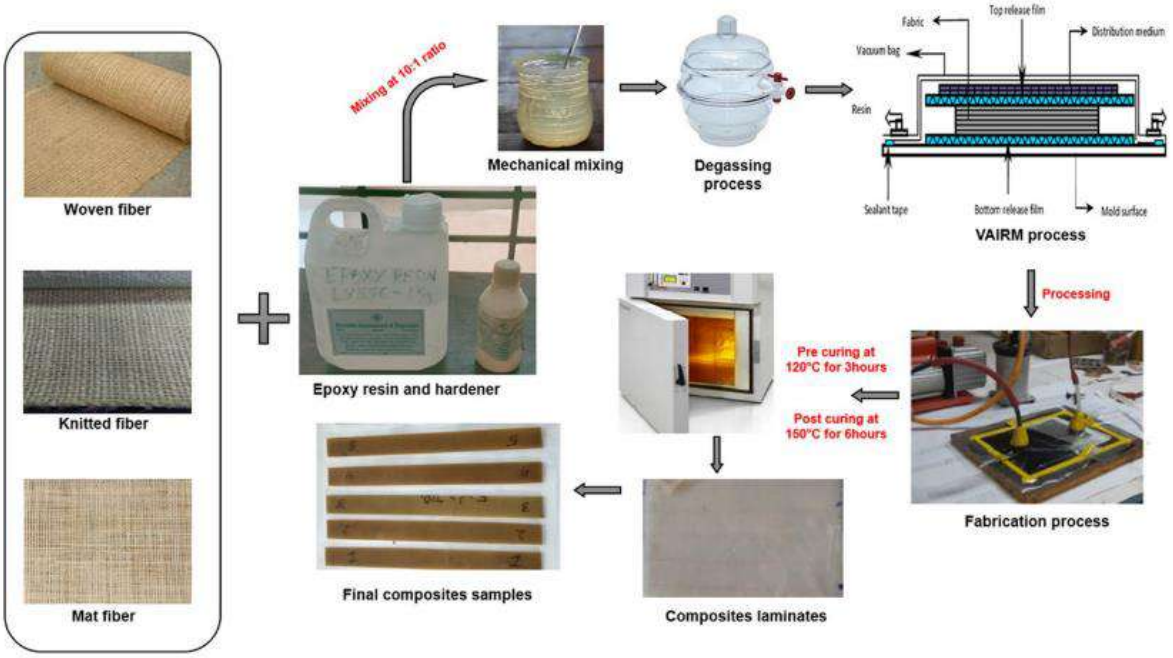


Fig. 1 Fabrication process of composite laminates using VARIM method

FACULTY EVENTS

FACULTY ATTEND A TWO-DAY WORKSHOP HOSTED BY IIT MADRAS ON THE 12TH AND 13TH OF AUGUST

Dr. S Vijayan, Professor, Dr. G Selvakumar and Dr. D Ananthapadmanaban, Associate Professors attended a 2-day workshop on 12th and 13th of August, 2023 at the Manufacturing Division, Department of Mechanical Engineering, I.I.T, Madras. It was conducted as part of the mandatory training programme on completion of the DST-SERB project on high vacuum active brazing.

All the lectures were delivered by Dr. Amitava Ghosh, Professor, Manufacturing Division, Department of Mechanical Engineering, I.I.T, Madras. There were 4 lectures – all of them from 9.00 A.M to 12.30 P.M in the morning followed by laboratory demonstrations in the afternoons.

Lecture 1 discussed about state of the art on ceramic and metal joining, Lecture 2 discussed vacuum pumps in detail and there was also a live demo on pump operation and parts of turbomolecular pump by Pfieffer vacuum, world renowned pump manufacturer. This was on 12th August,2023 followed by a detailed explanation and demo on vacuum brazing furnace and testing facilities.

Lecture 3 explained about brazing of super abrasives, namely cubic Boron Nitride and Diamond. Lecture 4 dealt with fundamentals of grinding and brazing and active brazing applications for cutting tools.

Dr Sushanta Kumar Panigrahi, Head of Laboratories of the Manufacturing division spoke both at the inaugural ceremony and during the valedictory function. He has been associated with our department in connection with ASM activities and is open to joint ventures with SSN college of Engineering.

On the whole, the elaborate planning, teamwork and whole hearted involvement of all concerned, including research scholars and technical staff, was very evident and one left the workshop with a contented feeling and thirst for joint projects with the organizers.

FACULTY EVENTS

SSN INNOVATION DAY

The SSN College of Engineering (SSNCE) celebrated a day of innovation and creativity on September 6, 2023, with the grand inauguration of SSN Innovation Day. The event took place at the prestigious Justice Pratap Singh Auditorium, where we were honoured to welcome our distinguished Chief Guest, Dr. Shankar Venugopal, the Vice President of Mahindra & Mahindra. SSN Innovation Day was a platform for our brilliant students to showcase their innovative projects, and it drew the attention of more than 60 representatives from leading companies in various industries.

Inauguration by Dr. Shankar Venugopal, VP- Mahindra and Mahindra

Dr. Shankar Venugopal graced the occasion as the Chief Guest and delivered an inspiring inaugural address. He leads the technology innovation and intellectual property portfolio for Mahindra's automotive and farm business. He is the Dean of the Mahindra Technical Academy.

His vast experience in the corporate world and commitment to fostering innovation resonated with the audience. He shared insights on the importance of innovation in today's rapidly evolving industrial landscape and commended SSNCE for its dedication to nurturing young talent.

A Showcase of Ingenious Projects

The heart of SSN Innovation Day was the presentation of over 40 innovative projects by our talented students. These projects spanned various fields of engineering and technology, demonstrating the diverse skills and creativity of our student body. From robotics to sustainable energy solutions, the projects were a testament to the innovative spirit of SSNCE students.

Industry Representatives and Evaluation

Department of Mechanical Engineering, SSNCE invited prominent industry leaders to evaluate the student projects. The esteemed panel of evaluators included:

FACULTY EVENTS

1. Mr. Suresh Kumar (Barola Technologies)
2. Dr. Dinakaran (HCL Technologies)
3. Mr. Krishnamoorthy Narasimhan (Valeo)
4. Kumara Subramanian (TI Cycle/Zygote)
5. Dr. Ramesh K. (Turboenergy Ltd)
6. R. Bakthavachalam (Turboenergy Ltd)
7. Mr. Rahul B S (SSNCE, Alumni currently working at ZF group)

These industry experts closely examined and assessed the following student projects:

1. Design and Fabrication of Ultrasonic Cavitation Cleaner
2. Design and Fabrication of Welding-Based 3-Axis Metal Printing Machine
3. Design and Fabrication of a Novel and Affordable Wrist Exoskeleton to Prevent Carpal Tunnel Syndrome
4. Creep Testing Machine
5. Solar-Powered Bicycle

Each project demonstrated a high level of innovation, engineering prowess, and potential for real-world impact. Feedback and evaluations from the experts will motivate students towards even greater heights of innovation and excellence in their future endeavours.

The feedback from the Industrial experts on the faculty projects were truly commendable. Following faculty projects were displayed during the SSN Innovation Day:

FACULTY EVENTS

1. Ballistic tested pads for defence application
2. Novel wrist exoskeleton for preventing carpal tunnel syndrome
3. Wheel attachment for defence vehicle
4. Solar Flat Plate Collector
5. Chess Robot

Fostering a Culture of Innovation

SSN Innovation Day exemplified the college's commitment to fostering a culture of innovation and entrepreneurship among its students. It provided a unique platform for students to showcase their creative ideas, receive valuable feedback from industry experts, and establish connections with professionals in their respective fields.

The success of SSN Innovation Day 2023 is a testament to the dedication and hard work of our students, faculty, and staff, as well as the invaluable support of our industry partners. We look forward to continuing to nurture innovation and excellence in the years to come.

Project titled “Design and Fabrication of a Novel and Affordable Wrist Exoskeleton to Prevent Carpal Tunnel Syndrome” was adjudged as the best innovative project and bagged a cash award.

FACULTY EVENTS

FACULTY EVENTS

QS I-GAUGE ACADEMIC EXCELLENCE CONCLAVE

QS I-GAUGE Academic Excellence Conclave (Tamil Nadu Chapter) was attended by the NIRF team Dr. K.S. Vijay Sekar HOD/Mech, Dr. V. Rajini HOD/EEE, Dr. R. Ramaprabha Zonal officer and Dr. Satheesh Kumar Gopal, Coordinator on Friday, 22 September 2023 at the Trident Chennai. “Forging Future of Education through Quality and Excellence” was the theme of this conclave and it serves as a dynamic platform for insightful conversations and profound insights. The event brought together distinguished academics, representing esteemed institutions of higher education and schools from across India. It was sponsored by Sri Balaji Vidyapeeth (Deemed to be University), Pondicherry and SSVM Institutions, Coimbatore.

Two Roundtable topics that were taken up for discussion were:

- Empowering educators to navigate real-world dynamics at the crossroads of academia and reality
- Strategic importance of "Benchmarking" as a tool for achieving excellence

Hon’ble Governor of Telangana & Lt. Governor of Puducherry, Dr. (Smt.) Tamilisai Soundararajan graced the occasion as the Chief Guest and felicitated the QS I-GAUGE rated institutions. Also, the new edition of the book “India’s Knowledge Supremacy – The New Dawn” authored by Dr Ashwin Fernandes, was released by the Hon’ble Governor on the occasion.

Many institutions participated from in and around the country and it was a good learning experience from NIRF perspective. More on the event could be had from this link:

QS I-GAUGE- Indian Educational Rating System (igauge.in)

FACULTY EVENTS

ANSYS ACADEMIC INNOVATION CONFERENCE

The ANSYS Academic Innovation Conference was held on the 13th of September 2023 in Chennai this year. Dr. K. S. Vijay Sekar and Dr. Anirudh V. K. represented the Mechanical Engineering Department of SSNCE in the conference.

It is well known that the Ansys Academic engineering simulation software is used by thousands of universities globally for undergraduate students to learn physics principles, for researchers to solve complex engineering problems, and for postgraduate students to produce data for their master's theses or doctoral dissertations. Ansys highlighted all the key features and developments that were made available to both students and faculty as part of their campus wide licenses. The simulation capabilities while traditionally were limited to structural, thermal and fluid domains, have now been extended to IoT, electronics, semiconductors, photonics, optics and Multiphysics domains. Optimization based algorithms have also been implemented along with a new python-based system to enable all users to freely develop their own programs.

It is worthwhile to note that the SSN Management and the ANSYS team are in talks to procure the ANSYS Academic Multiphysics Campus solutions which can be beneficial to multiple departments in SSNCE including Chemical Engineering, Civil Engineering, Biomedical Engineering, Electrical Engineering as well as Electronics and Communications Engineering. With access to 10 unlimited node research licenses in this package, researchers at SSN would get the much-needed boost to pioneer and establish simulation-based research at SSN. Multiple institutes such as IIT Madras, BITS – Pilani, Hyderabad Campus, Kumaraguru College of Technology, etc. have already invested in this license and are seeing significant benefits from implementing the same. SSNCE received a special mention in this conference for initiating these talks and a token of appreciation was received by both Dr. K. S. Vijay Sekar and Dr. Anirudh V.K.

FACULTY EVENTS

PG ORIENTATION

A department level orientation program was conducted for PG (Energy Engineering and Manufacturing) students on 04.09.2023. HOD/Mech, Faculty and staff of Mechanical Engineering, PG students and PG alumni participated in this program. The orientation program was anchored by Dr. R. Rajeswari, and the function was started with an invocation song.

Dr. K.S. Vijay Sekar, HOD/Mechanical, welcomed all the participants and delivered his welcome address. He mentioned the importance of academics and research and motivated the students to nurture their skills in the SSN terrain.

Dr. S. Vijayan, PG program coordinator for M.E. Manufacturing Engineering, introduced the PG program. He emphasised the importance and applications of manufacturing engineering. Dr. S. Rajkumar, PG program coordinator for M.E. Energy Engineering, introduced the program and explained the necessity of energy conservation along with the improvement needed in various energy systems.

The faculty handling the PG classes, class advisors and multiple courses committee

chairman for both the PG programs were introduced to the PG students. The PG alumni shared their experience of learning and research in SSN, while the current PG students expressed their views about SSN ambience. The PG alumni, who were not able to attend the program, communicated their video note about SSN culture.

FACULTY EVENTS

The prospective PG students introduced themselves and shared their expectations in SSN.

Dr. Vimal Sam Singh delivered vote of thanks and the program was ended with the national anthem.

NON-TEACHING STAFF ACTIVITIES

20/09/2023	Mr. Balasundaram. Palanisamy / Asst. Lab Instructor / Mechanical / attended one day workshop conducted by ECE department SSNCE skill upgradation program “Introduction to MATLAB for Beginners" on 09.09.2023 at 8.30 am to 10 am
20/09/2023	Mr. M Giridharan / Lab Instructor / Mech Attended skill upgradation program on "Introduction to Matlab for Beginners" organized by the Department of Electronics & Communication Engineering, Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam, Chennai on September 09, 2023.

INDUSTRY COLLABORATION

09/09/2023	Dr. A S Ramana, Dr. B Jayakishan & Mr. S Nagarajan accompanied Mechanical Engineering Students to Turbo Energy Ltd., Paiyanur on the 9th of September 2023.
25/09/2023	Dr KS Vijay Sekar/Prof and Head/Mech and Department faculty members met a team from EPOCHINNOVA and had a discussion on a consultancy engagement for designing and printing the cover of their UPS model and for developing a heat sink mold for one of their products, a visit that was coordinated by SSNifound.

SCHOLAR INFO

25/09/2023	Dr K.S. Vijay Sekar, Prof & Head/Mech, conducted the DC Synopsis meeting of his part time research scholar K. Gobivel on the 27th of September 2023.

FACULTY EVENTS

BOOK CHAPTERS PUBLISHED

09/08/2023	Dr. Anirudh Venkatraman Krishnan, S Anush Lakshman, Aishwarya Bhargav published a book chapter titled "**3D & 4D Printing Methods for Pharmaceutical Manufacturing and Personalized Drug Delivery / 3D Printing and Regulatory Consideration**" published by Springer.

EVENTS ATTENDED

15/09/2023	Dr K.S. Vijay Sekar, Prof & Head/Mech and Dr G Satheesh Kumar, Assoc. Prof/Mech, attended the QS i Gauge Academic conclave at Hotel Trident. Chennai on 22.09.2023.

INTERNATIONAL JOURNAL PUBLICATIONS

04/09/2023	N Sivashanmugam, Dr. K L Harikrishna, Dr. S R Koteswara Rao, S J Samuel Justin and P Wilson published a paper titled "Mechanical and corrosion characteristics of micro-arc oxidized magnesium alloy (ZE41) friction stir welds in modified SBF" in the journal **Physica Scripta**.
07/09/2023	Monish P, Dr. K L Hari Krishna and Dr. K Rajkumar published a paper titled "Manufacturing and characterisation of magnesium composites reinforced by nanoparticles: a review" in the journal **Materials Science and Technology.**
07/09/2023	Venkatesh G, Dr. Sundararajan Rajkumar, Geetha N.B published a paper titled "Experimental and numerical investigations on the influence of phase change materials on heat transfer reduction across the roof of a building" in the journal **Energy Sources, Part A: Recovery, Utilization, and Environmental Effects**.
25/09/2023	Ramesh Kumar K, Dr. M Selvaraj published a paper titled "Novel Deep Learning Model for Predicting Wind Velocity and Power Estimation in Advanced INVELOX Wind Turbines" in the **Journal of Applied Fluid Mechanics**.
26/09/2023	Santosh Kumar, Abir Saha, Dr. Divya Zindani published a paper titled "Agro-waste-based polymeric composite laminates for aerospace cabin interior and identification of their optimal configuration" in the journal **Biomass Conversion and Biorefinery**.

FACULTY EVENTS

OTHER

25/09/2023	Dr Ganesh Samudra visited the mechanical department on the 4th of September 2023 and had a discussion cum presentation on the progress of EFP related courses and targeted CO's.
25/09/2023	Four student Mechanical teams were shortlisted for SIH2023 grand finale based on Internal Hackathon competition held on the 23rd of September 2023.

EXTERNAL RECOGNITION

25/08/2023	Dr. Satheesh Kumar Gopal attended the Department Advisory Board meeting for Department of Robotics and Automation & AI and Data Sciences Department, Karpaga Vinayaga College of Engineering and Technology, Chengalpattu. The meetings happened on 22nd of July 2023, 11.30 pm at their premises.
25/08/2023	Dr. Satheesh Kumar Gopal attended the online DC meeting (online) of Ms. Priyanka Chemudugunta, on 10th September 2023, at 2.30 pm, Department of Mechatronics Engineering, SRM Institute of Science and Technology, Kattankulathur, India.
08/09/2023	Dr A S Ramana, Associate Professor / Mech was invited to attend Mechanical Engineering Department of Academic and Advisory Committee meeting of Er. Perumal Manimekalai College of Engineering, Hosur on the 7th of September 2023.
25/09/2023	Dr KS Vijay Sekar and Dr Anirudh VK, on behalf of SSN Mechanical, received a valuable partner felicitation award from Ansys India during the Ansys innovation day conference held in Chennai on the 13th of September 2023
25/09/2023	Mechanical Team wins First prize in SSN innovation Day held on 06.09.23, with a project on "Design and fabrication of a novel and affordable wrist exoskeleton to prevent Carpal Tunnel Syndrome". Guide - Dr Vimal Sam Singh / Associate Professor / Mech, Students - Mathusha Rao and Muthuvelan Mutharasu.

STUDENT WRITE-UP

HASIM FROM THIRD YEAR SHARES HIS PLACEMENT EXPERIENCE....

Greetings! This is Mohamed Hasim from Final year Mechanical Department.

I would like to share my placement experience at Wood PLC. The recruitment process was done for the role of Graduate Engineer Trainee (GET). The entire process took place in one day. The day started with Pre-Placement Talk, followed by 3 rounds:

1) Aptitude and Technical test
2) Technical Interview
3) HR Interview

Round 1: Aptitude and Technical test

This is a Pen and Paper test which is held at our CDC. 17 Students were shortlistedfor this round. It had 2 sessions.

Session 1: Aptitude Test – 30 Minutes

This round consists of 40 questions. Each Question carries 1 mark. Split ups were:

- Synonym (5)
- Antonym (5)
- Quantitative Aptitude (10)
- Logical Reasoning (15)
- General Knowledge (5)

Session 2: Technical Test – 60 Minutes

This round consists of 50 questions. Each question carries 2 marks. Questions from basic concepts of Engineering Graphics, Automobile Engineering, manufacturing Processes, Thermodynamics, Strength of materials, HMT, Fluid Mechanics, Thermal Engineering.

STUDENT WRITE-UP

In this round, Level of Difficulty was moderate, No Negative marking and comprised of boththeoretical and numerical questions.

Round 2: Technical Interview

Out of 17, 14 got selected to the technical interview. It lasted around 15-20 minutes. We had 5-panel members in our interview process. Firstly, I was asked to "Introduce myself". Answering this question is art. If you are Picasso of it, you can drivethe whole interview as you wish.

Last point in your Introduction is crucial. Because it will be the first question asked by theinterviewer. Since I ended my intro with IFP (Internally Funded Project), most of the questions were asked from that.

Then I was asked about my D&F project.

Finally, As I mentioned my area of interest as SOM and Thermodynamics, questions wereasked from these subjects.

SOM - 1) Draw Cantilever Beam

2) Draw SFD and BMD for Cantilever Beam with UDL.

Personal details like Family Background, Father's Occupation, Siblings were also asked.

Round 3: HR Interview

Out of 14, 7 got selected to the HR Interview. Actually, it was not an interview. It was more about briefing about the company. He discussed about PersonalBenefits, Heath Insurance, Accidental Insurance, Flexibility of work culture, PF amount,Personal or Paid time off.

Surprisingly those who got into HR interview were selected.

Finally, I would like to express my gratitude towards our department faculty members,especially Dr. N. Lakshmi Narasimhan and Dr. Divya Zindani.

Last but not least I would like to thank the Place-com Members, Charu Prabha and Subash for their continuous efforts throughout the recruitment process.

STUDENT WRITE-UP

Some Tips:

- Decide your unique selling point (USP) before the interview and while giving your
  intro make sure you emphasize more about your USP, so that more questions will be asked from your inputs. In my case, 90% of the questions were from my Project andonly 10% from technical side.
- Brush up your favorite subjects from You-tube (Ex: Yourpedia)
- Indiabix.com, Career ride (You-tube) will help you in clearing the first round(Aptitude).
- Know every nook and corner of your projects.

வெற்றி வெறும் முற்றுப்புள்ளி,
தோல்விகளே செல்லும் வழி!!!

ADITHYA SHRI HARI FROM THIRD YEAR WRITES....

Filled with excitement and armed with our applications, a group of seven students, including myself, seized the invaluable opportunity to participate in an internship offered by NLC India Limited. Over the span of two weeks, guided by Mr. James V CM/SME/MM/MINE I, this internship afforded us a comprehensive understanding of the entire mining process employed at the site, as well as an in-depth exploration of the cutting-edge mining technologies and specialized equipment in use. We got familiarized with specialized mining equipment (SME) – Bucket wheel excavators, spreaders, and mobile transfer conveyors. Our internship report centered on 'SME – Major gear drive units 'covering bucket wheel gear drives, rotary plate gear drives, auxiliary gear boxes, and track gear boxes. We were able to enter inside the mines, and the thrill of climbing to the top of the bucket wheel excavators and mobile transfer conveyor added an exciting dimension to our experience. An unforgettable highlight was the collaboration with Mr. Elangovan, DGM of Mine 1, to troubleshoot the cable drum winding overlap

issue. Overall, this experience was a blend of education, adventure, and practical learning that we'll cherish.

HARIMADHAVAN FROM SECOND YEAR WRITES....

On the 25th of September, chess enthusiasts from all over gathered at the SRM Institute of Science and Technology Vadapalani Campus to witness the clash of minds at the SRM 2nd International FIDE Rapid Rating Chess Tournament. This prestigious event was organized by the Raghavendra Chess Academy and Mastermind Chess Academy, drawing a staggering total of 740 players, including 11 titled players, all vying for the coveted title.Over the course of nine thrilling rounds I demonstrated an outstanding display of chess prowess, finishing with an impressive 8.5 points out of 9.Ultimately, the determination and resilience shone through. The tie-break system was the deciding factor.It is a moment of pride for me. On the basis of better tie break I got the first place.The tournament showcased the immense talent and competitive spirit within the chess community and left a lasting impression on all those who attended. It is events like these that elevate chess from a game to an art form, where every move is a brushstroke on the canvas of strategy.

STUDENT WRITE-UP

MITHILA V FROM THIRD YEAR WRITES....

One fine Sunday morning I got a call which provided me with an opportunity which entirely changed the perspective I had on life. I was already looking for some NGO that I could be a part of, that phone call made me engage in something that I love; teaching. I became a part of an NGO called" Happy reading" which was about taking English classes for underprivileged students. But when I joined what surprised me the most was, there were people of the age 10-12 who were ready to take classes for their Fellow aged people which is surprising right? That's when I realized I already missed out on a lot. But I had found a part of the purpose. We all were assigned 1 person each and every day of the week we were supposed to take classes for the student. The materials for teaching were all provided by the organization. When I met my student, she was a girl of 10 years old and when she first met me, she called me "Miss" like all the children used to call their teachers. Though I found it extremely weird, the amount of excitation the child had, it pushed me forward. At first, I found it difficult to adjust with the timings but when I realized that the child would be waiting with the eagerness to learn, it naturally fueled my passion too. Overall, I would say this will always be one of my endeavors that I would cherish because truly "ONE BOOK, ONE PEN COULD CHANGE LIVES."

ALUMINI WRITE-UP

HIGHER STUDIES

ROSHAN B OF MECH'2024 SHARES...

Cracking the GRE: My Journey to a 325 score and Key Takeaways

I am Rohan S from 4th year mechanical B and I recently got a 325 score on the GRE (Quantitative-167; Verbal-158). I am going to share my journey of how I prepared for this exam. Keep in mind that while this approach worked for me, it may not be universally effective. It's worth noting that the GRE format has changed since September 22nd of this year, reducing the exam duration to 2 hours and altering the number of questions. For people who don't know what the GRE is, it is a standardized test which is an optional requirement for higher studies in many countries. Taking the GRE alone is not sufficient for higher studies, but it will help add value to your profile. It consists of 5 sections- 2 Verbal, 2 Quantitative and 1 experimental (does not contribute to scores) all adding upto a total of 340 marks (Verbal-170, Quants-170). There is also an Analytical writing section consisting of 2 essays which is scored on a grade of 6. For the new format information please check the ETS website.

Like many others attempting the GRE exam, I too enrolled myself into MANYA- a leading study abroad consultancy which also offers test training. Although the material they provided was comprehensive and useful, I did not find the classes to be worth their money. There was also a 3-month gap between the MANYA course end and the GRE. With only a month left for the exam, I joined GREGMAT- an online GRE course. I would like to recommend anyone wanting to take up the GRE to register for the GREGMAT course since it is the cheapest GRE course available at $5 a month (compared to the 25000 for the MANYA course). During the three weeks leading up to the exam, I focused exclusively on Quantitative preparation with the goal of scoring 165 or higher. GREGMAT offers about 600 Quantitative problems that can be filtered by topic. I worked through all of them, which helped me solidify my understanding of the concepts and ultimately reach my target score. However, since I dedicated most of my time to Quantitative, I had limited time to prepare for Verbal. I briefly reviewed different strategies for solving Verbal problems but didn't focus on expanding my vocabulary. I still achieved my desired score, but I believe I could have performed even better with more emphasis on vocabulary and Verbal preparation. For the analytical writing part, I just looked at some example essays and a video explaining the format. I was able to score a 5/6 with this

preparation. I took 2 practice tests after preparing and I got a similar score to my actual GRE score. In summary, here are the key takeaways from my GRE preparation experience for achieving a high score: 1. Practice a substantial number of problems. 2. Review your mistakes and revisit weak concepts as needed. 3. Familiarize yourself with various strategies for solving Verbal problems and choose the ones that work best for you. 4. Take as many practice tests as possible to simulate the actual GRE environment and improve your test-taking skills.

SANTOSH NARAYAN V OF MECH'2024 SHARES...

GET TO GRIPS WITH THE GRE

Get to grips with the GRE: A Short-Term Journey with some takeaways

My name is Santosh Narayan V, from 4th Year, Mechanical Engineering B section. I recently gave my GRE exam on the second week of September. I am going to go through my journey of how I prepared for this exam in detail below. Please note that I prepared for the exam in a short span of time of about 2 weeks and I generally would not advise the same to others. Granted, the GRE is changing its format from the third week of September to expedited format. But, I wrote the older one and the statements made might hold true for both. I got 320 (161-Quants and 159-Verbal) and 4/6 in the Analytical Writing section.

The GRE (Graduate Record Examinations) is administered by ETS and is an optional metric for students applying to study abroad. It doesn't replace your GPA but complements it. I advise you to first check the admission requirements of your desired colleges and programs to determine if the GRE is necessary. The new GRE format is available on the official ETS website, so be sure to check there.

Like many students, I enrolled in MANYA-Princeton Review for GRE and IELTS prep. The program cost around 25,000 rupees and offered both offline and online classes spanning 8 weeks. They provided a portal for tests and section-wise question practice. However, since I took the exam later, these resources weren't as beneficial for me. If you're planning to take the GRE, consider using the GREGMAT website, which costs $5 per

month and can be renewed monthly. It's an affordable and valuable prep resource that helped me and my peers.

Given my limited preparation time, I focused primarily on the Quantitative section as many colleges require a score above 160 in this section. Gregmat's 580 Quant problems were immensely helpful. I found these questions challenging, which emphasized the need for extensive practice. The flashcards on his website were also useful. For Vocabulary, I studied the Vocab Mountain (900 words) and their usage in sentences. I also applied GRE strategies during practice. I recommend taking the official GRE practice tests available on the ETS site during your preparation to gauge your progress.

As mentioned earlier, I strongly urge you to prepare for 3-4 months before the exam to perform well in both sections. Try to cover the topics systematically.

Key points to remember:

1. Devote a minimum of 3 months to preparation.
2. Prioritize Quants, as it can be challenging to get a really high score.
3. For Verbal, focus on vocabulary and apply strategies effectively.
4. Give as many tests possible during preparation.

BALA KUMAR S S OF MECH'2020 SHARES...

Hi! This is Balakumar S S. I completed my bachelors in Mechanical Engineering from SSN (Batch of 2020). From the time of my B.E I was keenly interested in manufacturing and production. Currently I am pursuing my master's degree in Systems Engineering for Manufacturing at Otto von Guericke University, Magdeburg, Germany. Key courses in my master's degree includes Systems Engineering, Material Handling Systems, Mechatronic Systems, Industry 4.0, Factory Automation, Supply Networks & Collaborative Management, Engineering Design, Additive Manufacturing, Material Selection and Mechanics of Materials.

During my college days I also worked on many hands-on projects which includes Preparation of Titanium Metal Matrix

ALUMINI WRITE-UP

Composite reinforced with SiC particles and Experimental investigation of Drilling of Ti MMC and Design and Fabrication of Heat Pipes with Grooves as a part of my IFP (Internally funded project).

I also worked as an engineering trainee at wheels India limited and an internship trainee at Larsen and Toubro. These helped sharpen my practical knowledge and industry working. Apart from these I enjoyed events at College like the Invente and Instincts.

I would like to thank all my professors for their constant support and motivation which has pushed me till date to keep exploration the domain of manufacturing. Thank you, SSN, for giving me the best college experience ever filled with fun, joy and learning. Wishing my juniors all the very best!!!

Balakumar S S

COMPETITION UPDATE

"NO COMPETITION, NO PROGRESS"

Article Writing

Link: Register here

The Operations Case study competition

Link: Register here

CORPORATE WISDOM

From the desk of Ramki -– Aspire to Inspire

From Ramki

Happy Morning – Aspire to Inspire

The law of life is “When the lower is pushed, the higher delights”. For example, when the body is pushed beyond its perceived limits, the mind delights. When the body tells you “I can’t walk one more block, I can’t run another lap, I can’t trek any more, and then when it is pushed beyond its perceived limits and it walks that additional block, runs another lap and treks further- the mind delights.

Against the pleading of your body when you do a few more push-ups or a few more reps of the bicep curls or another dozen squats- the mind delights. When the lower- the body is pushed, the higher- the mind delights.

So, what I am trying to say?

There is always this inner intellectual conflict between our instincts and conscience. Our instincts ask us to follow the path of “Pain & Pleasure” while our conscience demands us to follow the path of “Right & Wrong”. It is this that causes the intellectual split in us.

What we call as guilt is nothing but the disapproval of the “Knower” in us to an act of the” Doer” in us; that is when the conscience doesn’t endorse the instincts. Resolving this split and living as an integrated person is the struggle of the intelligence, but it is the delight of the higher- Emotional Personality.

#WishingMostAndMore

Have a great day & wonderful weekend

R. Ramakrishnan

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