



ASPIRE

Achievements in Sports, Projects, Industry, Research and Education

Monthly Newsletter

DEPARTMENT OF MECHANICAL ENGINEERING
Volume-12 Issue-7 July 2022



JULY EDITION

SRI SIVASUBRAMANIYA NADAR
COLLEGE OF ENGINEERING

Rajiv Gandhi Salai(OMR), Kalavakkam, Chennai, Tamil Nadu, India



From The HOD's Desk...

Dear all,

It is a joy to bring to you the July edition of our newsletter Aspire!!!

In the Nobel laureate's section, we feature Manabe who shared the Physics Nobel of 2021 for his pioneering work on modeling of Earth's climate, quantifying variability and reliably predicting global warming.

SSN celebrated the Scholarship Day where deserving students are given scholarships and the College Day where the department rank holders are awarded medals and certificates.

At the department level, we celebrated the valedictory for the final year students, where the new core committee members took over the mantle from their seniors, certificates and trophies were awarded to students who have contributed to propelling various activities.

As a follow up to the valedictory, the final year students passed on their skills through the event - CRANKX-2K22, in Bottle Rocketry, RC Car, Gliders, and Bicycles by conducting workshops, which was noteworthy in its cause as much as it was in skill enhancement.

Our faculty continue to up the ante with good research publications in noteworthy journals. A workshop on Lithium-ion battery development and one on Generative Design using Autodesk Fusion 360 was organized which received good participation from the academia.

Our Alumni interactions led to the conduct of two events, one where the scope of MBA and the preparation strategies of CAT were discussed, another where the prospects of SAE events were discussed - both sessions handled by our alumni in remote mode.

We are planning to network with our alumni in a series of interactions that will result in transfer of knowledge and skill to the current students.

Hope you enjoy the contents we have brought to you and do leave your feedback on how we can improve Aspire!!

Wishing all of you an activity filled July 2022!!!

Best wishes,

K.S. Vijay Sekar | vijaysekarks@ssn.edu.in



Syukuro Manabe



In 2021, one half of the Nobel Prize in Physics was shared between Manabe and Klaus Hasselmann "for the physical modeling of Earth's climate, quantifying variability and reliably predicting global warming". Manabe received a bachelor's degree in meteorology in 1953 from the University of Tokyo. He went on to earn master's and doctorate degrees in meteorology from the same institution. In 1958, after earning a Ph.D., he became a research meteorologist at the U.S. Weather Bureau, exploring the use of physics in developing weather models. Manabe joined the Geophysical Fluid Dynamics Laboratory (GFDL), which later began its collaboration with Princeton University in 1967 as part of the university's Program in Atmospheric and Oceanic Sciences.

In 1967, Manabe developed the world's first credible three-dimensional climate model of the atmosphere. Two years later he and American oceanographer Kirk Bryan produced the first general circulation model that coupled the ocean and atmosphere, which became a useful tool for examining seasonal climate variability and global warming scenarios, including the relationships between insolation and the vertical movement of air masses and between rising levels of carbon dioxide and other greenhouse gases in the atmosphere and temperature. Manabe's general circulation model was used to gauge the climate's sensitivity to carbon dioxide concentrations in 1975 in a paper he authored. It predicted that doubling atmospheric carbon concentrations from 300 to 600 parts per million would result in an average temperature increase in the troposphere of between 2.3 and 2.93 °C

Manabe is a member of the United States National Academy of Sciences, and a foreign member of Japan Academy, Academia Europaea and the Royal Society of Canada. Manabe's work in the development of the first global climate models has been selected as one of the Top Ten Breakthroughs to have occurred in NOAA's first 200 years.

CAMPUS UPDATE

SSN SCHOLARSHIP DAY



Students' growth and talent improve in every successful way, with a moment of appreciation, a recognition they receive for all the endeavors they have put into excelling in academics, sports, music, etc. Therefore, SSN Institutions celebrated the 22nd scholarship day event on 11th June, highlighting and motivating the students with scholarships for various categories like Merit, Merit Cum means, sports, alumni, special scholarships, etc.

SSN Institutions aim to provide students with strong goals and motivate them in all possible ways to succeed in their dreams. A token of appreciation for their hard work over this academic year to encourage and motivate every student. Overall, 481 students received the scholarship this year.

Our proud SSN alumni and chief guest, Mr. Ashwin Ravichandran, an international cricketer, gave away the awards to the students.

SSN COLLEGE DAY

SSN 22nd Annual College Day event felicitated students with medals and awards on 14th June. A day that celebrated their performance and achievements for the past academic year. Dr. G.A Ramadass, Director, National Institute of Ocean Technology, Chennai, was the chief guest who honoured the students by giving away medals and certifications.



DEPARTMENT UPDATE

International Journal Publication - SCI /Clarivate Indexed



Praveen, Rajendran, Sajja Rama Koteswara Rao, Saurabh Suresh Kumar, and Sundaram Suresh Kumar. "Optimization of target thickness and investigation on the effect of heat treatment on the ballistic performance of aluminium alloy 7075 targets against hard steel core projectile." *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* (2022): 14644207221105365. **Clarivate Impact Factor: 2.311**

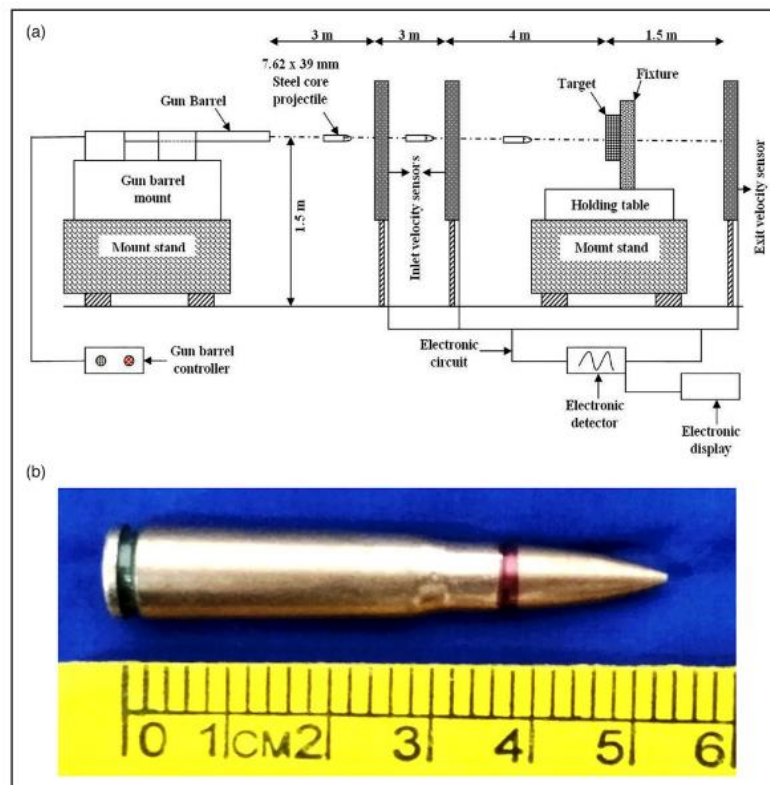


Figure 4. (a) Schematic representation of an experimental ballistic test setup. (b) Photo views of 7.62 x 39 mm cartridge with hard steel core projectile.

International Journal Publication - SCI /Clarivate Indexed



Shine, K., and **K. Jayakumar**. "Effect of tool pin profile on the mechanical and microstructural properties of dissimilar friction stir welded AA5083-H111 and AA6061-T6 aluminium alloys." *Journal of the Chinese Institute of Engineers* 45.3 (2022): 227-236. **Clarivate Impact factor :1.144**



Figure 4. Optical microscopy (a) 5083 base metal; (b) 6061 base metal; (c) weld nugget – square pin; (d) weld nugget – threaded cylinder; (e) weld nugget – tapered cylinder.

International Journal Publication - SCI /Clarivate Indexed



Renjin J. Bright, G. Selvakumar, P. Hariharasakthisudhan and M. Sumathi. "Influence of nano-Si₃N₄(P) hybridization on the mechanical and quasi-static compression behaviour of AA6082-Metakaolin composites." Kovove Materialy-Metallic Materials. 2022 **Clarivate Impact Factor: 1.068**

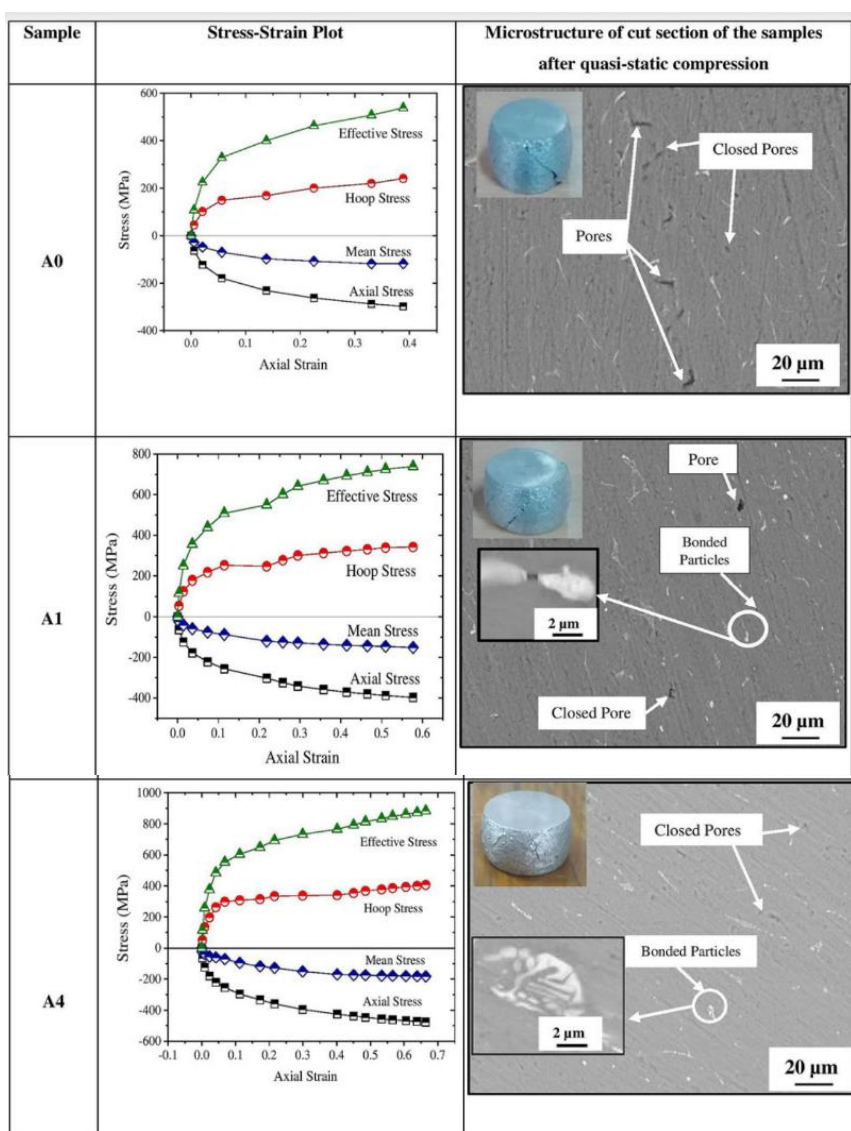


Fig. 12. Stress-strain plot and microstructure mapping of cut-section of the samples A0, A1, and A4.

International Journal Publication - SCI /Clarivate Indexed



Palaniyappan, Sabarinathan, Annamalai Veiravan, **Rajkumar Kaliyamoorthy**, and Vishal Kumar. "Sustainable solution to low-cost alternative abrasive from electric ceramic insulator waste for use in abrasive water jet machining." *The International Journal of Advanced Manufacturing Technology* 120, no. 7 (2022): 5243-5257. **Clarivate Impact factor :3.226**

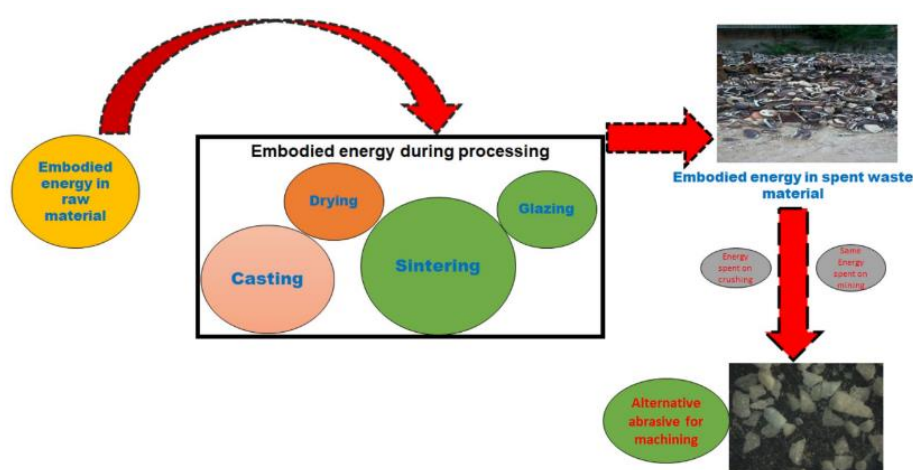


Fig.1 Energy embodiment chart of the spent ceramic waste

Scopus Publication

Praveen, R., SR Koteswara Rao, Saurabh S. Kumar, and T. Rajesh Babu. "Numerical evaluation of ballistic limit velocity and the experimental ballistic response of 25 mm thick aluminium 7075 alloy targets." *Materials Today: Proceedings* (2022). **Scopus Impact factor: 0.24.**

Ebenezer, D., SR Koteswara Rao, G. Selvakumar, and S. Ram Prakash. "Evaluation of rupture life and Larson Miller parameter using Monkman-Grant relationship from impression creep data of magnesium alloy ZM21." *Materials Today: Proceedings* (2022). **Scopus Impact factor:0.355.**

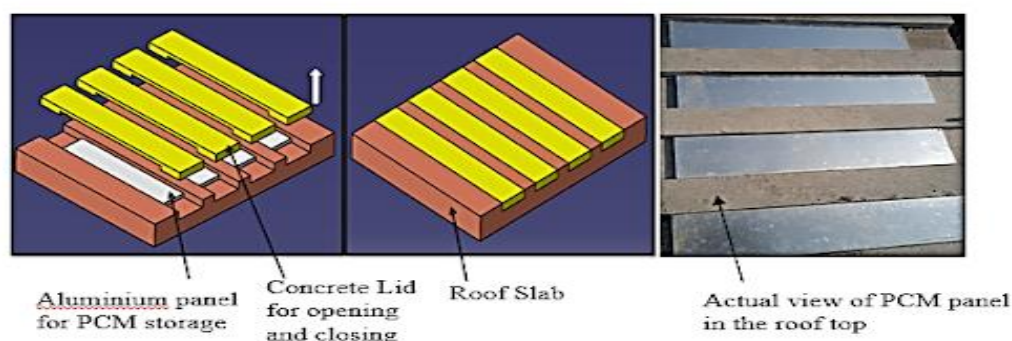
Jayakumar, K., and T. Suresh. "Effect of wire materials on performance during WEDM of SS304." *Materials Today: Proceedings* (2022). **Scopus Impact factor:0.355.**

FACULTY WRITE-UP

Publication with part time research scholar in “Energy Sources, Part A: Recovery, Utilization, and Environmental Effects”, Taylor and Francis, with 3.447 Impact Factor

Karthick H, N Nallusamy and S Rajkumar. Experimental and numerical investigation on phase change material filled reinforced cement concrete roof slab for mitigating the heat transfer, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 2022.

<https://doi.org/10.1080/15567036.2022.2068700>



3D CAD and actual view of PCM integrated roof slab

In this paper, a phase change material (PCM) filled rooftop is proposed to reduce heat transfer from the roof. Experiments are conducted to compare the thermal characteristics of residential buildings with bare reinforced cement concrete roof (RCC) top without PCM and PCM filled RCC rooftop in the summer season. Aluminum panels containing macro encapsulated PCM, which occupies around 66% of the total roof slab area, are employed in one of the building rooftops. They store the heat energy in the form of latent heat and thus reduce the heat transfer into the building. In the RCC roof slab of thickness 0.152 m, 0.051 m is allotted for storing PCM and the remaining 0.101 m ensures adequate strength of the roof slab. The comparisons of thermal behavior between the buildings of bare and PCM integrated RCC roofs reveal that the PCM integrated roof reduced the heat transfer into the building vis-à-vis bare roof



building. The PCM integrated roof diminished the heat flux to a maximum of 53% compared to the non-PCM roof on the day when the maximum temperature was recorded (18 May 2021) during the experimental periods. In PCM filled roof, an average reduction of 2°C in the room temperature is achieved as compared to that of a non-PCM filled roof.

One Day Workshop on “Lithium-Ion Battery Technology and Development”

Organized by The Department of Mechanical Engineering

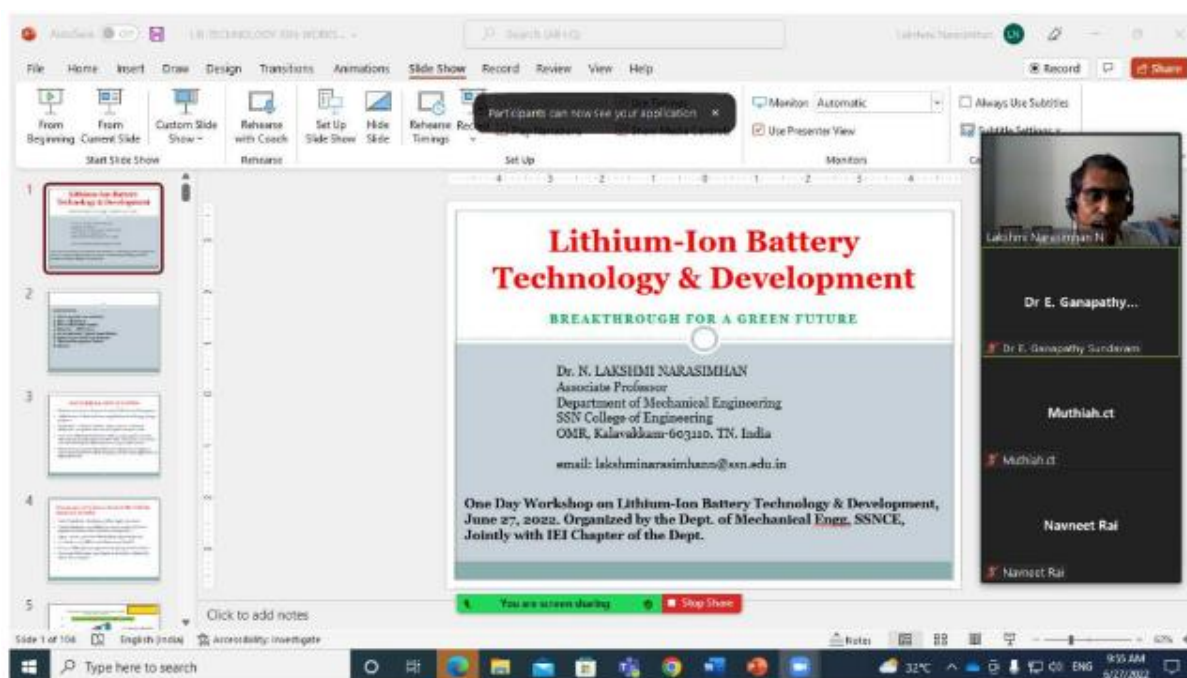
In Collaboration with Institution of Engineers India Chapter (IEI)

Date: 27th June 2022

Coordinator: Dr. N. Lakshmi Narasimhan, ASP/Mech & (Workshop Coordinator)



As a Coordinator of our IEI Chapter of our Department, I am pleased colleagues and staff, and all the participants for their great support and encouragement. A special thanks to my Ph.D. Scholar, Mr. T. Amalesh for the data sharing and support offered during the AN session



Generative Design using Autodesk Fusion 360 Workshop writeup



A one-day workshop on Generative Design using Autodesk Fusion 360 was organized on 09th June 2022 in collaboration with Autodesk (India). Mr. Mahesh, Technical Manager, Autodesk was the subject expert who handled both the sessions with elan. He deftly handled both the sessions and the programme was a success with the students eagerly participating right from the word go! A detailed write up by a student attendee (Mr. Hariharan, 3rd year) could be found on page 18 of this Aspire edition.



The workshop was organized by Dr. G. Satheesh Kumar, Dr. R. Vimal Sam Singh, Dr. S. Vijayan and Dr. C. Arun Prakash. The team would like to thank our HoD, Principal, staff members and the management for the support rendered in organizing the programme.

Faculty other activities

Dr. R Vimal Samsingh , ASP/Mech delivered a guest lecture on "Skills for Consultancy Project Drive" at the Online Learning Platform, Class Upon (https://www.classupon.com/s/store), Chennai on 29.06.2022. from 11.00 am to 12.00 pm.
Dr. Micha Premkumar , appointed as an external examiner to conduct the M. Tech Practical Exam at SRM IST, Katankulathur campus
Dr.S.R.K. Rao , Professor/Mechanical Engg., delivered an invited lecture on "Evolution of metal joining processes and recent developments" at CEG campus, Anna University in a workshop titled "Recent trends in Materials Joining Process" on 16 th May 2022
Dr. N. Lakshmi Narasimhan , Associate Prof/Mech, delivered a Guest Lecture on "CFD and State of the Art Applications", during the online One Day Workshop on Computational Fluid Dynamics Organized by the Department of Mechanical Engineering, Anna University, Chennai-25 on 30.05.2022
Dr. A.S. Ramana , Associate Professor, attended online BYST Mentor Development Programme Conducted by Bharatiya Yuva Shakti Trust on 15.06.2022 & 16.06.2022.
Dr.S.R.K. Rao has successfully completed an online course on "Design for additive manufacturing with metals" offered by American Society of Mechanical Engineers (ASME). The course is done on a flexi paced mode and took about 3 months to complete and requires passing several quizzes and a final test.
Mr.C. Parthasarathy , Part Time Research Scholar under the guidance of Dr. A.S. Ramana, Associate Prof. delivered a Research Seminar presentation on Biofuel by Hydrothermal Liquefaction on 09.06.2022.
Dr. A.S. Ramana , Asso. Prof./Mech. conducted the confirmation DC Meeting for his part-time research scholar, Mr.C. Parthasarathi on 10.06.2022.
Dr. K. Jayakumar , Associate Professor, conducted the 4th DC meeting for his full-time research scholar, Mr. T. Suresh, on 30.05.2022.
Dr. K. Jayakumar , Associate Professor, conducted the PhD viva-voce examination for his full-time research scholar, Mr. S. Senthur Vaishnavan, on 07.06.2022.
Dr. K. Jayakumar , Associate Professor, conducted the PhD viva-voce examination for his full-time research scholar, Mr. T. Suresh, on 14.06.2022.
Dr. K. Jayakumar , Associate Professor, conducted the Synopsis seminar (Seminar II) for his full-time research scholar, Mrs.Hepsi Beaula M.J, on 23.06.2022 (FN).
Dr. K. Jayakumar , Associate Professor, conducted the 4th DC meeting for his full-time research scholar, S. Balamurugan, on 23.06.2022 (AN).
Dr. K. Jayakumar , Associate Professor, conducted 3rd DC Meeting for his PhD scholar Hepsu Beaula M J on 25.06.2022.

Non-Teaching Staff activities

Mr. Balasundaram P /Lab assistant / Mechanical participated one day webinar Hydraulics and Yuken catalogues on 09 JUNE 2022 company name: Famic technologies

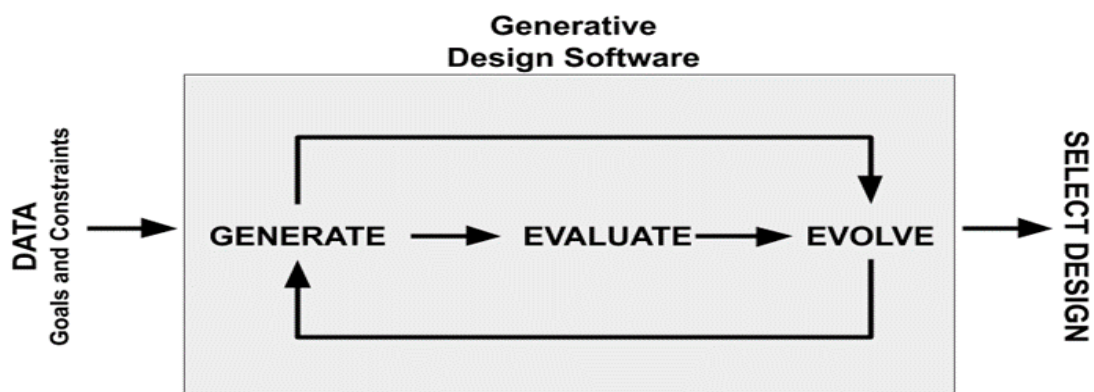
Mr. Balasundaram P /Lab assistant / Mechanical/ completed the online course -Business Analysis & process Management - on Coursera during 08 June 2022.

STUDENT WRITE-UP

DATE	ACTIVITY DONE DURING THE MONTH
	<u>SECOND YEAR</u>
11/06/2022	Crank-X-2022- Participated in Glider Workshop. Srivatsan S Harish S
11/06/2022	Crank-X-2022-Participated in RC Car Workshop Kishore Kumar Abishek M C.A. Gowthamrajhaa Ashwin kumar S Baghyashree P S.A. Muhammad Jasoor R. Jenin
11/06/2022	Crank-X-2022-Participated in Bicycle event Workshop Gopinath.M Muthuvelan.M Mothimukesh.K S. Charu Prabha Mano Balan.T S. Mohamed Hasim Malcolm Nithin

11/06/2022	<p>Jhiviyar.R</p> <p>Anbarasu V</p> <p>Crank-X-2022-Participated in Bottle Rocketrix</p> <p>N Magesh Nachiappan</p> <p style="text-align: center;"><u>THIRD YEAR</u></p> <p>Palvannan B</p> <ul style="list-style-type: none"> Generative Design workshop Autodesk. Crank-X-2022- Participated in Glider workshop <p>Vallikannan M</p> <ul style="list-style-type: none"> Got merit scholarship for academic performance <p style="text-align: center;"><u>FOURTH YEAR</u></p> <p>Abhishek Ezhilvanan</p> <ul style="list-style-type: none"> Outstanding Student Coordinator - SSN Film Club " Reels of fire" Excellence in being the President of SSN Film Club
09/06/2022	
11/06/2022	
11/06/2022	
11/06/2022	

Hariharan, III-Year writes...



The workshop about generative design was a good experience .It was conducted by the Autodesk. We got to know what generative design is all about and also had a hands on experience on how the software works. Generative design is a form of artificial intelligence that leverages the power of the cloud and machine learning while accelerating the entire design-to-make process.

The first half of the day was dealt with installing the software, creating the account in fusion 360 and learning how to perform generataive design in Fusion 360. The audience

felt enthusiastic as the mentor kept explaining us . Mr. Mahesh made the presentation very interesting and he was so informative . He also helped us with the problems and doubts we came up while working on the software.



The second half of the day was more on the presentation of how autodesk has evolved and what are the applications of the generative design. It was surprising to know the fact that the Airbus in collaboration with Autodesk [fusion 360 GD](#) created an airplane cabin compartment. In this, they designed a bionic pattern to separate the passenger cabin from the gallery. It helped in reducing overall

part weight (approx. 45%). In the aviation industry, weight reduction means a reduction in fuel costs. As a result, the airbus team saved a lot of fuel costs with this design.

Therefore, it was a really helpful workshop and expecting more workshops to be conducted offline. We thank Dr. C. Arun Prakash, Dr. G. Satheesh Kumar, Dr. R. Vimal Sam Singh, and Dr. S. Vijayan for conducting this workshop .



An exciting event. A chance to indulge in the basics of Engineering without guilt. A trip down memory lane to understand the science behind your childhood activities. CRANKX-2K22. Yes, CRANKX-2K22, after much delay, kick-started on the 11th of June, 2022. Consisting of 4 technical rounds and headed by a student-centric committee, CRANKX-2K22 was an all-together training experience. The much-coveted event was conducted for the 1st, 2nd year and 3rd students by the Final Years, jointly in association with the faculties, under the Association of Mechanical Engineers.

Leaving its participants with nothing less than confusion on what events to be chosen, 4 of the following activities were slotted.

1. Bottle Rocketrix,
2. RC Car,

3. Glider Workshop,
4. Bicycle Workshop.

CRANKX-2K22 was inaugurated in the presence of the Head of the Department and the respective Event Coordinators with a brief talk about the day's activities and the agenda of this year's CRANKX meet. With much vigour, the students quickly clubbed themselves into their team of interest. The event was supervised by Prof. K.S.Vijay Sekar and fellow faculties, guiding students to materialize their prototype.

The finale was nothing short of a mix of curiosity and competitiveness fueled by individual efforts, when the models were tested, amidst various cheers. CRANKX-2K22 was a phenomenal success to the minds of Mechanical Engineering students, after the COVID-19 pandemic.

Participant's Testimonials: Well, what is an event without its fair share of expressing what the participants felt like! Here is a consolidation of what our students felt about them, and a chance to bring about changes in the following year's CRANKX.

➤ **Glider workshop:**



"I'm Srivatsan S from II Year Mechanical-B. I feel privileged to share my experience participating in the Glider Workshop in CRANK-X 2022.

Firstly, the workshop began by teaching us some essential concepts

necessary for a glider's design, such as the dihedral angle, angle of attack, the aerodynamic center of gravity, etc. The workshop's main objective was to design a glider with the maximum flight time in the air, so we, as a team of 2, started to brainstorm the ideas that would make our glider satisfy the objective.

All the materials required for making the glider were kept ready so that we wouldn't face any difficulties buying those products. Then, all the teams started putting their ideas toward making a glider. Initially, we were given elliptical wings, which had the shape of an ellipse at the wind tips for designing wings. But I designed the wings using the Hoerner wing tips, with a slight cutting edge at the end of the wing, offering better flight time than the elliptical type.



Also, we were taught how to use different horizontal tails like T, Simple, etc., effectively. Each team designed unique gliders showcasing their creativity, and it was great to experience enthusiasm among all the peers participating in the event.

Finally, we tested our gliders in the air to check which glider had the maximum flight time. We discussed areas where we can work to achieve optimal flight time. I learned a lot from this workshop. It was such a fun-filled event, making this day memorable.

I thank the organizers and core committee members for organizing this event and showing their support throughout the workshop."

➤ **Bottle Rocketrix workshop:**



"Initially all the members had to form a team of 2- 3 members and start making the bottle rocket. The seniors taught us in detail step by step. All the materials needed were readily made available for the participants.



Firstly we took two bottles and cut the neck of the bottle and fixed the bottom part to another. Secondly, we sealed the mouth of the bottle with crushed papers and then with M-seal. Next, we were instructed to measure the length of the body of the bottle and asked to estimate the suitable size of the wings to be placed. We cut it and placed it using aerodynamic principles. It felt interesting to use the concepts that we learned in textbooks, coming into a real application. We fixed the rest of the components using insulation tape, and done! Finally, our bottle

rocket was ready to launch. The Seniors and Faculties were present during the launch. The seniors had arranged a compressor and a launch pad. Our team filled the bottle with water and rooted the bottle in an inverted position on the launch pad. It was a sight to watch for everyone present there. It went high up in the sky and made a perfect launch on the ground. It was an enthralling experience overall."

➤ **Bicycle workshop:**

"CRANKX organized various events, bicycle workshop is one among them. It's all about assembling and dismantling a bicycle. It was fun



and exciting, where the entire group was divided into teams of 2 and each team was given the task of assembling and dismantling the bicycle parts, and the time required to complete the task was noted, and the team which completed it in the shortest duration was appreciated. Overall it was a great learning experience, got the courage to fix my cycle now."

➤ **RC Car:**



"RC Car workshop was a very knowledgable one, as the organizers have arranged all the materials required to build a RC Car and guided us throughout

properly. We then were able to build a car on our own and were able to test our cars in the track which was made by the organizers."Finally, onto us again, the event drew down it's curtains with an address by the Head of the Department and the eagerness to learn more next year, lives in students!

Adieu!

MECH MARVEL

Amazing Innovation 219

A Record-Breaking Solar Car!

Weighing about a mere 500kg, this new high-performance solar-powered car is in the running for the Guinness World Record. The Sun swift 7 will hopefully set a record for the fastest solar electric car over 1000 km this December on the tracks at the Australian Automotive Research Centre in Victoria.



Engineered by 50 undergraduate students at the University of New South Wales, it promises to reach an average speed of 120km/hr. It took about 18 months to develop Sun swift. The university claims that it will not only be the result of work done by the students but the “product of more than 25 years of heritage when it comes to producing high-performance solar-powered racing cars.”. The car was scheduled to contend in the prestigious World Solar Challenge, but it was shelved due to the COVID Lockdown, which delayed the build.

Due to the extensive use of carbon fibre, the car weighs only about 500 kg. The car is not equipped with features such as ABS brakes, air brakes, and air conditioning. The car boasts a very minimalistic drag coefficient of 0.095, which is less than that of a Tesla Model S, which has the lowest drag coefficient among most of the high-performance cars on the road.

Finally, the solar-powered car weighing only a quarter of a Tesla will hit the tracks and attempt to cover 1000km on a single charge of its solar-powered battery.

Amazing Innovation 220

Microneedles, A Cure for Eye Diseases.



One of the challenging operations faced in the field of medicine is the injection of therapeutic medicine into a patient's eyes. During these procedures, drugs must be injected to diffuse through the fluid of the eyeballs to reach the affected site. Frequently, patients need to undergo this procedure multiple times. Inflicting a hardship on the patients, it also brings forward a risk of bacterial infection and floating tumour cells in diseased eyes to escape through the puncture holes and migrate to other sites.

To overcome this, a team of investigators, including scientists from the Terasaki Institute for Biomedical Innovation (TIBI), has developed a novel, self-plugging microneedle for injecting therapeutics into the eyes.

Previous approaches consisted of the implementation of implantable needles for drug delivery. This method was not effective due to mechanical constraints and movement through the viscous fluid in the eyeballs. Different types of microneedles have been successfully implemented. Further development had to be carried out, thus leading to the novel technology of self-plugging microneedles. A fabrication method was also developed for a biodegradable ultra-thin needle at various lengths to provide versatility. In addition to this, a suitable hydrogel plug was also used to seal the injection site.

ALUMNI WRITE-UP



On APRIL 30, the SSN Alumni Association conducted the Annual Alumni Meet for 2022. The meet was open to all the alumni, with registration made compulsory for their entries. At 3:30 p.m., some of the companies, like SAAMA Technologies and MR. COOPER, gave an elaborate presentation regarding their functioning and work type. Students from all the departments are allowed to attend the meeting regarding the placement opportunities of these companies. Mr. Prithvi Raj, who graduated from SSN in 2004, is the Head of Operations for SAAMA Tech. He explained the patents registered by SAAMA Tech in medical research and their success in conducting faster clinical trials for the COVID-19



vaccines. A presentation by Mr. Naren Sundaram, ex-head of SSN Alumni Association and the Senior Operations Manager of MR. COOPER gave a brief introduction, work experience, and placement opportunities for the women and underprivileged in MR. COOPER. The main event of the ALUMNI MEET started at 6:30 p.m. All alumni who came to the event were asked to register their names online/offline, and tickets were issued. The event started with a video depicting the transformation of SSN Campus from day 1 to the present day, a list of reputed alumni, the growth of SSN in the NIRF index, etc. IPS officer, Mr. Karthikeyan, was invited as the Chief Guest and awarded the DISTINGUISHED ALUMNI Award for 2022. In the final year, Student Alumni Representatives-SARs were recognized for contributing to the SSN Alumni Association. Around 8 pm, a music concert was performed by the MAADI MELA METTU band, comprised of songs from the 80s to 2k and in Tamil, English, and Hindi. The alumni event ended successfully at 9:30 p.m.

SCOPE OF MBA AND PREPARATION STRATEGIES FOR CAT

Date: 4th June 2022

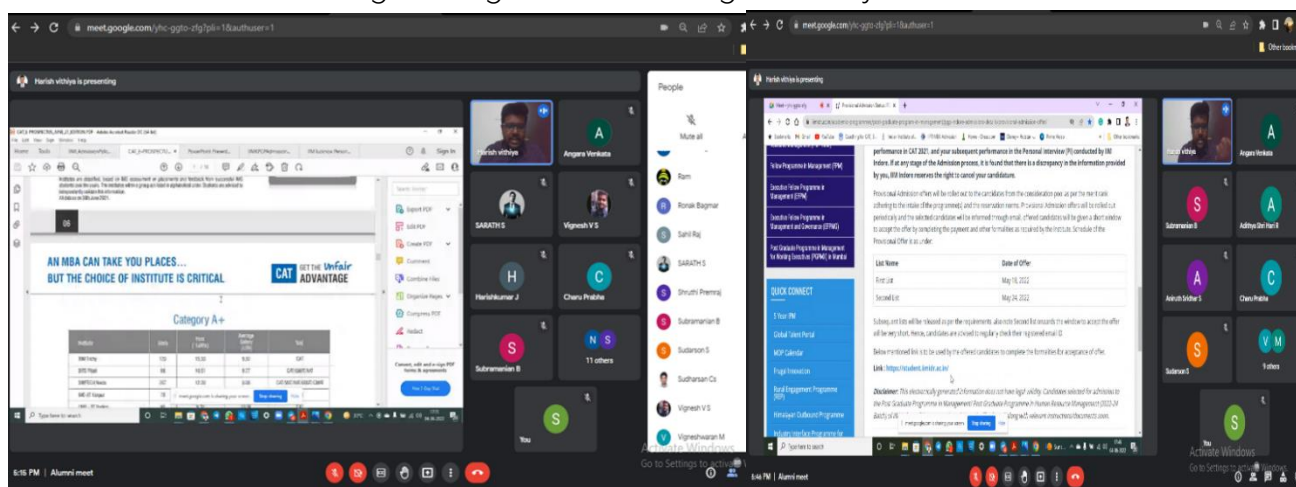
Faculty Coordinators: Dr C Arun Prakash

Student Coordinators: Sricharan S, Vinay Angara, Sriram M

Alumnus: Harish V, 2015-2019 batch



On the 4th of June 2022, the Alumni association of the Mechanical department conducted an interactive session with the Alumnus regarding the scope of MBA and CAT and the preparation strategies for it as well. The session was headed by Mr Harish, who completed his B.E in Mechanical Engineering from our college in the year 2019. He had worked as



an executive in MRF for 2 years and has recently cleared his CAT and received an admission at IIM Indore.

The session was begun by Mr. Harish stating the important exams conducted across India for an MBA. He mentioned the various colleges that were specific to various sectors in the MBA. For example, he discussed how the Great Lakes Institute, Chennai, has an excellent MBA course that focuses on Finance and Analytics. He discussed the distinct patterns of various MBA exams. The participants were able to get an excellent overview of the type of questions that might be asked in CAT and tricks to address them. We were later introduced to the eligibility criteria and the final stage in the MBA-admission process- personal interview.

For the rest of the session, there was a Q&A session with the speaker to clarify the doubts of the session. The speaker concluded his speech by asking the students to show more involvement in co-curricular activities as it would help them build a strong resume for themselves. With a thank you note, the meeting was called to an end

Introduction to SAE events and its career prospects

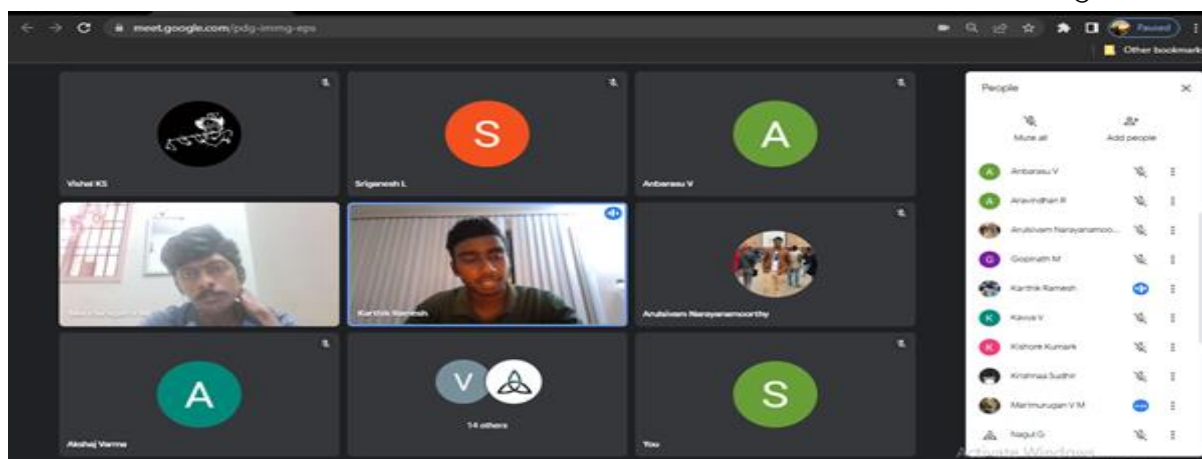
Date: 18th June 2022

Faculty Coordinator: Dr C Arun Prakash

Student Coordinators: Sricharan S, Vinay Angara, Sriram M

Alumnus: Karthik Ramesh (2019 batch), Mari Murugan (2019 batch)

On 18th June 2022, the Alumni Association of the Mechanical Engineering department conducted an interactive session about the SAE club, their events and the career prospects associated with them. We invited Mr. Karthik Ramesh and Mr. Mari Murugan to share an



insight about these events and their experiences attending them. During their college days, Mr. Karthik and Mr. Mari along with their team, took part in various events such as the SAE-bicycle challenge, SAE Baja which is an ATV competition, and events outside SAE such as NSC Go-kart-2019, Bharat Formula Karting (BFKCT) -2019 and Asian E-Bike challenge-2019. Mr. Karthik also took part in Quad bike challenge -2017 and Boeing IIT Aero-Modeling -2018. Currently, Mr. Karthik is doing his MS in Mechanical Engineering at the University of Cincinnati and Mr. Mari is working as a Senior Associate in Atos.

The session started with Mr. Karthik explaining their experiences with his first event-SAE-BAJA. He briefly spoke about the challenges associated with the learning curves and the unexpected problems that his team faced during the competition. Then, Mr. Mari and Mr. Karthik wholeheartedly shared their experiences with their E-bike challenge. They explained how the adversities they faced, helped them from being an underdog in the competition to actually winning it and inspired the juniors to take part in such competitions. They mentioned their learning experiences from these competitions and how it helped them to pursue their dreams.

For the rest of the session, there was a Q&A session with the speakers to clarify the doubts of the session.

Alumini Visit



K Vishnuvarathan, 2016-2020 batch visited the campus on the day of CRANKX, held on 11th June 2022).

JOSEPH ANAND RAJ I G, (MECH 2016-2020 BATCH)

In this article, we will be walking through the journey of one of our passionate mechanical alumni- Joseph Anand Raj. We thank him for sharing his wonderful experience, from graduating from SSN to pursuing a master's at TU Munich, Germany.



I had a great experience while studying at SSN as a bachelor's student of the 2016-20 batch in all aspects like academics, culture, and clubs. Teachers and friends taught me more about handling different and difficult situations easily during those four years of a marvellous journey.

At the end of my final year, I got a placement offer from Southern Petrochemical Industries Corporation Limited (SPIC), Tuticorin, as an Engineering Management Service Trainee. I joined there in November 2020 and gained experience as a Mechanical Maintenance Engineer for 15 months in the reconditioning jobs of single-stage centrifugal pumps, fans, and blowers. Moreover, I learned about Systems, Applications, and Products for Data Processing (SAP) software for maintaining material stock and raising Purchase Requisitions (PR).

In February 2022, I decided to pursue a masters. And after applying to various universities, I got an offer from the Technical University of Munich, Germany, for the master's programme in Sustainable Resource Management for the 2022 winter semester. I thank all my teachers, friends, seniors, and juniors for guiding me so far, and I hope their teachings will continue further on this new path of life.



RESEARCH NEWS & FORTHCOMING EVENTS

Project Proposal Submission

Source: [SERB Call for Proposals 2022.pdf](#)

Programs/ Schemes		Call opening date	Call closing date
1.	Start-up Research Grant (SERB-SRG)	01-02-2022 (Tuesday)	01-03-2022 (Tuesday)
2.	Core Research Grant (SERB-CRG)	01-02-2022 (Tuesday)	18-04-2022 (Monday)
3.	Teachers Associateship for Research Excellence (SERB-TARE)	10-02-2022 (Thursday)	15-03-2022 (Tuesday)
4.	SERB-MATRICES	23-02-2022 (Wednesday)	22-03-2022 (Tuesday)
5.	Scientific and Useful Profound Research Advancement (SERB-SUPRA)	11-04-2022 (Monday)	10-05-2022 (Tuesday)
6.	Accelerate Vigyan – ABHYAAS (For Winter Events)	02-05-2022 (Monday)	31-05-2022 (Tuesday)
7.	National Postdoctoral Fellowship (SERB-NPDF)	02-05-2022 (Monday)	01-06-2022 (Wednesday)
8.	Empowerment and Equity Opportunities for Excellence in Science (SERB-EMEQ)	01-06-2022 (Wednesday)	30-06-2022 (Thursday)
9.	Science and Technology Award for Research (SERB-STAR)	15-06-2022 (Wednesday)	28-07-2022 (Thursday)
10.	Technology Translation Award (SERB-TETRA)	04-07-2022 (Monday)	03-08-2022 (Wednesday)
11.	SERB International Research Experience (SERB-SIRE)	01.08.2022 (Monday)	30.08.2022 (Tuesday)
12.	Promoting Opportunities for Women in Exploratory Research (SERB-POWER)	01-09-2022 (Thursday)	30-09-2022 (Friday)
13.	National Science Chair	01-09-2022 (Thursday)	31-10-2022 (Monday)

Intensification of Research in High Priority Areas (IRHPA)

National Biosafety Level (BSL 3 / ABSL 3) Facilities

Last date for submission of the project proposal is **02-06-2022**

[The Electronic Project Proposal Management System, For SERB \(serbonline.in\)](https://serbonline.in/)

DST - Call for Project Proposals under India-Israel Industrial R&D and Technological Innovation Fund (I4F - 2022)

Last date for submission of the project proposal: **15-06-2022**

<https://www.gita.org.in/OnlineRfp/ProgramInfo.aspx?GITA=kZdo4yRVS4gRExygXA1Gyq9SZnneO25N65fp3J3SeI8=>

<https://dst.gov.in/news/india-israel-industrial-rd-and-technological-innovation-fund-i4f-cfp-9>

MNRE- under RE-RTD Scheme

Financial year 2021-2022 to financial year 2025-2026

Last date for submission of the project proposal: **10-07-2022**

<https://mnre-research.com>

MANAGEMENT QUOTA B. E / B. TECH ADMISSION 2022 IN

SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING

B.E/B.Tech (Regular & Lateral entry) Admissions 2022 - 23

Online Applications will open from

June 1st

<https://www.ssn.edu.in/>



SHIV NADAR UNIVERSITY
Launch your future-ready career
Join B.Tech, B.Sc and B.Com
APPLY NOW
Last date to apply: 6 June

COMPETITIONS UPDATE

"PARTICIPATION IS BETTER THAN WINNING"

Business plan Competition:

Link: [Business plan Competition](#)



IIM Indore presents:

Link: [Marketing Event](#) **Link:** [Strategy Case study event](#)



Coding Challenges:

Tez India Hackathon:

Link: [Hackathon Registration link](#)



CORPORATE WISDOM

From the desk of Ramki -- Aspire to Inspire

Happy Morning

Most successful people became what they became because, after all of us went to sleep, they were still working. If I need everything from life, then I need to first give everything I have got to life. Winston Churchill said, "I have nothing to give but my blood, toil, tears and sweat." We don't have to give all that. We just need to forego some of our likes and some of our dislikes, so that we can have all the purpose that we desire so dearly.



- If I must reach where I have never reached, then I will have to take the path that I have never taken.
- If I must achieve what I have never achieved before, then I will have to do the things that I have never done before.
- If I must accomplish what no one has ever accomplished, then I will have to do what no one has ever done.

Simple: Either subordinate your likes and dislikes to the purpose of your life or subordinate the purpose of your life to your likes and dislikes.

This simply explains why it is so crowded in the bottom of the pyramid. For the few, who have chosen to be one above the crowd, their likes, and dislikes, even their lives, are insignificant compared to the purpose of their life. There are only two options in life. Either ignore the small things to achieve higher goals or subordinate the bigger goals to the small things. If you want to be somebody in life, if you want to stand above the crowd, if you want to be someone who will be looked up to, then there is just one choice for you. You need to subordinate your likes and dislikes, ignore the small things, and keep focusing on larger goals.

- I like sleeping, I dislike exercise.
- I like fried food. I dislike salads and sprouts.
- Beyond my likes and dislikes,
- I also know I can do a lot more with my life if I am fit and healthy.
- So why not I subordinate my liking for excessive sleep and fried foods, as well as my dislike for exercise, sprouts, and salads to the purpose of being healthy in life.

#WishingMostAndMore

Have a great week & Wonderful day!

R. Ramakrishnan

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