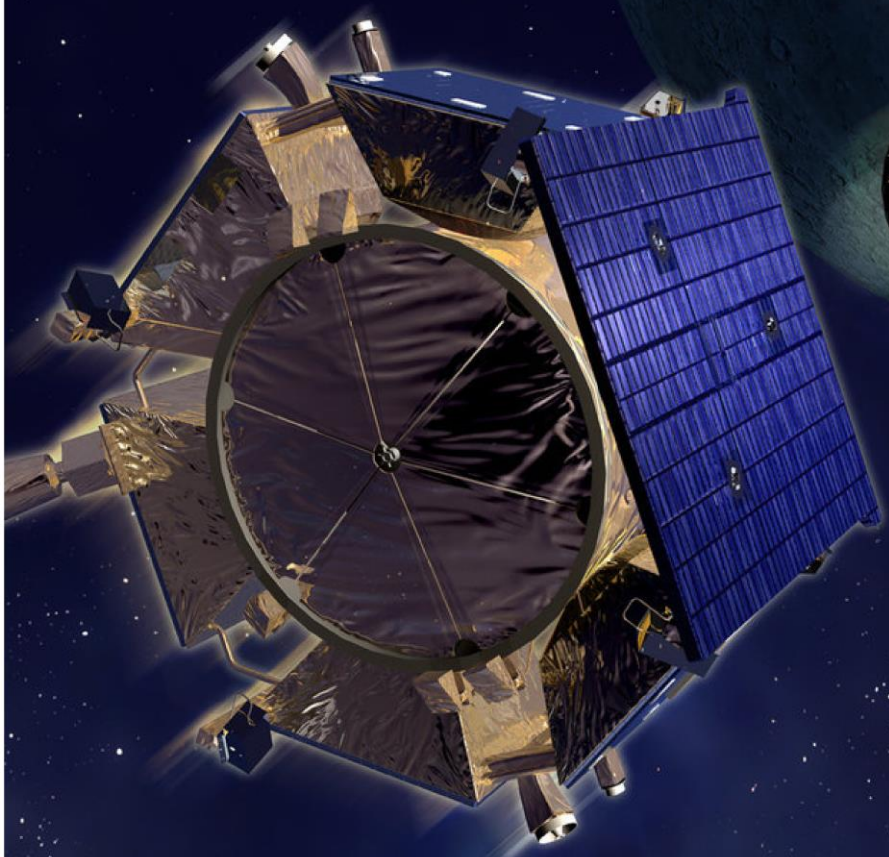
ASPIRE

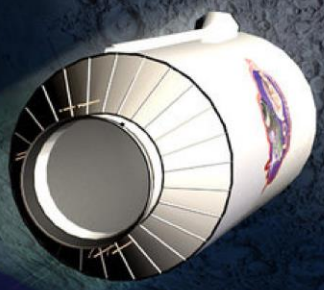
ACHIEVEMENTS IN SPORTS, PROJECTS, INDUSTRY, RESEARCH AND EDUCATION

MONTHLY NEWSLETTER

DEPARTMENT OF MECHANICAL ENGINEERING

VOLUME 13 ISSUE 8 AUGUST 2023





SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING
RAJIV GANDHI SALAI (OMR), KALAVAKKAM, CHENNAI,TAMIL NADU, INDIA

FROM THE HOD'S DESK...

We are elated to bring out the August edition of Aspire!!

We profile Svante Paabo, who was awarded the 2022 Nobel prize in medicine, for his discoveries on the genomes of extinct hominins and human evolution.

It was an honour that Shiv Nadar and Roshni Nadar were invited by the TN government to grace the inauguration of the Kalaignar centenary library in Madurai, wherein the CM quipped that Shiv Nadar was a role model and inspiration, having his roots from a government school in Madurai and praised Roshni Nadar for successfully carrying forward the legacy. It was an honour that Roshni Nadar and Shikhar Malhotra were invited to be a part of the visitor's conference hosted at the Rashtrapati Bhavan in the august presence of the President of India.

We highlight some of the quality journal publications by our faculty members, who continue their journey towards research excellence. I was invited to be a Board of studies member at AMET university and shared my input on development of their curriculum and syllabus.

A virtual open house was conducted to prospective PG candidates, where our faculty highlighted the salient features of the master's program in Manufacturing and Energy.

Current students share their internship experience, while alumni from the 2023 and 2022 batches share their journey at and beyond SSN.

Hope you have a memorable August!!!

KSV | *vijaysekarks@ssn.edu.in*

THE QUESTION OF OUR ORIGIN: SAVANTE PAABO

The Nobel Assembly at Karolinska Institute decided to award the 2022 Nobel Prize in Physiology or Medicine to Svante Pääbo **for his discoveries concerning the genomes of extinct hominins and human evolution.**

Humanity has always been intrigued by its origins. Where do we come from, and how are we related to those who came before us? What makes us, *Homo sapiens*, different from other hominins?

Through his pioneering research, Svante Pääbo accomplished something seemingly impossible: sequencing the genome of the Neanderthal, an extinct relative of present-day humans. He also made the sensational discovery of a previously unknown hominin, Denisova. Importantly, Pääbo also found that gene transfer had occurred from these now extinct hominins to *Homo sapiens* following the migration out of Africa around 70,000 years ago. This ancient flow of genes to present-day humans has physiological relevance today, for example affecting how our immune system reacts to infections.

Pääbo's seminal research gave rise to an entirely new scientific discipline; *paleogenomics*. By revealing genetic differences that distinguish all living humans from extinct hominins, his discoveries provide the basis for exploring what makes us uniquely human.

Early in his career, Svante Pääbo became fascinated by the possibility of utilizing modern genetic methods to study the DNA of Neanderthals. However, he soon realized the extreme technical challenges, because with time DNA becomes chemically modified and degrades into short fragments. After thousands of years, only trace amounts of DNA are left, and what remains is massively contaminated with DNA from bacteria and contemporary humans. As a postdoctoral student with Allan Wilson, a pioneer in the field of evolutionary biology, Pääbo started to develop methods to study DNA from Neanderthals, an endeavor that lasted several decades.

CAMPUS UPDATE

SHIV NADAR GRACES THE INAUGURATION OF KALAIGNAR CENTENARY LIBRARY

The Kalaignar centenary library was set off an intellectual fire in Madurai like how Kannagi spread fire in Madurai to teach morality in Sangam times, said chief minister M K Stalin after inaugurating the six-storey state-of-the-art Kalaignar centenary library on Saturday. The library has been built on 2,13,338 square feet area at a cost of ` 120.75 crore.

HCL founder SHIV Nadar and HCL chairperson Roshni Nadar graced the inauguration of the Kalaignar centenary library. The Chief Minister Stalin said he invited HCL founder Shiv Nadar and his daughter and HCL chairperson Roshni Nadar to instill hope in students. “Shiv Nadar studied in a government school in Madurai and scaled heights in life. Showing him to the thousands of government school students gathered here will bring a hope in their life. Being a woman doesn’t stop Roshini Nadar from carrying on the legacy of her father.”

HCL TRUSTEES IN THE DELGATION COMMITTEE OF THE VISITOR’S CONFERENCE

The president of India, Smt Droupadi Murmu addressed the closing ceremony of the visitor’s conference 2023 at Rashtrapati bhavan on July 11, 2023. union education and skill development & entrepreneurship minister Shri Dharmendra Pradhan, minister of state for education shri Subhas Sarkar, senior officials of the ministry of education and more than

150 heads of higher educational institutions such as IITS, nits, IISERS, NIPERS, central universities among others attended the visitor's conference.

on the second day, the conference deliberated on the theme - education for sustainable development: building a better world. five different groups brainstormed on sub-themes such as contributions to the realization of nep-2020; internationalization efforts and g-20; research contributions and recognitions; diversity, equality, inclusivity, and wellness; plans and action items for Amrit Kaal. the outcome of deliberations was presented before the president.

Mr. Shikhar Malhotra, Trustee of shiv Nadar foundation and Roshini Nadar, HCL chairperson we're invited to meet the Hon'ble president of India, Smt. Draupadi Murmu as a part of delegation of business leaders who are contributing to the cause of education and healthcare in India.

SSN OPEN NATIONAL LEVEL TENNIS TOURNAMENT

SSN OPEN NATIONAL LEVEL TENNIS tournament happen on 24th of July inside our campus. This tournament had players competing against each other in the categories of Under 15 and Under 18 categories. We had both boys and girls winners under the respective categories.

Mr. Irfan Hussain grace this event to the chief guest. He is a national level tennis player and our alumni. The spirit of sportsmanship along with competition was prevalent during every match.

DEPARTMENT UPDATE

International Journal Publication - SCI /Clarivate Indexed

Prasath, S., S. Vijayan, and D. Elil Raja. "Multi Response Optimization of Friction Stir Welding Process Parameters on Dissimilar Magnesium Alloys AZ31 and ZM21 using Taguchi-Based Grey Relation Analysis." *La Metallurgia Italiana* 8 (2020): 18-27. Clarivate Impact Factor: 2.6

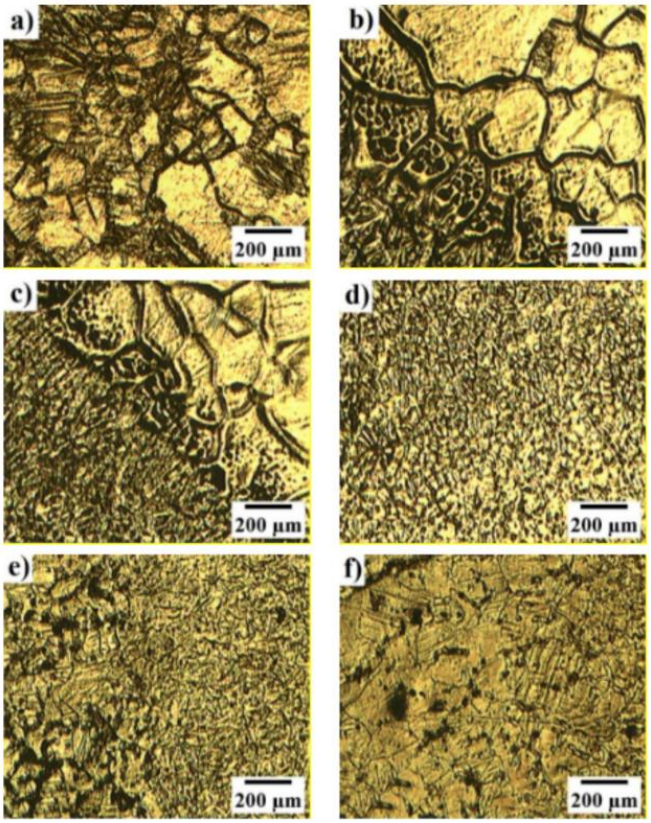
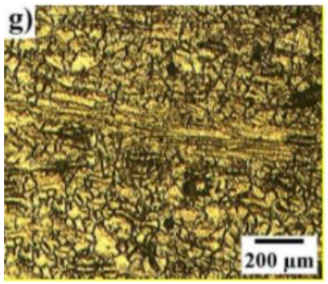


Fig. 7 Microstructural features on AZ31B side of joint: (**a**) BM, (**b**) HAZ (**c**) interface; (**d**) fusion zone; microstructural features on ZM21 side of joint: (**e**) BM, (**f**) HAZ (**g**) interface



International Journal Publication - SCI /Clarivate Indexed

Priyanga, G. Sudha, and Manoj N. Mattur. "Structural and mechanical properties of NiTiAg shape memory alloys: ab-initio study." *Modelling and Simulation in Materials Science and Engineering* (2023). Clarivate Impact Factor: 2.421

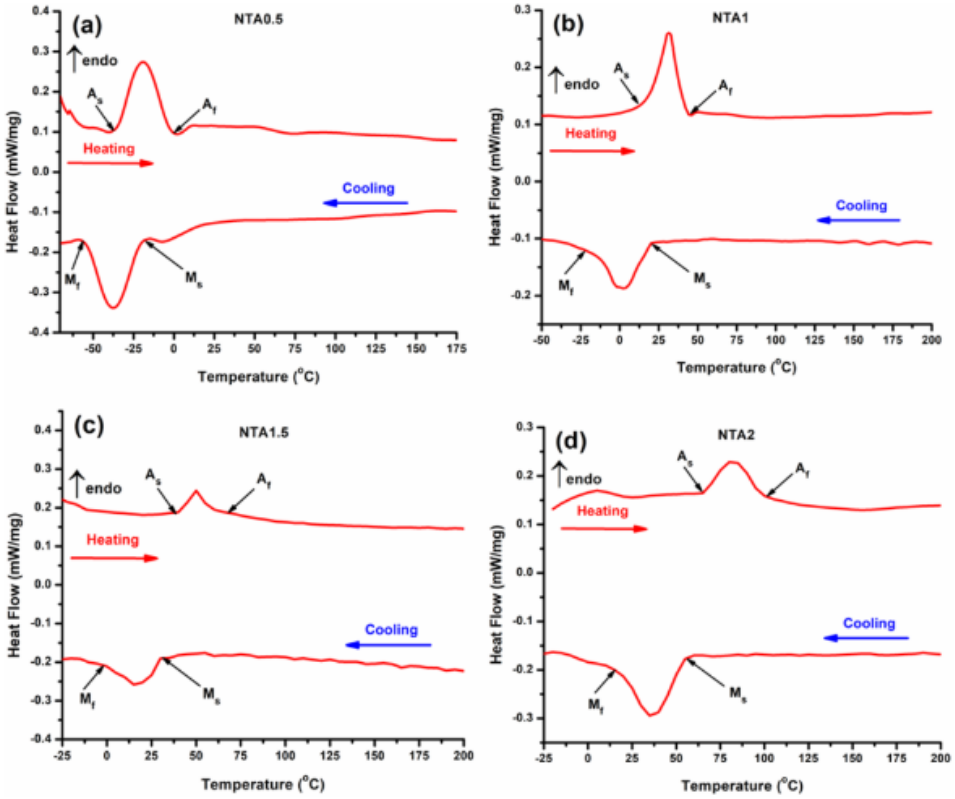


Figure 2. DSC thermograms of (a) NTA0.5, (b) NTA1, (c) NTA1.5 and (d) NTA2 alloys.

International Journal Publication - SCI /Clarivate Indexed

Murugan, Senthamil Selvan, Nallusamy Nallusamy, Prakash Ramasamy, and Venkatesan Vedhagiri. "Ethanol, Hemp, and Cottonseed Oil Biofuel Injection Completely Eliminates Diesel Fuel in Reactivity-Controlled Compression Ignition Engine." *Journal of Energy Engineering* 148, no. 6 (2022): 04022039. Clarivate Impact Factor: 1.575

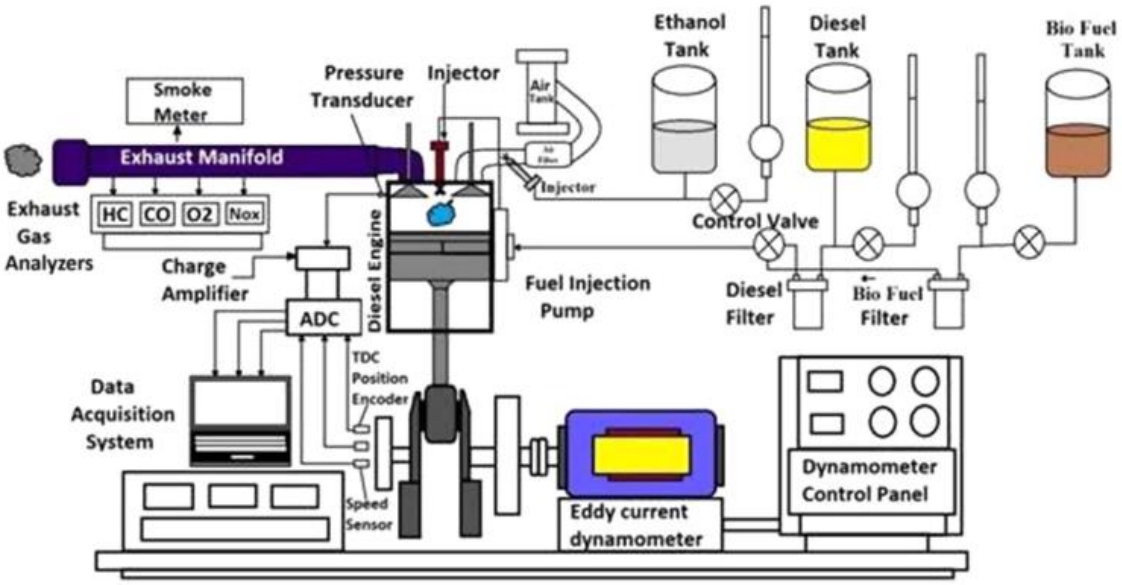
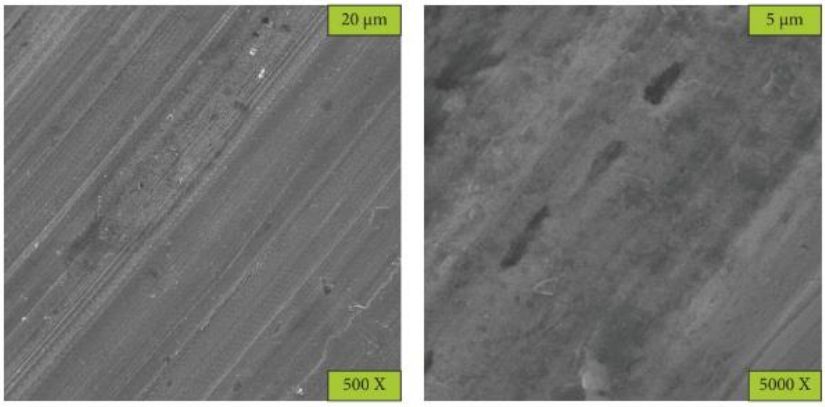


Fig. 1. Schematic of the experimental setup.

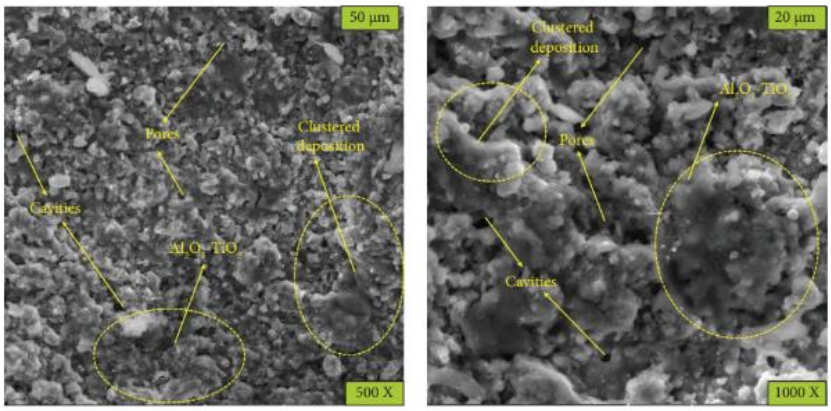
International Journal Publication - SCI /Clarivate Indexed

Surya, A., R. Prakash, P. Senthil Kumar, and G. Bharath Balji. "Development of Alumina-Titania Composite Layers on Stainless Steel through the Detonation Spray Method and Investigation of Salt Spray Corrosion Behavior along with Surface Examination." *International Journal of Chemical Engineering* 2023 (2023). Clarivate Impact Factor: 2.7



(a) (b)

FIGURE 3: SEM images of uncoated stainless steel at (a) 500X and (b) 5000X.

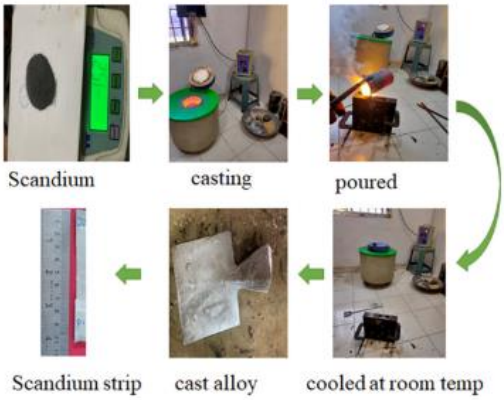


(a) (b)

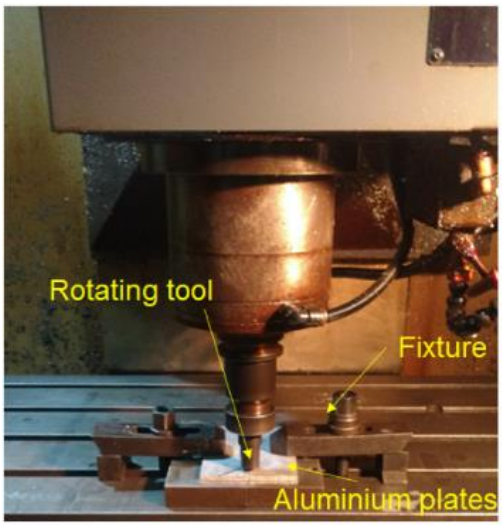
FIGURE 4: Continued.

International Journal Publication - SCI /Clarivate Indexed

Senthamaraikannan, Balamurugan, and Jayakumar Krishnamoorthy. "Material flow and mechanical properties of friction stir welded AA 5052-H32 and AA6061-T6 alloys with Sc interlayer." *Materials Testing* 0 (2023). Clarivate Impact Factor: 1.8



a)



b)

Figure 1: Preparation of scandium strip and FSW process, a) preparation process and b) welding set-up for butt joints.

International Journal Publication - SCI /Clarivate Indexed

Usharani, T., and M. Suresh. "Parametric Studies on a Two-Stage Evaporative Cooler During Tropical Climates in India." *Journal of Thermal Science and Engineering Applications* 15.7 (2023): 071001. Clarivate Impact Factor: 2.1

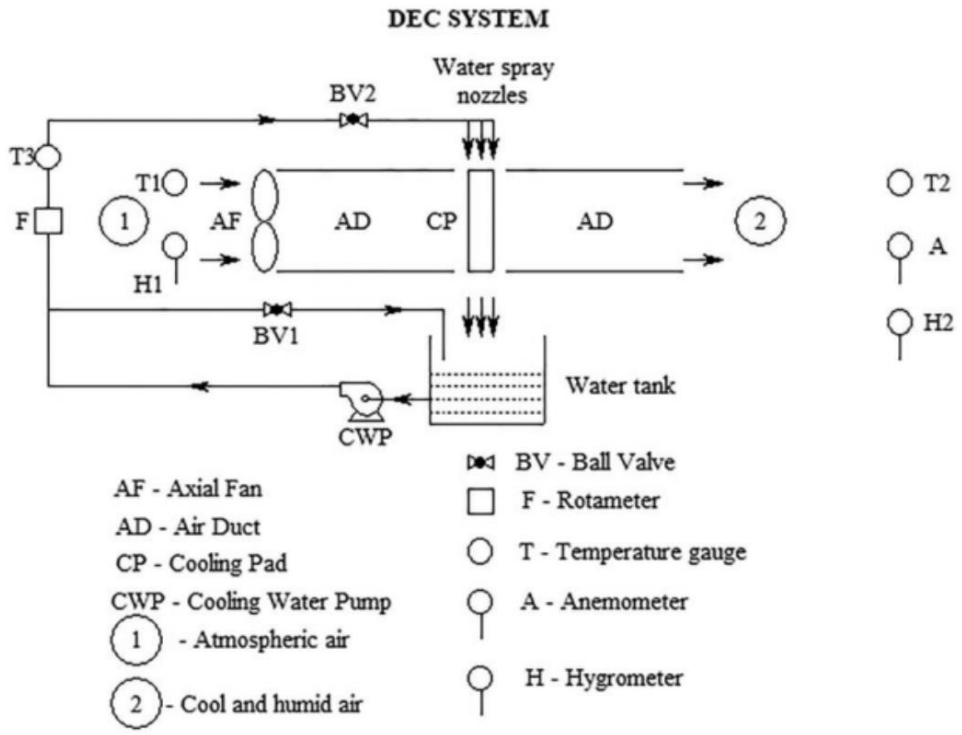


Fig. 1 Schematic diagram of direct evaporative cooling system

International Journal Publication - SCI /Clarivate Indexed

Mohamed Ismail, Nalla Mohamed. "Performance analysis and optimization of square tubes with different shapes, sizes, and patterns of holes under axial compression loading." *International Journal of Crashworthiness* (2023): 1-27. Clarivate Impact Factor: 2.05

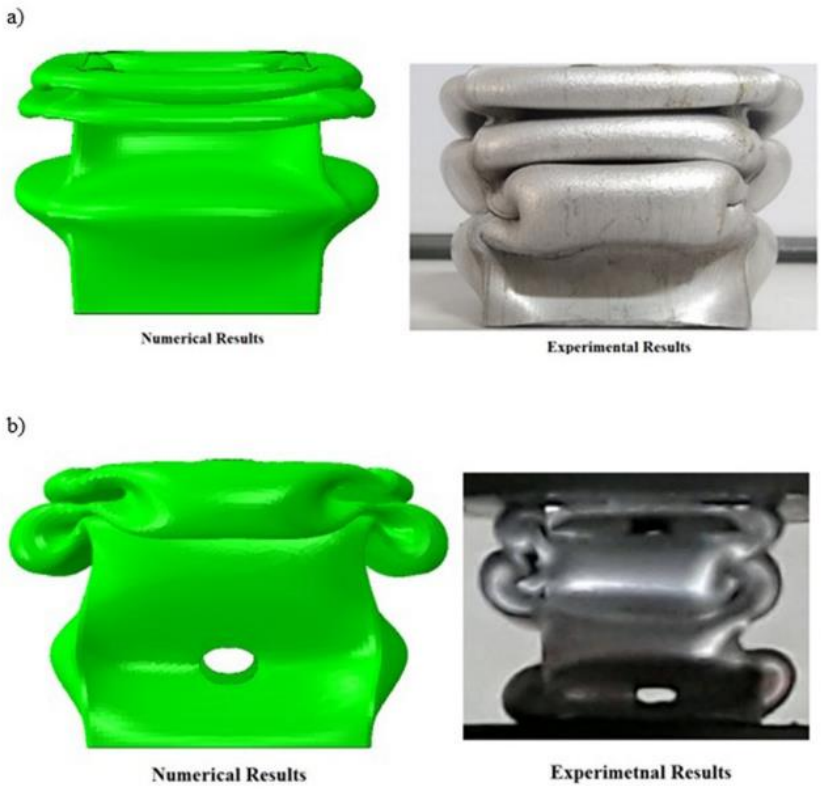


Figure 7. Experimental and numerical collapse modes of (a) simple tube (b) 'type3_R_Ø10' perforated tube.

International Journal Publication - SCI /Clarivate Indexed

Krishnan, M. Gowthama, Sundararajan Rajkumar, Jeyaseelan Thangaraja, and Yuvarajan Devarajan. "Exploring the synergistic potential of higher alcohols and biodiesel in blended and dual fuel combustion modes in diesel engines: A comprehensive review." *Sustainable Chemistry and Pharmacy* 35 (2023): 101180. Clarivate Impact Factor: 6

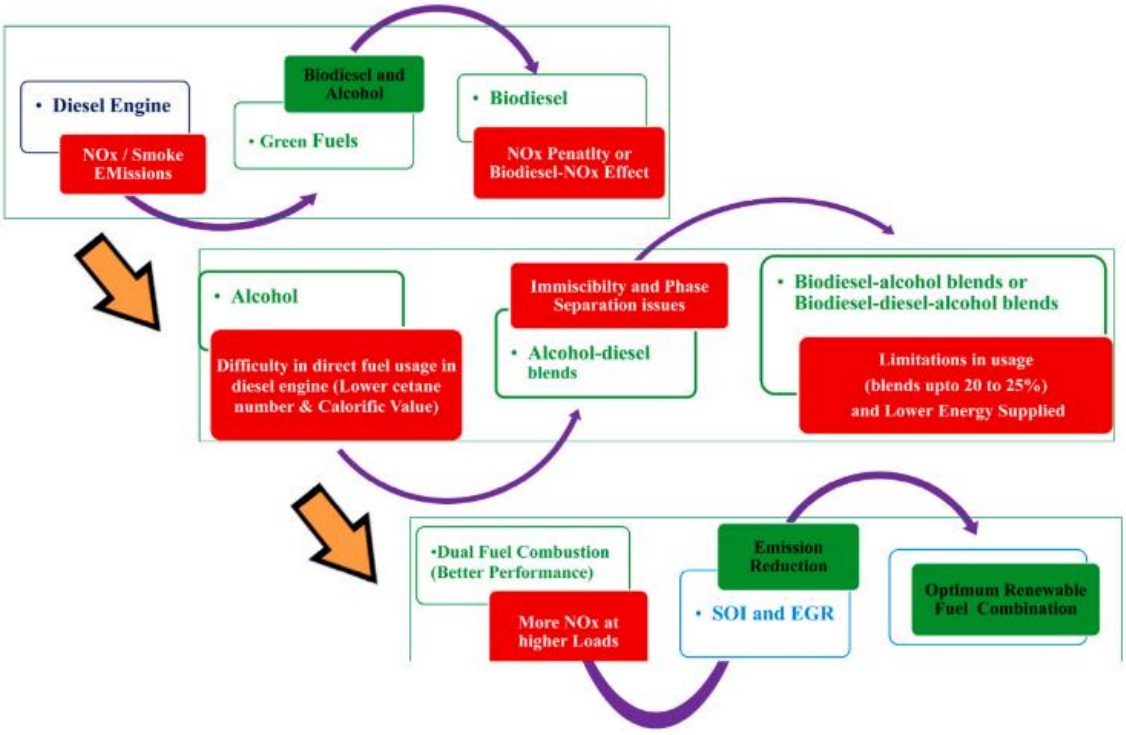


Fig. 5. Scope of this review work.

SCOPUS PUBLICATION

Amith, S. C., R. Prakash, D. Arun, and S. Cyril Joseph Daniel. "A CFD Cold Flow Analysis of Different Piston Configurations for Internal Combustion Engine." In *Recent Advances in Energy Technologies: Select Proceedings of ICEMT 2021*, pp. 483-493. Singapore: Springer Nature Singapore, 2022. Scopus Impact factor: 0.16.

D ATHIKESAVAN, M S ALPHIN, SACHIN GAURISHANKAR SARATE, K RAMRAJI, S MOHAMMED ADHIL. “Occupational health improvement study on lumbar paraspinal muscles via surface electromyography during several tasks – a review” Rom Biotechnol Lett. 2023; 28(1): 3819-3934. Impact Factor: 0.7

FACULTY EVENTS

DR. KSV INVITED AS A BOS MEMBER AT AMET UNIVERSITY

I was invited as a Board of Studies member at AMET University, Chennai, on 25th July 2023 to give suggestions and recommendations for the UG Mechanical Engineering curriculum and syllabus to be implemented from 2023-24. The hosts accorded a warm welcome and took stock of all suggestions given and even asked their current II- and IV-year students to be a part of the meeting and offer their suggestions for improvement, which was good to note. AMET University wanted to visit SSN to see and learn our best practices, which is testimony to the goodwill of SSN as a progressive institution of excellence.

VIRTUAL OPEN HOUSE FOR M.E STUDENTS

A virtual open house program was conducted for aspiring M.E. students on 15.07.2023. The virtual open house was bifurcated into two sessions. The first session included an introduction and a presentation about our campus and the program by Mr. Anantharaman. The second session was planned program-wise with breakout rooms for more interactive discussions.

Dr. S. Vijayan and Dr. S. Rajkumar were respectively nominated for Manufacturing and Energy Engineering as the faculty in charge for the second session. The faculty in charge presented the overview of PG courses to the Manufacturing and Energy

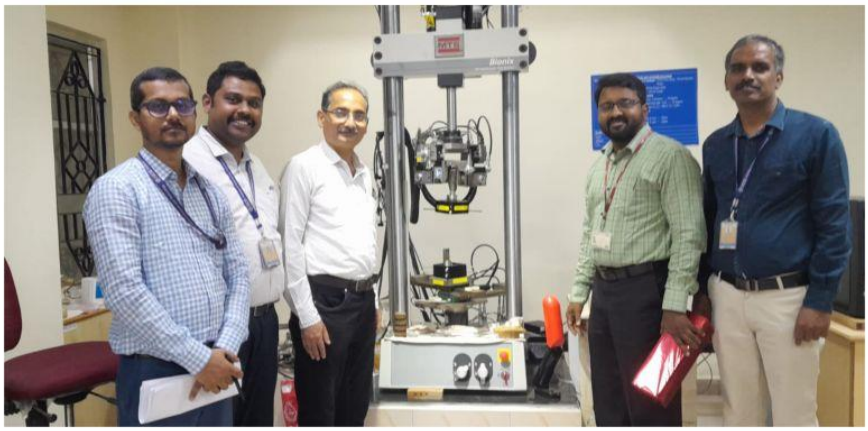
Engineering students separately. The main points presented to and discussed with the students include the following.

A brief overview of SSN and Department of Mechanical Engineering, Aim, Scope, and Need of the PG courses., Department's infrastructure, Major research areas of the department, Curriculum and Syllabi, List of elective courses offered for PG program., Internship and placement opportunities, Details of Alumni, Details of Scholarships, and Fees structure for PG program.

Also, the faculty in charge interacted with the aspiring students and clarified their doubts.

DR. ALPHIN INVITED AS EXTERNAL EXPERT FOR PHD VIVA VOCE AT SRM INST OF SCIENCE AND TECHNOLOGY

Dr. Alphin M S, served as an external examiner visiting SRM Institute of Science and Technology for the purpose of conducting a Ph.D. viva voce and to the biomechanics lab, the experience was both intellectually stimulating and rewarding. Had a thought-provoking discussion with Dr. Amit Roy Chowdhury, IIEST, Shibpur.



NON-TEACHING STAFF ACTIVITIES

13/07/2023	Mr. J Ponmuthuraja / Senior Lab Assistant / Mechanical / I am Participated the Hands-on Training on "RF device characterization using VNA" organized by the Department of Electronics and Communication Engineering, Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam on May 13, 2023.
25/07/2023	Mr. Balasundaram Palanisamy / Asst. lab Instructor / Mechanical / Completed Alison course of Introduction to quality control on July 13, 2023, at 11.30 am (Thursday)

EVENTS ATTENDED

14/07/2023	Dr. A.S. Ramana, Associate Professor has attended one day National Level Workshop on "Goals and Strategies for NAAC Accreditation" organized by SSN College of Engineering, Kalavakkam on August 12, 2020.
14/07/2023	Dr A S Ramana, Associate Professor, Department of Mechanical Engineering attended a DC meeting of Mr. S. Thiagarajan, Easwari Engineering College, Ramapuram on 14.07.2023.

SCHOLAR INFO

01/07/2023	Dr A S Ramana, Associate Professor, Department of Mechanical Engineering attended a DC meeting of Mr. S. Thiagarajan, Easwari Engineering College, Ramapuram on July 14, 2023.
15/07/2023	Dr. K. Jayakumar, Associate Professor, conducted the synopsis seminar (Seminar – II) and 3rd DC meeting for his 9th Ph.D. scholar Mr. Ramarajan A (151929970-Part-Time) on July 14, 2023 (Friday).

INTERNATIONAL JOURNAL PUBLISHED

03/07/2023	G Sudha Priyanga, Manoj N Mattur and Dr. Sampath Santosh published a paper on "Structural and mechanical properties of NiTiAg shape memory alloys: ab-initio study" in the journal **Modelling and Simulation in Materials Science and Engineering.**
06/07/2023	Senthamil Selvan Murugan, Nallusamy, Venkatesan Vedhagiri and Dr. Prakash R published a paper on "Ethanol, Hemp, and Cottonseed Oil Biofuel Injection Completely Eliminates Diesel Fuel in Reactivity-Controlled Compression Ignition Engine" in the **Journal of Energy Engineering.**
06/07/2023	A. Surya, P. Senthil Kumar, G. Bharath Balaji and Dr. Prakash R published a paper on "Development of Alumina-Titania Composite Layers on Stainless Steel through the Detonation Spray Method and Investigation of Salt Spray Corrosion Behavior along with Surface Examination" in the **International Journal of Chemical Engineering.**
06/07/2023	S. C. Amith, D. Arun, S. Cyril Joseph Daniel and Dr. Prakash R published a paper on "A CFD Cold Flow Analysis of Different Piston Configurations for Internal Combustion Engine" in **Lecture Notes in Mechanical Engineering.**
07/07/2023	Dr. K. Jayakumar and Dr. S. Balamurugan published a paper on "Material flow and mechanical properties of friction stir welded AA 5052-H32 and AA6061-T6 alloys with Sc interlayer" in the journal **Materials Testing.**
18/07/2023	T. Usharani, Dr. M Suresh published a paper on "Parametric Studies on a Two- Stage Evaporative Cooler During Tropical Climates in India" in the **Journal of Thermal Science and Engineering Applications.**
24/07/2023	Dr. M Nalla Mohamed published a paper on "Performance analysis and optimization of square tubes with different shapes, sizes, and patterns of holes under axial compression loading" in the **International Journal of Crashworthiness**.
24/07/2023	M. Gowthama Krishnan, J. Thangaraja, Y. Devarajan and Dr. S Rajkumar published a paper on "Exploring the synergistic potential of higher alcohols and biodiesel in blended and

	dual fuel combustion modes in diesel engines: A comprehensive review" in the journal **Sustainable Chemistry and Pharmacy**.
25/07/2023	D Athikesavan, K Ramraji, S Mohammed Adhil, Dr. M S Alphin and Dr. Sachin Gaurishankar Sarate published a paper on "Occupational health improvement study on lumbar paraspinal muscles via surface electromyography during several tasks – a review" in the journal **Rom Biotechnol Lett**.

OTHER

24/07/2023	Dr A S Ramana attended the First DC meeting of Mr. S. Siva Chandran, a Research Scholar at Sri Sai Ram Engineering College, Chennai on 24.07.2023.
24/07/2023	Dr A S Ramana attended the Confirmation DC meeting of Mr. S. Thiagarjan, a Research Scholar at Easwari Engineering College, Chennai on 14.07.2023.
24/07/2023	Dr. K. Jayakumar, Associate Professor attended the 2nd DC meeting (Online) for a part-time PhD scholar on 24. 07. 2023 who registered at Anna University, Trichy Campus.

STUDENT WRITE-UP

S.NO	DATE	ACTIVITY DONE DURING THE MONTH
		SECOND YEAR
1)	26/01/2023- 29/04/2023	JAGANNATHAN S Completed nptel course on "Understanding Incubation and Entrepreneurship ".
		THIRD YEAR
2)	24/06/2023-	MATHUSHA RAO Selected for FAURECIA scholarship

NAREN K FROM SECOND YEAR MECH WRITES....

EXPERIENCE OF MY INTERNSHIP...

INFORMATION ABOUT THE COMPANY:

The flagship of the TVS group of companies - TVS motor company is one of India's leading two & three-wheeler. With manufacturing plants in Hosur (near Bangalore), Mysore, Himachal Pradesh, and Indonesia, it has the largest portfolio of vehicles and caters to the widest segment of customers. Family, TVSm has a production capacity of over 4 million vehicles and is actively present in over 70 countries worldwide.

INFORMATION ABOUT THE INTERN POSITION:

I joined TVSm company for an internship program as a project trainee under d& ai (digital and artificial intelligence) department from 21.07.23 to 04.08.2023. My central focus was on understanding business processes and planning and understanding various functions of the department and how SAP (business software) connects all the functions of company and provide a strong front and backend support to the company. In addition to

this, I visited manufacturing plants and support functions, learnt manufacturing processes taking place there.

DESCRIPTION OF THE INTERNSHIP EXPERIENCE:

At first, I got to know about the objective of a company, factors affecting their function, vision, mission, Quality policy, IT policy, HR policy. Business planning, strategy, investment forecast and market analysis.

Then I got to know about PDCA (Plan Do check Act) and SDCA (Standardize Do check Act). Every company has these two. PDCA tells about the tasks that must be completed to improve efficiency, to adapt to market changes, boost productivity, and meet the needs of the customers, having a method is required. SDCA tells about the standards of operation and the tasks which are standard (i.e.) it must be completed and the set of rules/processes that must be followed in a disciplinary way.

As an intern in D&AI department first I got to know about the SAP, which is a software solution provided for business planning, containing prerequisite functions to be fulfilled by a particular department which are necessary for company's functions. It uses ABAP language as a backend coding language. As SAP is very essential, there is specifically a sub department in IT department. SAP again consists of 2 departments, Functional and Technical. Functional department analyzes the processes and gathers the requirement of various departments. These requirements are fulfilled by the technical department which consists of coders, they build the coding according to the requirements.

Therefore, to use the software effectively, we must map the current process and 'to-be process'. Thus, understanding the process taking place in the company is the first key step. So, I got to know various process taking place. For example, the process taking place in a particular assembly plant are Material Analysis, Process Planning, Stock Management, Component and Assembly, Bill of Material. Thus, for a whole company the major process taking place are Material Management, Production planning and control. Quality Management, Plant Maintenance, Product Line Management, Supply Chain Management, Sales Department, Finance module. Like G codes and M codes are used in CNC machines, here T-codes (Transaction codes) are used to access these processes in software to create and modify the data. I got to know about T-codes and learnt some and how they are used to create and access data and how different departments use them and how their interface takes place the level of

authorizations given to the staffs. I got to know about IT vendor management system and how it takes place.

I even got the opportunity to visit the assembly plants, CKD (Complete Knock Down) and SKD (Semi Knock Down) plants, battery assembly of EV vehicles and material testing lab. TVS has a huge assembly plant which uses automation and manual processes which both come hand to hand. In the assembly plant, conveyor system is used, where a vehicle starting from chassis, various components is assembled such as engines, gear transmission system, suspension, brakes etc. to a fully assembled vehicle. Apart from assembly, the components are painted, and necessary finishing operations are made (These operations are done before assembly). The automation processes used, and the robots used are cutting edge. In CKD and SKD plants the vehicles after testing are knocked down partially and completely (CKD And SKD respectively) are exported overseas according to the requirement. In EV Battery assembly plant, the battery starting from cells which are tested(voltage), to assembling it as a whole battery pack takes place. Here multiple processes take place which use sophisticated robots, automated machines, and manual process, which go hand to hand. In material testing Lab, I understood the testing process, thanks to subjects such as Strength of Materials and Metallurgy. Here the NPD (New Product Development) as well as existing product testing take place. The vehicle components are tested based on their hardness, to find their alloy composition, gravel testing (stones are splashed at the component), corrosion resistance for a prolonged time (corrosion rate accelerators), weatherometer. The lab has sophisticated instruments such as FTIR (Fourier-transform infrared spectroscopy), Spectrometer etc. and the lab also have equipment to simulate real life conditions.

CONCLUSION:

From my internship at TVSM company, I was able to get a better understanding of how the business process takes place and functioning of various departments. I enjoyed working with the TVSM team to learn more about the functions and process taking place.

Overall, I found the internship experience to be positive, and I am sure I would be able to use the skills I learned in my career later.

MECH MARVEL

Amazing Innovation 233

ONE DOLLLAR MICROSCOPE

A Foldscope is an optical microscope that can be assembled from simple components, including a sheet of paper and a lens. It was created by Manu Prakash and designed to cost less than one USD to build. It is a part of the "frugal science" movement which aims to make cheap and easy tools available for scientific use in the developing world.

A Foldscope is an optical microscope that can be assembled from a punched sheet of cardstock, a spherical glass lens, a light emitting diode (LED) and a diffuser panel, along with a watch battery that powers the LED. Once assembled, the Foldscope is about the size of a bookmark. The Foldscope weighs 8 grams and comes in a kit with a lens that magnifies 140X. The kit also includes magnets that can be stuck onto the Foldscope to attach it to a smartphone, allowing the user to take pictures of the magnification. The magnification power is enough to enable the spotting of organisms such as ***Leishmania donovani*** and ***Escherichia coli***, as well as malarial parasites. A Foldscope can be printed on a standard A4 sheet of paper and assembled in seven minutes. Prakash claims that the Foldscope can survive harsh conditions, including being thrown in water or dropped from a five-story building.

The Foldscope is designed to be assembled by the end user, and hence is color-coded to help with the assembly. Each unit costs less than one US dollar to build, with estimates varying from 50 cents to 97 cents.

Amazing Innovation 234

DRESSES THAT CAN FIT THROUGH AGES

Wonderbag is a stand-alone, non-electric insulated bag designed to reduce the amount of fuel required in the cooking of food in countries. Instead of being placed on a stove for the duration of the cooking period, food is instead heated to a hot enough temperature then transferred to the Wonderbag, which uses the principle of thermal insulation to continue cooking and keeps food warm without needing additional fire or heat. Working on the principle of thermal cooking, the Wonderbag is estimated to save up to 30% of the total fuel costs associated with cooking with Kerosene ("paraffin") alone. In developing countries there are numerous advantages for the product, as it immediately helps ease deforestation of natural reserves, and it frees up those who would spend their time gathering the extra wood for fire fuel.

Designed by Durban, South Africa-based entrepreneur Sarah Collins of Natural Balance, and poverty activist Moshy Mathe, the Wonderbag is aimed at societies where fuel is expensive or time-consuming to gather.

The Wonderbag consists of an inner layer of insulation containing recycled polystyrene balls, with an outer, drawstring covering of polyester-cotton blend textiles. The manufacturers expect that in time the polystyrene (which is non-biodegradable) will be replaced with a polyurethane blend.

ALUMINI WRITE-UP

VALLIKANNAN MUTHUKARUPPAN OF MECH'2023 SHARES...

As I celebrate my birthday today, I have some exciting news to share. Within a few days, I will be starting my position as an Associate Design Engineer at Caterpillar. It's an incredible birthday gift, and I couldn't be more thrilled about this opportunity. Reflecting on my journey, I am grateful for the incredible experiences that have shaped me. I am a proud graduate of SSN, where I achieved a remarkable GPA of 9.686/10. During my time at SSN, I received scholarships for three consecutive years, one being received from G. O. A. T cricketer R Ashwin and was awarded 6 medals for my outstanding performance each semester.

In my second year, I actively engaged in various events, including the much-loved "SYCON" and multiple YRC events. In my third year, I eagerly participated in renowned hackathons such as Hero MotoCorp, Smart India Hackathon, and Caterpillar Manufacturing Tech Quest, among others. These experiences allowed me to push my boundaries, collaborate with talented individuals, and develop innovative solutions. During my fourth year, I had the privilege of being an integral part of the Editorial Club and served as the team manager for the paper presentation event at the prestigious technical symposium, "SSN Invente."

With these experiences under my belt, combined with a valuable internship at Caterpillar, I feel well-prepared and excited to embark on this new chapter as an Associate Design Engineer. I want to take a moment to express my gratitude to everyone who has supported me throughout the years, including my professors, mentors, friends, and family. Your unwavering support and belief in me have been invaluable.

Thank you for the birthday wishes and for being a part of my journey. I am eager to contribute my skills, learn from my colleagues, and make a positive impact at Caterpillar. Here's to new beginnings and a year filled with growth and success!

PS: "Every SSNite knows: The clock tower is the go-to spot for picture-perfect moments!"

VISWAPRIYA G OF BATCH MECH'2022 SHARES...

Nurturing Well-being: Celebrating Yoga Day @Dow India

I joined Dow's global engineering center of excellence, Chennai straight from campus. I was first selected as an intern when I was still doing my engineering studies. At the time of internship as part of fun and engagement activities HR organized an intern Talent Show. I demonstrated a few Yoga asanas. So, after I joined the company, our HR Leader offered me the incredible opportunity to organize yoga sessions for my colleagues. Creating a warm and inviting atmosphere was essential for the yoga sessions. Our company EH&S provided the perfect setting, where tranquility and serenity permeated the space.

The stage for set for a transformative yoga experience. It was a dream come true to share my knowledge and guide others on their yoga journey within our supportive workplace environment. Through these yoga sessions I could foster connections among employees, encouraging collaboration and mutual support. Colleagues from various departments came together in a shared journey of self-discovery and wellness, fostering camaraderie and team spirit throughout the workplace.

To celebrate International Yoga Day this year, we organized a special event where we felicitated employees who regularly attended the yoga sessions. We presented to them certificates of appreciation and small yoga figurines as tokens of recognition for their dedication and commitment to their practice. Seeing their

joy and happiness during the celebration was truly heart-warming.

I'm immensely grateful to ***Amitrajit Ghosh*** for recognizing my talent, ***Manoah Godson JS*** for providing me the opportunity, R Sivaranjani for organizing sessions every week and ***Vignesh Lokanatha Naidu Vanaja*** for joining the team as fellow trainer. Thanks to my colleagues ***Varuna Goda Ramachandran, Ben Mathew,*** Mohammed ***Ameen***, ***Akila Balagopal***, ***Mandeep Kaur***, ***Shakila PK***, ***Poorani R***, Magesh ***Subramanian***, ***Ellappan Visva***, ***Vanathi Mani*** and ***Shijo Jose*** for showing up every week. Witnessing the positive impact of yoga on my colleagues' well-being has been deeply fulfilling. I'm excited to continue contributing to their growth and well-being on this transformative journey together.

COMPETITION UPDATE

"NO COMPETITION, NO PROGRESS"

IPL Auction:

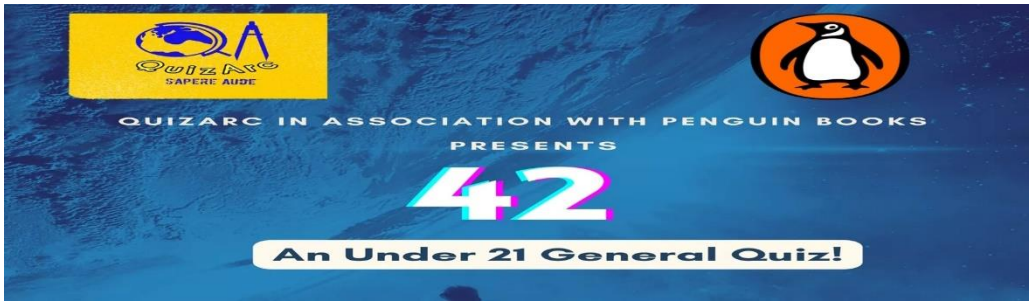
Link: REGISTER_HERE

Coding Challenge:

Link: REGISTER_HERE

Quiz:

Link: REGISTER_HERE



CORPORATE WISDOM

From the desk of Ramki -– Aspire to Inspire

From Ramki

Happy Morning – Aspire to Inspire

When lived honestly, life heals itself. The truth you resist is the battle you fight.

You have dumped clothes inside a washing machine. The machine has performed its job. Now the clothes must be taken out for drying. The longer you keep the clothes inside the machine, the fouler the odour will be. Do not take it out for a few days and the stench will become unbearable. So, it is similar with our thoughts and emotions. The more and more we keep building thoughts but do not communicate, and the more and more we feel the emotions but do not express, the greater becomes the gap in the relationship. How long will you sweep things under the carpet? Eventually it will come out; and when it comes out, it will come out in unmanageable ugly proportions.

1. Thoughts formed but not communicated, and emotions felt but not expressed become incomplete cycles.
2. Incomplete cycles linger alone in the subconscious.
3. Metaphorically, the lingering incomplete cycles are like scratches formed on spectacles – anything and everything seen through the spectacles looks scratched.
4. It is ironical that the scratches are not on the objects, but in the medium through which the objects are viewed.
5. In all, they hamper the vision.

When you do not spontaneously communicate your thoughts and express your feelings, you begin to distort them. You tend to exaggerate or diminish the truth to placate your suppressed feelings. When you cannot face it, you tend to deny it. What you cannot accept, you pretend not to care about. As far as our

incomplete cycles are concerned, time, it seems makes a liar out of all of us. It is also important that it is not what you say, but how you say.

The secret of emotional health is to tell the persons who hurt you that they hurt you, when they hurt you. Otherwise, these incomplete cycles will reappear sometime in the future and ruin even your good times. The weight of emotional baggage burdens the present. Something in the present will remind you of some unfinished suppression and reawaken old feelings. Those reawakened feelings will lead you to act in a way that maybe completely irrelevant to the current context of your life. However, it is important to remember that old feelings resurface to be resolved and not to punish you.

Emotional illness is a storage disease.

Let us learn to face the truth, even if it hurts.

1. Let those who matter to us the most learn to face the truth, even if it hurts.
2. Communicate your thoughts and feelings directly to the person who instigated it.
3. Be prompt. Don't wait for ideal conditions.
4. Do not exaggerate, don't nag; avoid overkill, If the person feels with you, you have succeeded. If not, understand who you are dealing with. Accept what it is. Forgive and let go of your hurt. Move on…You have nothing to prove.
5. Even if we cannot be the solution, let us at least be the solace.
6. Even if we cannot help, let us not harm.
7. Even if we cannot solve the problem, let us not cause the problem.
8. Even if we cannot be the accelerant, let us not be a retardant.

If you can be the pain balm to the battered souls, rather than being the cause of headache, the world will come in search of you. With compassion in words and actions, help every man to find his solutions and this world will belong to you.

#WishingMostAndMore

Have a wonderful day & great weekend!

R. Ramakrishnan

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