



# READERS DIGEST

## The Mechanical Bulletin



*April 2022, Issue 1, Volume 1*

Private circulation only

### Vision

To strive for all embracing needs of core industries by educating the rural community students to become professional Engineers of Excellent Eminence.

### Mission

1. To impart quality education with emerging skills through innovative learner – centric approach.
2. To promote cutting – edge research and development through collaboration with core industries.
3. To nurture the students with ethical values, creativity and Innovation to become employable Engineers and Entrepreneurs.



Department of Mechanical Engineering

**JAI SHRIRAM ENGINEERING COLLEGE**

Avinashipalayam, Tirupur - 638660.

<https://www.jayshriram.edu.in/mechanical-engineering/>





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## What's Inside

- Glimpse of the Department
- Faculty Achievements
- A meet with Alumni
- Success Story
- Students Corner





## Chairman's Message

I am pleased to know that the department of Mechanical Engineering is going to release new edition of its newsletter 'Readers Digest'. This bulletin provides a panoramic view of the academic, research, co-curricular activities and achievements of the department during an academic year. To impart technical educational and training of exemplary academic standards to our students is our vision. The mechanical engineering department has a rich tradition of pursuing academic excellence and providing congenial environment for the overall personality development of its student. I feel confident that the department is progressing in the right direction and I congratulate the faculty and staff for their hard work and whole-hearted efforts to make the department the choicest destination for aspiring engineers.



**Shri. M. Govindasamy**  
**Chairman**

## Vice-Chairman's Message



**Shri. T. K. Karuppannaswamy**  
**Vice Chairman**

Presently, a knowledge explosion is being used ushered in our midst especially in Engineering and Technology. We are working with a vision of India 2030, to bring progressive changes in Science, Engineering and Technology which will bring progress in mechanical engineering and prosperity to our country. It is a pleasure to note the glorious stride of our budding institution. The joy and experience shared on our campus ensure the growth and development of the overall personality of all the students alike. It is great to notice interesting events taking

shape frequently at our campus. All of us are equally delighted to witness the happenings of significant events and tremendous achievements. I am sure, it is just a beginning

## Principal's Message

I am glad to know that the Department of Mechanical Engineering of Jai Shriram Engineering College, Tirupur is bringing out a quarterly Newsletter 'Readers Digest' to commemorate the 13th Anniversary of our College. The Department of Mechanical Engineering also turned 13. The Department of Mechanical Engineering has carried a name for itself in pursuit of our own vision and mission. Its students, staff and alumni have made their alma mater proud by becoming very responsible citizens and professionals doing service to the society. I wish all success for the Newsletter and hope they carry forward the vigor and dedication for bringing out the future volumes of Newsletter.



**Dr. C. Rameshkumar**  
**Principal**

## Administrative Officer's Message



**Dr. S. Anbarasu**  
**Adminstration Officer**

I am pleased to know that the department of Mechanical Engineering is going to release new edition of its newsletter 'Readers Digest'. The widespectrum of articles in different sections gives me a sense of pride that our students and professors possess creative potential and original thinking in ample measures. Each article is entertaining, interesting and absorbing. A News Letter is like a mirror which reflects the clear picture of all sorts of activities undertaken by a Department and develops writing skills among students in particular and teaching faculty in general. I applaud the contributors for their stimulated thoughts and varied hues in articles contributed by them. I congratulate the Editorial Board of this News Letter who have played wonderful role in accomplishing the task in Record time. my heartfelt Congratulations to staff members and Students for their fruitful effort. With Best Wishes.



## From the Editor's Pen

I have immense pleasure for bringing out the inaugural issue of the "Readers Digest" of Department of Mechanical Engineering, Jai Shriram Engineering College, Tirupur. The Department of Mechanical Engineering started in 2009 has been the heart and spirit of this premier institution right from its inception. Rated very high, this department is alma mater to several technocrats and researchers world over. The department has a rich tradition of pursuing academic excellence and providing congenial environment for the overall development of its students. This newsletter provides a panoramic view of the academic, research, co-curricular activities and achievements of the faculty and students of this Department. I congratulate the editorial team for their sincere effort to bring out the news letter in time. This inaugural issue of 'Readers Digest' should inspire all of us for a new beginning; enlighten us with hope, confidence and enthusiasm towards the road ahead.



**Dr. R. J. Golden Renjith Nimal**  
**HoD/ Mechanical**

## Renewable Energy in India

Kamuthi Solar power project is a photovoltaic power station spread over an area of 2,500 acres in Kamuthi, Ramanathapuram district, 90km from Madurai, in the state of Tamil Nadu, India. The Kamuthi Solar Power Project was completed on 21 September 2016 with an investment of around Rs. 4,550 Crore. The solar plant consists of 2.5 million solar modules, 380,000 foundations, 27,000 metres of structures, 576 inverters, 154 transformers, and almost 6,000km of cables.





# Department Activities

## Guest Lecture Introduction to Mechanics

On 11th January, 2022 Mechanical association organized a Guest Lecture on “Introduction to Mechanics” coordinated by Prof. B. Anand. The chief guest of the day was Dr.S.Thirumavalavan, Assistant Professor Department of Mechanical Engineering, Bharath Institute of Higher Education and Research, Chennai. The students was utilized it for their academic growth and to gain knowledge in the subject and covers the following areas: Introduction to Stress and Strain, Thin and Thick cylinder, Shear force and Bending Moment Diagram, Strain Energy etc.



**JAI SHRIRAM ENGINEERING COLLEGE**  
TIRUPUR-638660

Department of Mechanical Engineering

Guest Lecture on  
**Introduction to Mechanics**

**RESOURCE PERSON**

 **Dr.S.Thirumavalavan**  
Professor  
Department of Mechanical Engineering  
Bharath Institute of Higher Education and Research  
Chennai

Date: 11.01.2022 & Time: 10.00 AM To 11.30 AM

Online Mode via Google Meet

## Webinar

### Humidification and Dehumidification Desalination System

On April 4th Mechanical association organized a Webinar on “Humidification and Dehumidification Desalination system”. The chief guest of the day was Dr. D. B. Jani, Assistant Professor Department of Mechanical Engineering, Government Engineering College, Gujarat Technological University, Gujarat. The students gathered knowledge about different humidification and dehumidification desalination systems.



**JAI SHRIRAM ENGINEERING COLLEGE**

Department of Mechanical Engineering

**Organizes**  
Guest lecture on humidification and dehumidification desalination

 **Dr. D. B. Jani,**  
Associate Professor, Department of Mechanical Engineering,  
Government Engineering College,  
Jhalod Road, Dahod.

**Organizers** **Convener** **Patron**  
Mr.P.Rajkumar AP/Mech Prof. R. J. Golden Rengithi Nimal Dr. C. Rameshkumar  
Mr.J.Mehin Jones AP/Mech HOD/MECH Principal

Time : 10.00 AM To 11.00 AM  
Date : 04/04/2022

## Guest Lecture

### Automobile Industry Latest Trends & Awareness

On April 29th Mechanical association organized a Guest lecture on “Automobile Industry latest trends and awareness”. The chief guest of the day was Mr.S.Karthikayan, Manager, Training and Development, Maruti Suzuki India, Mumbai. The speaker explained the role of electrical and electronic controls in a Car, types of electronic systems in a car and how much do the electronic systems contribute in a car. The students had a very interactive session and they got to know about the different electronic control units in the car.



**JAI SHRIRAM ENGINEERING COLLEGE**  
Tirupur-638660

Department of Mechanical Engineering  
&  
Industry Institute Partnership Cell

Jointly Organizes Guest Lecture on  
**Automobile Industry Latest Trends & Awareness**

**RESOURCE PERSON**

 **Mr.S.Karthikeyan**  
Manager - Training & Development  
Maruti Suzuki India Ltd.

Date: 29.04.2022 & Time: 02.30 PM To 03.30 PM

www.jaishriram.edu.in // Call / Whatsapp 95855 91405 // 9342402700/mr.s.jayaraj

# International Workshop on Advanced Materials Processing and Characterization AMPC'2K22 24th to 26th March 2022



**Dr.M.G.R.**  
Educational and Research Institute  
(DEEMED TO BE UNIVERSITY)  
(An ISO Certified Institution)  
University with Graded Autonomy Status  
Maduravoyal, Chennai - 600 095



**BARANI GROUP COMPANIES**  
Coimbatore



**Tishk International**  
University-Erbil  
Kurdistan Region,  
Iraq.

Day 1		
Resource Persons	Topics	Timings
<b>Inauguration</b>		
	<b>Dr. MOHAMED THARIQ BIN HAJI HAMEED SULTAN</b> Professor, Department of Aerospace Engineering, Universiti Putra Malaysia, Selangor, Malaysia.	09:30-10:00 AM
	Environmental wastes into advanced composite materials: Future prospects.	10:00-11:30 AM
	<b>Dr. M. UTHAYAKUMAR</b> Professor and Head Department Mechanical Engineering, Kalasalingam Academy of Research and Education Srivilliputhur, Tamilnadu, India.	02:30-04:00 PM
Erosion studies of red mud based polymer composite.		
Day 2		
Resource Persons	Topics	Timings
	<b>Dr. S. NITHIYANANDAM</b> Chief Executive Officer, Barani Ferrocast, Coimbatore, India.	10:00-11:30 AM
	<b>Dr. I. A. PALANI</b> , Associate Professor, Department of Mechanical Engineering & Dean R&D, Indian Institute of Technology Indore(IITI).	12:00-01:30 PM
	<b>Dr. MOHAMMAD SUKRI BIN MUSTAPA</b> Associate Professor Department of Mechanics Engineering Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia.	02:30-04:00 PM
Applications of Artificial Intelligence in Casting Process.	Manufacturing of shape memory alloys for different functional applications.	Material characteristics of recycled aluminium alloy chips in solid state recycling.
Day 3		
Resource Persons	Topics	Timings
	<b>Dr. S. SUDHAKAR</b> Principal Scientist, CSIR-CECRI, Karaikudi.	10:00-11:30 AM
	<b>Shri. T. K. KARUPPANNASWAMY</b> Managing Director, Barani Group Companies, Coimbatore, India.	12:00-01:30 PM
Plasma processing of materials and their applications.	Widely used metals in industries and its applications.	
<b>Valediction</b>		02:30-04:00 PM

prospects, erosion studies of red mud based polymer composite, applications of artificial intelligence in casting process, manufacturing of shape memory alloys for different functional applications, material characteristics of recycled aluminium alloy chips in solid state recycling, plasma processing of materials and their applications, widely used metals in industries and its applications.

The Department of Mechanical Engineering, Jai Shriram Engineering College Organized a three day International Workshop on Advanced Materials Processing and Characterization Jointly with Barani Group Companies, Coimbatore and in Technical collaboration with Dr. M. G. R Educational and Research Institute, Chennai and Tishk International University-Erbil, Kurdistan Region, Iraq.

This workshop covered the modern developments in materials processing involving metal deposition, micro machining, additive manufacturing, composite materials, welding and materials characterization. Participants understood the concepts of materials processing and characterization.

From the resource person the content delivered was environmental wastes into advanced composite materials, future







## **AN INDUSTRIALIST WITH OPTIMISTIC ATTITUDE TOWARDS LONG TERM VISION**

**“Think Big. Trust yourself and make it happen through hard work. Dedication and Perseverance is the keyword for success.”**

The Coimbatore-based Barani Hydraulics India Pvt. Ltd. (BHIPL) has planned to become one of the global leaders in manufacturing custom-built hydraulic presses. The home-grown company has bagged some substantial overseas orders in recent times and is looking to cementing its place as one of the world leaders in the hydraulic press manufacturing field. We made a visit to Barani's facility in Coimbatore for an exclusive interaction with Mr. T.K. Karuppannaswamy, Managing Director of Barani Hydraulics India Pvt. Ltd, which got established in 1988.



Shri. T. K. Karupannaswamy, Managing Director was born in an agricultural based middle class family on 14.01.1961. He did his diploma in Mechanical Engineering and worked in LMW, Coimbatore. He moved out from the company and started Barani Hydraulics which was a dream comes true moment for him. He began the company with full positive vibes. During his journey, he faced many failures but there started his success steps. The failures were completely transformed into a big success. BARANI HYDRAULICS has become a recognized Brand now.

## Barani Hydraulics Pioneer in Home- grown hydraulic presses

The performance and the quality of Barani products have earned 4 national awards and 72 customer awards including an International award. Shri. T. K. Karupannaswamy Says, "We have developed more than 156 corporate customers in India and 21 others globally. Today, the name Barani is associated with almost 80 percent of the auto component manufacturers in India for their capital machine requirements, with more than 100 per cent of our customers working with us. Barani Hydraulics is a perfect

example for the 'Make-in-India' programme. Customer Satisfaction is the main motive of the company. Barani presses are used in the production facilities of some of the leading manufacturers of critical vehicle components and systems, including axles, brake pads, brakes and wheels. Barani hydraulic presses are the preferred choice for Indian corporate industries, like Ashok Leyland, Brakes India, Wheels India, Axles India, Valeo Friction (for clutches), Faurecia (for car interiors), Rane Brake Linings, Sundaram Clayton, Titan, GE (energy), L&T, LMW, Alliance Group, TVS Tread, Elgi, Carborundum Universal, Saint Gobain Ceramics and many other auto ancillary companies. BHIPL co-founded an educational institution named Jai Shriram Engineering College

to serve the students of rural background in and around Tirupur District of Tamil Nadu. This remarkable Institution was established in 2009 with a vision to provide world class engineering and management education to promote rural community students with research oriented global competitiveness. The Vice-Chairman Shri. T. K. Karupannaswamy's famous quote is "FINDING REASON CAN NEVER BE A SOLUTION"



## A meet with Alumni



I am Sathish kumar working as Graduate Engineering Trainee in Transenergy Limited (A unit of Brakes India Limited). Jai Shriam Engineering College gave me good exposure about my career and life. We are shaped to be good and best citizens of the country. We concentrate not only on academics but also took part in variuos social welfare activities. Teachers help us to grow tremendously and they enjoy our success. They are similiar like friends for life. I really thank the management for this great college life we had, with good infrastructure and environment provided for students.

**Batch 2014-2018**

### Know a Fact



**Why aeroplanes are white in colour?**

For answer, scan the QR code at the cover page

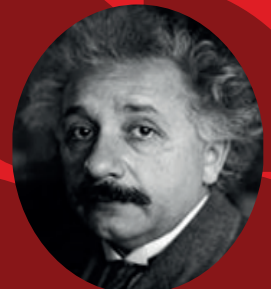


I am saravana kumar working in Capgemini, Chennai. Our college has experienced professionals who teach practically. The focus is more on acquiring the practical skills and knowledge for getting good job offers than just on exams and marks. We have free internet and unlimited library access. Through industrail trips and interships, we gain more practical knowledge, and our college offers good placement opportunity as well.

**Batch 2014-2018**

*“Learn from yesterday. Live for today.  
Hope for tomorrow.”*

**—Albert Einstein**





## Industrial Visit



Our 16 final year students and two faculty visited Kerala Electrical and Allied Engineering Co, Ernakulam on 23/04/2022. They got knowledge about Distribution Transformers, Corrugation Transformer, Solar Transformers, Amorphous Transformers, Medium Power Transformers, Special application transformers such as EMU, LOCO transformers for railway application. They had explained with their technical people about the working and construction of the various types of transformers. It helps students to gather the knowledge about the working level experiments.

A Multi-Product Engineering Company with 50 plus years of experience and expertise in Engineering Industry, and now proudly serving an envious client base including Defence, Irrigation and Power Projects, Space Research Organizations, State Electricity Boards, Indian Railways and the General Public both in India and abroad. The Company which is a Public Sector Undertaking fully owned by Govt. of Kerala has four state-of-the-art manufacturing units spread across Kerala and has a pan India presence with its Sales and Service unit in all major metros and selected cities.



# Faculty Publication

Mahendran. R, Rajkumar. P, Karthikeyan. S (2022). Productivity Improvement in a Manufacturing Industry by using Man-Machine Chart Analysis. in Technology Innovation in Mechanical Engineering (pp. 603-613). Springer Lecture notes.

## Massive Open Online Courses (MOOC)



Four of our faculty members completed certification course and Faculty Development Program (FDP) on Fundamental of Welding Science and Technology in NPTEL during March 2022.



*“The beautiful thing about learning is that no one can take it away from you.”* — **B.B. King**

## Fundings Applied

Applied an Infrastructural project proposal on “Establishment of Center of Excellence in Advanced Manufacturing in Green Ammonia, Artificial Intelligence and robotics” to Bharathiar University under Glue Grant Scheme on February 26, 2022.

Applied a conference proposal for International Conference on Future Advances in Mechanical Engineering (FAME'2K22) to Science and Engineering Research Board (SERB) on March 04, 2022.

Applied a project proposal on “Development of an equipment for sludge removal in Smart city drainage system” to Tamil Nadu State Council for Science and Technology (TNSCST) on March 09, 2022.

## Do You Know?

The Rolls-Royce Boat Tail is proof that quantity and quality can walk together without overshadowing each other. This truly unique car was designed as a coach-built model, the first of three to be made. What does that mean? A bespoke vehicle, based on an existing framework. This one's especially impressive as it features elements of a J-Class yacht as well as those of the original 1932 Boat Tail. The Rolls-Royce Boat Tail made its public debut at Italy's Concorso d'Eleganza Villa d'Este in late 2021 and shows off with its 6.75-liter twin-turbo V12 engine capable of 563 horsepower. It's officially 2022's most expensive new car in the world.

*Cost- 28 million USD  
Approx 238 Crore INR*

*Most  
Expensive Car in the  
world*



## *Students Participation*

K. M.Vetrivel, S.Pavithran, K.Naveenkumar and T.Lokesh have won the FIRST PRIZE in Paper presentation at National Level Technical symposium organized by Hindustan College of Engineering & Technology, Coimbatore.

K. M.Vetrivel and S. Karthikeyan, were presented a paper in National Level Technical symposium organized by Builders Engineering College, Erode.

S. Abinеш, K. Ram Kumar, have won FIRST PRIZE in Paper presented at National Level Technical symposium organized by Builders Engineering College, Erode.

S. Dhusyandhan, Jacob Raj. P, J. Kaviarasu, was presented a paper in National Level Technical symposium organized by Dr.NGP, Coimbatore.

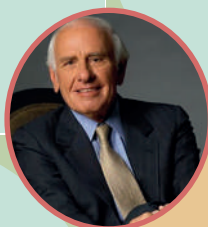
Manish Lal, S. Abinеш, S. Alshan, V. Nivendran and Hemabatra Narayanan, have won FIRST PRIZE in National Level Competition on Electrical Vehicle Design organized by Bannari Amman Institute of Technology, Erode.

### Know a Fact



Why tyres are black in colour?

For answer, scan the QR code at the cover page



*"If you really want to do something, you will find a way. If you don't, you will find excuses."*  
**-Jim Rohn**



# Students Corner

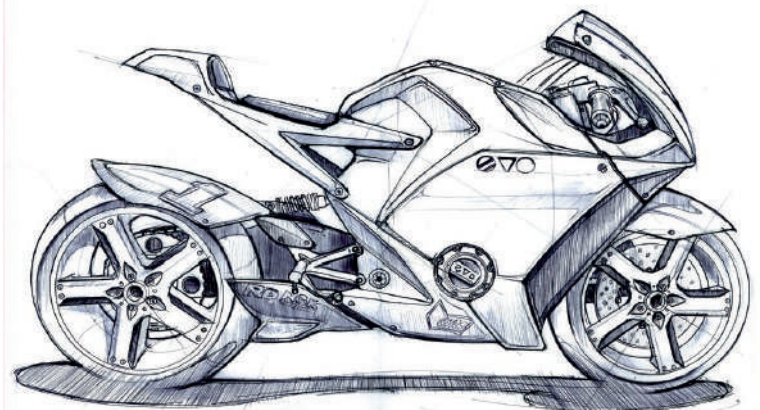


*"The learning process continues until the day you die." -  
Kirk Douglas*

S. Karuppusamy  
I Mechanical Engineering



Dhinakaran. S  
Final Year Mechanical Engineering



Dhushyandhan. S  
III Mechanical Engineering



# Upcoming Events

- 📌 International Conference on Future Advances in Mechanical Engineering (*FAME'2k22*)
- 📌 MoU Signing Ceremony - *Gambella University, Ethiopia*
- 📌 Students Development Program (*SDP*)
- 📌 Technical fest (*Throttlez'2K22*)-Inter college program
- 📌 Guest Lectures
- 📌 Webinars



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