



Newsletter of Mechanical Engineering Association

DEPARTMENT OF MECHANICAL ENGINEERING SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN :: AUTONOMOUS

Vision of the Department

- To be recognized globally for quality education and research leading to well-qualified, innovative, entrepreneurial and successful mechanical engineer

Mission of the Department

- To Impart quality education to enhance skills and make graduates globally competitive.
- To Prepare students to pursue lifelong learning,, serve the profession and meet intellectual,, ethical and work place challenges.
- To Provide Research facilities and opportunities to faculty & students to create,, interpret,, apply and disseminate knowledge.

Program Educational Objectives

- Have foundation in engineering and science to apply Technical Knowledge and skills in various areas of Mechanical Engineering.
- Become effective engineers to meet society''s needs with their research capabilities in interdisciplinary subjects.
- Acquire skills for life-long learning and practice of professional ethics.

BAJA SAE INDIA 2021

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Baja SAEINDIA is an intercollegiate engineering design competition for undergraduate and graduate engineering students. The object of the competition is to simulate real-world engineering design projects and their related challenges. Each team is competing to have its design accepted for manufacture by a fictitious firm. The students must function as a team to design, engineer, build, test, promote and compete with a vehicle within the limits of the rules. They must also generate financial support for their project and manage their educational priorities.

Each team's goal is to design and build a single-seat, all-terrain, sporting vehicle whose structure contains the driver. The vehicle is to be a prototype for a reliable, maintainable, ergonomic, and economic production vehicle which serves a recreational user market, sized at approximately 4000 units per year. The vehicle should aspire to market-leading performance in terms of speed, handling, ride, and ruggedness over rough terrain and off-road conditions. Performance will be measured by success in the dynamic events which are described in the Baja SAEINDIA Rules, and are subject to event-site weather and course conditions.

This year the Dynamic Events will be conducted virtually for the first time in the more than a decade old history of BAJA SAEINDIA. Also, the Virtual Dynamic Events are going to be first of its kind internationally on such a massive scale, as BAJA SAEINDIA strives to rekindle the highly competitive spirit of the event in this challenging pandemic situation.



This vehicle optimization using virtual automotive testing solution helped us starting 2021 season to design and build a vehicle at par with professional racing teams.

BAJA 2021 ACHIEVEMENTS

TEAM ZIBA RACERS

- 3rd in Preliminary Round
- 3rd in Journey Challenge
- 10th in Cost Event

TEAM E-ZIBA RACERS

- 13th in Preliminary round
- 1st in Journey Challenge
- 1st in Render Reveal Challenge
- 1st in Cost Award
- Best Engineering Design Award
- 1st in Overall Statics
- 2nd Runner Up in Overall Championship



Virtual Lecture Series By The Prominent Alumni

The online lecture series on the “Skill Requirements and Job Opportunities for Women, Empowerment in Mechanical Engineering”, organized by the department of mechanical engineering, was held in 3 sessions i.e. on 24th April, 1st May and 8th of May. The students and faculty members of department attended the sessions.

On the first day of the lecture series the event was inaugurated by the HOD Mechanical engineering, Dr. Ch. Hari Krishna. Addressing to all the participants he said that the current pandemic is turning out to be one of the finest event which makes our life stagnant. He had also added that the lecture series is not only about sharing of knowledge, but to challenge young minds to start thinking of the world around them and responding to it within their areas of interest and specialization.

The lecture series was planned in three sessions in each session two alumni have delivered the content. The theme of the lectures are women empowerment and skill requirements and job requirements. The alumni meticulously planned the lectures and delivered the lectures in their respective time slots.

Ms. Chakka Amrutha and Ms. M. Rama Lakshmi focused on the women empowerment in the core companies and what type of roles they are successfully carried out to their potential.

Ms. Annam Kalyani and Ms. D. Lakshmi Durga has delivered the content regarding the skill requirements that are to be needed for a industry ready individual.

Ms. Ginja Geeta and Ms. Priya Chandana has covered the job opportunities available women in mechanical engineering all over the globe.

Eminent Persons:

1. Ms. Chakka Amrutha- Mahindra & Mahindra



2. Ms. Annam Kalyani- EPIROC



3. Ms. D. Lakshmi Durga- Technip FMC



4. Ms. M. Ramalakshmi- Hero Motocorp



5. Ms. Priya Chandana- Thermax Ltd



6. Ms. Ginja Geeta- Gabriel India Pvt Ltd

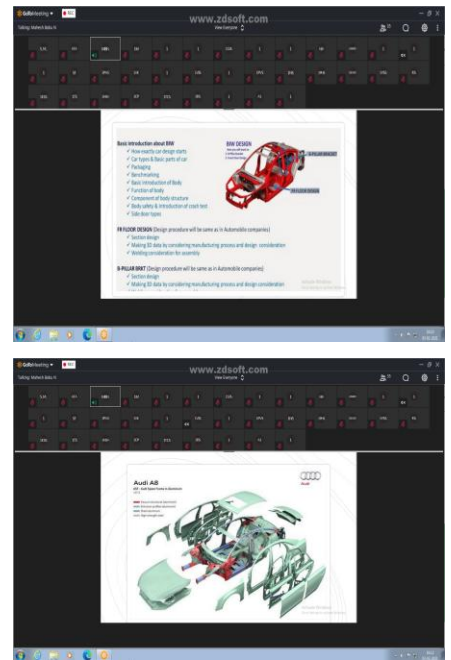


One week student workshop on Product Design and Drafting using CATIA

A One Week Student Training Program on “Product designing and drafting by CATIA” was held between 3rd February, 2021 to 9th February, 2021.

The main focus of the workshop was to make students understand the designing and drafting procedure using a CAD software. The key points of the workshop include analyzing the dimensional constraints of the model that is to be drawn. Various options like sketch, extrude, rotate, etc used to draw the models and also the drafting of the models.

They learnt how to design and draft components in CATIA. Since the user interface in CATIA is quite supportive it was easier to learn quickly. This workshop helped me in developing interest in learning advanced concepts and tools in CATIA.



STTP ON “Additive Manufacturing For Medical And Aerospace Applications”

The Mechanical Engineering department of Shri Vishnu Engineering College For Women conducted One Week National Level Online Short Term Training Program (STTP) on “Additive Manufacturing For Medical And Aerospace Applications” - (Phase-4) from 4th - 9th Jan , 2021. This STTP aims to discuss the recent trends and challenges in additive manufacturing , the concept of additive manufacturing and its advantages over conventional manufacturing . This training program provides the knowledge to the participants on additive manufacturing technologies and its applications in the medical and aerospace sectors . It also impart the information about overview of additive manufacturing throughout the world .

Topics covered are as follows

- ✓ Additive Manufacturing: Applications and Case Studies
- ✓ Surface finishing of AM parts
- ✓ Additive manufacturing of advanced composites
- ✓ AM Applications and Process Monitoring
- ✓ Industrialisation of AM Technologies
- ✓ Software orientation program with hands on experience
- ✓ 3D printing and micro fluidics
- ✓ Certification of AM Parts



The participants also got insights of research opportunities in additive manufacturing and challenges the industry of medical and aerospace . This STTP was coordinated by Dr. Ch.hari krishna , HOD , ME Department long with the resource person Dr Sriram Venkatesh, Professor , Osmania University , Dr M Ravi Sankar IIT Tirupathi, Dr. Raguraman M, IIITDM MHRD, Prof C S Kumar, IIT Kharagapur , Mr Krishna Singh, Wipro 3D and Dr U Chandrasekhar, Wipro 3D.

Faculty attended Workshops/ Conferences

- Mr. Manoneet Kumar attended Faculty workshop on Entrepreneurial Mindset during 31-05-2021 to 14-06-2021
- Dr Ch Hari Krishna attended 5-day Faculty Development Program on “Advanced Materials Science Faculty Development Program on Material Processing & Heat Treatment (MPHT-2021)” during 01-03-2022 to 05-03-2022
- Mr. Manoneet Kumar attended Six days online Short Term Training Programme - Phase I on “Electric Vehicle Evolution -Impact on Power Grid” during 08-02-2021 to 13-02-2021



Faculty Publications

- Dr. Ch.Hari Krishna, published a paper on Modeling of cylindrical upsetting process for enhanced ductile fracture, in the Materials Today: Proceedings.
- Mr. K. Raghavendra Sai, published a paper on Effect of ECAP three-pass on the microstructure and mechanical properties of AA6061, 6082 and 2014 alloys, in the Journal of Xidian University.



Student Testimonial

As a student of SVECW, I can proudly say I have chosen a great path in my career. SVECW is a challenging place for students, offering unique opportunities to learn new skills and expand the knowledge. The wide range of resources and support services in this college helped me to achieve my goals.

Women in mechanical engineering is still a frequently faced question by me. But this college gave me confidence to stand up and say that women will excel in mechanical engineering too and it is not gender biased apart from that I can show me as an example to them.

The best part from the mechanical branch is the support system that I got. I have done few projects in 4 years and at every step my lectures guided me in a very great way. Their involvement helped us to convert our small ideas into great results. I want to specially mention about Baja project, there were many takeaways from this project both technically as well as regarding personal development. Being as a captain I developed people management and leadership qualities. It keeps us the enthusiasm to learn and execute new ideas everyday. I believe that an engineer should always have the desire to make a difference in the world. The opportunities for that will be always provided in this college.

