

## ABOUT MECHANICAL DEPARTMENT

Managing moving machines of the world! It is this catchy phrase that has made Mechanical Engineering the thriving branch for being an integral part in shaping our world run on machines. The Mechanical Engineering department at Aditya has earned a place of high repute through its quality teaching rendered by highly qualified and experienced faculty with remarkable number of research publications in reputed journals like ASME, ELSEVIER etc. and rigorous practical training creating an ambience of excitement in all the stages of study. The department lays impetus on hands-on training with the support of simulation packages such as CATIA, ANSYS, IDEAS, PRO-E, UNIGRAPHICS and SOLID WORDS. The academic activities include guest lectures, industrial visits, workshops, seminars, technical festivals VEDA and programs under Mechanical Engineering Students Association (MESA), collegiate club of the Society of Automotive Engineers (SAE) and Auto gear club. The projects that received appreciation in various events organized at state and national level are Go-Kart, Quad bike, Solar powered wheelchair, LPG bike, Reaping Machine, and many more such highly relevant contraptions. Students are encouraged to do internships in reputed industries like TATA Motors PVT. LTD., Hindustan Shipyard, BHEL PVT. LTD., Bhilai Steel Plant, Bokaro Thermal Power Station, Nalco Mining Division etc

## VISION OF THE DEPARTMENT

To be a preferred knowledge hub in Mechanical Engineering towards critical thinking, quality research and innovation

## MISSION OF THE DEPARTMENT

#### **M1**:

Provide infrastructure for design and development of modern-day solutions.

#### **M2**:

Impart leadership, critical thinking and innovation to address the societal needs.

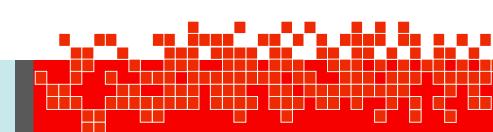
#### **M3:**

Collaborate with industry, academia, & R&D organizations for excellence in teaching, research and consultancy services.



### FACULTY PUBLICATIONS

SI.	A	<b>-</b> 6.11	Name of the	Name of the	Year of	Impact
No.	Authors	Title of the research paper	journal	Publisher	publication	factor
1	Elumalai P.V	Effect of Kariba Weed Biodiesel Blended with n-Pentane on the Chosen Parameters of a Ceramic- Coated Thermal Barrier Direct Injection Diesel Engine	ACS Omega	ACS	Dec 2022	4.2
2	Elumalai P.V	Experimental Studies on Thermal- Barrier-Coated Engine Fuelled by a Blend of Eucalyptus Oil and DEE	ACS Omega	ACS	Dec 2022	4.2
3	Elumalai P.V	Optimization of Performance and Emission Characteristics of the CI Engine Fueled with Preheated Palm Oil in Blends with Diesel Fuel	Sustainability	MDPI	Dec 2022	3.8
4	Elumalai P.V	Heat Transfer Studies on Solar Parabolic trough Collector Using Corrugated Tube Receiver with Conical Strip Inserts	Sustainability	MDPI	Dec 2022	3.8
5	Elumalai P.V	Effects of Injection Timing and Antioxidant on NOx Reduction of CI Engine Fueled with Algae Biodiesel Blend Using Machine Learning Techniques	Sustainability	MDPI	Dec 2022	3.8
6	P.S. Ranjit	Experimental investigation of carbon nanotube additives on CRDI engine fueled with Chlorella vulgaris microalgae methyl ester and bio-ethanol blends: performance, emission and combustion characteristics	Biofuels	Taylor & Francis	Dec 2022	2.7
7	P.S. Ranjit	Adverse effect of rainfall on aerodynamic characteristics for different NACA airfoil configurations—A comprehensive review	IJIDEM	Springer	Dec 2022	NA
8	Sandip Kunar	Investigation into Linear Micropattern Generation using Electrochemical Micromachining	JESTR	KIT	Dec 2022	NA
9	R. Uzwalkiran	Influence of friction stir processing on microstructure, mechanical properties and corrosion behaviour of Mg-Zn-Dy alloy	Journal of Materials Science	Springer	Jan 2023	4.6
10	I. Veeranjaneyul u	Investigation of Mechanical Properties and Microstructure of AZ31- SiC-Graphite Hybrid Nanocomposites Fabricated by Bottom Pouring-Type Stir Casting Machines	Advances in Materials Science and Engineering	Hindwai	Jan 2023	2.7



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SI. No.	Authors	Title of the research paper	Name of the journal	Name of the Publisher	Year of publication	Impact factor
11	Elumalai P.V	Modelling and real time performance evaluation of a 5 MW gridconnected solar photovoltaic plant using different artificial neural networks	Energy Conversion and Management	Elsevier	Feb 2023	11.6
12	A. Saravanan	Thermal performance prediction of a solar air heater with a C-shape finned absorber plate using RF, LR and KNN models of Machine learning	Thermal Science and Engineering Progress	Elsevier	Feb 2023	4.5
13	Elumalai P.V	Experimental Investigation on the PCCI Engine Fueled by Algal Biodiesel Blend with CuO Nanocatalyst Additive and Optimization of Fuel Combination for Improved Performance and Reduced Emissions at Various Load Conditions by RSM Technique	ACS Omega	ACS	Feb 2023	4.2
14	Elumalai P.V	Influence of Magnetic Wood on Mechanical and Electromagnetic WaveAbsorbing Properties of Polymer Composites	International Journal of Polymer Science	Hindwai	Feb 2023	2.9
15	Elumalai P.V	Prediction of Angular Distortion in Gas Metal Arc Welding of Structural Steel Plates Using Artificial Neural Networks	Metals	MDPI	Feb 2023	2.6
16	R. Uzwalkiran	Comparative Study of Plasma Spray and Friction Stir Processing on Wear Properties of Mg-Zn-Dy Alloy	Journal of Materials Engineering and Performance	Springer	Feb 2023	2.0
17	M. Zubairuddin	Finite Element Analysis of Laser Welding of 304L butt Joint	Material Today Proceeding	Elsevier	Feb 2023	NA

# **STUDENT ACTIVITIES**

SI. No.	Name of the students	Name of the event	Types of Event/ Presented Topic	Venue	Date	Award/ Participation
1	P Hemanth, G Ramesh, L Rambabu	Two days workshop	Industrial Internet of Thing	Sri Venkateswara College of Engineering, Sriperumbudur	10-12-22 to 11-12-22	Participation



SI	SI. Name of the Name of Types of Event/ Venue Date Award/						
No.	students	the event	Presented Topic	Venue	Date	Participation	
2	Venkatesh Chauvu, Danda Veera Venkata Vinay, Venkatesh Chaduvu, Devu Shankar Satyanarayana, Chalapaka Surya Dileep, Mahanti Bharat Kumar, Jagadeesh Vemavarapu, Kiran Kumar Maraju, Chidvilas Teja Medisetti, Mucharla Seshu Prakash, Garre Vinay Balaji, Kanakam Mahesh Kumar, Velegala Shyam Jitendra Reddy, Bagadi Tejaswara Rao, Gummadi Venkata Ajay Prabhas, Gandi Gangadhar, Vamsi Babu Dadala, Sai Durga Subash Eerlu, Ganesh Chandra Kadiyala, Someswara Chellarao Munuri, Samuel Raja Panchamalla, Vijay Kumar Macha, Barthi Vijay Kumar	BAJA SAEINDIA 2023	Design and Racing Competition	NATRiP Pithampur	15-02-23 to 18-02-23	Participation	



### STUDENT ACTIVITIES



K PREETHAM RAJU 21A95A0335



CH GUNA SHEKAR 20A95A0305



P SAI VARUN 21A95A0343

#### **STORY**

#### Tall tale hard story

Once upon a time, in a small town nestled amidst towering mountains, there lived a renowned storyteller named Samuel Tallman. Samuel was known far and wide for his ability to weave captivating tales that transported listeners to distant lands and brought mythical creatures to life. However, one day, a peculiar challenge was presented to him—a request for a story so difficult and extraordinary that it would test his storytelling prowess to the limit.

The challenge came from a mysterious traveler who appeared at Samuel's doorstep late one stormy evening. The traveler, clad in tattered clothing and a wide-brimmed hat, introduced himself as Phineas Hartley, a collector of rare tales. Phineas had traveled across continents in search of stories that could rival the legends of old, and he sought out Samuel Tallman to fulfill his quest.

Intrigued by the traveler's request, Samuel agreed to take on the challenge. He invited Phineas into his cozy study, where a crackling fire cast dancing shadows on the walls. As the rain poured outside, Samuel sat back in his leather armchair, pondering the arduous task ahead.

Days turned into weeks as Samuel delved into his vast repertoire of stories, searching for the perfect tale that would astonish even Phineas Hartley. Night after night, he sat at his writing desk, surrounded by stacks of old parchment and ink bottles, determined to create a story that would surpass anything he had ever crafted before.

Finally, after countless sleepless nights, Samuel Tallman emerged from his study, clutching a rolled-up scroll in his hands. With a glimmer of excitement in his eyes, he presented the tale to Phineas, who listened intently, his eyes never leaving Samuel's face.

The story began with a lost city hidden deep within the heart of an uncharted rainforest. The city, known as Elusia, was said to be built by an ancient civilization blessed with extraordinary powers. Legends spoke of floating gardens, where flowers blossomed in mid-air, and buildings made of crystal that sparkled like stars in the daylight.

In Elusia, Samuel's tale introduced mythical creatures beyond imagination—griffins with fiery breath, mermaids that could control the currents of the sea, and shape-shifting dragons that could take the form of humans. They inhabited the lush surroundings of Elusia, living in harmony with the vibrant flora and fauna.

- B VARAPRASAD

#### **POEM**

#### The road not taken by the Robert frost

Two roads diverged in a yellow wood, And sorry I could not travel both And be one traveler, long I stood And looked down one as far as I could To where it bent in the undergrowth;

Then took the other, as just as fair, And having perhaps the better claim, Because it was grassy and wanted wear;

Though as for that the passing there Had worn them really about the same,

And both that morning equally lay In leaves no step had trodden black. Oh, I kept the first for another day! Yet knowing how way leads on to way, I doubted if I should ever come back.

I shall be telling this with a sigh Somewhere ages and ages hence: Two roads diverged in a wood, and I— I took the one less traveled by, And that has made all the difference

### PLACEMENT DETAILS





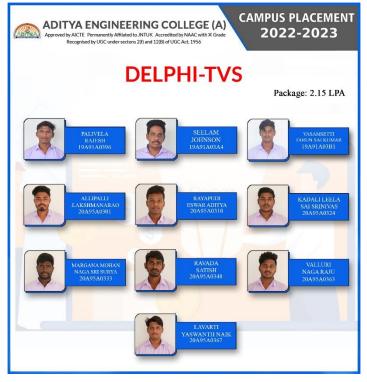


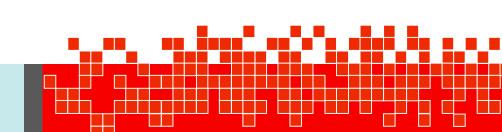
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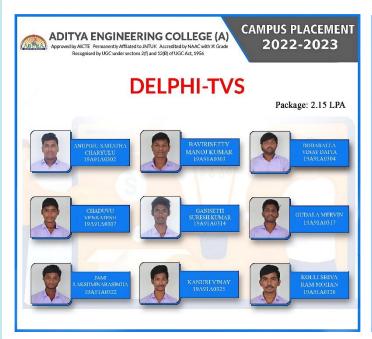


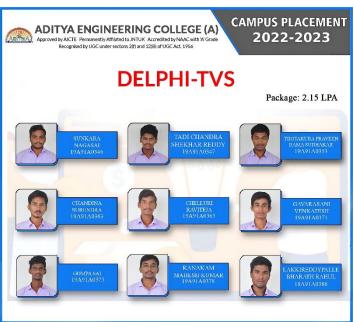




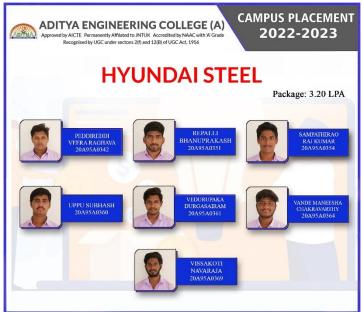


### PLACEMENT DETAILS











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