

MECHRONICLE

NEWSLETTER

Department of Mechanical Engineering | Volume 02 | Issue 2 | Jan-Jun 24

Vision of the Department

Mechanical Engineering Department strives to be recognized globally for quality education, training and research leading to well-qualified engineers, who are innovative, entrepreneurial and successful in solving problems of society.

Mission of the Department

- Impart quality education to students to enhance their skills and make them globally competitive.
- Maintain a vital and state-of-the-art research to provide its students and faculty with opportunities to create, interpret, apply and disseminate knowledge.
- Prepare its graduates to pursue higher studies, serve the profession and meet intellectual, ethical and career challenges.

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From HOD's Desk

Dr. P. Rama Murty Raju
Professor & Head

Mechanical Engineering is a vital discipline that supports industrial growth and technological advancement. The department focuses on building strong engineering fundamentals along with essential practical skills. Students are motivated to gain hands-on experience through internships, industrial training, and workshops. Continuous interaction with industry experts helps connect classroom learning with real engineering applications. The curriculum is structured to balance theoretical concepts and laboratory practices. Design-based learning and mini-projects strengthen analytical and problem-solving abilities. Students are encouraged to develop innovation, teamwork, and professional ethics. The department strives to produce competent engineers ready to meet real-world challenges.

Editorial Board

Faculty Co-ordinators:

- Shri. V.V. M. Krishnam Raju
- Shri. K. Sunil Kumar
- Shri. V.K. Chaitanya Varma (Chief Editor)
- Shri. R. S. Srikanth Varma

Student Co-ordinators:

- D. Teja
- B. Sai Abhiram
- V. Bhavana
- Likith Chowdary
- P. Rambabu
- U. Hemanth

Faculty Publication

Faculty Publications Details for the Year 2024

1. Sen, Binayak, **Shantanu Debnath**, and Abhijit Bhowmik.

- Published a paper titled “Sustainable machining of superalloy in minimum quantity lubrication environment: leveraging GEP-PSO hybrid optimization algorithm.” in The International Journal of Advanced Manufacturing Technology , ISSN: 1433-3015, SCIE , 2024 Feb.

2. **Madhavarao Singuru**, VVS Kesava Rao, and **Rama Bhadri Raju Chekuri**.

- Published a paper titled “Preparation and investigation of mechanical behavior and characterization of AA7475/ZrO₂/Gr hybrid MMC.” in Engineering Research Express , ISSN: 2631-8695, ESCI , 2024 Feb 1.

3. Dhoria, Sneha H., K. Venkata Subbaiah, and **V. Durga Prasada Rao**.

- Published a paper titled “Analytical solution for thermo elastic damping of rotational ring resonators incorporating thermal relaxtions and elastic small scales” in Journal of The Institution of Engineers (India): Series , ISSN: 2250-2130, Scopus , 2024 Jan 29.

4. Vijayakumar, S., A. Arunkumar, A. Pradeep, P. Satishkumar, Bharat Singh, **Kalidindi Sita Rama Raju**, and Vijay Kumar Sharma.

- Published a paper titled “Optimization of process variables for shielded metal arc welding dissimilar mild steel and medium carbon steel joints” in Journal of Adhesion Science and Technology , ISSN: 1568-5616, SCIE , 2024 Jan 17.

5. Sobhanbabu Y., Satyanarayana G., **Swamy Chinamilli N.V.S.**, Rambabu P.V.

- Published a paper titled “Anisotropic Barrow Holographic Dark Energy Models in Scalar- Tensor Theory of Gravitation.” in East European Journal of Physics , ISSN: 2312-4539 , ESCI , 2024 May 18.

6. Prathap Varma U.D.S., Harish I., Battina N.M., **Prasadaraju K.**, Chandu Prasad S.

- Published a paper titled “Experimental investigations on coated copper wire and annealed copper wire electrodes in wire EDM machining through a comparative assessment employing the TOPSIS technique” in Engineering Research Express , ISSN: 2631-8695, ESCI , 2024 Jun 20.

7. **Reddy M.I.**, Sethuramalingam P., Sahu R.K.

- Published a paper titled “Isolation of microcrystalline cellulose from Musa paradisiaca (banana) plant leaves: physicochemical, thermal, morphological, and mechanical characterization for lightweight polymer composite applications” in Journal of Polymer Research , ISSN: 1572-8935, SCIE , 2024 Apr.

8. Raja T., Ali M.N., Shashi Kumar M.E., Vishal G.R., **Manikanth V.**, Mohammad Soudagar M.E., Chinnathambi A., Alahmadi T.A.

- Published a paper titled “Study on the characteristics of novel natural fiber extracted from Coccinia grandis plant vine: a novel material for engineering applications” in International Journal of Advanced Manufacturing Technology , ISSN: 0268-3768, SCIE , 2024 Jun 14.

Faculty Publication**Faculty Publications Details for the Year 2024****9. Kotteda TK, Kumar M, Kumar P.**

• Published a paper titled “Experimental insights and micrographical investigation on graphene nanoplatelet–reinforced aluminum cast composites.” in The International Journal of Advanced Manufacturing Technology , ISSN: 0268-3768, SCIE , 2024 Mar.

10. Srinivasa Vara Prasad A., Murali Krishnam Raju K.V., Krishna Bhaskar K., Kumar Kotteda T.

• Published a paper titled “A Comprehensive Review of the Effect of Additives on Microalgae Biodiesel Performance and Emissions.” in Journal of Physics: Conference Series , ISSN: 1742-6596, Scopus , 2024 May 1.

11. Indra Reddy M., Manikanth V., Madhava Rao S., Santosh P.V.C.H.R.K

• Published a paper titled “Experimental Investigation on Mechanical and Viscoelastic properties of Kenaf, Basalt and Carbon Fiber reinforced Hybrid Epoxy Polymer Composites.” in Journal of Physics: Conference Series , ISSN: 1742-6596, Scopus , 2024 May 1.

12. Ali S.M.Z.M.S., Krishna Bhaskar K., Sitarama Raju K.

• Published a paper titled “A Review on Distribution of Reinforcement and tensile Strength of Aluminum Lithium Alloy based Nano Metal Matrix Composites Fabricated by STIR Casting.” in Journal of Physics: Conference Series , ISSN: 1742-6596, Scopus , 2024 May 1.

13. Madhavarao S., Gopalakrishnam Raju P., Bhadri Raju Chekuri R., Vatala M., Soundaryasanthoshi B.

• Published a paper titled “Optimization of Process Parameters in under Water Friction Stir Welded AA2014 and AA6082 joints.” in Journal of Physics: Conference Series , ISSN: 1742-6596, Scopus , 2024 May 1.

14. Durga Prasada Rao V., Mahaboob Ali S.R.S., Ali S.M.Z.M.S., Santhoshi B.S.

• Published a paper titled “Analysis of Delamination during Drilling Process of Aramid Fibre Reinforced Polymers” in Journal of Physics: Conference Series , ISSN: 1742-6596, Scopus , 2024 May 1.

15. Kumar Kotteda T., Kumar M., Kumar P., Gupta A., Murali Krishnam Raju K.V.

• Published a paper titled “A review on machinability and optimization of machining parameters of metal matrix composites” in Journal of Physics: Conference Series , ISSN: 1742-6596, Scopus , 2024 May 1.

16. Rama Krishna K.B., Siriyala R., Rama Murthy Raju P., Rama Pavan Kumar Varma I., Harsha N.

• Published a paper titled “Suitability of AA 7075 and Glass Fiber Materials for Aerospace Applications” in Journal of Physics: Conference Series , ISSN: 1742-6596, Scopus , 2024 May 1.

17. Padamurthy A., Vatala M., Kumar Gandla P., Santosh P V.C.R.K., Sheelwant A., Vemanaboina H.

• Published a paper titled “A Review on Energy Storage Technologies: Current Trends and Future Opportunities” in Journal of Physics: Conference Series , ISSN: 1742-6596, Scopus , 2024 May 1.

Faculty Participation & Achievements

Faculty Participation

S.NO	Title of the program	National/ International	Name of Faculty	Duration
1.	Fundamentals of Computer Systems(12 weeks)(SWAYAM)	National	Sri. P.V.Ch.R.K. Santosh	01-01-2024 to 30-04-2024
2.	Introduction To Internet Of Things (NPTEL)(12 weeks)	NPTEL-AICTE	Dr. G.S.V. Seshu Kumar	01-01-2024 to 30-04-2024
3.	Finite Element Analysis using ABAQUS	National (offline)	Dr. V. Durga Prasad Rao Dr.K.Suresh Babu Dr. K. Sitarama Raju Sri. Ch. Srinivas Sri.Ch.Gopala Raju Sri. P.V.R.S. Padma Raju Sri. G. Chatapathi Raju Sri. S. Madhava Rao Sri. N. Satish Sri. M. Indra Reddy Sri. K.M.N.V.S.A. Siva Ram Sri. U. Rajendra Prasad Varma Sri. V. Praveen Sri. SK. R.S.M. Ali Sri. Mudunuri Rajesh Miss. Boddu Soundarya Santhoshi Sri. Durga Hemanth Kumar Kondreddi Dr.Debnadh Shantanu Sri. P.V.Ch.R.K. Santosh	08-01-2024 to 12-01-2024
4.	“Application of AI/ML Using Pattern Recognition & Intellectual Property Rights”	National	Sri. Durga Hemanth Kumar Kondreddi	29-01-2024 to 02-02-2024

Faculty Participation & Achievements

Faculty Participation

S.NO	Title of the program	National/ International	Name of Faculty	Duration
5.	Global Conversations in Mechanical Engineering: Bridging Innovation and Sustainability	International	Sri. Durga Hemanth Kumar Kondreddi	19-02-2024 to 23-02-2024
6.	Recent advancement in sustainable energy sources: Research and Development	National	Sri.K.Tarun KumarSri. Durga Prasad Balam	26-02-2023 to 01-03-2023
7.	Emerging Trends in Mechanical Engineering	National	Sri. S. Madhava Rao	22-04-2024 to 27-04-2024
8.	“Enhancing Research Excellence- A Comprehensive Exploration of Optimization Techniques”	National (Online)	Sri. V. Praveen	22-04-2024 to 26-04-2024
9.	Effective implementation of outcome-based Education	National (Offline)	Miss. Boddu Soundarya Santhoshi	20-06-2024 to 22-06-2024
10.	Current trends in Mechanical Engineering-Case Studiesfrom industries&academia to promote innovations,Design Tinkingand startups	National	Sri. P.V.Ch.R.K. Santosh	20-05-2024 to 25-05-2024

Faculty Participation & Achievements

Faculty Participation

S.NO	Title of the program	National/ International	Name of Faculty	Duration
11.	Advancements in Automobile Engineering for Sustainable Development	International (online)	Sri. K. Prasada Raju Sri.K.Tarun Kumar Miss. Boddu Soundarya Santhoshi Sri. P.V.Ch.R.K. Santosh	24-06-2024 to 28-06-2024
12.	Fundamentals of Computer Systems (12 weeks) (SWAYAM)	SWAYAM	Sri. P.V.Ch.R.K. Santosh	01-01-2024 to 30-04-2024

Faculty Achievements

- **Dr. D. Shantanu** served as a **Reviewer** for the **Journal of Metrology Science of India**, an **International Journal**, during the academic year **2023–24**.
- **Dr. D. Shantanu** acted as a **Judge** for **VEDA Tech Fest 2024**, a **national-level event**, during the academic year **2023–24**.
- **Dr. G. S. V. Seshu Kumar** served as an **Editorial Board Member** of the **EDWIN Group of Journals**, an **international publication body**, during the academic year **2023–24**.

Department Events

The Department of Mechanical Engineering held a Short Term Training Program on Welding on February 7, 2023. The program delivered hands-on experience in advanced welding techniques, focusing on industrial safety and precision joining processes.



The Department of Mechanical Engineering held the Go Karting Design Challenge for TEAM MARKANDEYA from February 16–19, 2024. The event tested students' skills in vehicle dynamics, fabrication, and performance through hands-on racing and design evaluation.



The Department of Mechanical Engineering hosted the National Level Technical Symposium, “Sanketa 2k24,” on February 24–25, 2024. The event showcased student innovation through technical paper presentations, design contests, and project exhibitions.



Department Events

The Department of Mechanical Engineering hosted AITAM'S Go-Karting Championship 2024 from February 26–29, 2024. This national event challenged students to prove their engineering mettle through rigorous technical inspections and competitive high-speed racing.



The Department of Mechanical Engineering held the Aravalli Terrain Vehicle Championship for Team Godavari from March 20–24, 2024. The competition focused on off-road endurance, suspension performance, and maneuverability through grueling all-terrain racing.



The Department of Mechanical Engineering organized “Prajna,” a technical science exhibition, on April 4, 2024. The event featured innovative student models and projects designed to demonstrate scientific principles and solve real-world engineering challenges.



NPTEL

NPTEL - FACULTY

S.NO	Title of the Course	Certificate Awarded	Name of Faculty	Duration
1.	NBA Accreditation and Teaching-Learning in Engineering (NATE)	ELITE+Silver	Dr. S.Rajesh	01-01-2024 to 30-04-2024
2.	Research methodology	ELITE	SK R S MAHABOOB ALI	01-02-2024 to 30-04-2024
3.	Fundamentals of Computer Systems	Certificate Awarded	Sri P.V.Ch.R.K.Santosh	01-01-2024 to 30-04-2024
4.	Introduction To Internet Of Things	ELITE	Dr. G.S.V. Seshu Kumar	01-01-2024 to 30-04-2024
5.	Essential Mathematics for Machine Learning	ELITE	Dr. Vitalram Rayankula	01-07-2023 to 01-10-2023

NPTEL - STUDENTS

S.NO	Regd.No	Name of the Student	Title of the Course
1.	22B95A0316	Gandham Purna Satya Sai	The Joy Of Computing Using Python
2.	21B91A0383	Karri Durga Naga Venkata Sai mahesh	Advances In Welding And Joining Technologies

NPTEL**NPTEL - STUDENTS**

S.NO	Regd.No	Name of the Student	Title of the Course
3.	21B91A0387	Kasireddy Satyendra Sivamsa	Advances In Welding And Joining Technologies
4.	21B95A0352	Vedula Sai Bhargav	Advances In Welding And Joining Technologies
5.	21B91A0386	Kasireddy Jaya Mani Sai Durga Prasad	Advances In Welding And Joining Technologies
6.	20B91A0358	Ganta Naga Sai Tarun Krishna	Industrial Safety Engineering
7.	21B91A0382	Kandula Krishna	Google Cloud Computing Foundations
8.	21B91A03F9	Rohith Pyla	Google Cloud Computing Foundations
9.	21B91A0338	Dangeti Sri Sai Supreeth	Google Cloud Computing Foundations
10.	21B91A0325	Bokka Ysawanth Kumar	Google Cloud Computing Foundations
11.	21B95A0352	Vedula Sai Bhargav	Laser Based Manufacturing
12.	21B95A0321	Kanchi Chaitanya	Computer Graphics

PLACEMENTS & INTERNSHIPS**PLACEMENTS**

S.NO	Regd.No	Name of student	Name of Company	Package
1.	20B91A0302	ADDEPALLI MRUDHULA	SPR India	2.4 LPA
2.	20B91A0306	ALLADI HEMA VYAS	TCS Digital	7 LPA
3.	20B91A0307	ALLU DURGA PRASAD	NASH Industries	2.4 LPA
4.	20B91A0308	ALLURI ABHILASH VARMA	TCS Digital	7 LPA
5.	20B91A0310	ANNAMREDDY TEJESH	JBM	16.5K
6.	20B91A0311	ARDHANI SRINIVAS	TVS	17K
7.	20B91A0313	AVAGADDATILAK	I-Das	15K
8.	20B91A0314	AYINAM VENKATESH	I-Das	15K
9.	20B91A0316	AYYALA ANURAAG VARSHIT	MAGNA	4 LPA
10.	20B91A0317	ADITHYA BANDARU	Liugong	3.5 LPA
11.	20B91A0318	BANDARU PRASAND KUMAR	Medha servo drives	4.89 LPA
12.	20B91A0320	BODANAPU DURGA MAHESH	REXNORD	17K
13.	20B91A0321	BODDU AKASH	JBM	16.5K
14.	20B91A0323	BOKKA ESWAR SAI RAJ	NASH Industries	2.4 LPA
15.	20B91A0324	BOKKA SAI ABHIRAM	TVS	17K

PLACEMENTS & INTERNSHIPS**PLACEMENTS**

S.NO	Regd.No	Name of student	Name of Company	Package
16.	20B91A0325	BORRA MAHESHBABU	Liugong	3.5 LPA
17.	20B91A0329	BURLU DEVI SRIRAM	TVS	17K
18.	20B91A0334	CHELLUBOINA HARI	TVS	17K
19.	20B91A0338	CHINTHAPALLI SANTOSH VIJAYA DURGA PRASAD	I-Das	15K
20.	20B91A0340	CHITTI VENKATARAMANA	I-Das	15K
21.	20B91A0343	D V SUBBARAYUDU VALAVALA	Aeries Technology	4 LPA
22.	20B91A0345	DARAPUREDDY CHUDAMANI SIVA KRISHNA	TCS Ninja	3.36 LPA
23.	20B91A0347	DASARI CHANDRA SEKHAR	MEIL	2.2 LPA
24.	20B91A0351	DIDLA KIRAN KUMAR	TVS	17K
25.	20B91A0352	DOMATOTI TEJA	NASH Industries	2.4 LPA
26.	20B91A0354	DONGA HEMANTH ESWAR	SPR India	2.4 LPA
27.	20B91A0358	GANTA NAGA SAI TARUN KRISHNA	NASH Industries	2.4 LPA
28.	20B91A0359	GARAPATI KRISHNA VAMSI CHOWDARY	MEIL	2.2 LPA

PLACEMENTS & INTERNSHIPS**PLACEMENTS**

S.NO	Regd.No	Name of student	Name of Company	Package
29.	20B91A0364	GOGI SYAM BABU	TVS	17K
30.	20B91A0366	GOKADA SATHWIK YADAV	Cognizant GenC	4.1 LPA
31.	20B91A0368	GOLLAMANDALA PRANEETH SINGH	TVS	17K
32.	20B91A0373	GUNA VINEETH	MEIL	2.2 LPA
33.	20B91A0374	GURAJAPU N V TEJA SANTHOSH RAMAKRISHNA	MEIL	2.2 LPA
34.	20B91A0375	GURUGUBELLI GANESH	I-Das	15K
35.	20B91A0376	GUTTULA SATYA DATTA HARSHA	REXNORD	17K
36.	20B91A0377	ILLA HARISH	NASH Industries	2.4 LPA
37.	20B91A0380	KALLAPALLI JAHNAVI CHANDRIKA	Quest Global	3.1 LPA
38.	20B91A0382	KANCHARLA YADUNANDAN	NASH Industries	2.4 LPA
39.	20B91A0384	KANDUKURI RAVI TEJA	NASH Industries	2.4 LPA
40.	20B91A0386	KATARI ASHOK	JBM	16.5K
41.	20B91A0388	KATNA DEEPAK	JBM	16.5K

PLACEMENTS & INTERNSHIPS**PLACEMENTS**

S.NO	Regd.No	Name of student	Name of Company	Package
42.	20B91A0389	KATTA MANI KANTA	I-Das	15K
43.	20B91A0390	KATTUNGA JAGADEESH SAI	Tech Mahindra	3.25 LPA
44.	20B91A0392	KILARI VENKATESH	MAGNA	4 LPA
45.	20B91A0394	KODURI HARI CHANDRA PAVAN	NASH Industries	2.4 LPA
46.	20B91A0397	KOLAMURI ABICHAND	Rinex Technologies	5.2 LPA
47.	20B91A03A2	KORASIKHA DEVI ANUSHA	SPR India	2.4 LPA
48.	20B91A03A4	KOTA VAMSI	JBM	16.5K
49.	20B91A03A5	KOTHAPALLI SATISH	Tech Mahindra	3.25 LPA
50.	20B91A03B0	KUNASANI DISANTH NAIDU	Jaro Education	6.89 LPA
51.	20B91A03B3	KURELLA VAMSI SAI	REXNORD	17K
52.	20B91A03B4	LALAM NANI	Rinex Technologies	5.2 LPA
53.	20B91A03B5	LAVETI MADHU BABU	Rinex Technologies	5.2 LPA
54.	20B91A03D1	MARRI SUDHA BHARGAV	JBM	16.5K
55.	20B91A03D2	MATHA UDAY KIRAN	JBM	16.5K
56.	20B91A03D4	MEDAGAM SAI KESAVA REDDY	I-Das	15K

PLACEMENTS & INTERNSHIPS**PLACEMENTS**

S.NO	Regd.No	Name of student	Name of Company	Package
57.	20B91A03D6	M SUBRAHMANYA SWAMY	JBM	16.5K
58.	20B91A03E1	MERUGU VAMSI	I-Das	15K
59.	20B91A03E8	MUMMIDI VARA PRASAD	NASH Industries	2.4 LPA
60.	20B91A03F0	NAGUMALLA NITISH KUMAR	JBM	16.5K
61.	20B91A03F2	NALLI SRI HARSHA	TVS	17K
62.	20B91A03F3	NEERAJ KUMAR GYALAM	TVS	17K
63.	20B91A03F5	NIDADAVOLU SATYA NARAYANA RAJU	Reliance Industries Ltd	7.5 LPA
64.	20B91A03F9	O NAGA KRISHNA SHREEYA	Epiroc	6 LPA

STUDENT PARTICIPATION**Student Participation**

S.NO	Name of the Event	Name of the Student	State /National/International
1.	FOMBI-2023	P.Dharma Teja	National level
2.	FOMBI-2023	K Tejaswini	National level
3.	FOMBI-2023	D S G Phanindra	National level
4.	AGKC 2024	J RamBabu	National level
5.	AGKC 2024	D S G Phanindra	National level
6.	GKDC	Syed Madina Nadeem	National level
7.	GKDC	J Rambabu	National level
8.	GKDC	D S G Phanindra	National level
9.	GKDC	P.Dharma Teja	National level
10.	ATVC	Sri Sai Supreeth	National level
11.	ATVC	Reedy Purna Chandra	National level
12.	ATVC	B Sireesh	National level
13.	ATVC	E Ajith Kumar	National level
14.	ATVC	B Sri Sai Saradeep	National level
15.	AITAM's GKC 2024	J. Rambabu	National level
16.	Fombi – 2023	P.V Dhatri Viswanadh	National level
17.	Fombi – 2023	CH. Likhitha	National level

STUDENT PARTICIPATION

Student Participation

S.NO	Name of the Event	Name of the Student	State /National/International
18.	FOMBI-2023	M.V.Siva Rama Raju, G.Chaitanya Varma	National level
19.	FOMBI-2023	Team Godavari	National level
20.	AEP certified core engineer-mechanical engineer in multi domain program-O-MDP level	Akumarthi Lithish kumar	National level
21.	Chandrayan-3 mahaquiz	Vasa Leela Durga Rao	National level
22.	FOMBI-2023	M. V. Siva Rama Raju	National level
23.	FOMBI-2023	G. Chaitanya Varma	National level
24.	FOMBI-2023	P. Mohith Babu	National level
25.	FOMBI-2023	SK Kaleemuddin	National level
26.	FOMBI-2023	S. S.V Sanjeev Reddy	National level
27.	FOMBI-2023	P.V Dhatri Viswanadh	National level
28.	FOMBI-2023	CH. Likhitha	National level
29.	FOMBI-2023	J. Likith Kumar	National level
30.	FOMBI-2023	M.Sai Pujitha	National level
31.	FOMBI-2023	V Lakshmi Narayana Reddy	National level