«MECH VIBES NEWS LETTER»

ISSUE 3 | JULY 2024 | VOL 15

EDITORIAL BOARD

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- TECH News
- Placements
- FDPs attended by Faculty
- Guest Lecture
- Motivational quotes

DEPARTMENT VISION, MISSION, PEOs & PSOs

DEPARTMENT VISION

To become a global knowledge hub of mechanical engineering fulfilling the industry and society needs with ethical practices.

DEPARTMENT MISSION

DM1: Provide quality education for global requirements.

DM2: Improve pedagogical methods employed in delivering the academic programmes.

DM3: Enhance the knowledge, skill by industry- institution interaction

DM4: Cultivate the spirit of entrepreneurship with the sense of ethical, professional responsibility.

PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

Graduates of Mechanical Engineering will be able to

PEO1: Get good job opportunities or pursue higher studies

PEO2: Exercise latest techniques to get solutions to industrial/engineering problems.

PEO3: Gain the knowledge of other fields of engineering continuously to grab more opportunities

PEO4: Establish as entrepreneurs with continuously leaning, professionalism, managerial skills, social responsibilities and ethical practices.

PROGRAM SPECIFIC OUTCOMES (PSO's)

PSO1. **SKILLS FOR SUCCESSFUL CAREER**: Able to apply engineering knowledge to get through the competitive examinations for employment/higher studies.

PSO2. **PROBLEM SOLVING SKILLS**: Exercise latest techniques, innovative methods and multi disciplinary knowledge in solving engineering problems of industry and serve the society

TECH NEWS

- CrowdStrike IT outage affected 8.5 million Windows devices, Microsoft says
- How AI will transform the Olympics
- OpenAI announces a search engine called SearchGPT; Alphabet shares dip
- Intel AI and the Olympics
- Self-driving tech company WeRide accelerates global expansion as transportation industry adopts AI
- Google U-turns on Privacy Sandbox endeavor, deciding that cookies won't be replaced after all – here's what that means for you
- Widespread CrowdStrike Outages Highlight The Imperative For AI Guardrails
- Colorado Takes The Lead In Quantum Technologies
- CrowdStrike Windows Outage—What Happened And What To Do Next
- OpenAI is taking on Google with a new artificial intelligence search engine

PLACEMENTS 2023-2024

The Department of Mechanical Engineering takes immense pride in congratulating our students for securing placements in reputed companies during the ongoing campus recruitment drives. We appreciate the efforts you've invested throughout your academic journey and applaud your readiness to take on real-world engineering challenges. This achievement also serves as inspiration for your juniors, encouraging them to aim high and pursue excellence.

We extend our best wishes for your future endeavors and a successful, fulfilling career ahead!

Congratulations once again—your success is well deserved!

S.No	REG.NO	NAME OF THE STUDENT	COMPANY NAME
1	20MQ1A0325	Vannemreddy Ganesh Kumar	Suryatech Solutions
2	21MQ5A0318	Ummidiseeti Sai Phanindra	Suryatech Solutions
3	20MQ1A0322	Naragani Vasu	Suryatech Solutions
4	21MQ5A0330	Namu Kranthi Kumar	Suryatech Solutions
5	21MQ5A0308	Kollipara Likhith Sai Naga Venkata Narayan	Global Logic
6	21MQ5A0306	Jangam Vijay Kumar	Bharat electronics limited
7	21MQ5A0327	Mohammad Naseer	Bharat electronics limited
8	21MQ5A0329	Vannemreddy Janaki Ram Venkatesh	Bharat electronics limited
9	20MQ1A0302	Abdul Hafeezur Rahman	Indro solutions
10	20MQ1A0310	Jogi Soma Sekhara Sri Ram	Sri ragavendra technologies
11	21MQ5A0315	Sanka Vamsi Krishna	ccl food on bevarages limited
12	21MQ5A0301	Boppe Ganesh	Aadhyanth textiles india Private Limited
13	21MQ5A0305	Inteti Vamsi	criztone technology private limited
14	21MQ5A0307	Kagitha Naga Sai Prasad	Upstartix innovations Private limited
15	21MQ5A0309	K.S.K.N.Malleswarao	Upstartix innovations Private limited
16	21MQ5A0310	Maddirala Santhosh	Upstartix innovations Private limited
17	21MQ5A0311	Motepalli Bhargava	Upstartix innovations Private limited
18	21MQ5A0316	Sayyad Basheer Ahamad	Upstartix innovations Private limited
19	21MQ5A0317	Seelam Mohan Sai	Upstartix innovations Private limited
20	21MQ5A0321	Pandi Manikya Rao	Upstartix innovations Private limited
21	21MQ5A0322	Posimsetti Venkata Ramu	Upstartix innovations Private limited
22	21MQ5A0323	Gudavalli Naveen	Upstartix innovations Private limited

23	21MQ5A0324	Bonu. Yugandhar Sai	Niyo Farm Tech Private Limited
24	21MQ5A0325	Pallikonda Dileep	Niyo Farm Tech Private Limited
25	21MQ5A0326	Mallela Siva Teja	Alien Innovations Private Limited
26	21MQ5A0328	Kokkera Sri Naga Venkata Surya	Manjha Technologies pvt ltd

FDPs Attended by Faculty

The Department of Mechanical Engineering extends sincere appreciation to all faculty members who have actively participated in various **Faculty Development Programs (FDPs)**.Your enthusiasm for continuous learning and professional growth reflects a deep commitment to academic excellence and quality teaching. By upgrading your knowledge and skills through FDPs, you not only enhance your own capabilities but also enrich the learning experience of our students and contribute meaningfully to the department's progress.We thank you for your dedication, and we encourage you to continue engaging in such opportunities that foster innovation, collaboration, and lifelong learning.

Thank you once again for your valuable participation and commitment to excellence in education

S.No	Name of the Faculty	Institution/Organization	Name of the Topic	Date	No. of Days
1	Dr. D. Raja Ramesh	Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 to 27/4/2024	10
2		Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from Industries and Academia to promote Innovation, Design thinking and startups	20/5/2024 to 25/5/2024	6
3		Vasireddy Venkatadri Institute of Technology	Smart Materials and Research Opportunities	27/05/2024 to 31/05/2024	5
4	Dr. MD Abid Ali	Narasaraopeta Engineering College	Design Thinking and Innovation	18/06/2024 to 22/06/2024	5
5		Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from Industries and Academia to promote Innovation, Design thinking and startups	20/05/2024 to 25/05/2024	6
6		Vasireddy Venkatadri Institute of Technology	Smart Materials and Research Opportunities	27/05/2024 to 31/05/2024	5

7	Mr. K. Sukumar	Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 TO 27/4/2024	10
8		Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from Industries and Academia to promote Innovation, Design thinking and startups	20/05/2024 to 25/05/2024	6
9		Vasireddy Venkatadri Institute of Technology	Smart Materials and Research Opportunities	27/05/2024 to 31/05/2024	5
10		Narasaraopeta Engineering College	Design Thinking and Innovation	18/06/2024 to 22/06/2024	5
11	Mrs.Ch.Anusha	Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 to 27/4/2024	10
12		Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from Industries and Academia to promote Innovation, Design thinking and startups	20/5/2024 to 25/5/2024	6
13	Mr. V. Satish Kumar	Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 to 27/4/2024	10
14		Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from Industries and Academia to promote Innovation, Design thinking and startups	20/5/2024 to 25/5/2024	6
15	Mr.V.Ravi	Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 to 27/4/2024	10
16	Mr. G.S.N. Phani Kumar	Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from Industries and Academia to promote Innovation, Design thinking and startups	20/5/2024 to 25/5/2024	6
17	Mr. D. Kiran Babu	Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 to 27/4/2024	10
18		Narasaraopeta Engineering College	Design Thinking and Innovation	18/06/2024 to 22/06/2024	5
19		Vasireddy Venkatadri Institute of Technology	Smart Materials and Research Opportunities	27/05/2024 to 31/05/2024	5
20	Mr.T.Durga Prasad	Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from	20/5/2024 to 25/5/2024	6

			Industries and Academia to promote Innovation, Design thinking and startups		
21		Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 to 27/4/2024	10
22	Mrs.K.Lakshmi Priya	Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 to 27/4/2024	10
23		Vasireddy Venkatadri Institute of Technology	Smart Materials and Research Opportunities	27/05/2024 to 31/05/2024	5
24		Narasaraopeta Engineering College	Design Thinking and Innovation	18/06/2024 to 22/06/2024	5
25	Ms.D.Khyathi mai	Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 to 27/4/2024	10
26		Narasaraopeta Engineering College	Design Thinking and Innovation	18/06/2024 to 22/06/2024	5
27	Mrs. V. Sai mounica	Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from Industries and Academia to promote Innovation, Design thinking and startups	20/5/2024 to 25/5/2024	6
28	Mr. K Ravi	Prasad V.Potluri Siddhartha Institute Of Technology	Industry 4.0/5.0	15/4/2024 to 27/4/2024	10
29		Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from Industries and Academia to promote Innovation, Design thinking and startups	20/5/2024 to 25/5/2024	6
30	Mr. P. Vijay Kanth	Vasireddy Venkatadri Institute of Technology	Smart Materials and Research Opportunities	27/05/2024 to 31/05/2024	5
31		Shri Vishnu College of Engineering for Women	Current Trends in Mechanical Engineering - Case studies from Industries and Academia to promote Innovation, Design thinking and startups	20/5/2024 to 25/5/2024	6

GUEST LECTURE

The Department organized a guest lecture on the critical topic of **Biochemical Oxygen Demand (BOD)**, **Chemical Oxygen Demand (COD)**, and **Coliform Testing**, fundamental parameters in water and wastewater quality assessment.

The session provided an in-depth understanding of the principles, methodologies, and significance of these tests in evaluating the level of organic pollution and microbial contamination in water.

- **BOD**: Measures the amount of oxygen required by microorganisms to decompose organic matter in water.
- **COD**: Indicates the total quantity of oxygen required to chemically oxidize organic and inorganic compounds.
- **Coliform Tests**: Detect the presence of coliform bacteria, indicating possible fecal contamination and the sanitary quality of water.

The guest speaker emphasized the importance of these tests in environmental monitoring, sewage treatment plants, and industrial effluent control, along with relevant sampling techniques, permissible limits, and case studies from real-world applications.

The session was highly beneficial for students and faculty, enriching their knowledge in environmental engineering, water resource management, and public health safety.

S. No	Date	Title	Cordinator	Resource person
1	09-04-2024	GuestLecture on BOD & COD and coliform tests	ReshmaSulthana	V.SuryaTeja Assistant Professor Andhra Loyala

MOTIVATIONAL QUOTES

"I never dreamed about success. I worked for it."

"Success is getting what you want; happiness is wanting what you get."

…….Empowering Minds

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DEPARTMENT VISION

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TECH NEWS

1- Elon Musk unveils his ‘Cybercab’ robotaxi

2- Google joins Big Tech’s move into nuclear power, and other top energy stories

3- Nvidia stock rises to new record, exceeding June high as AI trade is rekindled

4- This Company’s AI Agents Won Contests To Secure Big Customers. Now It’s Raised $65 Million

5- When Cyber Security Breaches Are Inevitable, It’s Time To Call For A New Approach

6- GE HealthCare announces time-saving AI tool for doctors who treat cancer

7- Claude AI tool can now carry out jobs such as filling forms and booking trips, says creator

8- Microsoft introduces ‘AI employees’ that can handle client queries

9- Google to buy power for AI needs from small modular nuclear reactor company Kairos

BMW 1300 GS

The BMW R 1300 GS embodies the pure essence of the GS spirit. Its relatively low weight, combined with the powerful 145 hp boxer and generous 1300 ccm displacement makes it the best of the best in the large touring enduro segment. The goal during development was maximal reduction instead of ever-increasing size. The result: inimitable handling. Despite its low complexity, it has more comprehensive standard equipment than ever before.

The BMW R1300GS is an adventure touring motorcycle announced for the 2024 model year by BMW Motorrad, following the BMW R1250GS. The engine and transmission were redesigned, as was the frame, eliminating the full trellis frame of the earlier model. Both changes contributed to a weight of 237kg, 12kg lighter than the previous model. It also eliminated the asymmetrical headlights in earlier generations of the GS series.

Standard equipment: TFT display with BMW Motor rad Connectivity, LED matrix headlight, Daytime riding lights, Dynamic Traction Control (DTC), BMW Motorrad full integral ABS Pro,4 riding modes (Eco, Rain, Road, Enduro), Hill Start Control (HSC),Dynamic Brake Control (DBC),Dynamic Cruise Control (DCC), Engine drag torque control (MSR),Tyre pressure control (TPC), KeylessRide, Heated grips,Smartphone charging compartment with a USB charging socket Hand protection with integrated indicator lamps

TEACHERS DAY CELEBRATIONS

The students of the Mechanical Engineering Department proudly organized a heartfelt celebration to honor their teachers on the occasion of **Teachers' Day**, commemorating the birth anniversary of **Dr. Sarvepalli Radhakrishnan**, a great educator and philosopher.

The event featured inspiring speeches, and token-of-gratitude presentations to appreciate the tireless efforts and guidance of faculty members. Students showcased their creativity through video tributes and a cultural program that highlighted the strong bond between students and mentors.

The celebration served as a humble expression of gratitude towards the faculty, whose dedication continues to shape the future of aspiring engineers. It concluded with a message of respect and recognition for the educators who play a pivotal role in technical education and innovation.

ENGINEERS DAY CELEBRATIONS

The Department of Mechanical Engineering celebrated Engineers' Day with great enthusia$m and pride to honor the birth anniversary of Bharat Ratna Sir Mokshagundam Visvesvaraya, one of India's most eminent engineers and a visionary statesman.

The event featured a series of technical activities, including word puzzle, Guess the gadget, debate, reflecting the creative spirit and problem-solving mindset of future engineers. A special tribute was paid to the legacy of Sir Visvesvaraya, highlighting his contributions to nation-building and engineering excellence.

Students and faculty came together to recognize the vital role engineers play in driving progress, innovation, and sustainable development. The celebration served not only as a tribute to engineering pioneers but also as motivation for young minds to push the boundaries of technology and service to society.

WORKSHOP ORGANISED

To strengthen the bridge between theory and real-world industrial practices, the Department of Mechanical Engineering successfully organized a hands-on workshop on Non-Destructive Testing **(NDT)**- a crucial quality assurance technique widely used in aerospace, automotive, fabrication, and infrastructure sectors during 11th to 12th September 2024.

This workshop provided students and faculty with an in-depth understanding of various **NDT techniques** that ensure material and component integrity without causing any damage. Participants were introduced to the scientific principles, field applications, and limitations of different methods, followed by live demonstrations and practical exposure.

Key Techniques Covered:

- **Ultrasonic Testing (UT)** – for detecting internal flaws using high-frequency sound waves
- **Magnetic Particle Testing (MPT)** – ideal for locating surface and near-surface discontinuities in ferromagnetic materials
- **Dye Penetrant Testing (DPT)** – to identify surface cracks in non-porous materials
- **Radiographic Testing (RT)** – using X-rays and gamma rays for in-depth inspection
- **Eddy Current Testing (ECT)** – for surface and near-surface defect detection in conductive materials

GUEST LECTURES

S.no	Date	Title	Cordinator	Resource person	No.of students
1	13-09-2024	Guest lecture on high energy rate farming	K Sukumar	Dr.B. Amar Nagendram	89
2	16-09-2024	Guest Lecture on improving efficiency in power plants	K.Lakshmi Priya	Ch. Nagaraju Asst Executive Engineer APGENCO	34

Guest Lecture: High Energy Rate Forming

This guest lecture introduced participants to High Energy Rate Forming (HERF) — a group of advanced metal forming processes that use high energy input in a very short time to shape materials. Techniques such as explosive forming, electromagnetic forming, and electrohydraulic forming are discussed. The lecture will cover the fundamental principles behind HERF, its advantages over conventional forming methods (like forming difficult-to-shape metals, achieving high precision, and reducing tooling costs), and its applications in aerospace, automotive, and defense industries. Emphasis is placed on real-world applications, process parameters, safety considerations, and the latest innovations in the field.

Guest Lecture: Improving Efficiency in Power Plants

This lecture focused on advanced strategies and technologies for enhancing the efficiency of thermal, hydroelectric, and renewable power plants. Topics include thermodynamic cycle optimization, waste heat recovery, cogeneration systems, and digital monitoring techniques for predictive maintenance and operational control. The guest expert will also cover case studies from leading energy sectors and future directions in low-carbon and energy-efficient power generation.

FACULTY PUBLICATIONS

The Department of Mechanical Engineering extends its heartfelt congratulations to our esteemed faculty members for their recent **research publications in reputed journals and conferences**.

Your dedication to academic excellence and continuous contribution to the field of engineering research brings immense pride to the department. We commend your hard work, perseverance, and the impactful role you play in enhancing the department's academic and research profile.

S.No	Name Of The Faculty	Title Of The Paper	Volume , Issue No& Page No	ISSN Number And Year Of Publication	Indexing
1	Ms. D. Khyathimai	Design And Optimization Of Excavator Arm	Volume : 53, Issue 9,466-471	0970-2555 & September : 2024	UGC CARE
2	Mrs Ch. Anusha	Experimental Investigation Of Heat Transfer Characteristics Using Nanofluids In An Automotive Radiator	Volume : 53, Issue 9,472-479	0970-2555 & September : 2024	UGC CARE
3	Dr. D. Raja Ramesh	Explicit design and analysis of EV car body	Volume : 53, Issue 9,480-487	0970-2555 & September : 2024	UGC CARE
4	Mr. K. Sukumar	Fabrication of solar-based aerator and controller For aquaculture	Volume : 53, Issue 9,488-494	0970-2555 & September : 2024	UGC CARE
5	Mr. D. Kiran babu	Fabrication Of Solar Power Crack Detection System For Railway Track	Volume : 53, Issue 9,495-500	0970-2555 & September : 2024	UGC CARE
6	Mrs.ch.Anusha	Investigation on mechanical and tribological Behaviour of al6061/ sic/bagasse ash hybrid reinforced Metal matrix composites using stir casting.	Volume : 53, Issue 9,508-514	0970-2555 & September : 2024	UGC CARE
6	Mrs.K. Lakshmi priya	Fabrication & performance analysis of floating & sunTracking solar panel	Volume : 53, Issue 9,501-507	0970-2555 & September : 2024	UGC CARE

STUDENT PUBLICATIONS

The Department of Mechanical Engineering proudly congratulates our students for their commendable achievements in research and academic publishing. Their recent publications in reputed journals and conferences stand as a testament to their hard work, innovation, and commitment to excellence.

S.No	Name of the Students	Name Of The Faculty Guide	Title Of The Paper	Name Of The Journal
1	B. Ganesh, G. Ravi Chandu, M. Santhosh, M. Pavan Manikanta	Ms. D. Khyathimai	Design And Optimization Of Excavator Arm	Industrial Engineering Journal
2	K. Malleswara Rao, K. Bhanu Prakash, S. Vamsi	Mrs Ch. Anusha	Experimental Investigation Of Heat Transfer Characteristics Using Nanofluids In An Automotive Radiator	Industrial Engineering Journal
3	P.Venkataramu B.Yugandharsai, N.N.S.T.Lakshman, K.Ravinageswar, K.Balasaikrishna	Dr. D. Raja Ramesh	Explicit design and analysis of EV car body	Industrial Engineering Journal
4	K. Pradeep Kumar, S. Vijay Kumar, G. Naga Sandeep, A. Chandhini	Mr. K. Sukumar	Fabrication of solar-based aerator and controller For aquaculture	Industrial Engineering Journal
5	M.Bhargava, P.Manikya Rao, M.Yashwanth, G.Syam Sundar	Mr. D. Kiran babu	Fabrication Of Solar Power Crack Detection System For Railway Track	Industrial Engineering Journal
6	P. Dileep, B. Krishna Vamsi, N. Vasu G. Venkata Ramana	Mrs.K. Lakshmi priya	Fabrication & performance analysis of floating & sun Tracking solar panel	Industrial Engineering Journal
7	M. Siva Teja, G. Naveen, K. Victor, A. Hafeezur Rehman	Mr.ch.Anusha	Investigation on mechanical and tribological Behaviour of al6061/ sic/bagasse ash hybrid reinforced Metal matrix composites using stir casting.	Industrial Engineering Journal

FDPS ATTENDED BY FACULTY

Congratulations to Faculty Members for Their Professional Development Achievements:

The Department of Mechanical Engineering extends warm congratulations to our dedicated faculty members **Mrs. Ch. Anusha, Mrs. D. Khyathimai and Mrs. K. Lakshmi Priya** for their successful participation and completion of prestigious faculty development programs and courses.

S.No	Name of the Faculty	Institution/Organization	Name of the Topic	Date	No. of Days
1	Mrs.Ch.Anusha	AICTE	UHV-II	19/08/2024 to 24/08/2024	6
2	Mrs. D. Khyathimai	AICTE	UHV-II	19/08/2024 to 24/08/2024	6
3	Mrs. K. Lakshmi Priya	NPTEL - AICTE	Operations and Supply Chain Management	Jul- Oct 2024	12 Weeks

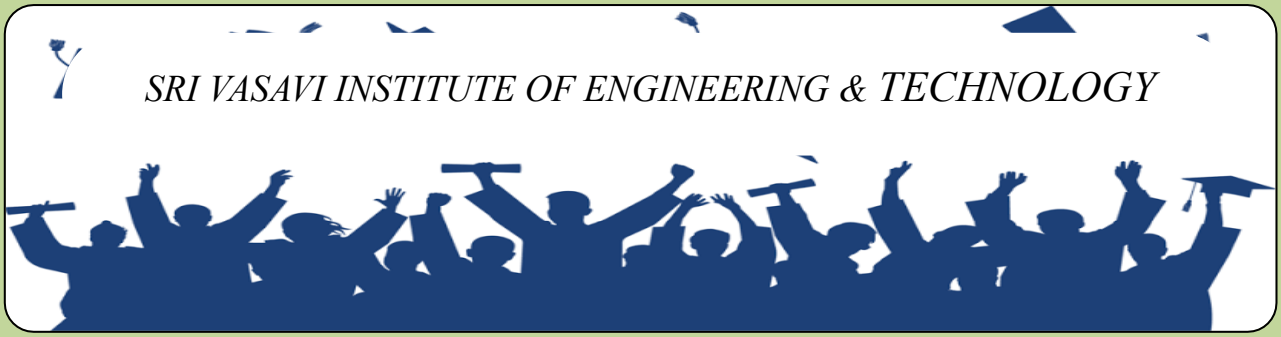
Mrs. Ch. Anusha and Mrs. D. Khyathimai successfully completed the **AICTE-sponsored UHV-II (Universal Human Values – Level II)** Faculty Development Program held from **19th August to 24th August 2024**. This 6-day intensive program focused on integrating human values into technical education and enhancing the emotional, ethical, and societal responsibility of educators. Their participation enriches our academic environment and supports the holistic development of our students.

Mrs. K. Lakshmi Priya Successfully completed a 12-week NPTEL–AICTE Faculty Development Program on Operations and Supply Chain Management, conducted from July to October 2024. This rigorous course, offered by premier institutions through the NPTEL platform, provided in-depth knowledge on optimizing operations and managing supply chains—critical skills for modern engineering and industry-oriented education.

MOTIVATIONAL QUOTES

"Nothing in the world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. The slogan 'Press On' has solved and always will solve the problems of the human race."

……Empowering Minds



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8.RAAVAN IDOL

DEPARTMENT VISION, MISSION, PEOs & PSOs

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BMW RNine T

Honda Motorcycle & Scooter India (HMSI) has announced the commencement of bookings for its flagship motorcycle– the Gold Wing Tour. The touring motorcycle wll be available as Completely Built Unit in India and carries a hefty price tag of Rs 39.20 lakh (ex-showroom). The bike will be retailed through Honda's premium BigWing Top Line dealerships.

Commenting on the launch, YogeshMathur, Director, Sales and Marketing, HMSI, said, "Honda's legendary Gold Wing Tour continues to set new standards in the modern touring category with class-leading luxury, comfort, performance and safety. We are happy to announce that the bookings for the new Gold Wing Tour are now open and customer deliveries of this flagship luxury tourer will begin in India from October 2024 onwards."

There isn't any change in how the Goldwing looks with the same massive footprint courtesy of a bulky design, a wide front apron, and a huge windscreen up front. Other visual highlights include lumbar support for the rider, a stepped-up pillion seat and blacked-out alloy wheels. Besides, it gets massive pannier boxes that enhance its touring capabilities.

TECH NEWS

1- How Chinese AI Startup DeepSeek Made a Model that Rivals OpenAI

2- Trump announces a $500 billion AI infrastructure investment in the US

3- Microsoft launches Copilot Chat for businesses to boost AI adoption

4- Tech titans bicker over $500bn AI investment announced by Trump

5- AI could help diagnose dementia through eye tests

6- Musk, MrBeast, Larry Ellison – Who might buy TikTok?

7- The Evolving Role Of The CISO

8- Survey: 68% Of Execs Plan To Funnel Up To $250 Million Into AI

9- The Cause of the LA Fires Might Never Be Known—but AI Is Hunting for Clues

10- Nvidia’s $560 Billion DeepSeek Rout Is Largest in Market History

AYUDHA POOJA celebrations

The Mechanical Engineering Department celebrated Ayudha Pooja in October 2024 with great enthusiasm. As part of the tradition, all tools, machines, and equipment in the laboratories and workshops were cleaned and decorated. The pooja was performed to seek blessings for the safe and efficient functioning of machinery and to honor the instruments that support learning and practical training.

ARMS Day celebrations

As a part of curriculum our department conducted the ARMS events and Association day celebrations during Oct-Nov 2024.Some of the events include

- Engine Assembly
- Cad Mania
- Technical JAM
- Technical Quiz
- Powerpoint Presentations
- CATIA 3D
- Poster Presentations
- Aptitude & Reasoning

Ph.D Pursuing faculty

We are proud to share that **Ch. Anusha** has successfully secured a **Ph.D. seat through APRCET**, achieving an impressive **Rank of 26** through her outstanding performance in the entrance **exam and interview** process. This remarkable achievement is a testament to her dedication, hard work, and academic excellence. We extend our heartfelt congratulations and wish her continued success in her research journey. **Congratulations to Ch. Anusha!**

Faculty Name	Guide Name	University/ Insititute of registration	Year of Registration	Area of Research
Mrs.Ch. Anusha	Dr.B.Ram Gopal Reddy	ANU	October 2024	Additive Manufacturing

FDP'S ATTENDED BY FACULTY

Our faculty members actively participate in various **Faculty Development Programs (FDPs)** organized by reputed institutions and universities to enhance their **teaching skills, research capabilities, and domain knowledge**. These FDPs cover a wide range of topics including **emerging technologies, curriculum enhancement, pedagogy, industry trends**, and **research methodologies**, contributing to the continuous professional growth of the faculty and improving the overall academic environment.

S.No	Name of the Faculty	Institution/Organization	Name of the Topic	Date
1	Dr.Md. Abid Ali	Prasad V Potluri Siddhartha Institute of Technology, Vijayawada.	Advances in Mechanical Engineering	02.12.24 To 13.12.2024
2	Mrs. Ch. Anusha	Prasad V Potluri Siddhartha Institute of Technology, Vijayawada.	Advances in Mechanical Engineering	02.12.24 To 13.12.2024
3	Mrs. Ch. Anusha	ACE Engineering college	Research Paper Writing And Publishing	23.09.2024
4	Ms. D. Khyathimai	SASI Institute of Technology & Engineering	Advanced AI Tools for preparing Research papers	08.11.2024 To 09.11.2024
5	Mr. D. Kiran Babu	SASI Institute of Technology & Engineering	Advanced AI Tools for preparing Research papers	08.11.2024 To 09.11.2024
6	Mr. D. Kiran Babu	Prasad V Potluri Siddhartha Institute of Technology, Vijayawada.	Advances in Mechanical Engineering	02.12.24 To 13.12.2024
7	Mrs.K.Lakshmi Priya	ACE Engineering college	Research Paper Writing And Publishing	23.09.2024
8	Mrs.K.Lakshmi Priya	SRM University, AP	Smart Manufacturing and Industry 4.O	02.12.2024 To 06.12.2024

SHIVA IDOL

Mechanical Engineering Students Craft Shiva Idol for Kartheeka Deepotsavam Celebrations:

The **Department of Mechanical Engineering** takes immense pride in the creativity and devotion demonstrated by its students during the **Kartheeka Deepotsavam celebrations** held on campus. As part of the festivities, the students took the initiative to **design and construct a magnificent idol of Lord Shiva**, showcasing not only their spiritual enthusiasm but also their artistic and engineering skills.The beautifully crafted idol stood as a centerpiece for the celebrations, drawing admiration from faculty, students, and visitors alike. The process involved thoughtful planning, teamwork, and application of design principles, reflecting the students' technical abilities blended with cultural reverence.

This heartfelt contribution added a divine and vibrant touch to the Kartheeka Deepotsavam, reinforcing the values of tradition, unity, and creativity among the student community.

Kudos to the Mechanical Engineering students for their dedication and for making the event truly special and memorable.

RAAVAN IDOL

Mechanical Engineering Students Construct Ravan Idol for Dussehra Celebrations

The students of the Department of Mechanical Engineering showcased their creativity, craftsmanship, and cultural spirit by designing and constructing an impressive Ravan idol as part of the Dussehra celebrations on campus.This initiative was a vibrant representation of the symbolic victory of good over evil, which lies at the heart of the Dussehra festival. The idol, carefully crafted using sustainable materials and engineering techniques, stood as a testament to the students' dedication, teamwork, and innovative spirit.

The Ravan effigy became the highlight of the celebrations, drawing appreciation from faculty, staff, and fellow students. It not only added grandeur to the event but also reflected the department’s commitment to blending technical knowledge with traditional values.

Kudos to the Mechanical Engineering students for their enthusiastic participation and for bringing the festive spirit alive on campus with such a remarkable creation.

GUEST LECTURE

As part of its continuous effort to keep students aligned with industry advancements, the Department of Mechanical Engineering conducted an insightful Guest Lecture on **"Software Applications in Rapid Prototyping on 13th nov"**. The session focused on the pivotal role of design and simulation software tools in transforming ideas into physical models through rapid prototyping techniques such as 3D printing, CNC machining, and additive manufacturing.

The lecture was delivered by an professional speaker **Mr.P Satyanarayana**,Assistant Professor,GEC with hands-on experience, the lecture covered:

- Overview of CAD/CAM tools in product development.
- Use of SolidWorks, AutoCAD, Fusion 360, and ANSYS for prototyping.
- Software used in slicing, support generation, and G-code creation for 3D printing.
- Integration of topology optimization and generative design.
- Case studies on rapid tooling and functional prototyping.

INDUSTRIAL VISIT

The Department of Mechanical Engineering arranged an insightful **industrial visit to Kumar Pumps on 18th October**, a leading manufacturer of industrial and agricultural pumping systems, located in **Vijayawada**.

The visit offered students a first-hand experience of the manufacturing **process**, assembly, and performance testing of various types of pumps, including:

- Centrifugal pumps
- Submersible pumps
- Monoblock and Jet pumps
- Openwell and Borewell pumps

The team at Kumar Pumps welcomed the students and gave a comprehensive overview of:

- Pump design and selection criteria
- Materials used for pump components
- Quality control procedures
- Casting, machining, and balancing operations
- Efficiency testing and certification

Faculty Publications

The Department of Mechanical Engineering proudly congratulates **Dr.Md.Abid Ali** for the successful publication of a research paper titled:**"Performance and Emission Characteristics of a Single Cylinder Direct Injection Four-Stroke Diesel Engine with Mickey Piston"** in a **Scopus-indexed journal**.

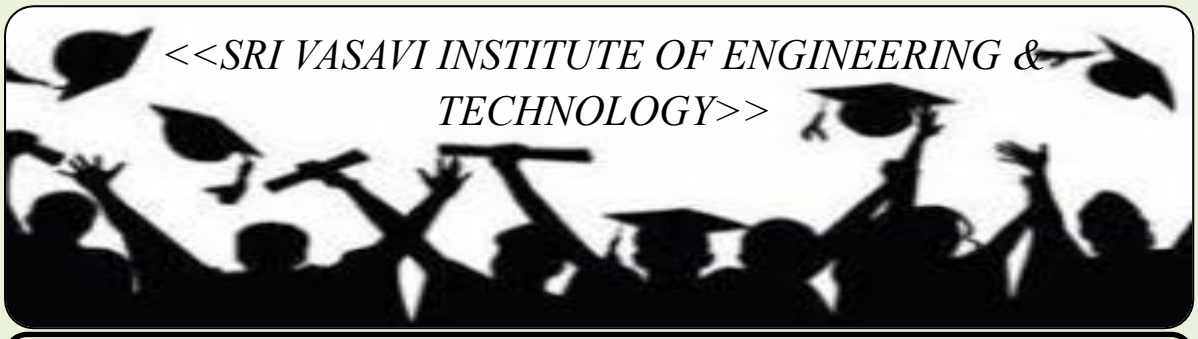
S.No	Name Of The Faculty	Title Of The Paper	Name Of The Journal	Volume , Issue No& Page No	ISSN Number And Year Of Publication
1	Dr. Md. Abid Ali	Performance And Emission Characteristics of A Single Cylinder Direct Injection Four Stroke Diesel Engine With Mickey Piston	Nanotechnology Perceptions	Volume: 20	1660-6795 & November - 2024

We appreciate your dedication to impactful research and look forward to more such accomplishments in the future. Keep up the great work!

MOTIVATIONAL QUOTE

- "The pessimist sees difficulty in every opportunity. The optimist sees opportunity in every difficulty."
- "You learn more from failure than from success. Don't let it stop you. Failure builds character."

…….Empowering Minds



MECH VIBES NEWS LETTER

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EDITORIAL BOARD

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DEPARTMENT VISION, MISSION, PEOs & PSOs

DEPARTMENT VISION

To become a global knowledge hub of mechanical engineering fulfilling the industry and society needs with ethical practices.

DEPARTMENT MISSION

DM1: Provide quality education for global requirements.

DM2: Improve pedagogical methods employed in delivering the academic programmes.

DM3: Enhance the knowledge, skill by industry- institution interaction

DM4: Cultivate the spirit of entrepreneurship with the sense of ethical, professional responsibility.

PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

Graduates of Mechanical Engineering will be able to

PEO1: Get good job opportunities or pursue higher studies

PEO2: Exercise latest techniques to get solutions to industrial/engineering problems.

PEO3: Gain the knowledge of other fields of engineering continuously to grab more opportunities

PEO4: Establish as entrepreneurs with continuously leaning, professionalism, managerial skills, social responsibilities and ethical practices.

PROGRAM SPECIFIC OUTCOMES (PSO's)

PSO1. **SKILLS FOR SUCCESSFUL CAREER**: Able to apply engineering knowledge to get through the competitive examinations for employment/higher studies.

PSO2. **PROBLEM SOLVING SKILLS**: Exercise latest techniques, innovative methods and multi disciplinary knowledge in solving engineering problems of industry and serve the society

TECH NEWS

1- Widespread power outage hits Spain and neighboring countries France and Portugal

2- Chat GPT-maker wants to buy Google Chrome

3- Amazon launches first Kuiper internet satellites in bid to take on Elon Musk’s Starlink

4- Google is an online advertising monopoly, judge rules

5- Spain and Portugal declare states of emergency after massive power outage

6- M&S stops online orders and issues refunds after cyber attack

7- UPS in Talks WithStartup Figure AI to Deploy Humanoid Robots

8- Racing To Success: Siemens’ Digital Solutions In Unexpected Industries

9- Microsoft says everyone will be a boss in the future – of AI employees

10- This tool estimates how much electricity your chatbot messages consume.

JNTUK Ball Badminton

Proud Moment for the Department of Mechanical Engineering!

We are delighted to announce that **Mr. Murali Sai Vardhan**, a student of **II Year Mechanical Engineering**, has been **selected to represent JNTUK in the Ball Badminton team**. His selection to the **JNTUK Ball Badminton team** at the inter-university level is a testament to his hard work, exceptional talent, and unwavering dedication to the sport.

This achievement not only highlights his personal commitment to excellence in athletics but also brings great pride to the department and the university as a whole. We wish him continued success and outstanding performance in all future tournaments.

Congratulations, Mural Sai Vardhan! Keep making us proud!

BYD Cars

BYD Auto was established in January 2003 as a subsidiary of BYD Company, a battery manufacturer, following the acquisition and restructuring of Xi'an Qinchuan Automobile. The first car designed by BYD, the petrol engined BYD F3, began production in 2005. In 2008, BYD launched its first plug-in hybrid electric vehicle, the BYD F3DM, followed by the BYD e6, its first batSince 2020, BYD Auto has experienced substantial sales growth that is driven by the increasing market share of new energy vehicles in China. The company has expanded into overseas markets from 2021, mainly to Europe, Southeast Asia, Oceania and the Americas. In 2022, BYD ended production of purely internal combustion engined vehicles to focus on new energy vehicles.The company is characterised by its extensive vertical integration, leveraging BYD group's expertise in producing batteries and other related components such as electric motors and electronic controls. Most components used in BYD vehicles are claimed to be produced in-house within the group. As of 2024, BYD's battery subsidiary FinDreams Battery is the world's second largest producer of electric vehicle batteries behind CATL. It specialises in lithium iron phosphate (LFP) batteries, including BYD's proprietary Blade battery.BYD is the best-selling car brand in China since 2023, after surpassing Volkswagen, which had held the title since the liberalisation of the Chinese automotive industry. In 2024, nearly 90 percent of BYD's sales came from the Chinese market. BYD is also the third most valuable car manufacturer in the world, based on market capitalization.The company has faced scrutiny and criticism related to its business practices, including allegations of aggressive price reductions, labor issues at its facilities, and various environmental concerns.tery electric vehicle, in 2009.

FDP's Attended by Faculty

S.No	Name of the Faculty	Institution/Organization	Name of the Topic	Date
1	Dr.Md. Abid Ali	SRGEC(AICTE-ATAL)	Machine learning and its Prospects in Manufacturing & Industry 4.O	10.02.2025 TO 15.02.2025
2	Mr. K. Sukumar	SRGEC(AICTE-ATAL)	Machine learning and its Prospects in Manufacturing & Industry 4.O	10.02.2025 TO 15.02.2025
3	Mrs. Ch. Anusha	SRGEC(AICTE-ATAL)	Machine learning and its Prospects in Manufacturing & Industry 4.O	10.02.2025 TO 15.02.2025
4	Ms. D. Khyathimai	SRGEC(AICTE-ATAL)	Machine learning and its Prospects in Manufacturing & Industry 4.O	10.02.2025 TO 15.02.2025
5	Mr. D. Kiran Babu	SRGEC(AICTE-ATAL)	Machine learning and its Prospects in Manufacturing & Industry 4.O	10.02.2025 TO 15.02.2025
6	Mr. T. Durga Prasad	CBIT, Hyderabad	Gen AI & Chat GPT Application in the Industry	27.01.2025 TO 31.01.2025
7	Mr. T. Durga Prasad	SRGEC(AICTE-ATAL)	Machine learning and its Prospects in Manufacturing & Industry 4.O	10.02.2025 TO 15.02.2025
8	Mrs.K.Lakshmi Priya	SRM University, AP	Smart Manufacturing and Industry 4.O	02.12.2024 To 06.12.2024
9	Mrs.K.Lakshmi Priya	SRGEC(AICTE-ATAL)	Machine learning and its Prospects in Manufacturing & Industry 4.O	10.02.2025 TO 15.02.2025

Faculty Development Programs (FDPs) programs are more than just academic engagements—they are intellectual launchpads preparing educators for the next frontier in manufacturing and digital transformation.

1. Machine Learning & Its Prospects in Manufacturing

In this FDP, our faculty explored how **machine learning algorithms** are revolutionizing predictive maintenance, process optimization, and intelligent automation in the manufacturing domain. From **data-driven quality control** to **AI-powered defect detection**, they learned to bridge the gap between mechanical systems and cognitive computing.

2. Smart Manufacturing & Industry 4.0

This program was a deep dive into the pillars of **Industry 4.0**, including **IoT**, **Cyber-Physical Systems**, and **Cloud Manufacturing**. Faculty gained hands-on exposure to **digital twins**, **smart sensors**, and **real-time analytics**—all key elements in creating autonomous and adaptive factories. The FDP empowered faculty to envision workshops and projects where students can simulate and solve real-time industry challenges using smart tech.

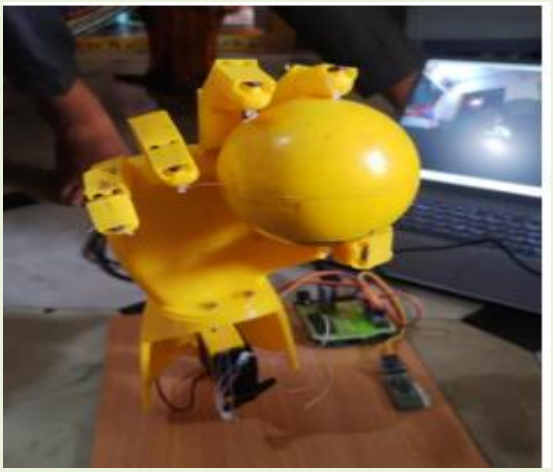
3. Generative AI & ChatGPT Applications in Industry

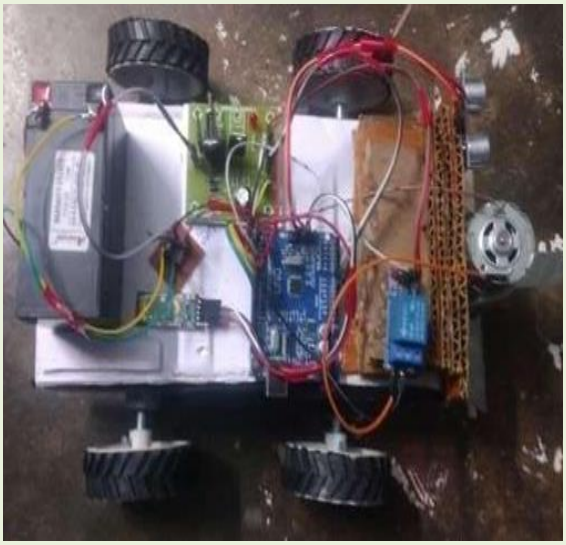
In a visionary FDP at the intersection of **AI creativity and industrial application**, faculty explored how **Generative AI** tools like **ChatGPT** can be deployed for **product design**

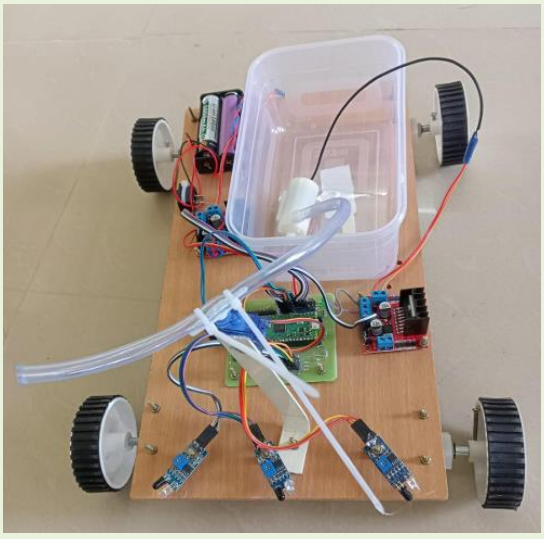
brainstorming, **technical documentation automation**, **virtual assistance in factories**, and even **training simulation modules**.

PROJECTS (2024-2025)

1. Fabrication and Analysis of Foot Step Power generator using Tribo and Piezo electric system
2. Dessicant Assisted Cooling system for sustainable In Door Climate control
3. Simulation of Mechanical Clinching for joining Different sheet materials using Deform software
4. Fabrication of Multi control Prosthetic Hand.
5. Fabrication of Automatic Solar Grass Cutter
6. Fabrication of Fire Extinguisher Robot
7. Fabrication of Solar Desalination System
8. Fabrication of Automated 3D printer







KITE COMPETITIONS

Kite Competitions on the Eve of Sankranthi Celebrations

As part of the vibrant Sankranthi celebrations, kite flying competitions were enthusiastically conducted, showcasing the festive spirit and cultural traditions of the season. Mechanical Engineering students participated with great zeal and creativity, designing colorful and high-flying kites.

We are proud to announce that our **Mechanical Engineering students M.H.Santhosh Kumar (24MQ5A0332) & Asif Baig (24MQ5A0303) won first prize and second prizes** in the competition, demonstrating not only their festive enthusiasm but also their skill and teamwork.

Congratulations to all the winners and participants for making the event a grand success and bringing glory to the department!

GUEST LECTURE

Guest Lecture on Braking Systems in the Automobile Industry

The Department of Mechanical Engineering is pleased to announce the successful organization of a Guest Lecture on **"Braking Systems in the Automobile Industry"**. The session aimed to enhance students' understanding of one of the most critical safety components in modern vehicles.The Resource person with rich experience in automotive design and innovation was invited to deliver the lecture. The session covered fundamental concepts, recent advancements in braking technology (such as ABS, EBD, regenerative braking), design considerations, and real-world applications in the automobile sector.

Students actively participated, gaining valuable insights into practical engineering challenges and solutions related to braking systems. The lecture bridged the gap between academic learning and industrial practices, helping students align their knowledge with current trends in automotive engineering.

S.No	Date	Title	Cordinator	Resource person
1	12-02-2025	Guest lecture on braking system in automobile industry	T Durga Prasad	S Madhusudan, Professor & HOD Usha Rama college of Engineering &Technology

MOTIVATIONAL QUOTES

"If you are working on something that you really care about, you don't have to be pushed. The vision pulls you."

"Experience is a hard teacher because she gives the test first, the lesson afterward."

.....Empowering Minds