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CAMPUS GEARS

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WELCOME TO OUR

Newsletter
Department of
Mechanical Engineering

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S Suresh (III Year)

S Sai Krishna(IV Year)

K Praveen Tejas(III Year)

S Manikanta(II Year)

B Naga Pavan(II Year)

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USHARAMA
COLLEGE OF ENGINEERING AND TECHNOLOGY
AUTONOMOUS

CODE URCE

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About the Department

The Department of Mechanical engineering is established at USHARAMA College of Engineering & Technology in the year 2010 with the approval of AICTE and intake is of 60 seats. It offers Undergraduate degree program in Mechanical Engineering. The department is adjudged as one of the pioneering departments at URCE with well qualified and experienced faculty.

The specializations of the faculty are well balanced to cater the academic needs of students effectively. To impart more practical exposure to the students the laboratories are housed spaciouly and are equipped with more than adequate machinery, tools and software's to satisfy the needs of students. Qualified and well trained technical staff assists the students during lab work.

INSTITUTE VISION

To emerge as a centre of excellence in technical education by imparting quality teaching learning practices and research for the transformation of society.

INSTITUTE MISSION

- **Provide an ideal and the best class infrastructure to foster exploration in engineering and research.**
- **Build dedicated faculty with student centric teaching incorporating experiential, innovative skills.**
- **Encourage lifelong learning, entrepreneurial thinking and ethical responsibility in students to address societal challenges.**

DEPARTMENT VISION

To impart quality education in the field of Mechanical Engineering to meet the industrial standards and technological needs of the society.

DEPARTMENT MISSION

- **To provide quality education for career building and skill enhancement and to become globally competitive.**
- **To groom the students with leadership qualities, problem solving approach, along with team work and effective communication.**
- **To promote higher education, entrepreneurship skills, research cum innovation with a focus on industrial and societal needs and to mould the students with professional ethics and moral values.**

PROGRAM EDUCATIONAL OBJECTIVES

(PEOs)

PEO 1: To train the graduates in building a successful professional career in Mechanical Engineering.

PEO 2: To encourage the graduate engineers to achieve their goals through higher education and Research & Development activities.

PEO 3: To support the graduates to become moral & ethically responsible citizens in the development of the nation.

PROGRAM SPECIFIC OUTCOMES

(PSOs)

PSO1: Apply Engineering fundamental knowledge, complex mathematics, science and provide solutions to mechanical Engineering system.

PSO2: Design and develop products innovatively with modern tools and to optimize manufacturing processes.

Programme Outcomes (POs)

PO - 1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO - 2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO - 3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO - 4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO - 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO - 6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO-7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO -8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO - 9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO - 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO - 11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO - 12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

FACULTY NEWS

PAPER PUBLICATIONS(National/International Journals/ Conferences)

SCI/SCIE/ESCI indexed journals:

Dr. B.KiranBabu, Associate Professor, ME Department

1. “Developing micro-lamellar composites of magnesium-calcium deficient nanohydroxyapatite by powder metallurgy route: in vitro degradation studies” The Canadian Journal of Metallurgy and Materials Science, Vol.64(1), pp. 14-24, 2024.
2. “Shot peening of AZ31 magnesium alloy: role of surface microstructure and iron diffusion on corrosion behaviour” The Canadian Journal of Metallurgy and Materials Science, Vol.64(1), pp. 226-236, 2024.

G. JayaRaju Assistant Professor, ME Deaprtment.

“A review on reinforcements, fabrication methods, and mechanical and wear properties of titanium metal matrix composites”. Journal of Engineering and Applied Science, 71, 60, 2024.

Conferences

Dr. R. Bhargavi, Associate Professor, ME Department

“Mechanical Properties of Basalt/Chopped E-Glass Fiber and Graphite Powder Reinforced Hybrid Composites”. Journal of Physics: Conference Series, 2765, 012002.

Dr. S. Madhusudan, Professor, ME Department

“Experimental Studies on Polyester-Titanium Functionally Graded Materials”. Journal of Physics: Conference Series, 2765, 012013.

Dr. V. Ajay Kumar, Associate Professor, ME Department

“Investigations on Microstructure and Mechanical Properties of HAp Nanocomposites reinforced with ZrO₂ and TiO₂”. Journal of Physics: Conference Series, 2765, 012009.

RESOURCE PERSONS IN STTPS/FDPS

Dr. S. Madhusudan, Professor & HOD, ME Department.

“Composites materials – An Overview” at Adikavi Nannayya University, Rajamandry, Andhra Pradesh, 7th Feb’ 2024

FACULTY DEVELOPMENT PROGRAM / SHORT TERM TRAINING

PROGRAM ORGANIZED

Six days FDP on “Green Technologies and Sustainability” on 22nd - 27th April, 2024.

Key note speakers are:

- 1 Dr. P. Vamsi Krishna, Associate Professor, NIT, Warangal.
2. Dr. M. Vijay Kumar, Assistant Professor, NIT, Warangal.
3. Dr. G. Vijay Kumar, Professor, P.V.P.S.I.T, Vijayawada.
4. Dr. B. Raghu Kumar, Professor, P.V.P.S.I.T, Vijayawada.
5. Dr. P.S. Rama Srikanth, Professor, Dean School of ME, VIT, AP.
6. Dr. S.S. Rao, Professor, Dept. of M.E., K. L.University

FACULTY DEVELOPMENT PROGRAMS ATTENDED

K.Vidya, Associate Professor, D. Keerthi Yadav, B. Nani and D. Sujatha, Assistant Professor, A one week online FDP on “Viksit Bharat 2047” organized by the Rajiv Gandhi University (Kadapa), Anantha Lakshmi Institute of Technology & Sciences (Ananthapuram), India organized from 29/01/24 to 02/02/24.

G. Jaya Raju, Assistant Professor, A two week online FDP on “Industry 4.0/5.0” organized by the PVPSIT, Vijayawada, India organized from 15/04/24 to 27/04/24.

CERTIFICATIONS COURSES THROUGH NPTEL

Dr.R Bhargavi, completed a certification course titled,“ National Accreditation Teaching Learning in Engineering” offered through Swayam - NPTEL during Jan-Apr 2024.

Dr.B.Kiran Babu, completed a certification course titled,“ Cloud Computing” offered through Swayam - NPTEL during Jan-Apr 2024.

HIGHER EDUCATION

Mr. Rahul G Karmanekar Asst Prof has enrolled for full time Ph.D at NIT Warangal

STUDENT ACTIVITIES

INDUSTRIAL VISTS/WORKSHOPS/SKILL DEVELOPMENT PROGRAMS

INDUSTRIAL VISIT

Nil

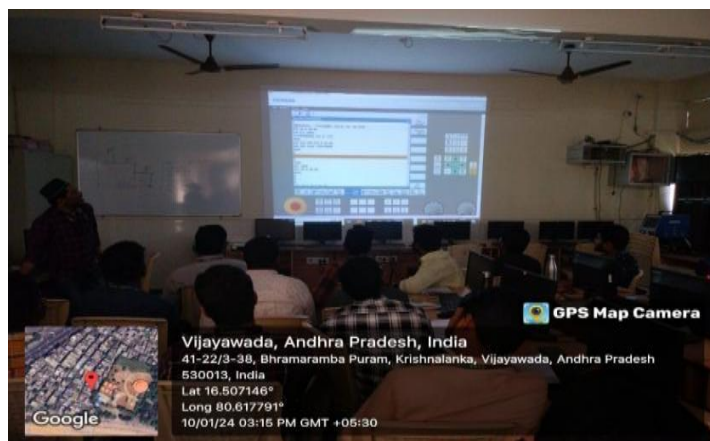
WORKSHOPS/SEMINARS

The department of Mechanical Engineering organized -----

A One week training program on "CATIA Product Design and Drafting" by Prasanna Lakshmi, Tranier, association with APSSDC, at Usha Rama college of Engineering and Technology (Autonomous) for ME students on 26-12-2023 to 30-12-2023.



A one week training program on "CNC Machining" by Pathan Mahabub Khan, Tranier, association with APSSDC at Andhra Loyola Institute of Engineering and Technology, Vijayawada, for III BTech ME students on 08-01-2024 to 13-01-2024.



Two days workshop on "Advanced CAD Design" by Dr. B. Raghu Kumar, Professor, P.V.P.S.I.T, Vijayawada, for ME students on 28/02/2024 to 29/02/2024.

A Seminar on "Electric Vehicles: Challenges & Future Prospects" by Dr. N. Ramanaiah, Professor, Andhra University, Visakhapatnam, for ME students on 02/03/2024.

PARTICIPATIONS IN PROFESSIONAL EVENTS

- 1) S Suresh, V Ravi Teja, T Jaya Sumanth, has participated in the event Technical quiz, during VKR Fest 2K24 at VKR, VNB & AGK College of Engineering, Gudivada, Andhra Pradesh on 22-03-2024.
- 2) Sanapala Suresh, Md Ibrahim Sanavullah Baig, M Durga Mallesh, J Saikumar has participated in the event Technical quiz, during VKR Fest 2K24 at VKR, VNB & AGK College of Engineering, Gudivada, Andhra Pradesh on 22-03-2024.
- 3) D Vamsi Prakash, B Sai Rohith, G Durga Prasad has participated in the event Project Expo at Swarnandhra College of Engineering & Techonlogy, Narsapur, Andhra Pradesh on 19-04-2024.
- 4) T Lakshman Kumar, S Suresh has participated in the event Project Expo and won 2nd Prize at Swarnandhra College of Engineering & Techonlogy, Narsapur, Andhra Pradesh on 19-04-2024.
- 5) B Vijay Jeevan Kumar, M Sasi Kumar, D Mohan Surya has participated in the event Technical quiz at Swarnandhra College of Engineering & Techonlogy, Narsapur, Andhra Pradesh on 19-04-2024.
- 6) T Naga Maha Akhilesh, V Leela Naga Sandeep, A Chennakesava has participated in the event Technical quiz and won 2nd Prize at Swarnandhra College of Engineering & Techonlogy, Narsapur, Andhra Pradesh on 19-04-2024.

CONFERNCES

- 1) D Mohan Surya, B Anil Kumar, A V Ramanjaneyulu and R Anil Kumar “3D Printing for Implant Applications: A Review” 4th International Conference on Emerging Trends In Mechanical Engineering And Industrial Automation – 2024, (NEC-ICETMEIA-2024), 19th &20th Apirl, 2024, at Narasaraopeta Engineering College, Andhra Pradesh, India. ISBN No: 978-93-91420-93-2.
- 2) A ChenneKesava, P Kesava Sai Kumar, T Naveen and D Mahesh Kumar “Experimental Investigations on Mechanical and Tribological Properties of Al6101- SiC Metal Matrix Composite Fabricated Through Stir Casting” 4th International Conference on Emerging Trends In Mechanical Engineering And Industrial Automation – 2024, (NEC-ICETMEIA-2024), 19th &20th Apirl, 2024, at Narasaraopeta Engineering College, Andhra Pradesh, India. ISBN No: 978-93-91420-93-2.
- 3) Ch Manikanta, C Tarun Sai Varma, P Jadeesh and N Raghava “Influence of Bagasse Ash Particles on Mechanical Properties of Al 6082 Metal Matrix Composites” won 2nd prize, 4th International Conference on Emerging Trends In Mechanical Engineering And Industrial Automation – 2024, (NEC-ICETMEIA-2024), 19th &20th Apirl, 2024, at Narasaraopeta Engineering College, Andhra Pradesh, India. ISBN No: 978-93-91420-93-2.

చిన్న దీపం

ఒక చిన్న దీపం చీకటిని చూసి భయపడింది. “నేను చిన్నదాన్ని, చీకటిని ఎలా తొలగిస్తాను?” అని అనుకుంది. కానీ వెలిగిన వెంటనే చీకటి తొలగిపోయింది.

S Sai Kumar(IV Year)

దీపం లాంటి విద్యార్థి

ఒక చిన్న గ్రామంలో రామ్ అనే విద్యార్థి ఉండేవాడు. అతని కుటుంబం చాలా పేదది. ఇంట్లో సరైన విద్యుత్ కూడా ఉండేది కాదు. కానీ రామ్ కి ఒక పెద్ద కల ఉండేది — **బాగా చదివి గొప్ప వ్యక్తిగా మారాలి** అని.

ప్రతి రోజు పాఠశాల నుంచి వచ్చాక అతను ఇంటి పనులు చేసేవాడు. రాత్రి సమయంలో ఇంట్లో లైట్ లేకపోవడంతో గ్రామంలో ఉన్న **వీధి దీపం (street light)** కింద కూర్చొని చదివేవాడు.

కొంతమంది అతన్ని చూసి నవ్వేవారు.

“ఇలా చదివి ఏమవుతుంది?” అని అడిగేవారు.

కానీ రామ్ వాటిని పట్టించుకోలేదు.

అతను ప్రతిరోజూ కష్టపడి చదివేవాడు.

కొన్ని సంవత్సరాల తర్వాత పరీక్షలు వచ్చాయి. రామ్ చాలా మంచి మార్కులు సాధించాడు.

తరువాత అతను పెద్ద కాలేజీలో చేరి **విజయవంతమైన ఇంజనీర్** అయ్యాడు.

ఆ రోజు అతన్ని ఎగతాళి చేసినవారే ఇప్పుడు అతన్ని చూసి గర్వపడ్డారు.

B Naga Pavan (II Year)



