

S.V. COLLEGE OF ENGINEERING TIRUPATI

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Mechanical Engineering

MECHANIX

2023-24 ODD Semester News Letter

JANUARY –JUNE 2023



*“As engineers, we were going to be in a position to change the world – not just study it...” —
Henry Petroski*



Mechanical Engineering

Vision of the Department

To impart knowledge with global perspectives in pursuit of excellence in Mechanical Engineering Education, Entrepreneurship and Innovation.

Mission of the Department

M1: To inculcate students with leadership skills with high level of integrity & ethical values for team building and team Work.

M2: To mold the young dynamic potential minds into full-fledged future professionals through effective teaching-learning Techniques & industry – institute collaboration.

M3: To serve the society through innovation and excellence in teaching and research.

Program Educational Objectives

PEO1: Graduates can demonstrate technical competence in Mechanical Engineering domain as they apply problem solving skills to conceive, analyze, design and develop products, processes and systems.

PEO2: Graduates can actively embrace leadership roles and strive hard to achieve professional and organizational goals with adherence to professional and ethical values, team expectations and sensitivities of cultural diversity.

PEO3: Graduates are committed to practice engineering strategies in industry and government organizations to meet the growing expectations of the Stakeholders and also contribute to the societal development.

About the Department

Mechanical Engineering, one of the oldest branches of Engineering, is a professional discipline that applies engineering, physics, mathematics, and materials science principles to design, analyze, manufacture, and maintain mechanical systems. As one of the oldest branches of engineering, Mechanical Engineering as a field of study is broad and diverse. With the need for skilled Mechanical graduates intensifying with every passing year, The Department has highly qualified and rich experienced faculty with an aim of providing quality educational service. The Department has good infrastructural facilities and is equipped with full-fledged laboratories and audio-visual systems. The department focuses research on Heat Transfer Enhancement, Alternative Fuels, Composite Materials and Advanced Machining Process etc.,

- The Department of Mechanical Engineering has formulated the following objectives:
- To facilitate students with real-time scenarios and hands-on training sessions through field trips.
- To equip students with practical knowledge to formulate and solve challenging problems.
- To enhance critical thinking and analytical skills of the students.
- To provide equal opportunities to all the students to learn and grow as well-rounded individuals.

Principal's Message



I have great pleasure in conveying my best wishes to the Department of Mechanical Engineering for releasing the technical magazine "Mechanix" which brings the students and teachers of various disciplines on a common platform to share and display their ideas and creative talents. I wish all the students who have involved in bringing out the magazine for their greater success and career ahead.

Dr. N.SUDHAKAR REDDY, ME, Ph.D, FIE, MISTE.

PRINCIPAL

HOD's Message



Mechanical Engineering is a versatile and evergreen branch of engineering. Mechanical engineer can work in various fields like automotive system, aerospace engineering, design engineering, dynamic system and control, power plant engineering, etc. and most importantly in software field also. Department has well qualified and dedicated faculty with well-developed laboratories. We impart quality engineering education through sound theoretical knowledge, hands on laboratory

as well as computational skill and exposure to recent technologies by visiting industries & expert talk. We provide opportunities for students to participate in various technical and sports events /competitions. This newsletter is an attempt to highlight the achievements of the department, in spite of the space constrain we have showcased the best and look forward to have more in the future on a quarterly editions. I wish good luck to the entire team of editors and look forward for your kind patronage to our newsletter.

Dr. M.CHANDRA SEKHARA REDDY, M.Tech, Ph.D, FIE, MISTE.

Head of the Department M.E,S.V.C.E, Tirupati

Faculty Corner



Patents Published:

- Dr. Rajesh registered a patent on “Motorized Auger Bore”, Intellectual Property India Patents| Designs| Trade Marks| Geographical Indications, issued date: 12 Jan 2023.
- Dr. Chandra Sekhar Reddy, Dr. Renuga Devi, Dr. Jagath, Dr. Vamsi Krishna et al. published a patent on “An assembly provided with wind energy storage and electricity generation and thereof”, 30 Dec 2022.

Publications:

- **Mr. Guru Mahesh, Dr. Rajesh N** published a research article on “Response surface methodology-based evaluation of S glass fiber composite reinforced with aluminum oxide pearlite”
- **Dr. Vamsi Krishna** published a research article titled “Influence of titanium diboride reinforced magnesium composites using squeeze casting method” Materials Today: Proceedings, May 2023.
- **Dr. Jagath Narayana kamineni** published a research article titled “Microstructure and mechanical properties of AZ91D/Si₃N₄ composites using squeeze casting method”. Materials Today: Proceedings, May 2023.
- **Mr. Anjan Kumar** published a research article titled “Investigating the mechanical properties of titanium dioxide reinforced magnesium composites”. Materials Today: Proceedings, May 2023.
- **Dr. M Chandra Sekhara Reddy** published a research article titled “Synthesis and characterization of silicon dioxide reinforced AZ91D magnesium composites” Materials Today: Proceedings, June 2023.
- **Dr. Jagath Narayana kamineni** published a research article titled “Investigation of the microstructure and mechanical properties of borosilicate reinforced magnesium nano composites”. Materials Today: Proceedings, June 2023.

Organized/Attended Seminars:

- Mechanical Department organized an online webinar on “Applications and Case-studies of Additive Manufacturing”, Resource person: Dr. Balaji B, Associate Professor, GLA University, on 04Jan 2023.
- Dr. Rajesh and Mr. Eswaraiah attended a workshop on “Foundry 4.0 Innovation workshop” held on 24th and 25th Feb 2023
- Dr. Jagath Narayana K has successfully Completed NITTT 8th Module, “Institutional management and Administrative Procedure”, Feb 2023.
- Dr. Rajesh attended FDP on Challenges in “3D Printing and part processing”, by NIT warangal
- Dr. Renugadevi, has participated in “National symposium on nanostructured materials to battery and supercapacitors” 16 to 18 March, 2023.
- Dr. Jagath Narayana K has participated in “National symposium on nanostructured materials to battery and supercapacitors” 16 to 18 March, 2023.
- Dr. M Vamsi Krishna has participated in “National symposium on nanostructured materials to battery and supercapacitors” 16 to 18 March, 2023.
- Dr. Renuga Devi has successfully Completed NITTT 3th Module, “Communication Skills, Modes and Knowledge Dissemination”, Feb 2023.
- Dr. Jagath Narayana Kamineni has successfully completed NPTEL course on “Python for Data Science Course”, April 1, 2023.
- Mechanical Engineering Department, SVCE, Tirupati Organized a Faculty Development program on “Autodesk Fusion 360 Hands on practice”, on 22 May, 2023.
- Dr. Vamsikrishna M has attended anonline seminar on “National Intellectual Property Awareness Mission”, organized by Intellectual Property Office, India, on May 24, 2023.
- G Guru Mahesh has attended a workshop on “Defence Research and Innovation Summit (DRIS 2023)” Organized by MITS, Madanapalli, funded by SERB, from 24 May to 28 May 2023.
- Mr. Anjan Kumar Reedy has successfully completed NPTEL course on “Product Engineering and Design Thinking, NPTEL-AICTE, May 2023.
- The entire mechanical Engineering faculty attended an FDP on “Autodesk Fusion 360 Hands on practice”, Venue: SVCE, Tirupati. on 22 May 2023.
- Mr. Jaya Kishore attended an online FDP on “Intellectual Property Rights”, organized by MGR Educational and Research Institute, 22 to 26 May 2023

- G Guru Mahesh has attended an online FDP on “Advances in Mechanical Engineering”, Organized by Lakireddy College of Engineering, from 19 to 24, June 2023
- G Guru Mahesh has attended an online FDP on “Contemporary progressions, challenges, and issues in metal 3D printing technology, MITS Madanapalle, from 19 to 23, June 2023

International Conference Attended:

- G Guru Mahesh has presented a research paper in an international conference ICMPC 2023, on “Response Surface Methodology based evaluation of S-glass fiber composite” 24 to 26 march 2023.

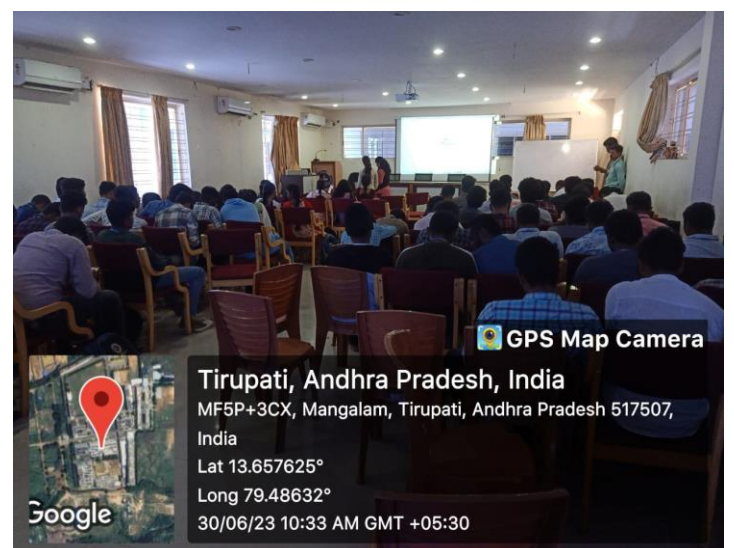
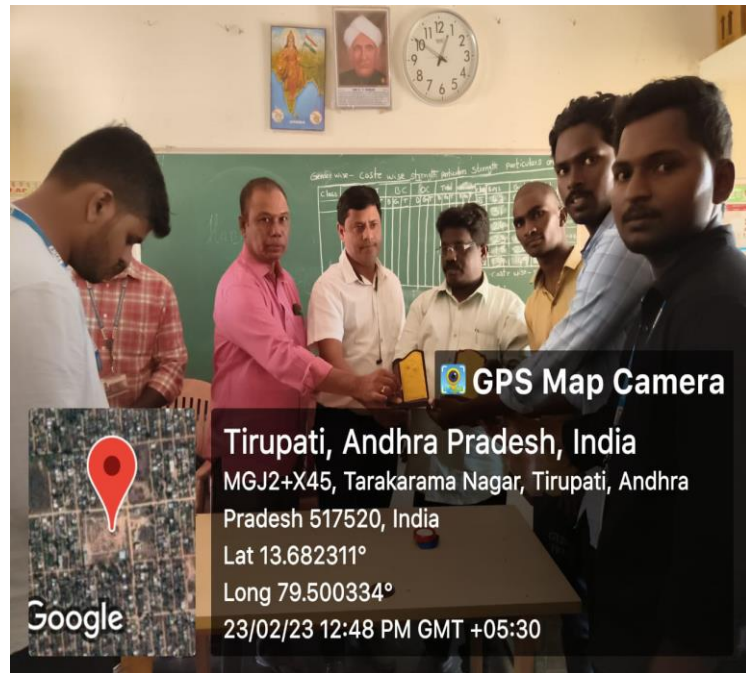
Research Projects Sanctioned:

- Dr Jagath Narayana Kamineni and Dr N Rajesh received the recommendation notification (April 18, 2023) of ONE lakh Rupees as a financial assistance under "Assistance to Professional Bodies & Seminar / Symposia Scheme "from SCIENCE & ENGINEERING RESEARCH BOARD (SERB) to organize a national symposium on “Recent Advances in Additive Manufacturing for Mechanical and Aerospace Engineering”, Proposed dates of symposia, Dated: 16-Aug-2023 to 17-Aug-2023.
- Dr Jagath Narayana Kamineni and Dr N Rajesh received Fund (on 23 May, 2023) of ONE lakh Rupees as a financial assistance under "Assistance to Professional Bodies & Seminar / Symposia Scheme" from SCIENCE & ENGINEERING RESEARCH BOARD (SERB) to organize a national symposium on “Recent Advances in Additive Manufacturing for Mechanical and Aerospace Engineering”, Proposed dates of symposia, Dated: 16-Aug-2023 to 17-Aug-2023.

Awards and Recognitions:

- Mr. Jaya Kishore S received an appreciation letter for reviewing the research article on "Physical, Mechanical, Morphology and Thermal Properties of Natural Bamboo fiber and nano SiO₂ Reinforced Epoxy Hybrid Composite”, Advances in Materials and Processing Technologies” 29 Jan, 2023.

STUDENT PARTICIPATIONS



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- Mechanical Department organized, Mechanical Engineering Association- MEA-2022 program, and distributed prizes for various technical events such as Paper presentations, Poster Presentations, Technical Quiz, Just a minute, etc. and nontechnical events such as Tug of war, Musical chairs, Gully Cricket, Treasure hunt etc., on 10 Jan 2022.
- A team of students visited IMTEX 2023, the International Exhibition on Machine Tools and Automation, was held in Bengaluru, India, from January 19th to 25th 2023.
- A team of students presented their research projects at i2 Academia Pavilion 2023, and received appreciation of merit form from IMTEX-23.
- All the students from 3rd year participated in the Community service Program 2023, at Settipalli Village, Tirupati, which is credit-based program in their curriculum
- K Sivani and M Mounica of IV B-Tech (Mech) secured First Prize in Dynamech-2k23, Organized by JNTUCEA, Anantapur 28-03-2023
- CRT, SVCE, Tirupati Organized a training program on “Preparation of Resume to meet the requirements of MNC Companies”, 30 June, 2023

Editorial Board

Head of the department : Dr. M.Chandra Sekhara Reddy, Professor & Head/M.E

Staff Advisory Committee : Mr. S.Jaya Kishore, Assistant Professor, Dept. of M.E

Editors : A.Syam, III M.E

: C.Sai, II M.E

Sri Venkateswara College of Engineering Campus

