



MITTS

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC-AUTONOMOUS)

NEWSLETTER

Mechanical Engineering Department

January – March 2024

About the Department

The Department of Mechanical Engineering was established in the year 1998. The course offers a deep insight into the discipline and enables promising engineers to acquire skills required to succeed both individually as well as in Industry. Keeping in view of the technological advancement, the department is fortified by the most qualified and experienced faculty. The department is well equipped with modern laboratories.

The Department has obtained UGC-Autonomous Status in the year 2014 and is running the programmes successfully meeting all the requirements. The College Academic Council, Board of Studies of the department strive to provide quality education and most advanced curriculum and syllabus to make the students industry ready and excel in the contemporary business world.

The B.Tech. Programme under Department of Mechanical Engineering was accredited by the National Board of Accreditation (NBA) of All India Council for Technical Education (AICTE).

Vision

“To be a Centre of Excellence in the field of Mechanical Engineering to generate Quality Human Resource who can contribute constructively to the Technological and Socio-economic Development of the Nation.”

Missions

- i) To provide globally competent Mechanical Engineers through Experienced and Committed Faculty.
- ii) To nurture graduates with scientific temperament, rational thinking and Humanistic approach for excelling in their Career.
- iii) To promote Excellence in teaching and research through collaborative activities.



Goals

- To maintain a high standard of mechanical engineering education through outstanding teaching innovative curriculum and research training that reflect the changing needs of society.
- To attract highly motivated students with enthusiasm, attitude and interest in Mechanical Engineering.
- To pursue excellence in research and technology transfer.
- To increase the public awareness of departmental activities and the Mechanical Engineering profession.

Editorial Board:

Advisor: Dr. S. Baskaran, HOD, ME Dept.

Editor : Dr. Dhruvajit Sarma, Assistant Professor

Member: Mr. Naveen P., BTech-IV student

Md. Azmathullah. K, BTech-III student

Mr. Phaneendra T., BTech-II student

A. Faculty Development Program Attended

1. **Dr. Rupshree Ozah** attended a faculty development programme on “Dreamweaving: Turning Ideas into Creative Reality” from 6th to 10th February 2024, organized by IIC Cell Regent Education and Research Foundation Group of Institutions.
2. **Dr. Rupshree Ozah** attended a faculty development programme on “Applications of Artificial Intelligence Techniques in Mechanical Engineering Systems” from 5th to 9th February 2024, organized by Karunya Institute of Technology.
3. **Dr. Dhrubajit Sarma** attended a faculty development programme on “Applications of Artificial Intelligence Techniques in Mechanical Engineering Systems” from 5th to 9th February 2024, organized by Karunya Institute of Technology.
4. **Dr. S. Baskaran** attended a faculty development programme on “Dreamweaving: Turning Ideas into Creative Reality” from 6th to 10th February 2024, organized by IIC Cell Regent Education and Research Foundation.
5. **Dr. Anantha Raman L.** attended a faculty development programme on “NBA Accreditation” from 12th to 16th February 2024, organized by NITTR Chennai.
6. **Dr. Dhrubajit Sarma** attended a faculty development programme on “NBA Accreditation” from 12th to 16th February 2024, organized by NITTR Chennai.
7. **Dr. Dhrubajit Sarma** attended a faculty development programme on “LATEX: Essentials and Practices” from 26th February to 1st March 2024, organized by MITS Madanapalle.
8. **Dr. Rupshree Ozah** attended a faculty development programme on “LATEX: Essentials and Practices” from 26th February to 1st March 2024, organized by MITS Madanapalle.

B. Papers Published

1. **Dr. Baskaran Selvam** published a journal article titled "Towards sustainability assessment energy consumption and carbon emissions in cryogenic drilling of Alloy 20" in The International Journal of Advanced Manufacturing Technology on 28th January 2024.
2. **Mr. S. Manoj Kumar & Mr. A. Muthulakshmanan** published a journal article titled "Mechanical wear hydrophobic and thermal behavior of waste cassava root cellulose and twill-weaved banana fiber" in Biomass Conversion and Biorefinery on 20th January 2024.

3. **Mr. S. Manoj Kumar** published a journal article titled "Characterization of heat-treated biosilica from biomass waste foxtail millet husks and banana fiber" in Biomass Conversion and Biorefinery on 17th February 2024.
4. **Dr. P. Sivaiah & Mr. N. Siva Balaji** published a journal article titled "Comparative analysis and experimental exploration of the milling process in machining Inconel 825" in Materials and Manufacturing Processes on 23rd January 2024.
5. **Mr. G. Kumar** published a journal article titled "Experimental investigation of mechanical and erosion properties of twill E-glass/sisal fiber" in Materials Today: Proceedings on 16th March 2024.
6. **Dr. Jagannath Pattar** published a journal article titled "Microgrids with day-ahead energy forecasting for efficient energy management in smart grids" in Australian Journal of Electrical and Electronics Engineering on 14th January 2024.

C. Events Organized

1. **Mr. Muthu Laxmanan** organized an Alumni Guest Lecture on "Opportunities for Mechanical Engineers in Software Industries" on 25th January 2024.
2. **Mr. Ajith Gopal Joshi** organized a Webinar on "Challenges and Career Opportunities for Mechanical Engineering Students" on 30th January 2024.
3. **Mr. Muthu Laxmanan** organized a Webinar on "Solar Thermal Assisted Applications" on 13th February 2024.
4. **Dr. Prithvirajan R., Dr. Anantha Raman L, and Mr. Reddi Lakshman S.** organized an International FDP on "Global Conversations in Mechanical Engineering: Bridging Innovation and Sustainability" from 19th to 23rd February 2024.
5. **Dr. Manish Sharma** organized a Six-day Skill Development Program on "Mechanical AutoCAD" from 19th to 24th February 2024.
6. **Mr. Manoj Kumar S.** organized a Six-day Skill Development Program on "CATIA-Product Design and Drafting" from 19th to 24th February 2024.
7. **Mr. Muthu Laxmanan** organized an Alumni Interaction titled "Importance of Power Platform and Automation Anywhere" on 4th March 2024.
8. **Mr. Ajith Gopal Joshi** organized Inno-Tech Spark 2024 on 16th March 2024.
9. **Mr. Muthu Laxmanan** organized an Alumni Interaction on "Merits of Java Tools in Design Engineering" on 18th March 2024.
10. **Mr. Muthu Laxmanan** organized an Alumni Student Interaction on "Career Development Interaction" on 26th March 2024.
11. **Mr. Reddi Lakshman Surapasetty** organized a Parents Meeting on 28th March 2024.

D. Workshop

1. **Dr. S. Baskaran** participated in the event “Innovation Ambassador” in 12th February 2024) organized by MoE’s Innovation Cell

E. Achievements

2. **Dr. S. Baskaran** received “Outstanding Reviewer Award 2023” by Surface Topography: Metrology and Properties in February 2024.

F. Conferences Attended by Faculty Members

1. **Dr. Kamlesh Kumar** attended a conference titled "2nd International Conference on Futuristic Advancements in Materials Manufacturing and Thermal Sciences (ICFAMMT 2024)" held during 19th-21st January 2024, organized by IITRAM Ahmedabad.
2. **Dr. M. Lakshman Rao** attended a conference titled "15th International Conference on Recent Trends in Information Telecommunication and Computing" held during 26th-27th January 2024, organized by ACEECom Bengaluru.
3. **Dr. Anantha Raman L.** attended a conference titled "6th International Conference on Advancement in Materials and Manufacturing" held during 16th-17th February 2024, organized by MLR Institute of Technology.
4. **Dr. M. Lakshman Rao** attended a conference titled "6th International Conference on Advancement in Materials and Manufacturing" held during 16th-17th February 2024, organized by MLR Institute of Technology.

G. Reviewer in Peer Reviewed Journals

1. **Dr. S. Baskaran** reviewed a manuscript for Journal TRIBOLOGI on 3rd January 2024.
2. **Dr. S. Baskaran** reviewed a manuscript for Surface Topography: Metrology and Properties on 23rd January 2024.
3. **Dr. S. Baskaran** reviewed a manuscript for Journal of Materials Engineering and Performance on 7th January 2024.
4. **Dr. S. Baskaran** reviewed a manuscript for International Journal on Interactive Design and Manufacturing (IJIDeM) on 14th January 2024.

5. **Dr. P. Sivaiah** reviewed a manuscript for Journal of Cleaner Production on 17th February 2024.
6. **Dr. S. Baskaran** reviewed a manuscript for Journal of Physics D: Applied Physics on 27th February 2024.



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Member: Mr. Naveen P., BTech-IV student

Md. Azmathullah. K, BTech-III student

Mr. Phaneendra T., BTech-II student

A. Faculty Development Program Attended

1. Dr. Rupshree Ozah attended a faculty development programme on “NBA Accreditation and Teaching-Learning in Engineering” during Jan 2024 - April 2024 through NPTEL
2. Dr. Dhruabjit Sarma attended a faculty development programme on “NBA Accreditation and Teaching-Learning in Engineering” during Jan 2024 - April 2024 through NPTEL.
3. Dr. S. Baskaran attended a faculty development programme on “Business Intelligence and Analytics” during Jan 2024 - April 2024 through NPTEL.
4. Dr. Arun Kumar D attended a faculty development programme on “Quality Design and Control” during Jan 2024 - April 2024 through NPTEL.
5. Dr. Manish Sharma attended a faculty development programme on “Fundamentals of Compressible Flow” during Jan 2024 - April 2024 through NPTEL.

B. Papers Published

1. Dr. Ilangovan Arun & Dr. C. Yuvaraj published a journal article titled “Electrical Discharge Shape Memory Alloying of Ti-6Al-4V” on Journal of Process Mechanical Engineering in May 16, 2024
2. Dr. Jagannath Pattar published a journal article titled “Investigation of AA6063-Based Metal Matrix Composite” on Frontiers in Mechanical Engineering in May 13, 2024
3. Mr. Ajith G. Joshi published a journal article titled “Mechanical Behaviour and Sliding Wear Assessment of Al₂O₃/TiC” on Scientia Iranica.
4. Mr. Siva Balaji N published a journal article titled “Nano SiO₂ Reinforcement in Basalt Fiber Epoxy Composites” on Journal of Balkan Tribological Association.
5. Dr. C. Yuvaraj published a journal article titled “CO₂ Gas Sensors Using Metal/CeO₂/p-Si Heterojunction” on Ceramic International in May 2024.

C. Events Organized

1. **Mr. Kumar G.** organized a Webinar on “Emerging Trends in Automobile Engineering” on 30th April 2024.
2. **Dr. Arun Kumar D.** organized the National Level Technical Symposium: 17th Mechonance 2022 on 1st May 2023.
3. **Mr. Ajith Joshi** organized the MITS Prototype Challenge 2.0 & Inauguration of Startup Cell on 7th May 2024.
4. **Mr. Muthu Laxmanan** organized an Alumni Guest Lecture on “Impact of Online Education” on 29th May 2024.

5. **Dr. S. Baskaran & Mr. Pujari Rajesh** organized an Awareness Session on “NASSCOM Future Skills Prime” on 15th June 2024.

D. Workshop

1. **Mr. Ajith Gopal Joshi** participated in the event “IIC Mentor Mentee Activity” during 6th-7th June 2024 organized by IIC Reva University, Bengaluru.

E. Achievements

2. **Dr. S. Baskaran** received “Outstanding Reviewer Award 2023” by Journal of Materials Engineering and Performance in April 2024.
3. **Dr. Arun Kumar D** received “NPTEL Topper in Quality Design and Control” by SWAYAM NPTEL in April 2024.

F. NPTEL Course

1. **Dr. Rupshree Ozah** attended a NPTEL course on “NBA Accreditation and Teaching-Learning in Engineering” during Jan 2024 - April 2024 through SWAYAM NPTEL.
2. **Dr. Dhruabjit Sarma** attended a NPTEL course on “NBA Accreditation and Teaching-Learning in Engineering” during Jan 2024 - April 2024 through SWAYAM NPTEL.
3. **Dr. S. Baskaran** attended a NPTEL course on “Business Intelligence and Analytics” during Jan 2024 - April 2024 through SWAYAM NPTEL.
4. **Dr. Arun Kumar D** attended a NPTEL course on “Quality Design and Control” during Jan 2024 - April 2024 through SWAYAM NPTEL.
5. **Dr. Manish Sharma** attended a NPTEL course on “Fundamentals of Compressible Flow” during Jan 2024 - April 2024 through SWAYAM NPTEL.

G. Conferences Attended by Faculty Members

1. **Dr. M. Lakshman Rao** attended a conference titled “1st International Conference on Computational Techniques and Smart Manufacturing (ICCTSM-2024)” during 21st – 22nd June 2024 organized by VEMU Institute of Technology, Chittoor, Andhra Pradesh

H. Reviewer in Peer Reviewed Journals

1. **Dr. S. Baskaran** reviewed a manuscript titled "Formability and Strength Enhancement of AA7075 Sheets by Cryorolling and Post-Treatment (IEID-D-24-00185)" on April 1, 2024.
2. **Dr. S. Baskaran** reviewed a manuscript titled "Three-dimensional Artistic Design Method of Ceramic Products Based on Recurrent Neural Network Technology (IJDM-D-24-00454)" on April 9, 2024.
3. **Dr. S. Baskaran** reviewed a manuscript titled "Effect of Wire Electric Discharge Machining on Nimonic Alloy (MATPR-D-24-00256)" on April 9, 2024.
4. **Dr. S. Baskaran** reviewed a manuscript titled "Polymer-Doped Black Phosphorus as Photocatalyst for Dye Removal (TOCA-D-24-00037)" on April 18, 2024.
5. **Dr. S. Baskaran** reviewed a manuscript titled "Predictive Analytics of Wear Performance in High Entropy Alloy Coatings (PHYSSCR-128670)" on April 20, 2024.
6. **Dr. S. Baskaran** reviewed a manuscript titled "Cold Metal Transfer Technology Review (RINENG-D-24-01342)" on April 21, 2024.
7. **Dr. S. Baskaran** reviewed a manuscript titled "Hot Deep Drawing of AZ91D Magnesium Alloy Sheets (MRX-129278)" on May 1, 2024.
8. **Mr. Ajith Joshi** reviewed a manuscript titled "Hemp and Sheep Wool Reinforcements on Mechanical and Acoustic Properties (IEID-D-24-00112R1)" on May 1, 2024.
9. **Dr. S. Baskaran** reviewed a manuscript titled "Materials and Manufacturing Processes (LMMP-2024-0667)" on May 29, 2024.
10. **Dr. S. Baskaran** reviewed a manuscript titled "World Journal of Engineering (WJE-04-2024-0196)" on May 30, 2024.
11. **Dr. S. Baskaran** reviewed a manuscript titled "Engineering Research Express (ERX-104897)" on June 5, 2024.