



# Mechanical Engineering PVPSIT



A Half- Yearly  
**News letter**  
January 2025



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# **PVPSIT**

## **Department of Mechanical Engineering**

# **NEWS LETTER**

**January, 2025**

### **About the Department**

The Department of Mechanical Engineering has been in existence ever since the college started in year 1998. Department is affiliated to JNTU since 1998. B. Tech. Program is accredited by NBA-AICTE in May 2007 for 3 years and provisionally accredited for 2 years in June 2012 and is certified by ISO 9001:2015 certification. It is provisionally accredited for 3 years under OBE Tier-II in the year 2016 and Once again for 3 years under OBE Tier -I in 2019 and 2022. The Programme was accredited by NBA thrice in the years 2007, 2012, 2016 under Tier-II subsequently accredited under Tier-I in 2019 and 2022.

The Department is proud to have a vibrant student fraternity who pursue Undergraduate and Post-graduate courses. The annual intake of students is 60 in the undergraduate course and 6 in Post graduate course. Total area of the Department is 4894 sq.mts. The Department has facilities in terms of faculty, infrastructure and equipment. The Department has a team of diversely qualified faculty including 4 Professors, 4 Associate Professors and 20 Assistant Professors, who aims at delivering quality lectures that blends with their rich research experience. The total worth of the equipment available in the Department is Rs. 2, 88, 03, 477.00.

Numerous research papers have been published in National and International Journals and Conferences. The Department arranges guest lectures by eminent professors from India and abroad, scientists from research organisations and experts from industry to bridge the gap between academics and industry. Faculty members are encouraged to improve their academic qualification and to gain experience by attending FDPs, workshops, conferences etc. They are also encouraged to present research papers at workshops and conferences, and to participate in co-curricular and extracurricular activities.

The Department promotes active industry-institute collaboration by organizing workshops and by taking part in sponsored research projects and consultancy services. Visits to the industries for faculty and students are frequently arranged to enhance the practical exposure with the real corporate world. Department also organizes programmes like Alumni interaction sessions with current students and make them familiar with specific market requirements and demands. Two Industry supported Labs were established in associated with APSSDC-DASSAULTS Lab and European Centre for Mechatronics, Germany.

### College Vision

To provide rich ambience for Academic and Professional Excellence, Research, Employability skills, Entrepreneurship and Social responsibility.

### College Mission

To empower the students with Technical knowledge, Awareness of up-to-date technical trends, Inclination for research in the areas of human needs, Capacity building for Employment / Entrepreneurship, Application of technology for societal needs.

### Department Vision

To enhance the capabilities of students and mould them into innovative, employable, entrepreneurial, socially responsible graduates successful in advanced fields of research.

### Department Mission

To impart quality education, ethical values, social responsibility, employability, research and entrepreneurial skills.

### 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.

### **Programme Specific Outcomes (PSOs)**

PSO-1: Apply Engineering Principles for design, manufacturing and maintenance of mechanical systems

PSO-2: Execute multi-disciplinary projects and exhibit managerial, leadership and entrepreneurial skills.

### **Programme Educational Objectives (PEOs)**

PEO-I: Progress in wide range of mechanical engineering fields with solid foundation in physical and engineering sciences.

PEO-II: Contribute as members of multi-disciplinary engineering teams, solve mechanical engineering and allied field problems resulting in significant societal development.

PEO-III: Achieve goals by pursuing higher studies / research, become entrepreneurs.

PEO-IV: Become responsible citizens by undertaking active role in their community.

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## 1. Workshops/Seminars/Guest Lectures/Training Programs/Symposiums organized:

The department of Mechanical Engineering organized ---

- i. A one week FDP on “Embedded Systems and IoT” organized by Department of ME, PVPSIT from 01.07.2024 to 06.07.2024 at Dassault’s Lab. The resource persons were Dr. J. Ravindra Babu, Assoc. Professor, Dr. B. Surya Prasada Rao, Assoc. Professor, Dr. Habibulla Mohammad, Assoc. Professor, Ms. D. Hareesha, Asst. Professor, Ms. B. V. Subbayamma, Asst. Professor, Mr.K.Phani Rama Krishna, Asst. Professor, Dr. P. Venu Madhav, Asst. Professor, Dr. V. S.D.Rekha, Asst. Professor, Mrs. D. Swathi, Asst. Professor, Mrs. Sri Lakshmi Chandana, Asst. Professor of ECE Department, PVPSIT.



- ii. A Guest Lecture on “**Power Generation in Thermal Power Station**” on 31.07.2024 for III-B. Tech. ME students and faculty from 02:00 PM in the Room number 123A. The resource person: Sri R. S. Johnson, Dy. Executive Engineer, E&P, Dr. NTPPS/APGENCO, Ibrahimpatnam, Vijayawada.



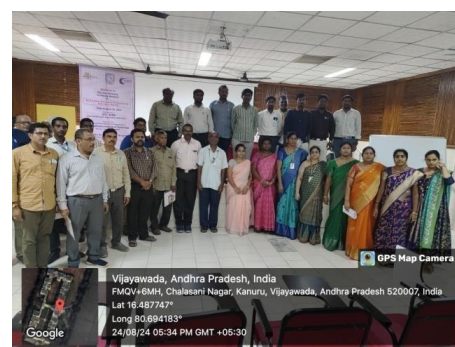
- iii. A Guest Lecture on “**Advanced materials and manufacturing (Sustainable Manufacturing ‘Industry-5.0’)**” on 02.08.2024 for II & III-B. Tech. ME students and faculty from 02:00 PM in the Room number 255(ECE e-class room) The resource person: Prof. Mamilla Ravi Sankar, Professor & Head of the Department, Mechanical Engineering, IIT, Tirupati



- iv. A Guest Lecture on “**Industry 4.0/5.0: Case studies @ NIT Warangal**” on 14.08.2024 for IV-B. Tech. ME students and faculty from 10:30 AM in the Ground floor Seminar hall. The resource person: Dr. V. Vasu, Professor, Department of Mechanical Engineering, NIT, Warangal.



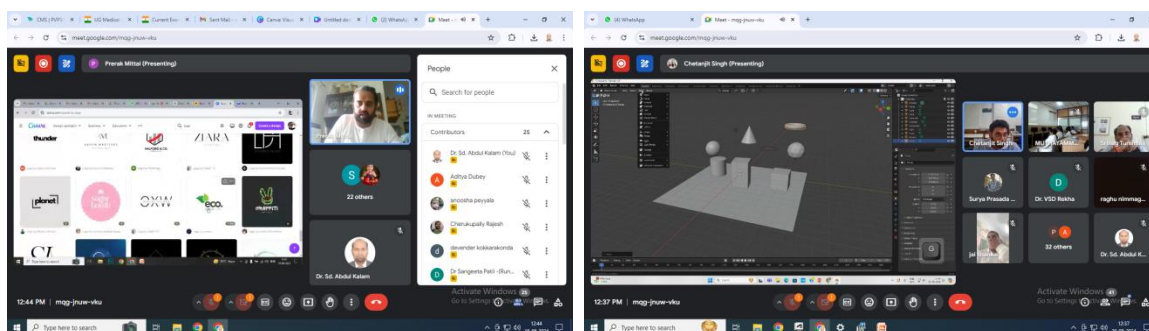
- v. DST SERB Sponsored One Day Workshop on “**AI Enabled Biosensor to Control Air Conditioner**” for Faculty Members on August 24, 2024. The resource person: Dr. P. Anusha, Assistant Professor, Department of Mechanical Engineering, P V P Siddhartha Institute of Technology, Kanuru, Vijayawada.



- vi. A one week ICT online Short term course for faculty on “**Graphics and Animation through open source tools for Massive Open Online Courses (MOOC’s) Development**” from 19.08.2024 to 23.08.2024 by Media Engineering department, NITTTR Chandigarh and course coordinator and resource person is Dr. Rakesh Wats and other resource persons are Sri. Parek Mittal, Sri.



Chetanjit Singh, Kamaldeep, Manisha Malik, Monika Arora and Suniti Dutt of NITTTR Chandigarh.



- vii. A Seminar on “**INVESTOR AWARENESS PROGRAMME**” on 17.10.2024 for II & III-B. Tech. ME students from 02:00 PM in the Room number-123A. The resource person: Dr. O.A.R. Kishore, SEBI SMART INDIVIDUAL, Vijayawada



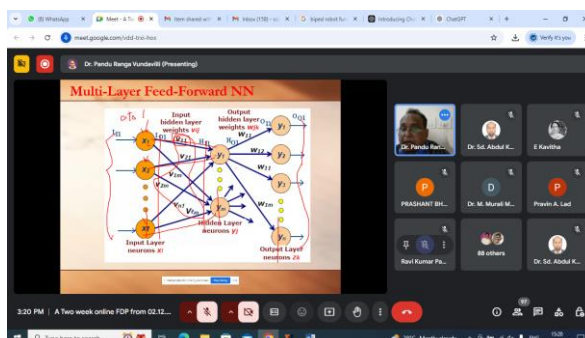
- viii. A workshop on “**Printed Circuit Board Machine**” on 02.12.2024 for faculty from 02:00 PM in the ECE e-Class room The resource person: Sri. Abhinav Karthik, Managing Director and Mr. Vijay Soni, Technical Expert, V Karve CNC infinity Systems, Hyderabad,



- ix. A two week online FDP on “**Advances in Mechanical Engineering**” from 02.12.2024 to 13.12.2024. The resource persons were Dr. V. Pandu Ranga, Professor, School of Mechanical Sciences, IIT Bhubaneswar, Odisha, Dr. A. Venu Gopal, Professor, Department of Mechanical Engineering, NIT, Warangal, Dr. Mamilla Ravi Sankar, Professor & HOD, Department of Mechanical Engineering, Indian Institute of Technology, Tirupati, Dr. Prasad Patnaik B S V, Professor, Department of Applied Mechanics & Bio medical Engineering, IITM, Chennai, Dr.



Pothukuchi Harish, Assistant Professor Department of Mechanical Engineering, Indian Institute of Technology, Jammu, Dr. E. Anil Kumar, Professor, Department of Mechanical Engineering, Indian Institute of Technology, Tirupati, Dr. L. Rama Krishna, Scientist 'G' & Head - Centre for Engineered Coatings (CEC), Chairman-Aerospace Working Group at International Advanced Research Centre (ARCI), Hyderabad, Dept. of Science & Technology, Govt. of India, Prof. R Narasimha Rao, Professor, Department of Mechanical Engineering, NIT, Warangal, Dr. V. Phani Kiran, NVH (Noise, Vibration, and Harshness) & Acoustics Consultant in Chennai, Prof. P. Bangaru Babu, Professor (HAG), Department of Mechanical Engineering, NIT, Warangal, Prof. Srikanth Korla, Professor, Department of Mechanical Engineering, NIT, Warangal and Dr. P. Anil Kumar, Scientist 'G', Research Centre Imarat (RCI), DRDL, Hyderabad,



- x. A Guest Lecture on “Advanced Ceramics for Structural Applications” on 26.12.2024 for II & III-B. Tech. ME students and faculty from 02:00 PM in the Room number 123A. The resource person: Dr. B. Venkata Manoj Kumar, Professor & Head, Department of Metallurgical and Materials Engineering, IIT, Roorkee.



2. Papers presented in Seminars/Conferences/Symposiums by the faculty: NIL

3. Workshops/ Seminars/STTP/Conferences/Faculty Development Programmes/Awareness programmes attended by the faculty:

a) Seminars/Webinars: NIL

### **b) Workshops:**

- i. M.Radha Devi has attended a 5-day online workshop on “Practical Finite Element Analysis with ANSYS” by NIT Calicut, Kerala from 01<sup>st</sup> -05<sup>th</sup> July, 2024.
- ii. Ch.Mohan Sumanth has attended a 5-day Online workshop on “The Future of Green Energy: Emerging Trends and Technology” organized by National Institute of Technology, Mizoram from 5<sup>th</sup> -9<sup>th</sup> August, 2024.
- iii. N.Raghu Ram received a certificate of completion for completing the live workshop on Power Point using AI & CHATGPT organized by Skill Nation on 24<sup>th</sup> August, 2024.
- iv. N.Raghu Ram received a certificate of completion for completing the live workshop on Microsoft Copilot, Google Gemini & Claude AI organized by Skill Nation on 15<sup>th</sup> September, 2024.
- v. E.Kavitha received a certificate of completion for completing the certified workshop on Artificially Intelligent Tools organized by Skill Nation on 23<sup>rd</sup> October, 2024.

### **c) STTP/STCs:**

- i. Dr. K. Sri Vidya, Dr.Ravi Prakash Babu ,Mr. U. Koteswara Rao,Dr. M. Naga Swapna Sri,Dr. Sd. Abdul Kalam,Dr. P. Anusha ,Dr.K.I.V.Vandana, Ms. E.Kavitha, , Mr.P. Mastan Rao, Mr.Ch.Mohan Sumanth, Ms.Ch.Vidya, Mr.T.J.Prasanna Kumar, Ms.V.Sravani have completed the NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) organized by UGC-MMTTC, Andhra University, Visakhapatnam from 01<sup>st</sup> -09<sup>th</sup> July, 2024.
- ii. Ch.Vidya has participated in a Training Program on “Basic Python Programming” organized by CSE Department at P.V.P.S.I.T from 08<sup>th</sup> -18<sup>th</sup> July, 2024.
- iii. T.J.Prasanna Kumar successfully completed the course on “Basics of Python” by Infosys Springboard on 05<sup>th</sup> September, 2024.
- iv. T.J.Prasanna Kumar successfully completed the course on “C-Basics” by Infosys Springboard on 05<sup>th</sup> September, 2024.

### **d) Faculty Development Programmes:**

- i. M.Radha Devi has participated a 5-day FDP on “AI and IoT for Agriculture and Health care Applications” by CBIT in association with NIT, Warangal from 23<sup>rd</sup> -27<sup>th</sup> July, 2024.
- ii. M.Radha Devi has participated in one week National level FDP on “Outcome based education and application of Generative AI in Teaching and Research” by VVIT Guntur, SIT Tumkur, Karnataka in association with IPSR Solutions Ltd. from 24<sup>th</sup> -31<sup>st</sup> July, 2024.
- iii. Dr.K.I.V.Vandana, E.Kavitha, M.Radha Devi, T.J.Prasanna Kumar, V.Sravani have participated in AICTE recognised Faculty Development program on “Graphics and Animation through open source tools for making MOOCs conducted by Media Engineering Department at P.V.P.S.I.T organized by NITTTR, Chandigarh from 19<sup>th</sup> -23<sup>rd</sup> August, 2024.

- iv. M.Radha Devi has participated in the Professional Development Program on “Web Design using HTML5 & CSS3 with Bootstrap” conducted by NITTTR, Chennai through online mode from 02<sup>nd</sup> – 06<sup>th</sup> September, 2024.
- v. Ch.Vidya has received Faculty Development Program certificate for successfully completing the NPTEL online certification course on “Introduction to Machine Learning” from July-September, 2024.
- vi. Dr. P. Anusha, Dr.Naga Swapna Sri, T.J.Prasanna Kumar have participated in one week Faculty Development program on “ Advanced Thermal Energy Systems: Production, Storage and Transfer” at Vishnu Institute of Technology(VVIT), Bhimavaram from 17<sup>th</sup> – 21<sup>th</sup> September, 2024.
- vii. E.Kavitha has participated in Faculty Development program on “Robotics and Industrial Automation” at Chaitanya Bharathi Institute of Technology (CBIT) from 04<sup>th</sup> – 09<sup>th</sup> November, 2024.
- viii. M.Radha Devi, V.Sravani have participated in AICTE recognised Faculty Development program on “Computer Aided Design and Artificial Intelligence” for making MOOCs conducted by Media Engineering Department at P.V.P.S.I.T organized by NITTTR, Chandigarh from 18<sup>th</sup> -22<sup>nd</sup> November, 2024.
- ix. M.Radha Devi, V.Sravani has attended a Two – week online FDP on Advances in Mechanical Engineering organized by Department of Mechanical Engineering at P.V.P.Siddhartha Institute of Technology, from 02<sup>nd</sup> -13<sup>th</sup> December, 2024.
- x. V.Sravani has successfully participated and completed AICTE Training and Learning (ATAL) Academy Faculty Development Program on “Emerging Green Hydrogen energy Technologies for societal sustainability and climate change mitigation” at Lakkireddy Balireddy College of Engineering from 16<sup>th</sup> -21<sup>st</sup> December, 2024.

**e) Guest Lectures: NIL**

**f) Awareness programmes/Interaction meet/Quizzes, etc: NIL**

**g) Conferences: NIL**

#### **4. Publications by the faculty (National/International Journals/ Conferences):**

##### **a) Scopus indexed journals:**

- i. K I Vishnu Vandana, M Rajyalakshmi, Sri Chaitanya Ch, Effect of applied load on wear of microwave sintered alumina-graphene ceramic composite material, Eng. Res. Express 6 (2024) 035410, July-2024, ISSN:2631-8695, Publisher:Institute of Physics Publishing, <https://doi.org/10.1088/2631-8695/ad63fb> (ESCI/Scopus Indexed)
- ii. P. Phani Prasanthi, D. Atchuta Ramacharyulu, K. Sivaji Babu, V. V. Venu Madhav, Ch. Sri Chaitanya, Kuldeep K. Saxena, V. Revathi, Dilsora Abduvalieva, Din Bandhu, Role of fiber orientation and design on thermal and mechanical properties of natural composite, International Journal on Interactive Design and Manufacturing (IJIDeM), ISSN:1955-2513, August-2024 <https://doi.org/10.1007/s12008-024-02042-3> (ESCI/Scopus Indexed)

- iii. Ravi Prakash Babu Kocharla, Raghu Kumar Bandlamudi, Abdul Ahad Mirza, Murahari Kolli, Ragavanantham Shanmugam, Muralimohan Cheepu, Investigation on the Mechanical and Thermal Properties of Jute/Carbon Fiber Hybrid Composites with the Inclusion of Crab Shell Powder, Journal of Composites Science, ISSN: 2504-477X, Publisher:Multidisciplinary Digital Publishing Institute (MDPI), Volume-8, Issue- 296. August-2024, DOI: <https://doi.org/10.3390/jcs8080296> (ESCI/Scopus Indexed)
- iv. Shanthala Kollur, ShivaPrakash S, Jasti Surendra, G.S. Pradeep Kumar, R. Suresh Kumar, C. Durga Prasad, Pavan Kumar B K, Sandeep Kore, Nusrathulla M, Investigation of corrosion behavior of Cenosphere reinforced iron based composite coatings, Results in Surfaces and Interfaces, Volume-17 (2024), Issue-100300, E-ISSN:2666-8459, September-2024, <https://doi.org/10.1016/j.rsufi.2024.100300>
- v. Vidya Chaparala, G Ravi Kiran Sastry, P Phani Prasanthi, Enhancing heat transfer performance in forced convective systems using experimental study with crystalline nano cellulose-dispersed H<sub>2</sub>O/C<sub>2</sub>H<sub>6</sub>O<sub>2</sub> nanofluids, Engineering Research Express, Volume-6 (2024) Issue- 035576, ISSN: 2631-8695, September-2024, DOI: <https://doi.org/10.1088/2631-8695/ad78a4>. (ESCI/Scopus Indexed)
- vi. Somaiah Chowdary Mallampati, Raghavendra Gujjala, Anupama Ammulu Manne, M. S. R. Niranjana Kumar, Rakesh Kanakam, V. Suresh Babu, Mariana D. Banea, A study on the effect of nanoclay addition on the erosion wear characteristics of S-glass/sisal reinforced hybrid polymer composites, Discover Materials, Volume-4 Issue-82, ISSN:2730-7727, November-2024, <https://doi.org/10.1007/s43939-024-00149-8>, (ESCI/Scopus Indexed)
- vii. L. Natrayan, Sd. Abdul Kalam, Santha SheelaPrabhu Paramasivam Kirubanandan Shanmugam, Bio-synthesis of nano-zero-valent iron using barberry leaf extract: classification and utilization in the processing of methylene blue-polluted water, Discover Applied Sciences,ISSN:3004-9261,December-2024. <https://link.springer.com/article/10.1007/s42452-024-06327-w> (ESCI/Scopus Indexed)

#### **b) SCI/SCIE/ESCI indexed journals:**

- i. Abdul Arif, Vallapureddy Siva Nagi Reddy, Kode Srividya, Ujwal Teja Mallampalli, Utilizing multilayer perceptron for machine learning diagnosis in phase change material based thermal management systems, Heat Transfer, 2024; Volume-1, Issue-26, August-2024, doi:10.1002/htj.23163, (SCI/Scopus Indexed)
- ii. Prasanna Kumar T J, Sivajibabu K, Durga Prasad B, Thermo-elastic vibration analysis and optimization of a nanoresonator composed of a coupled nanotube system for acoustic liner application using the hybrid deep neural network-based white shark algorithm. Journal of Vibration and Control. 2024; 0(0), ISSN: 1077-5463, August-2024 <https://doi.org/10.1177/10775463241272934> (SCI/Scopus Indexed)
- iii. E. Kavitha, Ismail Kakaravada, Sumanth Ratna Kandavali, S.Prabakaran, Sea urchin testa chitin and its reinforcement effect on pineapple fiber-vinyl ester composite, Biomass Conversion and Biorefinery, ISSN:2190-6815, September-2024, <https://doi.org/10.1007/s13399-024-06078-z> (SCI/Scopus Indexed)
- iv. Rama Krishna Kolluru, P Phani Prasanthi, A Swarna Kumari, Moisture-induced mechanical property changes in natural hybrid composites with MWCNT fillers, Advances in Materials and Processing Technologies, Volume-1, Issue-24, November-2024,DOI: <https://doi.org/10.1080/2374068X.2024.2423533> (SCI/Scopus Indexed)



- v. André McGlashan, Peter N. Nelson, P. Syam Prasad, M. Iezid, F. Goumeidane, P. Phani Prasanth P. Venkateswara Rao, Introducing Nickel Ions into a Bismuth Boro Tellurite Glass System and Its Effect on Physical and Material Properties, ECS Journal of Solid State Science and Technology, Volume-13 Issue- 11, ISSN: 2162-8769 , November-2024 (SCI/Scopus Indexed)

**c) IEEE/Springer journals: NIL**

**d) UGC/other journals:**

- i. Ch Raghavendra Siva Kumar , B Raghu Kumar, Design Of Parabolic Trough Collector And Comparison With Numerical Studies To Examine The Impact Of Nanofluids On The Thermal Performance, Journal of Emerging Technologies and Innovative Research (JETIR), July 2024, Volume 11, Issue 7, ISSN-2349-5162, Pg: i396-i407, DOI: 10.6084/m9.jetir.JETIR2407838 (Others)
- ii. Harsha Bandaru , Dr. P Phani Prasanthi , Dr. M.S.R Niranjana Kumar , N.Raghu Ram, Mechanical Characterization of Natural filler mixed polymer matrix Composites, Journal of Emerging Technologies and Innovative Research (JETIR), July 2024, Volume 11, Issue 7, ISSN-2349-5162, Pg:i408-i414, DOI: 10.6084/m9.jetir.JETIR2407839 (Others)
- iii. A. Naga Saikumar , K. Venkata Rao , CH. Lakshmi Kanth, Machine Learning Techniques For The Identification Of Machinery Faults Through Vibration Signals, International Journal of Emerging Technologies and Innovative Research, ISSN:2349-5162, Vol.11, Issue 7, page no.i384-i395, July-2024, DOI :<http://www.jetir.org/papers/JETIR2407837.pdf> (Others)

**e) Conference Proceedings:**

- i. S. Satheesh kumar, S. Seenivasan, I. J. Isaac Premkumar, S. Vijayakumar, P. Anusha, A. Pradeep, Analysis of wear mechanisms in AA2024/TiB2 composites under different loads, Interactions (2024) 245:257, Pg 1-9, August-2024, <https://doi.org/10.1007/s10751-024-02102-w>, (Scopus Indexed)
- ii. Ch. Nagalakshmi, B. Sriyutha, K. Yamineswari, M. Sriram, A. T. N. V. Prasad, P. Phani Prasanthi, Haritha Akkineni, Integrating ANSYS Simulation and Machine Learning Techniques for Thermo-Mechanical Analysis of PCBs. In: Nanda, U., Tripathy, A.K., Sahoo, J.P., Sarkar, M., Li, K.C. (eds) Advances in Distributed Computing and Machine Learning. ICADCML 2024. Lecture Notes in Networks and Systems, vol 1015, Print ISBN:978-981-97-3522-8, Springer, Singapore. [https://doi.org/10.1007/978-981-97-3523-5\\_24](https://doi.org/10.1007/978-981-97-3523-5_24) (Scopus Indexed)

**f) Book chapters:**

- i. Somaiah Chowdary Mallampati, Gujjala Raghavendra, Niranjana Kumar M. S. R., Manne Anupama Ammulu, V. Suresh Babu, 16 - Hybrid composites: a promising approach for potential polymeric composite design, In Woodhead Series in Composites Science and Engineering, Sustainable Fillers /Plasticizers for Polymer Composites, Elsevier Science.Ltd,2025,Pages:415-435,ISBN:9780443156304, <https://doi.org/10.1016/B978-0-443-15630-4.00016-6>.

**g) Books:** NIL

**5. Faculty Achievements (Patents, Higher Qualification awarded, guest lectures given, awards and rewards, acted as a Resource person etc.):**

**a. Patents:**

- i. PRASAD V POTLURI SIDDHRTHA INSTITUTE OF TECHNOLOGY, KOTESWARA RAO UNNAM 3. REPALLE PAVAN KUMAR, MUTNURI VENKATA ARUNA LIKHITH 5. NAGADESI KOTIBABU, SANAPATHI PARASURAM 7. Dr. P. PHANI PRASANTHI, Filed a Design patent AUTOMATIC CAR PARKING DEVICE, application number:418686-001, filed on.01/06/2024 at Intellectual Property Rights, Government of India.
- ii. PRASAD V POTLURI SIDDHRTHA INSTITUTE OF TECHNOLOGY, Dr.K.Srividya, Dr.B.Raghu Kumar, E.Kavith, Dr.P.Anusha, ECO-FRIENDLY HYDROGEN VECHILE, Application: 202441046050, Published on 2/7/2024at Intellectual Property Rights, Government of India

**b. Ph.Ds awarded:** NIL

**c. Guest lectures delivered:**

- i. Dr. P. Anusha has delivered a technical talk on “Role of AI in the field of HVAC” at Vijayawada Air Conditioning & Refrigeration Technicians Association on 17<sup>th</sup> August,2024.
- ii. Dr. P. Anusha has delivered a technical talk on “Artificial Intelligence influence on HVAC & R Applications” at Lakkireddy Bali Reddy College of Engineering on 05<sup>th</sup> November, 2024.
- iii. Dr.Phani Prasanthi delivered a talk on ““Basics of Intellectual Property Rights and Its Importance for Innovators and Entrepreneurs” at Bapatla Engineering College (Autonomous), Bapatla, Andhra Pradesh, on 8th November 2024.

**d. Reviewers of journals:**

- i. Ch Vidya reviewed a paper titled, "Machinability investigation on CNC milling of recycled short carbon fibre reinforced magnesium matrix composites" submitted to Materials Research Express.

**6. Faculty Participation (as a Judge, Guest, or BOS member, & Chairing a session, etc.):**

- i. Dr.B.Raghu Kumar has received a letter of appreciation for conducting the Academic Audit at Andhra Loyola Institute of Engineering and Technology (ALIET) on 13<sup>th</sup> September, 2024.

**7. MOOCs courses completed by the faculty:**

- i. Dr PHANI PRASANTHI successfully completed a course titled, "Machine Learning and Deep Learning - Fundamentals and Applications" and was certified in NPTEL SWAYAM platform.

- ii. Dr KODE SRIVIDYA successfully completed a course titled, "Principles of Metal Forming Technology" and was certified in NPTEL SWAYAM platform.
- iii. Dr. M Rajyalakshmi successfully completed a course titled, "Artificial Intelligence : Search Methods For Problem solving" and was certified in NPTEL SWAYAM platform.
- iv. Dr. M Rajyalakshmi successfully completed a course titled, "Programming, Data Structures and Algorithms using Python" and was certified in NPTEL SWAYAM platform.
- v. Dr. Movva Naga Swapna Sri successfully completed a course titled, "Entrepreneurship" and was certified in NPTEL SWAYAM platform.
- vi. Dr. Movva Naga Swapna Sri successfully completed a course titled, "Introduction to Internet of Things" and was certified in NPTEL SWAYAM platform.
- vii. Vidya Chaparala successfully completed a course titled, "Essential Mathematics for Machine Learning" and was certified in NPTEL SWAYAM platform.
- viii. Vidya Chaparala successfully completed a course titled, "Introduction To Machine Learning - IITKGP" and was certified in NPTEL SWAYAM platform.

#### **8. Industrial Visits:**

- i. II B.tech I semester of Mechanical Engineering students visited Kristna Engineering works, Enikepadu on 20/8/2024.
- ii. II B.tech I semester of Mechanical Engineering students visited Rautech Ceramics Private Ltd, pedavutapalli on 12/11/2024.

#### **9. Students' achievements:**

##### **a) Co-curricular Activities:**

- i. B.Sanjana(23501A0307), B.Kiran(21501A0312) of II B.Tech has **won 1<sup>st</sup> Prize** in the poster presentation event held during SAMYAK24- A National Level Techno Management Fest at Koneru Lakshmaiah Education Foundation (Deemed to be university) on 5<sup>th</sup> October,2024.
- ii. B.Sanjana (23501A0307), B.Kiran(21501A0312), Y.Paul Wilson(23501A0358) of II B.Tech has participated in the innovation model competition organized as a part of the innovation day celebrations at Velagapudi Ramakrishna Siddhartha Engineering College(Deemed to be university) on 15<sup>th</sup> October ,2024.
- iii. Y.Paul Wilson(23501A0358), R.Benny (23501A0343) of II B.Tech has participated in the event Clash of Minds Prayukti-2024 organized by the Department of Civil Engineering at Vasireddy Venkatadri Institute of Technology (VVIT) on 18<sup>th</sup> & 19<sup>th</sup> October,2024.
- iv. Y.Paul Wilson(23501A0358) of II B.Tech has **won 1<sup>st</sup> Prize** in the event Minicart Racing in AMEYA-2024 conducted by the student chapter SAME at Vasireddy Venkatadri Institute of Technology (VVIT) on 24<sup>th</sup> & 25<sup>th</sup> October,2024.
- v. M.Jaswindar(24505A0308) of II B.Tech has **won 1<sup>st</sup> Prize** in the event cad contest in AMEYA-2024 conducted by the student chapter SAME at Vasireddy Venkatadri Institute of Technology(VVIT) on 24<sup>th</sup> & 25<sup>th</sup> October,2024.

- vi. R.Benny (23501A0343) of II B.Tech has won 2<sup>nd</sup> Prize in the event cad contest in AMEYA-2024 conducted by the student chapter SAME at Vasireddy Venkatadri Institute of Technology(VVIT) on 24<sup>th</sup> & 25<sup>th</sup> October,2024.
- vii. Y.Paul Wilson(23501A0358), M.Adithya(23501A0326) of II B.Tech has won 1<sup>st</sup> Prize in the event Component Clash in AMEYA-2024 conducted by the student chapter SAME at Vasireddy Venkatadri Institute of Technology (VVIT) on 24<sup>th</sup> & 25<sup>th</sup> October,2024.
- viii. Y.Paul Wilson(23501A0358), R.Benny (23501A0343) of II B.Tech has participated in the event Tech Hunt in AMEYA-2024 conducted by the student chapter SAME at Vasireddy Venkatadri Institute of Technology (VVIT) on 24<sup>th</sup> & 25<sup>th</sup> October,2024.
- ix. R.Benny (23501A0343) of II B.Tech has participated in the event Component Clash in AMEYA-2024 conducted by the student chapter SAME at Vasireddy Venkatadri Institute of Technology (VVIT) on 24<sup>th</sup> & 25<sup>th</sup> October,2024.
- x. R.Benny (23501A0343) of II B.Tech has participated in the event Minicart Racing in AMEYA-2024 conducted by the student chapter SAME at Vasireddy Venkatadri Institute of Technology (VVIT) on 24<sup>th</sup> & 25<sup>th</sup> October,2024.
- xi. R.Benny (23501A0343) of II B.Tech has participated in the event cad contest in AMEYA-2024 conducted by the student chapter SAME at Vasireddy Venkatadri Institute of Technology (VVIT) on 24<sup>th</sup> & 25<sup>th</sup> October,2024.
- xii. R.Benny (23501A0343) of II B.Tech has participated in the event Picto in AMEYA-2024 conducted by the student chapter SAME at Vasireddy Venkatadri Institute of Technology (VVIT) on 24<sup>th</sup> & 25<sup>th</sup> October,2024.
- xiii. G.Prudhvi (23505A0307) of III B.Tech has participated in the event MECHMANTRA-Design Contest organized at COLORIDO 2024- A National Level Technical , cultural and sports fest at R.V.R.& J.C. College of Engineering, Chowdavaram, Guntur on 28<sup>th</sup> December,2024.

**b) Coursera/NPTEL Details of the students:**

- i. Niddara Prabhu prakash of IV B.Tech Mechanical successfully completed a course titled, "Metal Additive Manufacturing" and was certified in NPTEL SWAYAM platform.
- ii. Sukhavasi Vijayakrishna of IV B.Tech Mechanical successfully completed a course titled, "Entrepreneurship" and was certified in NPTEL SWAYAM platform.
- iii. GUNTI SUDHAKAR of IV B.Tech Mechanical successfully completed a course titled, "Fundamentals of Manufacturing Processes" and was certified in NPTEL SWAYAM platform.
- iv. Thadimalla Sai Venkat of IV B.Tech Mechanical successfully completed a course titled, "Introduction to Internet of Things" and was certified in NPTEL SWAYAM platform.

**c) Internships: NIL**

**d) Student Publications:**

- i. Ahmad Ali sha1, Divi Naga Navya, Ram Kumar Ravipudi, Potla Sai Chandra, Phani Prasanthi of ME department submitted a research paper to CREEP-2024 organized by **Indian Institute of Science Bangalore (IISE)**, the title of the paper is **“Predicting Mechanical Properties of Hemp Fiber Reinforced Composites Across Ambient Temperatures: Integrating Experimental and Numerical Approaches”**, this paper was accepted by the IISE Creep conference team. The paper presented on “28th July to 2nd August 2024.



### 10. Higher Education:

- i. Kavya Sree Medandrao (20501A0355) of 2020-2024 Batch joined Masters Degree in Project Management in 'The university of Adelaide' at Australia.
- ii. Shaik Afzal Nabi (20501A0384) of 2020-2024 Batch joined Masters Degree in Information Science in 'University of Massachusetts Boston' at U.S.
- ii. Bandlamudi Dhanush (20501A0307) of 2020-2024 Batch joined Masters Degree in Industrial Engineering in 'Wichita State University' at U.S.
- iii. Babu Rajendra Prasad Edupuganti (20501A0304) of 2020-2024 Batch joined Masters Degree in Intelligent Manufacturing in 'TU Clausthal university' at Zellerfeld, Germany
- iv. Srikar Ganne (20501A0304) of 2020-2024 Batch joined Masters Degree in Information Systems in 'cleveland State University' at U.S.
- v. Prem Sai Bhupathi (20501A0308) of 2020-2024 Batch joined Masters Degree in Management Science in 'Illinois Institute of Technology' at U.S.
- vi. Ummethula Sandeep Kumar (20501A0399) of 2020-2024 Batch joined M.Tech in Machine Design in 'P.V.P.S.I.T' at vijayawada
- vii. Veerla Chandra Sekhar (20501A03A7) of 2020-2024 Batch joined M.Tech in Machine Design in 'P.V.P.S.I.T' at vijayawada
- viii. Valluri Surya (21505A0323) of 2020-2024 Batch joined M.Tech in Engineering Design in 'JNTUH' at hyderabad

### 11. Placements:

- i. Mr. K Natheef, Mr. K Sai Venkat, Mr. S Priya Vardhan, Mr. S Dhanush Srinijith, Mr. Y Teja devi Vara prasad, Mr. P Sreenivas, Mr. Ahmad Ali shah, Mr. Indupalli Rohith Sanjay, Mr. V David Adithya, Mr. Ch Anand Kumar, Mr. Ch Anand Vardhan, Mr. Y Ganesh, Mr, Ch Srinivas of IV B.Tech got selected in Good Living Buildings at an Annual Package of 3.0 LPA through campus placement drive conducted during July 2024.
- ii. Mr. P Praveen Kumar, Mr. P Chandra, Mr. P Sai Durga Pradeep, Mr.G. Pavan Kumar got selected in Accenture Solutions through campus Placement drive conducted during August-2024
- iii. Mr. G Pavan Kumar-21501A0327, Ms. D Naga Navya-21501A0323 got selected in TCS (Tata Consultancy Services) with Annual Package of 3.48 LPA through Campus Placement Drive conducted during November-2024
- iv. 52 Students of IV B.Tech Mechanical Engineering Got selected in TVS Sundram Fasteners with an Annual package of 2.16 LPA through Campus placement drive conducted during November-2024
- v. 22 students of IV B.Tech Mechanical Engineering Got selected in Surya Tech Solutions with an Annual package of 2.16 LPA through Campus placement drive conducted during December-2024
- vi. Mr. P Sai Durga Pradeep- 22505A0319 of IV B.Tech Mechanical Engineering got selected in IMEG as Graduate Engineer trainee with an Annual Package of 3.6 LPA through campus placement drive during December-2024

- vii. Mr. Micheal Bussa, Ms. D Naga Navya, Mr. T Mohana Vamsi Krishna and Sd Khaja Mohiddien of IV B.Tech Got Selected in *JSW (Jindal South-West)* with an Annual package of 4.67 LPA.

## **12. Other Information:**

### **a) Students and Staff membership of professional bodies:-**

#### **a. Faculty memberships:**

- i. 23 members of faculty took membership in Life Member Indian Society for Technical Education [LMISTE]
- ii. Three members of faculty took membership in Institute of Engineers India [IEI]
- iii. Four members of faculty took membership in Materials Research Society of India [MRSI]
- iv. Seven members of faculty took membership in International Association of Engineers [IAENG]
- v. A faculty member took membership in Society of Failure Analysis [SFA]
- vi. A faculty member took membership in Indian Society of Heating, Refrigerating and Air Conditioning Engineers [ISHRAE]
- vii. A faculty member took membership in American Society of Heating, Refrigerating and Air Conditioning Engineers [ASHRAE]
- viii. A faculty member took membership in Association for the Advancement of Artificial Intelligence [AAAI]
- ix. A faculty member took membership in Indian Plumbing Association [IPA]
- x. Three members of faculty took membership in Society for Learning Technologies [SOLETE]
- xi. A faculty member took membership in Powder Metallurgy Association of India [PMAI]
- xii. A faculty member took membership in Condition Monitoring Society of India [CMSI]
- xiii. A faculty member took membership in Indian Society of Systems for Science and Engineering [ISSE]
- xiv. A faculty member took membership in Institute of Mechanical Engineers [India] [IME]
- xv. A faculty member took membership in Society for Indoor environment [SIE]

#### **b. Student's memberships**

- i. 249 students took memberships in Indian Society for Technical Education [ISTE].
- ii. 96 students took memberships in Indian Society of Heating, Refrigerating and Air Conditioning Engineers [ISHRAE].

### **b) Cultural / Literacy activities:- Nil**

### **c) Equipment Procured: -**

S. NO	Name of the Laboratory	Name of the Equipment	Invoice Date	COST (Rs.)
1.	Basic Workshop	3IDEA-CRE-END-3-S1-FDM  3IDEA-CRE-FER-NEW- DSKTP-BLK	26.07.2024	84,597.00

#### d) Alumni Interaction:

- i. Mr. Shaik Roshan, an esteemed alumnus, working in Senior Sales consultant our current students on the topic of "Opportunities in Core Industries." His valuable insights and experience will undoubtedly benefit our III B.Tech I Sem Sec - 1 students. on 21.10.2024.



- ii. Mr. Ch Bhanu Akhil han, an esteemed alumnus, working in Senior software engineer our current students on the topic of "Opportunities in Core Industries." His valuable insights and experience will undoubtedly benefit our III B.Tech I Sem Sec - 1 students. on 30.12.202.



### 13. Students Corner:

i)

అన్ని దానములందు అన్నదానమే గొప్ప  
కన్నతల్లి కంటే ఘనులు లేరు  
ఎన్న గురుని కన్న నెక్కుడు లేడయా  
విశ్వదాభిరామ! వినురవేమ!

**భావము :** ఓ వేమా! అన్ని దానములలో గొప్పది అన్నదానమని, అందరికంటే గొప్పది కన్నతల్లియని, అందరిలోకి గొప్పవాడు గురువని తెలుసుకో!

By  
23505A0303

### ii) Dr. Bhimrao Ramji Ambedkar

Dr. Babasaheb Ambedkar was the 14th and last child of his parents. He was the first Indian to get a Doctorate (Ph.D.) degree in Economics from abroad. The statue attached to Karl Marx in the London Museum was Ambedkar. World's largest library with 50,000 books belong to Babasaheb. He was a master in 64 subjects and He seeked knowledge of 9 languages. He was the world's first and only Satyagrahi, who did Satyagraha for drinking water. Mostly he Was the first lawyer from the backward class

#### Known For:

He is known as a symbol of equality & is considered the architect of the Indian constitution.

#### Education:

He earned a BA in Economics and Political Science from Bombay University in 1912 & (PHD) from Columbia University & the London school of economics.

#### Activism:

He was a leader in the fight against caste discrimination & for the rights of the Dalits .

#### Political career:

He was first minister of law & justice & chaired the drafting committee of the constitution assembly.

He was also a member of rajya Sabha from 1952.

\***Article No: 32** ; was written by Dr .B.r Ambedkar which is known as right to constitutional remedies \*

by  
D. Rohith Kumar  
23505A0304



**iii) An Interesting topic on strange, fascinating facts about the Universe.**

**→ There's a giant cloud of alcohol in space:**

The Sagittarius B2 cloud near the center of our galaxy contains enough alcohol to fill 400 trillion pints of beer.

**→The Sun makes up 99.86% of the mass in our solar system:**

It's so massive that about a million earths could fit inside it.

**→ There's a planet made of diamond:**

55 Cancri e is believed to be covered in graphite and diamond.

**→ Time runs differently in space:**

Because of gravitational time dilation, astronauts age slightly slower than people on earth.

**→The Coldest known place:**

The Boomerang Nebula is the coldest known Place in the universe at - 272°C, Just one degree above absolute zero.

**→Future of the sun:**

In about 5 billion years, the sun will exhaust its hydrogen fuel and expands into a red giant, Swallowing Mercury, Venus, and Possibly Earth.

by  
G.PRUDHVI  
23505A0307

iv)

D. Balaji

23505A03

The Engineer by Stephanie Calmenson.POEM :

listen up and you will hear  
why I am called an engineer.

I solve. I build. I invent.

I'd say my times is very well spent.

want a bridge? I'll design it for you.

want a new kind of wheel? I'll develop that, too.

I use computers. I use my brain.

I think and test till the answer is plain.

want a robot, a rocket, an electronic device?

I'll take the assignment. I won't think twice.

I'll make running shoes that will send you soaring!

I'll develop a device that will keep you from snoring!

My life is all about invention.

Making the world work better is my intention.

### v) German-Indian Youth exchange program Experience

I am D. Rihal, carrying roll number 22501A0307 from PVP Siddhartha Institute of Technology. With the support of Atheist Centre located in Vijayawada and Humanistischer Freidenkerbund Havelland e.V, I, along with 6 other members, had the opportunity to visit Berlin, Germany.

This was a 15 days German-Indian Youth exchange program based on "Democracy and Human Rights" conducted from August 22<sup>nd</sup> to September 5<sup>th</sup>. Recently, I had the privilege of participating in a youth exchange program in Germany. This incredible opportunity was made possible with the support of the Atheist Centre, located in Vijayawada, India, and the Humanistischer Freidenkerbund Havelland e.V. in Germany. Along with six other members, I embarked on a journey to Berlin for a 15-day German-Indian Youth Exchange Program focused on "Democracy and Human Rights." The program took place from August 22<sup>nd</sup> to September 5<sup>th</sup> and offered a rich platform for cultural exchange and insightful discussions.

One of the most memorable experiences during the program was our visit to the Parliament of Potsdam. The visit provided us with an invaluable opportunity to witness the workings of the democratic system in Germany. We were given a comprehensive tour of the parliament, gaining insights into its history, architecture, and the processes that define its governance.



During our visit, we had the privilege of meeting two prominent leaders who represented the diverse political spectrum in Germany. They shared their perspectives on the challenges and opportunities their country faces. In an engaging discussion, we explored how Germany addresses its social, political, and economic issues. As representatives of India, we also shared our observations about the challenges in our own country, leading to a meaningful exchange of ideas.

The leaders elaborated on the dynamic interplay between the two major political groups in Germany—the left-wing and the right-wing parties. They discussed their approaches to governance and problem-solving, emphasizing the importance of dialogue and compromise in addressing societal challenges. The conversation not only highlighted the differences in political ideologies but also underscored the shared commitment to democracy and human rights, values that both nations hold dear.

By  
Mr. D. Rihal  
22501A0307

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