

DEPARTMENT OF MECHANICAL

ENGINEERING

A Half- Yearly NEWS LETTER JANUARY 2024



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PVPSIT Department of Mechanical Engineering NEWS LETTER

January, 2024

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 4999 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 22 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, 85, 50, 976.00.

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 Seminar on "Career Opportunities after graduation" by Mr. Atul Negi, GATE Expert, IMS GATE Academy, Vijayawada, for III -B. Tech. ME students on 25.07.2023 from 11:00 AM to 01:00 PM in the Ground floor Seminar hall.



A Guest Lecture on "Make Innovation a core value" by Sri. V. Rajkumar, Scientist F, Defence Research and Development Laboratory (DRDL), Hyderabad, Telangana for II & III-B. Tech. ME students and faculty on 19.08.2023 from 10:00 AM in the Ground floor Seminar hall.



- iii. A Guest Lecture on "Scope of Refrigeration and Air Conditioning in Mechanical Engineering" by Sri. P. Radha Krishna, Managing Director, Coolex Industries Pvt. Ltd., Autonagar, Vijayawada for II, III & IV-B. Tech. ME students and faculty on 15.09.2023 from 11:30 AM in the Ground floor Seminar hall.
- iv. A Guest Lecture on "**Understanding HVAC industry**" by Dr. B. Anand Babu, Managing Director, Genex Consultants, Hyderabad for III -B. Tech. ME students on 03.10.2023 from 02:00 PM in the room number 107.



v. A Guest Lecture on "Energy Conservation Techniques-Green Buildings" by Mrs. Saandeepani Vajje, Director, Earthonomic Engineers Pvt. Ltd., President, ISHRAE Vijayawada Chapter for III -B. Tech. ME students on 03.10.2023 from 03:00 PM in the room number 107.



vi. A Seminar on "**Placement Opportunities in Mechanical Engineering**" by Mrs. Usha Thirumalastty and Mr. Sri Sainath, Director, Good Living Building Systems, Vijayawada, for IV -B. Tech. ME students on 06.10.2023 from 10:30 AM to 12:00 Noon in the Ground floor Seminar hall.



- vii. A one week ICT Sort term course for staff on "Marketing in the 'METAVERSE' Era" by Entrepreneurship Development and Industrial Coordination department, NITTTR Chandigarh and course coordinator is Dr. Harsh Vardhan Samalia from 09.10.2023 to 13.10.2023.
- viii. A one day Workshop on "**CREO 10.0 Software**" by Sri. Pasam Sreekanth, Trainer, CREO, Parametric Technology Corporation (PTC), Hyderabad for IV -B. Tech. ME students and faculty on 13.10.2023 from 10:00 AM in the CAD lab room number- 348.



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

- G Dilli Babu, Mallapuram Bala Chennaiah, Dooba Siva Sankar, Kondapalli Sivaji Babu, Experimental investigation and optimization of IRB6700 ABB robot spot welding process parameters, Materials Today: Proceedings, July-2023, <u>https://doi.org/10.1016/j.matpr.2023.06.420</u> (Scopus Indexed).
- ii. Thota Venkateswara Rao, S Jeyakrishnan, D R Rajkumar, Ram Subbiah, S Vijayakumar, M. Naga Swapna Sri, P Anusha, Fabrication and Tensile Impact and Hardness test of Al6061/SiC/Coconut Shell Ash Composites, Proceedings of 2nd International Conference on Smart Sustainable Materials and Technologies (ICSSMT-2023) organized by CARE college of Engineering, Thiruchirapally, Tamilnadu from 30th to 31st August-2023 at Trichy, India.
- iii. Srikanth Karumuri, M Geetha, G Raja Kumar, Suresh Seetharaman, D R Rajkumar, Bathula, Srinivas, P Anusha, Optimizing Tensile Strength and Hardness in Al-Based Hybrid Composites via Stir-Squeeze Technique, Proceedings of 2nd International Conference on Smart Sustainable Materials and Technologies (ICSSMT-2023) organized by CARE college of Engineering, Thiruchirapally, Tamilnadu from 30th to 31st August-2023 at Trichy, India.
- iv. Bhiksha Gugulothu, P S Satheesh Kumar, N Srinivasa Rao, S Vijaya kumar, D R Raj kumar, T V. Janardhana Rao, M Naga Swapna Sri, Friction Stir Welded Magnesium AZ31B Alloy used to evaluate mechanical properties at various Rotational Speeds, Proceedings of 2nd International Conference on Smart Sustainable Materials and Technologies (ICSSMT-2023) organized by CARE college of Engineering, Thiruchirapally, Tamilnadu from 30th to 31st August-2023 at Trichy, India.
- v. VV Venu Madhav, Ch Sri Chaitanya, **P Phani Prasanthi**, AVSSKS Gupta, VV Spandana, Influence of Biofiber Reinforcement Materials on the Mechanical Strength of the Hybrid Composite Materials, 8th European congress on Advanced Nano Technology and Nano Materials, Organized by Coalesce Research group, Hyatt place London, Heathrow Airport, UK from 12th to 13th October 2023.
- vi. **K. I. Vishnu Vandana**, M. Rajyalakshmi, V. Chinmai, S. Ramadevi, Ceramic Cutting Tools for Dry Machining of Hardened Steels – A Review, Contemporary Innovations in Engineering and Management, AIP Conf. Proc. 2821, 050006-1–050006-5; Pg: 1-5,

November-2023 https://doi.org/10.1063/5.0158442 Published by AIP Publishing. ISBN: 978-0-7354-4735-6 (**Scopus Indexed**)

- vii. T J Prasanna Kumar, Grey relational optimization of the micro-electrochemical drilling response variables material extraction rate, overcut, and surface roughness of Inconel 718 alloy" 3rd International Conference on Materials Science and Engineering (ICMSE) held on November 23-25, 2023 and organized by the Department of Mechanical Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar, Punjab, India, Proceeding to Materials Today
- viii. Srinivas Prasad Sanakar, N Pardhasaradhi, K.Durga Rao, Sravani Vemuri, Analysis on structural and acoustic response of marine propeller, Advances in Mechanical Engineering, Industrial Informatics and Management (AMEIIM2022), AIP Conf. Proc. 3006, 020003-1–020003-7; <u>https://doi.org/10.1063/5.0186097</u>, Published by AIP Publishing. 978-0-7354-4794-3, Volume 3006, Issue 1, 29 December 2023, https://doi.org/10.1063/5.0186097

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

a) Seminars/Webinars: NIL

b) Workshops:

- i. M.Radha Devi has participated and completed successfully Three Days online International Workshop on "Data Interpretation Techniques and Strategies on Microsoft Excel (Hands-on) at Research and Publication Division, Scholars Gate – Research Training Institute, Tamil Nadu from 10th -12th July, 2023.
- Ch.Mohan Sumanth, J.Surendra has participated in the "Hands-on Training workshop on Polymer Additive Manufacturing Technologies" Organized by National center for Additive Manufacturing (NCAM) in partnership with CITD, Hyderabad from 19th -23rd Feb, 2024.

c) STTP/STCs:

- Dr.B.Raghu Kumar, Dr.P.Phani. Prasanthi U.Koteswara Rao, Ch.Vidya, P.Gopalakrishnaiah, V.Sravani, I.Manoj Kumar has successfully participated in National Intellectual Property Awareness Training Program as a part of National IP Festival organized by O/o CGPDTM and CSIR under Aazadi Ka Amrit Mahostav organized by Intellectual Property Office India and CSIR India from 01st – 31st July,2023.
- Ch.Kishore Reddy has participated in the UGC Sponsored Six- Day Short Term Faculty Training Program on Indian Knowledge Systems organized by UGC-Human Resource Development Center, University of Madras in collaboration with IKS Division of Ministry of Education, New Delhi from 21st – 28th August,2023 and secured grade A+.

d) Faculty Development Programmes:

- i. Dr. Sd. Abdul Kalam, P.Gopalakrishnaiah has participated in the Professional Development Programme on" Smart Manufacturing" conducted by NITTTR Chennai through online mode from 03rd -07th July, 2023.
- Ch.Mohan Sumanth has participated in a Five Day Online FDP on "Future Scopes for Additive Manufacturing in Industrial and Biomedical Applications' ' at Aditya Engineering College, Surampalem from 17th -21st July, 2023.
- iii. Ch. Lakshmi Kanth has participated in a Seven Day National Level Online FDP on "ChatGPT & AI Tools for Educators, in-line with OBE organized by St. Joseph's College(Autonomous), Irinjalakuda in association with the Kerala State Higher Education Council from 19th – 26th July,2023 and secured grade A.
- iv. T.J.Prasanna Kumar has participated in AICTE recognized Faculty Development Programme on "Funding Opportunities in Engineering" by NITTTR, Chandigarh atP.V.P.Siddhartha Institute of Technology, Vijayawada from 24th -28th July, 2023.
- v. I.Manoj Kumar has participated in Two –Day FDP on "Mathematical Sciences & Engineering Applications" at P.V.P.S.I.T from 03rd 04th August, 2023.
- vi. T.J.Prasanna Kumar has participated in a Seven Day National Level Online FDP on "Outcome Based Education & Essential AI Tools for Teachers" organized by IQAC of Carmel College(Autonomous), Kerala in association with the Kerala State Higher Education Council from 10th 18th August,2023 and secured grade A.
- vii. Dr.P.Phani Prashanthi has participated in AICTE Recognized Faculty Development Programme on "Enhancing Research capabilities foe Academic career Progression" by NITTTR, Chandigarh from 05th -09th Sept, 2023.
- viii. Ch.Vidya has participated in Professional Development Programme on "Outcome Based Education" by NITTTR, Chennai at V.R.Siddhartha Engineering College, Vijayawada from 05th -09th Sept, 2023.
- ix. Dr.K.Srividya has participated in a Five Day International Online FDP on "Modeling, Processing and Characterization of Composites" organized by NIT, Karnataka, Surathkal and Central University of Karnataka Kalaburagi at NIT, Surathkal from 13th -17th Sept, 2023.
- x. Dr.M.Rajyalakshmi has successfully participated in 1 Day FDP on "Automation System Design & Simulation using Automation Studio Software" of M/s Famic Technologies Inc., Canada in association with M/s DELLSOFT Technologies Pvt Ltd, New Delhi on 22nd Sept, 2023.
- xi. M.Radha Devi for successfully completing the NPTEL –AICTE FDP on "The Joy of Computing using Python" from July-Oct-2023.
- xii. T.J.Prasanna Kumar for successfully completing the NPTEL –AICTE FDP on "Work System Design" from July-Oct-2023.
- xiii. E.Kavitha, P.Gopalakrishnaiah, M.Radha Devi, V.Sravani has participated in the AICTE recognized FDP on "Marketing in the Metaverse Era" conducted by Entrepreneurship

Development and Industrial Coordination Department & NITTTR, Chandigarh at PVPSIT from 09th -13th Oct,2023.

- xiv. Dr.K.Srividya, Dr.Sd.Abdul Kalam, P.Gopalakrishnaiah, V.Sravani has successfully participated and completed AICTE Training and Learning(ATAL) Academy FDP on "Sustainable energy systems and Applications" at VRSEC from 11th -16th Dec,2023.
- xv. Dr.M.Rajyalakshmi has successfully participated and completed AICTE Training and Learning (ATAL) Academy FDP on "Novel materials, Devices and Applications" at VRSEC from 11th -16th Dec, 2023.
- xvi. Dr.M.Rajyalakshmi has participated in the One Week National Level Online FDP on "Outcome Based Education and Essential AI Tools for Teachers" organized by IQAC of Ramakrishna Mission Vivekananda Centenary College(Autonomous), Rahara, Kolkata in association with the department of Mathematics , Chaudhary Charan Singh University, Meerut from 14th -20th Dec,2023.
- xvii. Dr.P.Phani Prashanthi has completed the NEP 2020 Orientation & Sensitization programme under Malaviya Mission Teacher Training Programme (MM-TTP) of UGC at Sri Venkateswara University, Tirupathi from 15th -23rd Dec, 2023.
- xviii. Dr.M.Rajyalakshmi has successfully participated and completed AICTE Training and Learning (ATAL) Academy FDP on "Metal Additive Manufacturing" at ICFAI Foundation for Higher Education from 25th -30th Dec, 2023.

e) Guest Lectures: NIL

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

g) Conferences:

Ch. Lakshmi Kanth has presented a paper entitled "Identifying and Determining the significance of Features through Machine Learning Models for Vibration Signals" in the 1st National Conference on Design Thinking:" Trans- Disciplinary Challenges & Opportunities at Andhra University from 07th -08th July, 2023.

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

a) Scopus indexed journals:

- i. Kode Srividya, S. Ravichandran, M. Kumarasamy, Balachandra Pattanaik, Manjula Pattanaik, Ram Subbiah, P. Satishkumar, Design and analysis of wear parameters for epoxy based composite using RSM-box behnken optimization tool, International Journal on Interactive Design and Manufacturing (IJIDeM), ISSN: 1955-2505, July-2023, (Scopus Indexed/ESCI), https://doi.org/10.1007/s12008-023-01449-8
- Srikanth Karumuri, Barun Haldar, A. Pradeep, Sai Ashish Kumar Karanam, M. Naga Swapna Sri, P. Anusha, N. Sateesh, Ram Subbiah, S. Vijayakumar, Multi-objective optimization using Taguchi based grey relational analysis in friction stir welding for dissimilar aluminium alloy, International Journal on Interactive Design and

Manufacturing (IJIDeM), ISSN: 1955-2505, October-2023, https://doi.org/10.1007/s12008-023-01529-9, (Scopus Indexed/ESCI)

- iii. T. Srinag, R. Suresh Kumar, CH. Lakshmi Srinivas, Bharat Singh, P. Phani Prasanthi, V. V. Venu Madhav, Din Bandhu, Ashish Saxena, Sherzod Shukhratovich Abdullaev, Flexural and impact response of bamboo and pineapple leaf fiber reinforced composites using experimental and numerical techniques, International Journal on Interactive Design and Manufacturing (IJIDeM), Volume-17, Issue-6, ISSN: 1955-2513, Pg:1-13, October-2023, <u>https://doi.org/10.1007/s12008-023-01564-6</u>, (Scopus Indexed/ESCI)
- iv. T. Yuvaraj, P. Anusha, M. Naga Swapna Sri, R. Thanigaivelan, Effect of Ceramic Coated Tool on Stray Cut in Electrochemical Micromachining, Journal of New Materials for Electrochemical Systems, Vol. 26, No.4, October 2023, pp. 298-303, Journal homepage: <u>http://iieta.org/journals/jnmes</u>, <u>https://doi.org/10.14447/jnmes.v26i4.a08</u>, (Scopus Indexed)
- Phani Prasanthi P, Ch. Mohan Sumanth, V. V. Venu Madhav, Bharat Singh, Kuldeep K. Saxena, C. Labesh Kumar, Vinayak Malik, Ch. Sri Chaitanya, Sherzod Shukhratovich Abdullaev, Modelling and mechanical properties evaluation for lap joint of natural composites using finite element method, International Journal on Interactive Design and Manufacturing (IJIDeM),, ISSN: 1955-2513, Pg:1-13November-2023, https://doi.org/10.1007/s12008-023-01627-8, (Scopus Indexed/ESCI)
- Vi. Maddipati Rajesh, M. Naga Swapna Sri, S. Jeyakrishnan, P. Anusha, Javvadi Eswara Manikanta, N. Sateesh, B. Ch. Nookaraju, Ram subbiah, S. Vijayakumar, Optimization parameters for electro discharge machining on Nimonic 80A alloy using grey relational analysis, International Journal on Interactive Design and Manufacturing (IJIDeM), ISSN: 1955-2505, November-2023, <u>https://doi.org/10.1007/s12008-023-01616-x</u>, (Scopus Indexed/ESCI)
- vii. P. Phani Prasanthi, V. Raghavender, V. V. Venu Madhav, Pankaj Sonia, Ch. Sri Chaitanya, Din Bandhu, Ashish Saxena, Sherzod Shukhratovich Abdullaev, Experimental and simulation study for mechanical properties characterisation of green natural reinforced composites, International Journal on Interactive Design and Manufacturing (IJIDeM), ISSN: 1955-2513, Pg:1-13, December-2023, DOI: https://doi.org/10.1007/s12008-023-01695-w
- viii. T J Prasanna Kumar, Jasti Surendra, Ponnuru Anusha, Dr M. Babu Prasad, Manasa Bandlamudi, K. Praveen Kumar, Anil Kumar Pallikonda, Engendering Finest Test Cases by Using G-genetic Algorithm Variant SSGA, Journal of Theoretical and Applied Information Technology, Volume.101. Issue- No 24, ISSN: 1992-8645, Little Lion Scientific Publishers, Pg: 8328-8337, December 2023, (Scopus Indexed)
- ix. Phani Prasanthi, Haritha Akkineni, V V Venu Madhav, Nakul Gupta, Ch Vidya, Ch Sri Chaitanya, Kuldeep K Saxena, Naveen krishna Alla, Rakesh Chandrashekar, Vinayak Malik,i, Dilsora Abduvaliev, Progressive Deformation Analysis in Carbon and Glass Fiber Reinforced Hybrid Composites Using Finite Element Method, Indian Journal of Engineering & Materials Sciences Vol. 30, December 2023, pp. 757-765 DOI: 10.56042/ijems.v30i6.528, (Scopus Indexed)

- x. N. Rajan, M. Naga Swapna Sri, P. Anusha, R. Thanigaivelan, S. Vijayakumar, Performance Optimization of Electrochemical Machining Parameters on Aluminum Metal Matrix Composite, Surface Engineering and Applied Electrochemistry, Volume-59, Pg: 719–727 (2023), December-2023 <u>https://doi.org/10.3103/S1068375523060157</u>
- xi. E. Kavitha, Dr. Hemlata M. Jadhav, Vishal Goyal, A. Deepak, Hemant Singh Pokhariya, Dr. Brijesh Dutt Sharma, Dr. Anurag Shrivastava, Utilizing Convolutional Neural Networks for Image-Based Crop Classification System, International Journal of Intelligent Systems And Applications In Engineering, ISSN: 2147-6799, 2024, 12(3s), Pg: 685–694, (Scopus Indexed)

b) SCI/SCIE/ESCI indexed journals:

- Ramakrishna Kolluru, Phani Prasanthi, A. Swarna Kumari, Mechanical characterization of natural hybrid composites for automotive applications, Journal of the Brazilian Society of Mechanical Sciences and Engineering, ISSN: 1678-5878, September-2023, Volume-45, Issue-511, Springer Publications. https://doi.org/10.1007/s40430-023-04442-0, (SCI Indexed)
- ii. Prasanthi Phani, Raghavendra Gujjala, Shakuntala Ojha & Aswani Kumar Bandaru, Micromechanics and finite element approaches on the influence of fibre irregular surface and debonding on the elastic properties of jute/epoxy composites, Composite Interfaces, 1568-5543. October-2023, **ISSN**: https://doi.org/10.1080/09276440.2023.2264038
- iii. Balakrishna Gogulamudi, Raghu Kumar Bandlamudi, Balakrishna Bhanavathu, Venkata Sarath Kumar Guttula, Effect of welding speed on butt joint quality of laser powder bed fusion AlSi10Mg parts welded using Nd:YAG laser, De Gruyter academic publishing, International Journal of Materials Research-2023, ISSN: 2195-8556, November-2023, https://doi.org/10.1515/ijmr-2022-0230

c) IEEE/Springer journals: NIL

d) UGC/other journals:

- Kothuri Chenchu Kishore Kumar, Bandlamudi Raghu Kumar, Nalluri Mohan Rao, Artificial Neural Network Modeling Of Tribological Parameters Optimization Of Az31-Sic Metal Matrix Composite, Applied Engineering Letters, Vol.8, No.3, 111-120 (2023), e-ISSN: 2466-4847, September-2023, Pg:111-120, DOI: <u>https://doi.org/10.18485/aeletters.2023.8.3.3</u>, (Yet to Scopus Indexed)
- Raghu Kumar Bandlamudi, Lakshmana Rao Muppa, Sasidhar Muttunenic, Chirnajivi Paritala, A Machine Learning Based Approach to Study Effect Of Various Parameters On Tomoto Crop Yield, Industrial Engineering Journal ISSN: 0970-2555 Volume: 52, Issue 11, No. 2,Pg: 162-168, November : 2023
- iii. Lakshmana Rao Muppa, **Raghu Kumar Bandlamudi**, G. Harinath Gowd, P Gangisetty, Optimization Of Transportation Cost Through Data Science Using Python, Industrial

Engineering Journal ISSN: 0970-2555 Volume: 52, Issue 11, No. 2,Pg: 105-112, November : 2023

- iv. Srinivas Prasad Sanaka, Sravani Vemuri, K.Durga Rao, Transient acoustic analysis on ship propeller using CFD, Mukt Shabd Journal, Volume XII, Issue XI, NOVEMBER/2023, ISSN NO : 2347-3150, Pg: 719-733
- v. Srinivas Prasad Sanaka, K.Durga Rao, **Sravani Vemuri,** Computational Analysis Of Combustion In Scramjet Engine, Mukt Shabd Journal, Volume XII, Issue XI, NOVEMBER/2023, ISSN NO : 2347-3150, Pg: 734-741

e) Conference Proceedings:

- G Dilli Babu, Mallapuram Bala Chennaiah, Dooba Siva Sankar, Kondapalli Sivaji Babu, Experimental investigation and optimization of IRB6700 ABB robot spot welding process parameters, Materials Today: Proceedings, July-2023, <u>https://doi.org/10.1016/j.matpr.2023.06.420</u> (Scopus Indexed)
- K. I. Vishnu Vandana , M. Rajyalakshmi ,V. Chinmai, S. Ramadevi, Ceramic Cutting Tools for Dry Machining of Hardened Steels – A Review, Contemporary Innovations in Engineering and Management, AIP Conf. Proc. 2821, 050006-1–050006-5; Pg: 1-5, November-2023 https://doi.org/10.1063/5.0158442 Published by AIP Publishing. ISBN: 978-0-7354-4735-6
- Srinivas Prasad Sanakar, N Pardhasaradhi, K.Durga Rao, Sravani Vemuri, Analysis on structural and acoustic response of marine propeller, Advances in Mechanical Engineering, Industrial Informatics and Management (AMEIIM2022), AIP Conf. Proc. 3006, 020003-1–020003-7; <u>https://doi.org/10.1063/5.0186097</u>, Published by AIP Publishing. 978-0-7354-4794-3, Volume 3006, Issue 1, 29 December 2023, https://doi.org/10.1063/5.0186097

f) Book chapters:

 M Somaiah Chowdary, G Raghavendra, M Anupama Ammulu, MSR Niranjan Kumar, Shakuntala Ojha, Vemuri Praveen Kumar, Characterizations of Polymer- Carbonaceous composites, Polymer-Carbonaceous Filler Based Composites for Wastewater Treatment, ISBN: 9781032350905, CRC Press, September-2023.

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 SIDDHARTHA INSTITUTE OF TECHNOLOGY, VADAPARTHI MANIKANTA, MEDANDRAO KAVYA SREE, M. VENKATA SIVA SAI KRISHNA, G. VIVEKANANDA, SHAIK SUHAILG. SUDHEER KUMAR, Dr.P.PHANI PRASANTHI 9. CH LAKSHMI KANTH, filed a patent "BAG MAKING MACHINE", with an application number: 397121-001, this patent is published and registered on 9/10/2023.

- ii. PRASAD V POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY, VADAPARTHI MANIKANTA, MEDANDRAO KAVYA SREE, VEMURU TEJA SIVA NAGA SAI, PAGOLU SREEKAR, BHUPATHI PREM SAI, BANDLAMUDI DHANUSH, I.MANOJ KUMAR, Dr. PHANI PRASANTHI, filed a patent "COMPACT BIO COMPOSTER", with an application number: 399994-001, this patent is published and registered on 15/11/2023.
- iii. 1.Prasad V Potluri Siddhartha Institute Of Technology 2.Dr.Sd.Abdul Kalam
 3.Dr.B.Raghu Kumar 4.T.Srinag 5.Dr.P.Phani Prasanthi, filed a patent "TRICYCLE FOR DISABLED PERSONS", with an application number: 386083-001, this patent is published and registered on 26/07/2023.

b. Ph.Ds awarded:

i. Mr M Somaiah Chowdary was awarded Ph. D degree for his thesis titled, "DEVELOPMENT OF GLASS/KEVLAR /SISAL HYBRID POLYMER NANOCOMPOSITE FOR MECHANICAL AND TRIBOLOGICAL APPLICATIONS" by Department of Mechanical Engineering, NIT Warangal, on 28-07-2023.

c. Guest lecturers delivered:

i. Dr. B. Raghu Kumar, Professor & HOD has delivered a keynote lecture on "Vibration Based Condition Monitoring" in the one week FDP on "Emerging Trends in Robotics and Automation" organized by the Department of ME, NRI Institute of Technology, Pothavarappadu during the period 18-23 December, 2023.

d. Reviewers of journals:

- i. Ch Vidya reviewed a paper titled, "VALORISATION OF COTTON WASTE EFFLUENT: SUSTAINABLE APPROACH FOR PRODUCTION OF BIOETHANOL" submitted to Biomass Conversion and Biorefinery(BCAB)'.
- ii. T. J. Prasanna Kumar reviewed a paper titled, "Quantum spin Hall effect on pseudographene zigzag nanoribbons" submitted to International Journal of Nano Dimension.

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

- i. Dr.B.Raghu Kumar acted as a Resource Person has successfully completed Academic Audit at Andhra Loyola Institute of Engineering and Technology on 22nd August, 2023.
- Ch.Vidya has contributed as District organizing Team Member for District Level Koushal Oral/Poster competition being conducted by APCOST & Bharatiya Vijnana Mandali (VIBHA) at DIET,Ganguru on 20th Dec,2023.

7. MOOCs courses completed by the faculty:

i. Dr.B.Raghu Kumar successfully completed and certified the NPTEL course "Data Science for Engineers" during July- September 2023.

- ii. Dr.P.Phani Prasanthi successfully completed and certified the NPTEL course "Introduction To Machine Learning" during July- September 2023.
- iii. Dr. Sd.Abdul Kalam successfully completed and certified NPTEL course on"The Joy Of Computing Using Python" offered by IITM during July October 2023.
- iv. Dr. M.Rajya Lakshmi successfully completed and certified NPTEL course on"Introduction To Machine Learning - IITKGP " offered by IITKGP during July -October 2023.
- v. Mrs.Vidya Chaparala successfully completed and certified NPTEL course on"The joy of computing using Python" offered by IITM during July October 2023.
- vi. Mrs.M.Radha Devi successfully completed and certified NPTEL course on"The joy of computing using Python" offered by IITM during July October 2023.
- vii. Mr. LakshmiKanth Chintalapatisuccessfully completed and certified NPTEL course on"Google cloud computing foundations" offered by IITKhargapur during August -October 2023.
- viii. Mr. T J Prasanna Kumar successfully completed and certified NPTEL course on "Work System Design" offered by IIT Roorkee during July-October 2023.

8. Industrial Visits:

- i. III B.tech I semester (section-2) of Mechanical Engineering students visited Gold Medal PVC Pipes Ltd , Yerrabalem, Amaravati on 29/9/23.
- ii. III B.tech I semester (section-1) of Mechanical Engineering students visited Sri Lucky Polymers, Yerrabalem, Amaravati on 29/9/23
- iii. III B.tech I semester (section-2) of Mechanical Engineering students visited Sri Lucky Polymers, Yerrabalem, Amaravati on 29/9/23
- III B.tech I semester (section-1) of Mechanical Engineering students visited Gold Medal PVC Pipes Ltd, Yerrabalem, Amaravati on 29/9/23
- v. II B.tech I semester of Mechanical Engineering students visited Kristna Engg works , Enikepadu on 14/11/2023
- vi. II B.tech I semester of Mechanical Engineering students visited Rautec Ceramics Private Ltd ,Peda Avutapalli on 17/11/2023

9. Students' achievements:

a) Co-curricular Activities:

- Y.Lohitha of IV B.Tech has participated in the event Technical Paper Presentation and won <u>1st Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- L.M.N.Pawan Kalyan, N.Nikhilesh of III B.Tech has participated in the event Technical Paper Presentation and <u>won 2nd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.

- D.Naga Navya of III B.Tech has participated in the event Technical Paper Presentation and <u>won 3rd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- iv. V.Manikanta of IV B.Tech, D.Naga Navya of III B.Tech has participated in the event Design Contest and <u>won 1st Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- M.V.V.Vinodh, B.Charan Sai of III B.Tech has participated in the event Design Contest and <u>won 2nd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- vi. S.Vijaya Krishna, T.Sai Venkat of III B.Tech has participated in the event Design Contest and <u>won 3rd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- vii. S.Vijaya Krishna, T.Sai Venkat, S.Hemanth Sai Kiran of III B.Tech has participated in the event Technical Quiz and <u>won 1st Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- viii. P.Savithri Devi, Y.Lohitha, B.Sai Koushik of IV B.Tech has participated in the event Technical Quiz and <u>won 2nd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- ix. T.Rajesh,P.Sai Kumar, T.Krupa Sagar of III B.Tech has participated in the event Technical Quiz and <u>won 3rd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- x. M.Kavya Sri of IV B.Tech has participated in the event Idea Contest and <u>won 1st Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- D.Naga Navya of III B.Tech has participated in the event Idea Contest and <u>won 2nd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xii. M.Pramod Chowdary of III B.Tech has participated in the event Idea Contest and <u>won</u> <u>3rd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xiii. P.M.B.Subrahmanyam, N.Pavan Sai Teja, M.V.S.Vamsi Krishna, Y.Dheereshwar Reddy of III B.Tech has participated in the event Contraption and <u>won 1st Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xiv. M.Ravi Teja ,Md.Yasin Mallik,N.Prabhu Prakash,S.Satwik of III B.Tech has participated in the event Contraption and <u>won 2nd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xv. Sd.Sabir Hussain ,T.Sai Venkat, S.Vijay Krishna,S.Hemanth Sai Kiran of II B.Tech has participated in the event Contraption and <u>won 3rd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xvi. K.Avinash ,M.UdayKiran ,K.Yaswanth Kumar, M.Vasu, B.Michael of III B.Tech has participated in the event Contraption and <u>won Consolation Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.

- xvii. D.Naga Navya of III B.Tech has participated in the event Tech Jam and won 1st Prize on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xviii. T.Rajesh of III B.Tech has participated in the event Tech Jam and <u>won 2nd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xix. G.Srikar of IV B.Tech has participated in the event Tech Jam and <u>won 3rd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xx. K.Satish of IV B.Tech has participated in the event Tool Search and <u>won 1st Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xxi. P.Praveen Kumar of III B.Tech has participated in the event Tool Search and won 2nd <u>Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xxii. P.B.Suresh Babu of II B.Tech has participated in the event Tool Search and won 3rd Prize on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xxiii. D.Naga Navya of III B.Tech has participated in the event Know about an Engineer and won 1st Prize on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xxiv. B.V.P.Yaswanth of IV B.Tech has participated in the event Know about an Engineer and won 2nd Prize on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xxv. P.Sai Chand of III B.Tech has participated in the event Know about an Engineer and won <u>3rd Prize</u> on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xxvi. G.Pavan Kumar of III B.Tech has participated in the event Know about an Engineer and won Consolation Prize on Engineers day at P.V.P.Siddhartha Institute of Technology, Kanuru, Vijayawada on 15th Sept, 2023.
- xxvii. M.Virinchi, Jathin of IV B.Tech has participated in the event CELESTIA -2k23 at VRSEC from 24.08.2023 to 25.08.2023.
- xxviii. T.Sai Venkat of III B.Tech has participated in the event Component Drawing and won <u>3rd Prize</u> in the National Symposium, EPISTEMICON-2K23 at Andhra Loyola Institute of Engineering and Technology on 7th October, 2023.
- xxix. S.Vijaya Krishna, T.Sai Venkat of III B.Tech has participated in the event Component Drawing in the National Symposium, EPISTEMICON-2K23 at Andhra Loyola Institute of Engineering and Technology on 7th October, 2023.
- xxx. T.Sai Venkat of III B.Tech has participated in the event Quiz in the National Symposium, EPISTEMICON-2K23 at Andhra Loyola Institute of Engineering and Technology on 7th October, 2023.

- xxxi. U.Kiran, M.Pramod Chowdary of II B.Tech has participated in the Project Model on the occasion of National Level Project Envision and Tech-Innovate Hackathon at Seshadri Rao Gudlavalleru Engineering College from 30th -31 October, 2023.
- xxxii. Ahmad Alisha, Md.Yassen of III B.Tech has participated and <u>won 1st Prize</u> in the event Project Expo of VALIANT 2K23, A National Level Student Technical Symposium Organized by Vishnu Institute of Technology, Bhimavaram from 29th -30th Dec,2023.
- xxxiii. T.Sai Venkat of III B.Tech has participated and <u>won 3rd Prize</u> in the Event Mechmantra-2K24 Design Contest organized at COLORIDO 2024- A National level technical, cultural and sports fest at R.V.R. & J.C College of Engineering, Guntur on 16th Feb,2024.
- xxxiv. S.Vijayakrishna, T.Sai Venkat, Sk.Kaleesha, R.Manikanta, Sd.Saber Hussain, S.Dangi Vardhan of III B.Tech has participated in the Event Mechmantra-2K24 Design Contest organized at COLORIDO 2024- A National level technical, cultural and sports fest at R.V.R. & J.C College of Engineering, Guntur on 16th Feb,2024.
- xxxv. S.Vijayakrishna, T.Sai Venkat of III B.Tech has participated in the Event Mechmantra-2K24, The Lady & the lord organized at COLORIDO 2024- A National level technical, cultural and sports fest at R.V.R. & J.C College of Engineering, Guntur on 16th Feb,2024.
- xxxvi. V.Sandeep, S.Priya Vardhan of III B.Tech has participated in the Event Mechmantra-2K24, Paper Presentation organized at COLORIDO 2024- A National level technical, cultural and sports fest at R.V.R. & J.C College of Engineering, Guntur on 16th Feb,2024.
- xxxvii. Sk.Kaleesha, Y.Bhava Sagar, P.Chaitanya, P.Praveen Kumar of III B.Tech has participated in the Event Mechmantra-2K24, Yantralayam Contest organized at COLORIDO 2024- A National level technical, cultural and sports fest at R.V.R. & J.C College of Engineering, Guntur on 16th Feb,2024.

b) Extra-curricular Activities: Nil

c) Coursera/NPTEL Details of the students:

- Mr. S.Gayathri Prasad, Mr. Macherla virinchi, Mr. Jathin, Mr. Shaik ChandMohiddin, Mr. B.Dhanush, Ms. Kondiparthi Yamineswari, Mr. Shaik Khaja Mohiddin, Mr. Gangumolu Sudheer Kumar, Ms. Yagati Lohitha, Mr. Maddela Ganesh, Mr. Ala Rajesh, Mr. G.V.S.Ravi Teja, Mr. Rajulapati Naveen, Mr. Gowtham Bommidi, Mr. Okil Ravi, Mr. Bommu Venkata Pavan Yashwanth, Ms. Kakollu Bhagya Sri, Ms. Banda Sriyutha, Mr. Bhupathi Prem Sai, Mr. Pavan Kagitha were successfully completed and certified NPTEL course on "Work system design" offered by IITROORKEE during July - October 2023.
- Ms. Divi Naga Navya successfully completed and certified NPTEL course on"GERMAN
 I" offered by IITM during July October 2023.
- Mr. S Vijayakrishna, Mr. D.Akash, Mr. Nallamothu chaitanya were successfully completed and certified NPTEL course on"Applied Thermodynamics " offered by IITG during July - October 2023.
- iv. Mr. Kothapalli Manikanta successfully completed and certified NPTEL course on "Database Management System" offered by IITG during July - October 2023.
- v. Mr. Bodipudi Himaleelaprasad successfully completed and certified NPTEL course on "Design Thinking A Primer" offered by IITM during July October 2023.

- vi. Mr. Saber Hussain and Mr. Kambala Mejar Babu were successfully completed and certified NPTEL course on "Introduction To Machine Learning IITKGP " offered by IITKGP during July October 2023.
- vii. Mr. Ramireddy Manikanta and Mr. Vathadi Sandeep were successfully completed and certified NPTEL course on "Joining Technologies For Metals" offered by IITR during July October 2023.
- viii. Mr. Sai Kausik Bhaviri, Mr. Gorrupotu Bhargav, Mr. Macherla Virinchi, Mr. Sai Pavan Bhaviri, Mr. Vivekananda Gonugunta were successfully completed and certified NPTEL course on "Laser Based Manufacturing" offered by IITG during July - October 2023.
- ix. Ms. Kondiparthi Yamineswari successfully completed and certified NPTEL course on "Metal Additive Manufacturing" offered by IIT KANPUR during July October 2023.
- x. Mr.B.Hima Leela Prasad successfully completed and certified the NPTEL course "Design Thinking – A Premier" during July- September 2023.
- xi. Mr.R.Sandeep and Mr.S.Priya Vardhan were successfully completed and certified the NPTEL course "Introduction to Machine Learning" during July- September 2023.
- xii. Mr.ANDROTHU SIVA RAMA KRISHNA, Mr.CHAPPA MAHESH SAI, Mr.kodamanchili udaybabu, Mr.MAILAVARAPU V V SATYANARAYANA, Mr.MUDDAM VENKATA SIVA SAI KRISHNA, Mr.Pagolu Sreekar, Mr.PAMARTHI SAI DURGA PRADEEP, Mr.RAJAVARAPU SANDEEP, Mr.Satish kovela, Mr.S.Priya Vardhan, Mr.SINGULURI VEERA DURGARAO, Mr.Saber hussain, Mr.KAMBALA MEJAR BABU were successfully completed and certified the NPTEL course "Introduction To Machine Learning" during July- September 2023.
- xiii. Mr.Bandarupalli Hanumansudheer successfully completed and certified the NPTEL course "Advanced Machining Processes" during July- September 2023
- xiv. Mr.Chandu HemaChandra, Mr.EPURI AKHIL, Mr.Nalluri Gopi chand were successfully completed and certified the NPTEL course "Advances In Welding And Joining Technologies" during July- September 2023
- xv. Mr.MUNDURI VEERA VENKATA VINODH successfully completed and certified the NPTEL course "Automation In Manufacturing" during July- September 2023
- xvi. Mr.Banavathu Ramesh, Mr.Jaddu visweswara Rao, Mr.Dampudubiyyam kishore were successfully completed and certified NPTEL course on "The joy of computing using Python" offered by IITM during July - October 2023

d) Internships:

- i. 63 students of IV-B.Tech Mechanical Engineering attended Internship programme in Mayinkrish ventures pvt Ltd.
- ii. 09 students of IV-B.Tech Mechanical Engineering attended Internship programme in Kusalava International private limited.
- iii. 07 students of IV-B.Tech Mechanical Engineering attended Internship programme in G. S Alloy Castings.
- iv. 04 students of IV-B.Tech Mechanical Engineering attended Internship programme in South central railway.

- v. 03 students of IV-B.Tech Mechanical Engineering attended Internship programme in HINDUSTAN SHIPYARD LTD.
- vi. 07 students of IV-B.Tech Mechanical Engineering attended Internship programme in Armour company.
- vii. 03 students of IV-B.Tech Mechanical Engineering attended Internship programme in Varun Motors.
- viii. 06 students of IV-B.Tech Mechanical Engineering attended Internship programme in ISHRAE.
- ix. 01 student of IV-B.Tech Mechanical Engineering attended Internship programme in Mohan spintex India limited.
- x. 01 student of IV-B.Tech Mechanical Engineering attended Internship programme in VERZEO.
- xi. 03 students of IV-B.Tech Mechanical Engineering attended Internship programme in POWER MECH PROJECTS LIMITED.
- xii. 01 student of IV-B.Tech Mechanical Engineering attended Internship programme in Maha Shakthi polymers pvt. Ltd.
- xiii. 01 student of IV-B.Tech Mechanical Engineering attended Internship programme in Ajay Cotspin Industries.
- xiv. 01 student of IV-B.Tech Mechanical Engineering attended Internship programme in HONDA.
- xv. 04 students of IV-B.Tech Mechanical Engineering attended Internship programme in SABOO brothers.
- xvi. 01 student of IV-B.Tech Mechanical Engineering attended Internship programme in Kumar Pumps.
- xvii. 02 students of IV-B.Tech Mechanical Engineering attended Internship programme in Maddi lakshmaiah & co pvt ltd.
- xviii. 02 students of IV-B.Tech Mechanical Engineering attended Internship programme in DRDO.
- xix. 02 students of IV-B.Tech Mechanical Engineering attended Internship programme in Siva Shakthi Textiles.
- xx. 02 students of IV-B.Tech Mechanical Engineering attended Internship programme in Internashala.
- xxi. 02 students of IV-B.Tech Mechanical Engineering attended Internship programme in Jyothi Ltd..
- xxii. 01 student of IV-B.Tech Mechanical Engineering attended Internship programme in Akshaya Samvrudhi Textiles.
- xxiii. 66 students of III-B.Tech Mechanical Engineering attended Internship programme in South Central Railway.
- xxiv. 16 students of III-B.Tech Mechanical Engineering attended Internship programme in VTPS.

- xxv. 04 students of III-B.Tech Mechanical Engineering attended Internship programme in Bajaj Varun Motors.
- xxvi. 03 students of III-B.Tech Mechanical Engineering attended Internship programme in SMILAX Labs Ltd.
- xxvii. 01 student of III-B.Tech Mechanical Engineering attended Internship programme in HVAC & R.
- xxviii. 01 student of III-B.Tech Mechanical Engineering attended Internship programme in SYNERGEM.
- xxix. 01 student of III-B.Tech Mechanical Engineering attended Internship programme in KIM COOLS Projects India Pvt. Ltd..
- xxx. 01 student of III-B.Tech Mechanical Engineering attended Internship programme in Vijaya Durga Auto Sales.
- xxxi. 01 student of III-B.Tech Mechanical Engineering attended Internship programme in Divinci Innovative Design Solutions.

d) Student Publications:

i. Ch.Nagalakshmi, B.Sriyutha, K.Yamineswari, M.Sriram, A.T.N.V Prasad, Dr.Phani Prasanthi, Dr. A.Haritha presented a paper titled "Integrating ANSYS Simulation and Machine Learning Techniques for Thermo-Mechanical Analysis of PCBs" at 5th International Conference on Advances in Distributed Computing and Machine Learning (ICADCML-2024) to be held at the VIT-AP University, Amaravati, Andhra Pradesh during January 5-6, 2024.

10. Higher Education:

- ii. Sandeep Yalagati (20505A0328) of 2022-23 batch joined Masters in Mechanical Engineering in Florida Tech, Melbourne FL, U.S.
- iii. Chimirala Ravi Kiran (20505A0307) of 2022-23 batch joined M.Tech in heat power Engineering in A U College of Engineering, Visakhapatnam.
- iv. Sai charan Deevela (19501A0313) of 2022-23 batch joined Masters in Industrial Engineering in Wichita state university, U.S.
- v. Mani Naga Kumar Kallepalli (19501A0325) of 2022-23 batch joined Masters in Mechanical Engineering in University of North Texas.
- vi. Jaya Madhuri Mandava (20505A0311) of 2022-23 batch joined M.Tech in Machine Design in P.V.P.S.I.T, Vijayawada.

11. Other Information:

a) Students and Staff membership of professional bodies:-

Staff memberships

- i. 28 number of faculty having membership in LIFE MEMBER INDIAN SOCIETY FOR TECHNICAL EDUCATION (LMISTE).
- ii. 03 number of faculty having membership in INSTITUTE OF ENGINEERS INDIA (IEI).
- iii. 01 faculty having membership in SOCIETY OF FAILURE ANALYSIS (SF).
- iv. 01 faculty having membership in CONDITION MONITORING SOCIETY OF INDIA(CMSI).
- v. 01 faculty having membership in INDIAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS [ISHRAE].
- vi. 01 faculty having membership in SOCIETY FOR LEARNING TECHNOLOGIES.
- vii. 02 number of faculty having membership in INTERNATIONAL ASSOCIATION OF ENGINEERS(IAENG).
- viii. 10 number of faculty having membership in INSTITUTE OF RESEARCH ENGINEERS & DOCTORS (IRED).
- **ix.** 05 number of faculty having membership in LIFE MEMBER OF MATERIAL RESEARCH SOCIETY OF INDIA (MRSI).

Student's memberships

- i. 194 students having memberships in INDIAN SOCIETY FOR TECHNICAL EDUCATION [ISTE].
- ii. 79 students having memberships in INDIAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS [ISHRAE].
- iii. 64 students having memberships in INSTITUTION OF ENGINEERS [IE].

b) Cultural / Literacy activities :- NIL

c) Equipment Procured:

S No	Department	Name of the Laboratory	Cost of Equipment	Grand Total
1	Mechanical Engineering	Natural Composite materials lab	59,000/-	
2		Heat Transfer Lab	1,15,000/-	11,20,195/-
3		Material Testing Lab	5,76,430/-	
4		CAD Lab	3,69,765/-	

d) Alumni Interaction:

- i. Mr. V Dines (12505A03B1 ME, 2013-18 Batch) currently engaged in a role at Robotic Bosch. The interaction occurred with III B.Tech I Sem Sec-1 on September 19, 2023, focusing on "Opportunities in core industries."
- ii. Mr. K Sai Dikshit, an alumnus of PVPSIT (ME, 2019-23 Batch) currently serving as a Graduate Engineering Trainee. His Roll No is 19501A0338. On December 8, 2023, he interacted with students of III B.Tech I Sem Sec-1, shedding light on the topic "Opportunities in JSW core industries
- Mr. Prasanth, an alumnus of PVPSIT (ME, 2018-22 Batch). His Roll No is 18501A340, and he holds the role of Security Delivery Associate at Accenture Hyderabad. On December 18, 2023
- Mr. Siva Sai Krishna Dasari (13501A0324 ME, 2013-17 Batch) as the resource person. Mr. Dasari, holds the role of Polymer Engineer. He will be engaging with students of II B.Tech II Sem on December 28, 2023 discussing "Opportunities in Core Industries USA."

12. Students Corner:

i) Democracy and Human Rights



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**.

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 22nd to September 5th 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 thechallenges 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.

ii) Elon Musk: The Visionary Shaping the Future

Elon Musk, the name synonymous with innovation and ambition, is one of the most influential figures of the 21st century. Known for his groundbreaking ventures in technology, space exploration, and clean energy, Musk's vision extends far beyond the ordinary boundaries of entrepreneurship.

Early Life and Education

Elon Reeve Musk was born on June 28, 1971, in Pretoria, South Africa. A curious and introverted child, Musk developed an early fascination with technology and computers. By the age of 12, he had already created and sold his first video game, Blaster. After completing his early education in South Africa, Musk moved to Canada and later to the United States, where he attended the University of Pennsylvania, earning degrees in physics and economics.

Entrepreneurial Beginnings

Musk's entrepreneurial journey began with Zip2, a software company providing business directories and maps for newspapers. Compaq acquired the company in 1999 for \$307 million, giving Musk his first significant financial success. He then co-founded X.com, an online payment company that eventually became PayPal. In 2002, eBay acquired PayPal for \$1.5 billion, cementing Musk's reputation as a tech innovator.

Space Exploration: SpaceX

Musk founded Space Exploration Technologies Corp. (SpaceX) in 2002, with the ambitious goal of reducing space travel costs and making life multi-planetary. SpaceX achieved remarkable milestones, including the first privately funded spacecraft to reach orbit and the development of reusable rockets like the Falcon 9 and Starship. Musk's vision of colonizing Mars continues to inspire a new era of space exploration.

Tesla: Revolutionizing Transportation

In 2004, Musk joined Tesla Motors, an electric vehicle startup, as an investor and chairman. Under his leadership, Tesla became a global leader in electric mobility, introducing revolutionary cars like the Model S, Model 3, and Model Y. Beyond vehicles, Tesla expanded into clean energy with solar panels and energy storage solutions, accelerating the transition to sustainable energy.

Challenges and Controversies

Despite his success, Musk has faced numerous challenges. From production delays at Tesla to failed rocket launches at SpaceX, his journey has been marked by perseverance. His outspoken nature on social media has also stirred controversy, often drawing criticism and legal scrutiny. However, his ability to overcome setbacks has solidified his status as a resilient entrepreneur.

Legacy and Impact

Elon Musk's influence transcends industries. By addressing critical global issues like climate change, space exploration, and artificial intelligence, Musk has inspired millions to dream bigger. His work has reshaped the automotive, aerospace, and energy sectors, paving the way for a more sustainable and technologically advanced future.

Elon Musk is not just an entrepreneur; he is a visionary; constantly redefining what humanity can achieve. His relentless pursuit of the extraordinary reminds us that with innovation, determination, and courage, even the impossible becomes attainable.



by G.V.K Viswanath 22501A0309

iii) Sir Mokshagundam Visvesvaraya

Early Life and Education:

- Born: September 15, 1861, in the village of Muddenahalli, Karnataka, India.
- **Family:** He was born into a Telugu-speaking family with a strong academic background.
- Education: He studied at the University of Madras, where he earned his bachelor's degree in civil engineering in 1881. Visvesvaraya was a brilliant student and went on to pursue higher education in England at the College of Engineering, Pune.

Career and Contributions:

1. Irrigation Projects:

- One of his most significant contributions was to the development of irrigation systems. He helped design and implement the Krishna Raja Sagara Dam in Mysore, which provided irrigation and drinking water to large parts of the region.
- He also introduced the innovative concept of **flood protection** and the construction of reservoirs in areas prone to water scarcity.

2. Hyderabad and Bombay (now Mumbai):

- Visvesvaraya was a key figure in the planning and execution of the construction of irrigation and flood control works in **Hyderabad** and other parts of the Deccan Plateau.
- He also worked on drainage systems and waterworks projects in **Bombay** (Mumbai), contributing to the city's urban development.

3. Vishvesvaraya's Role in Building Infrastructure:

- He played a crucial role in the development of **railways** and **factories**. Under his guidance, the **Bhadravati Iron and Steel Works** was established, marking a turning point in India's industrial development.
- He was also involved in the **establishment of industrial and technological institutes**, and he advocated for educational reforms, particularly in technical education.

4. Visvesvaraya's Inventions:

- He is credited with designing the **automatic barrier water floodgate** in 1903, which was first used in the **Khadakwasla Reservoir** near Pune. This invention later earned him worldwide recognition.
- He also conceptualized various methods of water conservation, drainage systems, and disaster management techniques, which laid the foundation for modern civil engineering in India.

Achievements and Recognition:

1. Titles and Honors:

- Sir Mokshagundam Visvesvaraya was knighted as a Knight Commander of the Order of the Indian Empire (KCIE) by the British government in 1915 for his services to the government of India and his work in engineering and public service.
- He was awarded the **Bharat Ratna** in 1955, India's highest civilian honor, in recognition of his remarkable contributions to nation-building.
- He was also known for his detailed **engineering reports**, often advising governments on various public works projects.

2. Role in Government:

- Visvesvaraya served as the **Diwan** (**Prime Minister**) of Mysore from 1912 to 1918. During his tenure, he focused on the modernization of infrastructure, education, and industrial development.
- He was also instrumental in advising the government on matters of national importance, particularly related to the economy and industrial growth.

Legacy and Influence:

- **Mysore State:** His work in Mysore is legendary, particularly for his efforts in creating industrial growth, including the establishment of several factories and industries.
- Visvesvaraya Technological University: The Visvesvaraya Technological University (VTU), located in Belagavi, Karnataka, is named in his honor, reflecting his profound impact on the field of engineering education in India.
- Engineering Day: India celebrates Engineers' Day on September 15 each year, the birthday of Sir Mokshagundam Visvesvaraya, in recognition of his immense contributions to the engineering profession.

Personal Qualities:

- He was known for his deep understanding of science and technology, his dedication to work, and his ability to transform challenges into opportunities for national progress.
- Visvesvaraya believed in the importance of **education** and **self-reliance**, and he encouraged young Indians to take up technical fields and contribute to the nation's progress.

Death:

• Sir Mokshagundam Visvesvaraya passed away on **April 14, 1962**, at the age of 100. His legacy continues to inspire engineers, scientists, and national leaders.

Conclusion:

Sir Mokshagundam Visvesvaraya's contributions to India's engineering, infrastructure, and nation-building efforts remain invaluable. His technical expertise, visionary leadership, and devotion to public service made him one of India's greatest engineers and a national hero. His work laid the foundation for modern India's infrastructure and development.



K. Sai Varun Teja 22501A0313

ఆదిత్వ కాండ

బెంగళూరు 1997 ఉదయం 7 కావస్తోంది, అదిత్య కార్ డ్రైవ్ చేస్తూ తన ఇంటి వైపు పెళ్తున్నాడు, ఇంటికి చేరగాసే హడావిడిగా కార్ దిగి తన అమ్మ, అక్కా, చెల్లీని కార్ డోర్స్ ఓపెన్ చేసి దిగమని చెప్పాడు. " అమ్మ ఇదే మన సొంత ఇల్లు " అని అన్నాడు ఆదిత్య. 1989, సూర్యుని కాంతి కిటికీ నుంచి వచ్చి ఆదిత్య మొహం మీద పడింది, ఒక్కసారిగా మెలుకువ వచ్చేసింది తనకి, మెలుకువ రావటంతోనే ఇదంతా కల అని అర్ధం అయింది ఆదిత్యకి. నిన్న సాయంత్రం కాలేజీ నుంచి పనికి పెళ్లేదానికి ఆలస్యం అవ్వటం తో ఇంటికి కూడా ఆలస్యంగా పెళ్లాల్సి వచ్చింది అందువల్ల ఈరోజు కాలేజీకి ఆలస్యం అయింది అని బాధ పడ్డాడు ఆదిత్య. ఆదిత్య కి చదువు అంటే మహా ఇష్టం అందుకే ఇంట్లో ఉన్న వాళ్ళు రోజా కూలిగా పని చేస్తుంటే తను మాత్రం చదువు మీద ఉన్న ఇష్టంతో మెకానికల్ ఇంజీనీరింగ్ లో జాయిన్ అయ్యాడు, ఒక పక్క తన ఊరిలోని సేటు దగ్గర దుకాణం లో పనికి చేరాడు ఎందుకంటే తన ఇంటర్మీడియెట్ చదువుతున్న సమయం లో తన తండ్రి పక్షవాతానికి గురయ్యాడు ఆ రోజు నుంచి సంతోషం అన్నది తన జీవితం లో కరువైంది, ఒక పైపు చదువు, పని ఇంకో పైపు బాధ్యతలు, గత రెండు సంవత్సరాలుగా తన జీవితం ఇలాగే సాగుతుంది. సహాయం చేసిన వారు ఒక్కరు కూడా లేకపోగా చదువు పూర్తిగా మాసేసి పనిసే నమ్ముకోమని చెప్పిన వాళ్ళ సంఖ్య ఎక్కువ. కానీ తన మనసులో ఎక్కడే ఒక చిన్న నమ్ముకం ఈ రోజు చదవటానికి కష్టాలు పడిన, రేపు అనే రోజున ఈ కష్టమే తనను వడ్డు దాటించే వంతెన అయిద్ది అని.

ప్రతి రోజు ఉదయం సూర్యుని పైపు చూసి ఈ రోజు నా రోజు అని ఆత్మవిశ్వాసం నింపుకోవడం ఆదిత్య కి మొదటినుంచి అలవాటు. 1990 మార్చి, ఆదిత్య మొదటి సంవత్సరం పూర్తి చేసుకొని సెమిస్టర్ సెలవులు దక్కటం తో ఇల్లు గడపటానికి ఏమైనా పని చేసుకుందాం అని నా నొంత ఊరు అయిన చిన్నపురం నుంచి బయటికి వచ్చాడు. ప్రతి రోజు ఉదయం 8 నుంచి సాయంత్రం 6 వరకు పని చేసుకొని ఇంట్లో వాళ్ళకి సహాయంగా ఉండటంతో పాటు తన తదుపరి సెమిస్టర్ ఫీజు కూడా కూడబెట్టాడు. ఖాళి దరికినపుడల్లా తన అమ్మమ్మ అయిన సుమతి తో కబుర్లు చెబుతూ ఆమెకి సహాయంగా ఉండేవాడు అలాగే తన అక్కా, చెల్లి తో ఆడుతూ సమయం గడిపేవాడు, అన్ని కష్టాలు పోయి జీవితం ప్రశాంతంగా సాగిపోతుంది అని అదిత్య అనుకున్నాడు కానీ తన ఒకటి తలిస్తే దేవుడు ఒకటి తలుస్తాడు అని అంటారు పెద్దలు. సెమిస్టర్ సెలవులు అయిపోయి 2nd ఇయర్ మొదలైన 2 వారాలకి తన తండ్రి మరణించాడు అసే బాధాకర వార్తని వినవలిసి వచ్చింది ఆదిత్య కి. అంత ఒక్కసారిగా తన కన్నా కలలు అన్ని ఆవిరయిపోయాయి, మంచి ఉద్యోగం వచ్చాక తన తండ్రికి ఉన్న పకవాతం నయం చేయటమే తన మొదటి కర్తవ్యం అనుకున్నాడు ఆదిత్య ఇప్పుడు ఒక్కసారిగా అందకారం అయిపోయింది తన జీవితం. చుట్టు పక్కల వారు మళ్ళి చదువు ని వదిలేసి పనిని చేసుకో ఇంట్లో ముగ్గురు ఆడవాళ్లు ఉన్నారు కదా అని చెప్తూ వచ్చారు,

iv)

మవునముగా ఉండిపోయాడు ఆదిత్య. రోజులు గడుస్తూ ఉన్నాయి కానీ ఇదివరకు ఉన్న ఆత్మవిశ్వాసం లేదు తనలో ఒక్కసారిగా తన పైన ఉన్న నమ్మకాన్ని కోల్పోయాడు తను. తన కొడుకు స్థితిని చూడలేని తల్లి తన వద్దకు వచ్చి ఎంతగానో స్పుర్తిని నింపింది, మొత్తం విని ఆలోచనలో పడ్డాడు ఆదిత్య, అలా ఆ ఆలోచనతోనే కాలేజీ కి పెళ్ళటానికి బయలుదేరి బయట అడుగు పెట్టాడు, బయటకు వచ్చి తల పైకెత్తి సూర్యుని పైపు చూసి ఇది నా రోజు అని ఎప్పటిలాగే ఆత్మ విశ్వాసాన్ని నింపుకున్నాడు.

1993 జనవరి, కుటుంబం అంతా ఆరు బయట కబుర్లు చెప్పుకుంటూ ఉన్నారు, ఆదిత్య తన అమ్మ ఒడిలో పడుకొని " అమ్మ నీకు ఏమైనా కోరిక ఉందా " అని అడిగాడు దానికి అమ్మ పెద్దగా ఏం లేవు నాన్న కానీ మనకంటూ ఒక సొంత ఇల్లు ఉంటే బాగుంటాది అని అంది. అమ్మ చెప్పిన ఆ మాటలు బాగా బలంగా నాటుకుపోయాయి ఆదిత్య కి. ఇది ఇలా ఉండగా ఆదిత్య కి 40,000 తో బెంగళూరు లో ఒక మంచి ఉద్యోగం వచ్చింది. పరిగెత్తుకొని

ఇంటికి పెళ్లి అమ్మ నాకు ఉద్యోగం పచ్చిందని చెప్పాడు ఆదిత్య, తల్లి ఆనందానికి అవదులు లేకుండా పోయాయి. నాన్నగారి ఫోటోకి దండం పెట్టుకు రమ్మంది అమ్మ, ఆదిత్యకు ఉద్యోగం రాగానే తండ్రికి న్యాయం అయ్యేలా చేద్దాం అని అనుకున్న మాట గుర్తోచ్చింది, అంతే కన్నీటి పర్యంతం అయ్యాడు. తనకు మంచి జీవితాన్ని ఇచ్చిన తల్లి దండ్రులకు అలాగే దేవుడికి ధన్యవాదాలు చెప్పాడు. ఆదిత్య కథ ఎంతో స్పూర్తి వంతమయినది, అందరి మాట విని చదువు వదిలేసి ఉంటే ఈ రోజు ఇది సాధించే వాడు కాదు అలాగే ఎంత మంది అతన్ని చదవలేవు అని అన్న ఆదిత్య మాత్రం వారిని తిరిగి ఒక్క మాట అనలేదు, తను ఏమి చేయగలడో అది చేసి చూపించాడు. కొన్ని సంవత్సరాలు అయ్యాక బెంగళూరు నుంచి తన సొంత ఉరు అయిన చిన్నాపురానికి వచ్చాడు ఆదిత్య, తనని చూసి ఎంతో సంతోపిచింది అమ్మ. పెంటసే కార్ ఎక్కండి అని అమ్మ, అక్క, చెల్లీ కి చెప్పాడు సరే అని అందరూ కూర్చున్నారు. బెంగళూరు 1997 ఉదయం 7 గంటలకు, ఆదిత్య కార్ డ్రవ్ చేస్తా తన ఇంటి వైపు పెళ్తున్నాడు, ఇంటికి చేరగాసే హడావిడిగా కార్ దిగి తన అమ్మ, అక్క, చెల్లీ ని కార్ డోర్స్ ఓపెన్ చేసి దగమని చెప్పాడు. " అమ్మ ఇదే మన సొంత ఇల్లు" అని అన్నాడు ఆదిత్య. ఇలాంటిది ఇంతకముందే జరిగినట్లు అనిపిస్తుంది ఏంటి అని అనుకున్నాడు ఆదిత్య ఆ ఆలోచన నుంచి బయటికి వచ్చిందిన్ను చింది.

> By Ch. Srinivas 21501A0321

