



Mechanical Engineering PVPSIT



A Half- Yearly

News letter

July 2024



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PVPSIT

Department of Mechanical Engineering

NEWS LETTER

July, 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 Guest Lecture on “Work Done by the human heart: Designing Mechanical valves and pumps” by Dr. Prasad Patnaik B.S.V., Professor, Fluid Mechanics Laboratory, Department of Applied Mechanics & Biomedical Engineering, IIT MADRAS, CHENNAI on 20.01.2024 for II & III-B. Tech. ME students and staff.



- ii. A Seminar on "BUREAU OF INDIAN STANDARDS- STANDARDIZATION OF MECHANICAL EQUIPMENT" by Sri. B. Krishnaveer, Standards Promotion Officer, Scientist-B, BIS, State Office, Vijayawada, for III -B. Tech. ME students on 13.02.2024.



- iii. A Webinar in association with NDLI club on RECENT ADVANCES IN POLYMER AND COMPOSITE PRODUCTS” by Mr. Gopi Krishna Konda, Research Student & Master of Science in "Polymer and Composite Products" at Kaiserslautern University of Applied Sciences, Germany for II & III -B. Tech. ME students on 22.02.2024.
- iv. A Seminar on “Technical Aspects in Execution of Mega Projects” by Sri. Y. Vijaya Kumar, Former Head, operations, Tata Projects Limited and Former Head, Mechanical, L&T Constructions Limited, for II-B. Tech. ME, students on 23.02.2024.



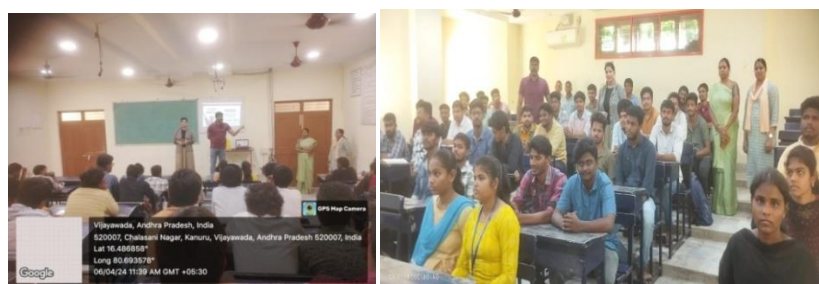
- v. A Guest Lecture in association with Entrepreneurship Development Cell on “Motivation to Engineers and Engineering Practices” Sri. M. Narayana Prasad, Entrepreneur, Narayana Prasad Electrical works, Vijayawada & Vizag for III-B. Tech. ME students on 23.02.2024.



- vi. A talk in association with IQAC on “Agriculture Latest innovations and Natural farming Products” Sri. Y. Chandra Sekhar, Chairman, EPL Group. for all faculty of PVPSIT on 30.03.2024.



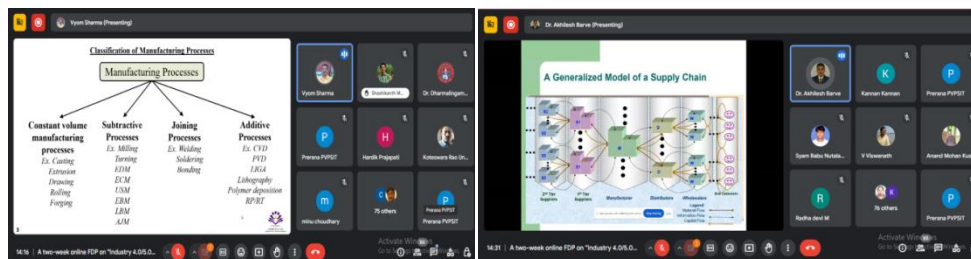
- vii. A Career Development Programme by Mr. Ranganath Mummadi, Director, BE BEST Consultants, Vijayawada for III & IV-B. Tech. ME students on 06.04.2024.



- viii. Two day International Conference on RECENT ADVANCES IN MECHANICAL AND INDUSTRIAL ENGINEERING (ICRAMIE-2024) on 22.03.2024 and 23.03.2024 sponsored by Siddhartha Academy of General and Technical Education, Vijayawada.



- ix. A two week online FDP on “Industry 4.0/5.0” Sponsored by Siddhartha Academy of General and Technical Education. The resource persons were Dr. V Vasu, Professor, Dept. of Mechanical Engineering, NIT Warangal, Dr. Pradeep Gururaj Yammiyavar, Professor - Visiting & Dean Student Welfare, Mechanical, Materials and Aerospace Engineering, IIT Dharwad, Dr. Vyom Sharma, Assistant Professor, Mechanical, Materials and Aerospace Engineering, IIT Dharwad, Dr. Akhilesh Barve, Professor, Dept. of Mechanical Engineering, MNIT, Bhopal, Dr. Rukmini Srikanth Revuru, Associate Professor, University of Northern Iowa, USA, Dr. K Srikanth, Professor, Dept. of Mechanical Engineering, NIT Warangal, Dr. K. Ratna Kumar, Assistant Professor, Dept. of Mechanical Engineering, NIT Calicut, Dr. V Vasu, Professor, Dept. of Mechanical Engineering, NIT Warangal, Dr. Manjaiah, Assistant Professor, Dept. of Mechanical Engineering, NIT Warangal, Dr. Annapurna Jonnalagadda, Associate Professor Grade 1, Department of Software Systems, VIT Vellore, Dr. E Suresh Babu, Assistant Professor, Dept. of Computer Science & Engineering, NIT Warangal from 15.04.2024 to 27.04.2024.



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

- T J Prasanna Kumar, D A Prabhu, G Udhaya Kumar, S Rajesh, Shanthi P, Aruna S, Forecasting the Material Extraction Rate of Inconel 625 Alloy in Micro Electrochemical Drilling through Machine Learning Approaches, International Conference on Innovations in Robotics, Intelligent Automation and Control (ICIRIAC 2024), organized by SKCET, Coimbatore in Association with kungpook University, South Korea, on 28th February, 2024
- M. Bhuvaneswari, T. J. Prasanna Kumar, U. Gobikrishnan, S. Rajesh, D. Antony Prabu, Madhankumar Seenivasan, Solar Radiation Forecast Utilizing an Artificial Neural Network Model with Three Distinct Learning Algorithms, Society of Automotive Engineers technical Paper Series, SAE International in United States, ISSN: 0148-7191, e-ISSN: 2688-3627,

Published February 23, 2024 by SAE International in United States
DOI:<https://doi.org/10.4271/2023-01-5174>, (Scopus Indexed)

- iii. K. Srividya, M. Nagaswapnasri, P. Anusha, P. Praveen Kumar, S. Priya Vardhan, Shaik Mahammed Ismail, Design And Fabrication Of Bladeless Wind Turbine, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- iv. Sd. Abdul Kalam , P. Gopala Krihna, Sk. Ziavulla, Sk. Abdul Rahman, Sk. Karim, Effect Of Air Loads On Aircraft Composite Structure - Strength Prediction By Finite Element Analysis, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- v. M. Rajyalakshmi , K. I. V. Vandana, Hybrid Solar Distillation fabrication for water purification, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- vi. Lakshmi kanth Ch K. Venkata Rao P. Gopala Krishnaiah TJ Prasanna Kumar, Ch. Vidya P. Phani Prasanthi, Harmonizing Bearing Fault Classification: A Symphony of Deep Learning Techniques Unveiled through Vibrational Signals, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- vii. V.Sravani, T.J.Prasannakumar, B. kamala Priya, E.Kavitha, .P.Phani Prasanthi, .P.Anusha, M. Kavya Sree, Design And Fabrication Of A Sieving Machine Using An Eccentric Mechanism For Efficient Separation Of Materials, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- viii. E. Kavitha, V.Sravani, M. Kavya Sree, Ch.Manikanta, J. Satish Babu, B. Prince Prakash, Modelling And Experimental Investigation Of Cellular Structure Using 3d Printing, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- ix. E. Kavitha, M.Radha Devi, Shaik.Eijaj, P.Pardha Viswanadh, N.Dhanush Reddy, Shaik.Sirajuddin, Steel Surface Defects Detection Through Machine Learning, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- x. Vidya Chaparala, G. Ravi Kiran Sastry , P. Phani Prasanthi, Analytical Optimization of Crystalline Nano Cellulose-Dispersed H₂O/C₂H₆O₂ Nano Fluids Using Response Surface Methodology, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- xi. K. Venkatarao, Ch. Lakshmi Kanth, V. Sravani, N. Manoj Kumar, V. Eswar Balaji, V. Veera Manikanta, Sk. Suhail, Heat Transfer Enhancement Of An Automobile Engine Radiator Using Al₂O₃/Cuo Water Base Nanofluids, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- xii. K.Nithin, J.Jathin, G.Hemanth Kumar, M.Virinchin, G.V.S.Ravi Teja, G.Bhargav, B.Prem sai, K.Raju, B. Sai Kausik , Dr.P.Anusha, Dr.M.Naga Swapna Sri, A Brief Overview Of Magnetic Refrigeration, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)

- xiii. T J Prasanna Kumar, V Sravani, B Kamala Priya, Y Ayyappa, M Kiran Kumar, Sk Roshan, P Tarun kumar, Comparative Analysis of Semi Monocoque Structured Aircraft Nose Cone Made of Different Titanium Graded Alloys at different operating conditions, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- xiv. K. Venkatarao, Ch. Lakshmi Kanth, V, Sravani, T. Hari Krishna, T. Kiran Kumar, V. Chandra Sekhar, V. Chinna Murali Krishna, Experimental And Cfd Analysis Of Thermal Performance Improvement Of Automobile Radiator Using Al₂O₃-TiO₂ Water Base Nanofluids, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- xv. B. Kamala Priya, K.Sai Babu,V.Sravani, V.Dhana Raju, B.Sai Rama Krishna, Comparative simulation and CFD analysis on a car by varying different angles of rear spoiler, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- xvi. T J Prasanna Kumar , B Rajeev Kumar, Static and Transient Structural and Steady State Thermal Analysis on Automobile Wheel Varying Core Wall Material of Honeycomb Structure, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- xvii. K. I. Vishnu Vandana, K. Uday Babu, L. Adithi, K.N. Mithilesh, K. Pavan, Performance Study of Alumina Ceramic Tool Inserts During Dry Turning of EN36 Hardened Steel Samples, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- xviii. CH. Kishore Reddy, Interactive Learning Mechanism for Dynamic Toys, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- xix. Ch. Kishore Reddy, Study On Mechanical Properties Of TMT Bars Manufactured In Gujarat, ICRAMIE-24 organized by Dept of ME, PVPSIT from 22 March to 23 March 2024, ISBN: 9789355660909. (Others)
- xx. P Anusha, M Naga Swapna Sri, Study on TIG Welding Parameter Optimization for Improved Mechanical Properties in EN31 Steel Alloys, (ICAAMM) 6th International Conference on Advancements in Materials and Manufacturing organized by Department of Aeronautical and Mechanical Engineering, MLR Institute of Technology during 16-17 February-2024. (Others)
- xxi. B Raghukumar, Investigations & Analysis of Laser Beam Cutting Parameters while cutting of Super alloy, in 1st International Conference on Computational Techniques & Smart Manufacturing (ICCTSM-2024) organized by Department of Mechanical Engineering, VEMU Institute of Technology (Autonomous), P. Kothakota, Chittoor, Andhra Pradesh, India, during 21 - 22, June 2024. (AIP Conference Proceedings) (Others)

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

a) Workshops:

- i. 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.

- ii. Dr. K.Srividya, Dr.P.Anusha , Dr.M.N.Swapna Sri , Sravani Vemuri, T J Prasanna Kumar have attended the 5-Day Online Workshop on “Multiple Attribute Decision Making Using Analytic Hierarchy Process” organized by National Institute of Technology Mizoram from 26.02.2024 to 01.03.2024.
- iii. Dr. Phani Prasanthi, Vidya Chaparala has participated in one week SPARC Sponsored workshop on “Advanced Composite materials” organized by Department of Chemical Engineering, NIT Warangal from 26.02.2024 to 01.03.2024.
- iv. N.Raghu Ram has received a certificate of completion for completing the live workshop on PowerPoint using AI & CHATGPT organized by Skill Nation on 09th March, 2024.
- v. Dr. K.I.V. Vandana , M.Radhadevi have participated in the " Hands - On Training Workshop on Additive Manufacturing Technologies" organized by National Centre for Additive Manufacturing(NCAM) in Partnership with CITD, Vijayawada from 11th -15th March,2024.
- vi. E.Kavitha has participated in Three Day Online Workshop on “Navigating the Research Article Publications Landscape from writing to publishing: Mastering the academic journey of Research” at Pimpri Chinchwad College of Engineering,Pune from 14th -16th March, 2024.

b) Seminars: NIL

c) STTP/STCs:

- i. M. Radhadevi has participated & completed successfully Online International Short-Term Training Program (STTP) on "Deep Learning Application for Practical Problems" at Research and Publication Division, Scholars from 01st - 05th Feb,2024.
- ii. Dr.P.Anusha, Dr.M.N.Swapna Sri has participated in One Week STTP on “Recent Trends in Information Technology” organized by Department of Information Technology at P.V.P.S.I.T from 1st -6th April, 2024.
- iii. Dr.P.Anusha, M.Radha Devi, T J Prasanna Kumar has successfully participated in National IP Awareness/Training Program under National Intellectual Property Awareness Mission organized by Intellectual Property Office, India on 26th April, 2024.

d) Faculty Development Programmes:

- i. K.I.V.Vandana, Ch.Mohan Sumanth, Ch.Vidya, Dr.M.Rajyalakshmi has participated in a Five Day Online FDP on “Advances in Materials Technology for Next Generation Manufacturing” at Ballari Institute of Technology & Management, Ballari from 01st -05th Feb, 2024.
- ii. E. Kavitha, has participated and successfully completed one week FDP on “Generative AI” at D Y Patil College of Engineering, Pune with Pantech E-Learning from 4th- 9th February, 2024.
- iii. Ch.Vidya has participated in a Two Day National Level FDP on “Smart Manufacturing & Industry Challenges & Opportunities” at Sanjay Gandhi Polytechnic, Ballari from 09th -10th Feb, 2024.
- iv. Dr. K.Srividya, Ch.Vidya has participated in a Five Day International Virtual FDP on “Global Conversations in Mechanical Engineering: Bridging Innovation and Sustainability” at Madanappalle Institute of Technology & Science, Gate - Research Training Institute, Tamil Nadu, India from 19th -23rd Feb, 2024.

- v. E. Kavitha, has participated in a One Week Online FDP on “Artificial Intelligence Applications to Electrical Vehicles” jointly organized by GMR Institute of Technology & VRSEC from 4th- 9th March, 2024.
- vi. E. Kavitha, has participated and successfully completed one week FDP on “Generative AI” at D Y Patil College of Engineering, Pune with Pantech E-Learning from 4th- 9th March, 2024.
- vii. Dr. K.Srividya, E.Kavitha has participated in the professional development programme on "IoT and Image Processing in Robotics and UAV Applications " organized by NITTTR, Chennai through online mode from 11th -15th March,2024.
- viii. J.Surendra, Ch.Vidya has participated and successfully completed 6-Day online UHV-II FDP organized by AICTE from 15th – 20th April, 2024.
- ix. Dr.P.Anusha, Dr.M.N.Swapna Sri T J Prasanna Kumar, M.Radha Devi, J.Surendra have participated in Two Week Online Faculty Development program on “Industry 4.0/5.0” organized by department of Mechanical Engineering at PVPSIT from 15th – 27th April,2024.
- x. M.Radha Devi has participated in a Five Day Online Faculty Development Program on“Enhancing Research Excellence – A Comprehensive exploration of Optimization Techniques” at NIT Warangal from 22nd-26th April, 2024.
- xi. T J Prasanna Kumar secured Faculty Development Program certificate successfully completing the course NPTEL online certification on Fundamentals of Automotive systems during January-April-2024.
- xii. P Gopalakrishnaiah secured Faculty Development Program certificate successfully completing the course NPTEL online certification on Matlab Programming for Numerical Computation during January-April-2024.
- xiii. E.Kavitha has participated in one week virtual Faculty Development program on “ Current Trends in Mechanical Engineering – Case studies from Industries & Academia to promote innovation , Design Thinking and Startups” organized by department of Mechanical Engineering at Shri Vishnu Engineering College for Women(SVECW), Bhimavaram from 20th to 25th May 2024.
- xiv. P Gopalakrishnaiah has participated in one week virtual Faculty Development program on “Advancements in Automobile Engineering for Sustainable Development” Department of Automobile Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad in association with the SAE Collegiate Club of VNRVJIET. from 24th to 28th June 2024
- xv. T J Prasanna Kumar has attended One week faculty development program on Smart Materials and Research Opportunities organized by the Department Of Mechanical Engineering, Vasireddy Venkatadri Institute of Technology, Nambur, Guntur (dt.), Andhra Pradesh, India from 27th to 31st May 2024.
- xvi. Dr. K.Srividya, Dr. K.I.V. Vandana, G.Bala Krishna, M.Radha Devi, T J Prasanna Kumar , V. Sravani has participated in one week online international faculty development program on “Advances in Automobile Engineering for Sustainable Development” at VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad in association with the SAE Collegiate Club of VNRVJIET from 24th -28th June, 2024.

e) Conferences: NIL

f) Guest Lectures:

- i. Dr. Phani Prasanthi, acted as resource person and delivered a talk on “Intellectual Property Rights (IPR's) and Patent Filing: A Guide to Filing Your Own Patents in India” in the workshop titled “Quality Research Paper and Funding Project Proposal Writing” organized by Department of Electrical and Electronics Engineering Prasad V Potluri Siddhartha Institute of Technology on 11th March, 2024.
- ii. Dr. Phani Prasanthi gave a talk on “Intellectual property Rights and Patent filing” to the staff and students of the mechanical engineering, Siddhartha Academy of Higher Education, on 27th March, 2024.

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

h) Industrial training programme:

- i. Mr. G. Gopalakrishnaiah Assistant Professor, went for two months training programme in Efftronics Systems Pvt. Ltd., Mangalagiri, Vijayawada.

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

a) Scopus indexed journals:

- i. K. I. Vishnu Vandana, P. Siva Nagasree, Machining performance of ceramic tool inserts during dry turning of hardened steel, SINERGI Vol. 28, No. 1, February 2024: 75-82, <http://doi.org/10.22441/sinergi.2024.1.008>, (Scopus Indexed)
- ii. Chaitanya N, Veeranjanyulu G, P Deepak Reddy, M Srinivasa Giridhar, G Nageswara Rao, Sarath Chandra B, P Phani Prasanthi, Leveraging renewable energy sources for sustainable traction vehicles, Indonesian Journal of Electrical Engineering and Computer Science, Vol.34, No.1, April-2024, pp. 40~49, ISSN: 2502-4752, DOI: 10.11591/ijeecs.v34.i1.pp 40-49, (Scopus Indexed)

b) SCI/SCIE/ESCI indexed journals:

- i. P. Siva Nagasree, K.I. Vishnu Vandana, Ch. Hima Gireesh, M.K. Naidu, Ch. Prasad, Integrated MCDM techniques for the selection of hybrid MWCNT/Ni–Zn–Fe nanocomposites for X-band radar absorption applications, Inorganic Chemistry Communications, Volume-161, March-2024, <https://doi.org/10.1016/j.inoche.2024.112139>, (SCIE/Scopus Indexed)
- ii. P Phani Prasanthi, T Srinag, Vallabhaneni Venkata Venu Madhav, Manoj Kumar Agrawal, Indradeep Kumar, Kuldeep K. Saxena, Navajyoth B, Prediction of pipe geometry influenced by various suction pressure, Indian Journal of Engineering & Materials Sciences, Vol. 31, ISSN: 0971-4588, February 2024, pp. 76-83, DOI: 10.56042/ijems.v31i1.586 (SCIE/Scopus Indexed)
- iii. L. Natrayan, Neelima Devi Chinta, Balakrishna Gogulamudi, V. Swamy Nadh, G. Muthu, S. Kaliappan, Chidurala Srinivas, Investigation on mechanical properties of the green synthesis bamboo fiber/eggshell/coconut shell powder-based hybrid bio-composites under NaOH

conditions, Green Processing and Synthesis, Volume-13, Issue-1, ISSN: 2191-9542, Pg:1-11, February-2024, <https://doi.org/10.1515/gps-2023-0185>, (SCI/Scopus Indexed)

- iv. P. Phani Prasanthi, U. Koteswara Rao, V. V. Venu Madhav, B. Kiran Kumar , V. Raghavender, Vijilius Helena Raj, Ashish Kumar, Gandikota Ramu, Shukhratovich Abdullaev, Effect of tapered natural fiber on elastic properties of sisal fiber-reinforced composite: An experimental and micromechanics approach, Innovation and Emerging Technologies, World Scientific Publishing Co., Volume-11, Pp: 2440006-1 - 2440006-9, ISSN: 2737-5994, doi:10.1142/S2737599424400061, (ESCI Indexed)
- v. Phani Prasanthi, M. S. R. Niranjan Kumar, V. V. Venu Madhav, Nakul Gupta, V. Revathi, A. Somaiah, Kuldeep K. Saxena, Dipali Bhole, Fabrication of natural fiber-mixed natural matrix composite-infused indoor air purifier with health impact simulation, Innovation and Emerging Technologies, World Scientific Publishing Co., Volume-11, Pp: 2440005-1 - 2440005-11, ISSN: 2737-5994, doi:10.1142/S273759942440005X, (ESCI Indexed)
- vi. P. Venkataramana, V. Mani Kumar, N. Raghu ram, Siva Sankara Babu Chinka, Experimental investigation of air jet impingement cooling in car radiator with hollow cone nozzle plate spacing using nanofluids ,Heat and Mass Transfer, ISSN: 0947-7411, <https://doi.org/10.1007/s00231-024-03493-w>, June-2024. (SCI/Scopus Indexed)
- vii. Somaiah Chowdary Mallampati, Raghavendra Gujjala, Anupama Ammulu Manne, M. S. R. Niranjan Kumar, Indran Suyambulinagm, Suchart Siengchin, Aswani Kumar Bandaru, Influence of various environments on the mechanical properties of nanoclay reinforced S-glass/sisal hybrid polyester composites, Polymer Composites, June-2024, Pg: 1-12, (SCI/Scopus Indexed)
- viii. T. Yuvaraj, S. K. Tamang, R. Arivazhagan, M. Naga Swapna Sri, Enhancing EDM performance on TiN-Si₃N₄ using a hybrid computation intelligence algorithm (Grey-ANFIS), Journal of the Australian Ceramic Society, ISSN: 2510-1560, February-2024, DOI:<https://doi.org/10.1007/s41779-024-00994-z>, (SCI/Scopus Indexed)
- ix. S. Jeyakrishnan, S. Vijayakumar, M. Naga Swapna Sri, P. Anusha, An integration of RSM and ANN modelling approach for prediction of FSW joint properties in AA7178/AA5456 alloys, Canadian Metallurgical Quarterly The Canadian Journal of Metallurgy and Materials Science, Taylor & Francis publishers, ISSN: 1879-1395, January-2024, <https://doi.org/10.1080/00084433.2024.2310344>, (SCI/Scopus Indexed)

c) UGC/other journals:

- i. T J Prasanna Kumar, B Rajeev Kumar, B Dhanush, Sk Chand Mohiddien, T N Venkata Manikanta, Sk Suhail, Sanapathi parasuram, Sk Afzal Nabi, Experimental Investigation on Influence of various Core Materials and their Cell Geometry on Strength to Stiffness of Honeycomb Sandwich Structure, International Journal of Research Publication and Reviews, Vol 5, no 2, ISSN 2582-7421, pp: 3142-3152 February 2024, DOI: <https://doi.org/10.55248/gengpi.5.0224.0571>(Others)
- ii. T J Prasanna Kumar, B Dhanush, N Manoj Kumar, P Savithri Devi, Sk Eijaj, Sk Khaja Mohiddin, Design Fabrication and Reliability Analysis on Scaled Modeled Aircraft Rigid Type Nose Wheel Landing Gear, International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 5, no 2, pp 3567-3575 February 2024.(Others)

- iii. P. Anusha, M. Naga Swapna B. Sai Kausik, M. Virinchi, Designing Of Magnetic Regenerator Working Model, Goya Journal, Volume 17, Issue 05, May-2024, ISSN NO : 0017 - 2715, Pg: 9-19, DOI:12.163022.Gj.2024.v17.05.002, (Other Journal)
- iv. Sandip Kunar, M. Naga Swapna Sri, P. Anusha, P Satishkumar, Itha Veeranjanyulu, N. Srinivasa Rao and S. Vijayakumar, Development of Electrochemical Microtextured Cell for Fabrication of Complex Micropattern, Recent Patents on Mechanical Engineering, ISSN: 2212-7976, DOI: 10.2174/0122127976287865240326062010, April-2024. (Yet to Scopus Indexed)

d) Book chapters:

- i. Ch. Kishore Reddy, Chitrada Prasad, K. Sri Ram Vikas, M. Srinivasa Reddy, Rahul, Microstructural and Mechanical Properties of Friction Stir Welded (FSW) AA7075 with B4C Reinforcement. In: Raghavendra, G., Deepak, B.B.V.L., Gupta, M. (eds) Recent Advances in Mechanical Engineering, Volume 2. ICMech-REC 2023. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-97-2249-5_28, ISBN: 978-981-97-2249-5 (Scopus Indexed)
- ii. E. Kavitha, K. Sivaji Babu, M. R. S. Satyanarayana, Hygrothermal Impact on Mechanical Behavior of Carbon T300 and S-Glass Hybrid Fiber-Reinforced Composites Under Various Stacking Sequences. In: Raghavendra, G., Deepak, B.B.V.L., Gupta, M. (eds) Recent Advances in Mechanical Engineering, Volume 2. ICMech-REC 2023. Lecture Notes in Mechanical Engineering. Springer, Singapore. Pg: 317-327, https://doi.org/10.1007/978-981-97-2249-5_29, ISBN: 978-981-97-2249-5 (Scopus Indexed)
- iii. K. I. Vishnu Vandana, M. Rajyalakshmi, P. Phani Prasanthi, P. Siva Nagasree, Two-Body Abrasive Wear of Alumina and Alumina-Graphene Composite Ceramic Material: Effect of Speed and Sliding Distance. In: Raghavendra, G., Deepak, B.B.V.L., Gupta, M. (eds) Recent Advances in Mechanical Engineering, Volume 2. ICMech-REC 2023. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-97-2249-5_30 Pages 329-336, ISBN: 978-981-97-2249-5 (Scopus Indexed)
- iv. K. Venkatarao, Ch. Lakshmi Kanth, A. Venkata Jayasri, Ch. Mani Kishore, B. Chaitanya, Estimation of Mechanical and Thermal Properties of Glass and Sisal Fiber Composites with Polyester Resin Matrix. In: Raghavendra, G., Deepak, B.B.V.L., Gupta, M. (eds) Recent Advances in Mechanical Engineering, Volume 2. ICMech-REC 2023. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-97-2249-5_31 Pages 337-348, ISBN: 978-981-97-2249-5 (Scopus Indexed)
- v. P. Venu Madhav, U. Koteswara Rao, A. Yogitha, V. Subba Reddy, Collaborative Learning Robots. In: Raghavendra, G., Deepak, B.B.V.L., Gupta, M. (eds) Recent Advances in Mechanical Engineering, Volume 2. ICMech-REC 2023. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-97-2249-5_32, Pages 349-359, ISBN: 978-981-97-2249-5 (Scopus Indexed)
- vi. Murahari Kolli, Dasari Sai Naresh, K. Ravi Prakash Babu, Experimental studies on Mechanical characteristics of Bamboo Leaf Ash reinforcement with Aluminum 7075 alloy using Rotary Stir Casting Technique, Manufacturing and Processing of Advanced Materials (2023) Pp: 169-182 (14), <https://doi.org/10.2174/9789815136715123010018>, ISBN: 978-981-5136-72-2.

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, 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 The Application Number: 399994-001 Which Was Published And Registered On 28/02/2024
- ii. Prasad V Potluri Siddhartha Institute of Technology, T J Prasanna Kumar, Satish Kovala Abhishek Kanaparthi Shaik Chand Mohiddien Yaswanth Velpula. Dr.P.Phani Prasanthi, Filed A Patent Flexible Seed Sowing Machine', With The Application Number: 409896-001
- iii. Prasad V Potluri Siddhartha Institute of Technology, 2. Banda Sriyutha 3. Arepalli Tirumala Naga Venkata Prasad, 4. Bandrapalli Karthika 5. Ala.Rajesh 6. Dr. P. Phani Prasanthi, Filed A Patent "Composite Air Purifier", With The Application Number: 409386-001 Which Was Published And Registered On 3/03/2024.
- iv. Prasad V Potluri Siddhartha Institute of Technology 2. T J Prasanna Kumar 3. Pagolu Sreekar 4. Veerla Surendra Babu, 5. Shaik Baji 6. Shaik Mabu Subhani 7. Dr.P.Phani Prasanthi, Filed A Patent "Flexible Cultivating Machine", With The Application Number: 410578-001417230-001
- v. Prasad V Potluri Siddhartha Institute of Technology 2. Kondiparthi Yamineswari 3. Gangumolu. Sudheer Kumar, 4. Gowtham Bommidi 5. Meka Mohan Murali Krishna 6. I. Manoj Kumar, 7. Dr.P.Phani Prasanthi, Filed A Patent "Smart Multi-Purpose Agricultural Machine", With The Application Number: 410577-001 Filed On 15/3/2024.
- vi. Prasad V Potluri Siddhartha Institute of Technology, 2. Koteswara Rao Unnam 3. Repalle Pavan Kumar, 4. Mutnuri Venkata Aruna Likhith 5. Nagadesi Kotibabu, 6. Sanapathi Parasuram 7. Dr. P. Phani Prasanthi, Filed A Patent "Automatic Car Parking Device", With The Application Number: 418686-001 filed On 01/6/2024.
- vii. Prasad V Potluri Siddhartha Institute of Technology, 2. Dr. Ch. Kishore Reddy 3. K Sai Vardhan Simha 4. Dr. Ravuri Daniel 5. Dr.P.Phani Prasanthi, Filed A Patent "Smart Toy Car", On 17/5/2024 With The Application Number : 417230-001 Which Was Published And Registered
- viii. Prasad V Potluri Siddhartha Institute of Technology. V. Sravani, E. Kavitha, 4. Phani Prasanthi Filed A Patent "Eeccentric Sieving Machine With Multi-Sector Functionality", With An Application Number "202441008878", And This Patent Was Published On 20/2/2024.

b. Ph. Ds awarded: Nil

c. Reviewers of journals: Nil

d. AICTE-QIP PG Certificate Programme:

- i. Mr. Ch. Lakshmikanth, Assistant Professor, selected for the AICTE-QIP PG Certificate Programme at IISc, Bangalore.

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

7. MOOCs courses completed by the faculty:

- ii. Mr.KOTESWARA RAO UNNAM completed a certification course titled,“BASICS OF FINITE ELEMENT ANALYSIS - II” offered through Swayam - NPTEL during January - April, 2024.
- iii. Ms.M RAJYALAKSHMI completed a certification course titled,“FUZZY LOGIC AND NEURAL NETWORKS” offered through Swayam - NPTEL during January - April, 2024..
- iv. DR KODE SRIVIDYA completed a certification course titled,“PRINCIPLES OF CASTING TECHNOLOGY” offered through Swayam - NPTEL during January - April, 2024.
- v. Dr. PHANI PRASANTHI completed a certification course titled,“MACHINE LEARNING FOR ENGINEERING AND SCIENCE APPLICATIONS” offered through Swayam - NPTEL during January - April, 2024.
- vi. Mr.JOSEPH PRASANNA KUMAR TOKALA completed a certification course titled,“FUNDAMENTALS OF AUTOMOTIVE SYSTEMS” offered through Swayam - NPTEL during January - April, 2024.
- vii. Mr.LAKSHMI KANTH CH completed a certification course titled, “MACHINE LEARNING FOR ENGINEERING AND SCIENCE APPLICATIONS” offered through Swayam - NPTEL during January - April, 2024.
- viii. Mr.GOPALAKRISHNAIAH completed a certification course titled, “Matlab Programming for Numerical Computation during January-April-2024” offered through Swayam - NPTEL during January - April, 2024.

8. Industrial Training Completed by the faculty:

- i. Ms.M. Radha Devi successfully completed industrial training at Cool Star Refrigeration Works, Vijayawada from 01.05.2024 to 15.05.2024.
- ii. Mr. P. Mastan Rao successfully completed industrial training at Cool Star Refrigeration Works, Vijayawada from 01.05.2024 to 15.05.2024.
- iii. Mr. J. Surendra successfully completed industrial training at Cool Star Refrigeration Works, Vijayawada from 01.05.2024 to 15.05.2024.
- iv. Dr. K. Ravi Prakash Babu successfully completed industrial training at Kusalava International Ltd., Adavinakkalam from 01.05.2024 to 15.05.2024.
- v. Mr. U. Koteswara Rao successfully completed industrial training at Kusalava International Ltd., Adavinakkalam from 01.05.2024 to 15.05.2024.
- vi. Mr. Balakrishna G, successfully completed industrial training at Kusalava International Ltd., Adavinakkalam from 01.05.2024 to 15.05.2024.
- vii. Dr. M. Rajya Lakshmi successfully completed industrial training in foundry division at GS Alloy castings Pvt. Ltd., Surampalli from 01.05.2024 to 15.05.2024.
- viii. Dr. M. Naga Swapna Sri successfully completed industrial training in machine shop division at GS Alloy castings Pvt. Ltd., Surampalli from 01.05.2024 to 15.05.2024.

- ix. Mr. P. Gopala Krishnaiah successfully completed industrial training in fabrication division at GS Alloy castings Pvt. Ltd., Surampalli from 01.05.2024 to 15.05.2024.
- x. Ms. E. Kavitha successfully completed industrial training in machine shop at Kristna Engineering Works, Enikepadu from 02.05.2024 to 15.05.2024.
- xi. Mr. K. Venkat Rao successfully completed industrial training in pattern shop at Kristna Engineering Works, Enikepadu from 02.05.2024 to 15.05.2024.
- xii. Dr. K. Srividya successfully completed industrial training in moulding section at Kristna Engineering Works, Enikepadu from 02.05.2024 to 15.05.2024.
- xiii. Dr. P. Anusha successfully completed industrial training at Cool Star Refrigeration Works, Vijayawada from 02.05.2024 to 15.05.2024.
- xiv. Mr. Ch. Mohan Sumanth successfully completed industrial training Apple Air Conditioning Services, Vijayawada from 06.05.2024 to 18.05.2024.
- xv. Mr. T.J. Prasanna Kumar successfully completed industrial training Apple Air Conditioning Services, Vijayawada from 07.05.2024 to 15.05.2024.

9. Industrial Visits:

- i. II B.Tech. students of Mechanical Engineering visited Jindal Urban Waste Management at Guntur on 22/2/2024.

10. Students' achievements:

a) Co-curricular Activities:

- i. Ch. Rajesh of II B. Tech has secured 2nd position in the Standards club activity, Standards writing competition under the aegis of Bureau of Indian Standards, Vijayawada branch on 15th Feb, 2024.
- ii. B. Mahesh Singh of II B. Tech has secured consolation position in the Standards club activity, Standards writing competition under the aegis of Bureau of Indian Standards, Vijayawada branch on 15th Feb, 2024.
- iii. D. Kihal of II B. Tech has secured 4th position in the Standards club activity, Standards writing competition under the aegis of Bureau of Indian Standards, Vijayawada branch, on 15th Feb, 2024.
- iv. T.Sai Venkat of III B.Tech has participated and won 3rd Prize 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.
- v. S.Vijayakrishna, T.Sai Venkat, Sk.Kaleesha, R.Manikanta, Sd.Saber Hussain, S.Dangi Vardhan, A.Surya, B.Leela Prasad, Ahmed Ali, B.Michel, B.Naveen Sai, Ch.Srinivas 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.
- vi. S.Vijayakrishna, T.Sai Venkat, A.Surya, A.Aakash, Ch.Srinivas 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.

- vii. 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.
- viii. 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.
- ix. R. Sandeep of III B.Tech have participated in the event Tool Search at A National Level Techno Cultural Fest, SITAR-2024 and won 1st Prize at PVPSIT on 06th March, 2024.
- x. P.Praveen Kumar of III B.Tech have participated in the event Tool Search at A National Level Techno Cultural Fest, SITAR-2024 and won 2nd Prize at PVPSIT on 06th March, 2024.
- xi. G. Jyothi Sri of I B.Tech have participated in the event Tool Search at A National Level Techno Cultural Fest, SITAR-2024 and won 3rd Prize at PVPSIT on 06th March, 2024.
- xii. V. Sandeep, S.Priya Vardhan of III B.Tech have participated in the event Cadathon at A National Level Techno Cultural Fest, SITAR-2024 and won 1st Prize at PVPSIT on 06th March, 2024.
- xiii. V.Manikanta of IV B.Tech have participated in the event Cadathon at A National Level Techno Cultural Fest, SITAR-2024 and won 3rd Prize at PVPSIT on 06th March, 2024.
- xiv. M. V. S. Vamsi Krishna, N. Pavan Sai Teja, P.M.B.Subramanyam of III B.Tech have participated in the event Project Expo at A National Level Techno Cultural Fest, SITAR-2024 and won 3rd Prize at PVPSIT on 06th March, 2024.
- xv. 54 students have participated in the event Tool Search at A National Level Techno Cultural Fest, SITAR-2024 at PVPSIT on 06th March, 2024.
- xvi. 13 students have participated in the event Project Expo at A National Level Techno Cultural Fest, SITAR-2024 at PVPSIT on 06th March, 2024.
- xvii. 16 students have participated in the event Cadathon at A National Level Techno Cultural Fest, SITAR-2024 at PVPSIT on 06th March, 2024.
- xviii. G.Jayendra Nag of II B.Tech has won first prize in the event of "PPT" organized by V.K.R., V.N.B. & A.G.K. College of Engineering, Gudivada, during VKR Fest 2K24 from 13.04.2024 to 14.03.2024.
- xix. Gorthi Prudhvi and Kotla Mohan Durga Chandra Mouli of II B. Tech have participated in the event CFD & CNC placed in MECHANO-MMXXIV organized by JNTU GV College of Engineering (JNTU, Gurajada) Vizianagaram from 04.03.2024 to 05.03.2024.
- xx. P.Sai Chandra of III B. Tech has participated in EXPLORERS' MEET - 2K24 in the CAD Modelling event organized by SRK Institute of Technology, Vijayawada, from 06.03.2024 to 07.03.2024.
- xxi. G. Jayendra Nag of II B.Tech participated in the workshop "Contended Writing" organized by SRM University from 15.03.2024 to 16.03.2024.

- xxii. Kanuparthi Abhishek, Velpula Yaswanth, SK Chand Mohiddien, Kovela Satish, SK Baji, Veerla Surendra Babu, Pagolu Sreekar of IV B.Tech Mechanical Engineering have participated in state level AVISHKAAR student innovation competition in Association with Science city of AP with the support of DST ITDD Scheme at KL University, Guntur from 16th to 17th March-2024.
- xxiii. Ch. Mohith Manikanta of II B. Tech has successfully completed Semi- Custom Design in Cadence EDA organized by Always@VLSI club in Association with ECE Department of KL University from 19.03.2024 to 20.03.2024.
- xxiv. B. Jagadeesh, Ch. Rajesh D. Leela Krishna, J. Karthik and K. Mohana Durga Chandra Mouli have participated in Mechonica of NIPUNA, A National level Techno-Management Sympoisum on interpersonal and management skills organized by SRKR Engineering college, Bhimvaram from 22.03.2024 to 23.03.2024.
- xxv. G. Akhil, M. Pramodh Chowdary, M. Rupa sree and P. Teja sree of II B. Tech have participated in the event Quizzeria organized by Sir CR Reddy College of Engineering, under CELESTRA 2K24 on 28.03.2024.

b) Coursera/NPTEL Details of the students:

- i. GUNTI SUDHAKAR, MUNDURI VEERA VENKATA VINODH, DARA AKASH completed a course on “COMPUTER INTEGRATED MANUFACTURING” offered through NPTEL and conducted by IITRoorkee January - April, 2024.
- ii. MAILAVARAPU V V SATYANARAYANA, ANDROTHU SIVA RAMA KRISHNA SAI, PALLI VENU, MUDDAM VENKATA SIVA SAI KRISHNA, MUNIPALLI MOKSHA YAGNA, KONATHAM PAVAN KUMAR, BANAVATHU RAMESH, CH MANIKANTA, MAJJI HEMA SUNDAR completed a course on “FUNDAMENTALS OF AUTOMOTIVE SYSTEMS” offered through NPTEL and conducted by IITRoorkee January - April, 2024.
- iii. BASAVA ARAVIND SAI, GORTHI PRUDHVI, SABBAVARAPU HEMANTH SAI KIRAN, BHUKYA MAHESH SINGH, GOGULAMUDI AKHIL, KABOTHU PRUDHVI RAJ, KOTA BHASKAR RAO, KOTLA MOHAN DURGA CHANDRA MOULI, RUPASRI, PAMARAJU SAITEJASRI, SIMMA RAJESH, TELLI JANAKI RAM completed a course on “ MANUFACTURING PROCESS TECHNOLOGY I & II ” offered through NPTEL and conducted by IITRoorkee January - April, 2024.
- iv. CH ANANDAVARDHAN completed a course on “PLASTIC WASTE MANAGEMENT” offered through NPTEL and conducted by IITRoorkee January - April, 2024.
- v. NALLURI GOPI CHAND completed a course on “INTRODUCTION TO MECHANICAL MICRO MACHINING” offered through NPTEL and conducted by IITRoorkee January - April, 2024.
- vi. BANDA SRIYUTHA completed a course on “DATA BASE MANAGEMENT SYSTEM” offered through NPTEL and conducted by IITRoorkee January - April, 2024.

c) Internships:

IV B.Tech Internships:

- i. 5 students of IV B.Tech Mechanical Engineering attended Internship programme in Akshaya Samvrudhi Technologies, Hyderabad

- ii. 9 students of IV B.tech Mechanical Engineering attended Internship programme in BIST Technologies Pvt.Ltd
- iii. 1 student of IV B.Tech Mechanical Engineering attended Internship programme in Brain O Vision Solutions Pvt Ltd
- iv. 13 students of IV B.Tech Mechanical Engineering attended Internship programme in Data Valley
- v. 11 students of IV B.Tech Mechanical Engineering attended Internship programme in Global Education Technology
- vi. 4 students of IV B.Tech Mechanical Engineering attended Internship programme in KODNEST
- vii. 84 students of IV B.Tech Mechanical Engineering attended Internship programme in Skill Dezire
- viii. 1 student of IV B.Tech Mechanical Engineering attended Internship programme in TVS Sundaram Fasteners, tamilnadu

III B.Tech Internships:

- i. 1 student of III B.Tech Mechanical Engineering attended Internship programme in Akshaya Samvrudhi Technologies, Hyderabad
- ii. 4 students of III B.Tech Mechanical Engineering attended Internship programme in Central Institute of Tool Design, Autonagar, Vijayawada
- iii. 15 students of III B.Tech Mechanical Engineering attended Internship programme in HVAC through ISHRAE student chapter Vijayawada
- iv. 1 student of III. B.Tech Mechanical Engineering attended Internship programme in Kanaka Durga engineering workshop (Hyderabad)
- v. 1 student of III. B.Tech Mechanical Engineering attended Internship programme in Kay Bouvet Engineering Limited
- vi. 1 student of III. B.Tech Mechanical Engineering attended Internship programme in Krishna Industries (Enikepadu)
- vii. 1 student of III. B.Tech Mechanical Engineering attended Internship programme in MR ELECTRONICS
- viii. 3 student of III. B.Tech Mechanical Engineering attended Internship programme in South Central Railways
- ix. 1 student of III. B.Tech Mechanical Engineering attended Internship programme in Surya Tech Solutions
- x. 71 students of III B.Tech Mechanical Engineering attended Internship programme in Mayinkrish Ventures Pvt Ltd, Hyderabad

II B.Tech Internships:

- i. 49 students of II B.Tech Mechanical Engineering attended Internship programme in Central Institute of Tool Design, Autonagar, Vijayawada

- ii. 3 students of II B.Tech Mechanical Engineering attended Internship programme in Dr NTTPS Thermal Power Station
- iii. 1 student of II B.Tech Mechanical Engineering attended Internship programme in Kumar Pumps (Tenali)
- iv. 3 students of II B.Tech Mechanical Engineering attended Internship programme in Maha Shakthi Polymers
- v. 1 student of II B.Tech Mechanical Engineering attended Internship programme in Mithra Maruthi Agency
- vi. 7 students of II B.Tech Mechanical Engineering attended Internship programme in South Central Railways

d) Publications:

- i. Ch.Nagalakshmi1, B.Sriyutha, K.Yamineswari, A.T.N.V Prasad, Dr. Phani Prasanthi, “Integrating ANSYS Simulation and Machine Learning Techniques for Thermo-Mechanical Analysis of PCBs, “ICADCML-2024. Jan 5-6th 2024, VIT AP University, India accepted in Lecture Notes in Networks and Systems.
- ii. 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.
- iii. P. Praveen Kumar, S. Priya Vardhan, Shaik Mahammed Ismail, “Design And Fabrication of Bladeless Wind Turbine”, Two-day International Conference on Recent Advances in Mechanical and Industrial Engineering – 2024, (ICRAMIE-2024), 22-23rd march, 2024, at Prasad V Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada, Andhra Pradesh, India, ISBN No:978-93-340-1191-3
- iv. K. Uday Babu, L. Adithi, K.N. Mithilesh, K. Pavan, “Performance Study of Alumina Ceramic Tool Inserts During Dry Turning of EN36 Hardened Steel Samples”, Two-day International Conference on Recent Advances in Mechanical and Industrial Engineering – 2024, (ICRAMIE-2024), 22-23rd march, 2024, at Prasad V Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada, Andhra Pradesh, India. ISBN No:978-93-340-1191-3
- v. Eswar Balaji, V. Veera Manikanta, Sk. Suhail, “Heat Transfer Enhancement of An Automobile Engine Radiator Using Al₂O₃/Cu_o Water Base Nanofluids, “Two-day International Conference on Recent Advances in Mechanical and Industrial Engineering – 2024, (ICRAMIE-2024), 22-23rd march, 2024, at Prasad V Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada, Andhra Pradesh, India. ISBN No:978-93-340-1191-3
- vi. K.Nithin, J.Jathin, G.Hemanth kumar,, M.Virinchin,, G.V.S.Ravi Teja, , G.Bhargav, B.Prem sai, K.Raju, B. Sai Kausik,, “A Brief Overview of Magnetic Refrigeration”, “Two-day International Conference on Recent Advances in Mechanical and Industrial Engineering – 2024, (ICRAMIE-2024), 22-23rd march, 2024, at Prasad V Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada, Andhra Pradesh, India. ISBN No:978-93-340-1191-3

- vii. Y Ayyappa, M Kiran Kumar, Sk Roshan, P Tarun kumar, “Comparative Analysis of Semi Monocoque Structured Aircraft Nose Cone Made of Different Titanium Graded Alloys at different operating conditions, “Two-day International Conference on Recent Advances in Mechanical and Industrial Engineering – 2024, (ICRAMIE-2024), 22-23rd march, 2024, at Prasad V Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada, Andhra Pradesh, India. ISBN No:978-93-340-1191-3
- viii. T. Kiran Kumar, V. Chandra Sekhar, V. Chinna Murali Krishna, “Experimental and CFD Analysis of Thermal Performance Improvement of Automobile Radiator Using Al₂O₃-TiO₂ Water Base Nanofluids”, “Two-day International Conference on Recent Advances in Mechanical and Industrial Engineering – 2024, (ICRAMIE-2024), 22-23rd march, 2024, at Prasad V Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada, Andhra Pradesh, India. ISBN No:978-93-340-1191-3
- ix. M. Kavya Sree, Ch.Manikanta, J. Satish Babu, B. Prince Prakash “Modelling and Experimental investigation of cellular structure using 3D Printing”, “Two-day International Conference on Recent Advances in Mechanical and Industrial Engineering – 2024, (ICRAMIE-2024), 22-23rd march, 2024, at Prasad V Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada, Andhra Pradesh, India. ISBN No: 978-93-340-1191-3.
- x. Shaik.Eijaj, P.Pardha Viswanadh, N.Dhanush Reddy, Shaik.Sirajuddin “Steel surface defects detection through Machine learning“Two-day International Conference on Recent Advances in Mechanical and Industrial Engineering – 2024, (ICRAMIE-2024), 22-23rd march, 2024, at Prasad V Potluri Siddhartha Institute of Technology, Kanuru, Vijayawada, Andhra Pradesh, India. ISBN No: 978-93-340-1191-3.

11. Higher Education:

- i. Saicharan Devela (19501A0313) of 2019-23 batch joined Masters in Industrial Engineering in Wichita State University, U.S.
- ii. Kallepalli Mani Naga Kumar (19501A0325) of 2019-23 batch joined Masters in Mechanical Engineering in University of North Texas, U.S.
- iii. Neelapu Nikhil Babu (19501A0357) of 2019-23 batch joined Masters in Mechanical Engineering in University of Bridge Port, U.S.
- iv. Shaik Khiser Siddiq Shaik (19501A0378) of 2019-23 batch joined Masters in Mechanical Engineering in University of Alabama at Birmingham, U.S.
- v. Uppalapati Dhanush (19501A0395) of 2019-23 batch joined Masters in Mechanical Engineering in University of Bridgeport, U.S

12. Other Information:

Students and Staff membership in professional bodies:-

a. Faculty memberships:

- i. 24 members of faculty took membership in Life Member Indian Society for Technical Education [LMISTE].
- ii. Two members of faculty took membership in Institute of Engineers India [IEI].
- iii. A faculty member took membership in the Society of Failure Analysis [SF].

- iv. A faculty member took membership in the Condition Monitoring Society of India [CMSI].
- v. A faculty member took membership in Indian Society of Heating, Refrigerating and Air Conditioning Engineers [ISHRAE].
- vi. Three members of the faculty took membership in the Society for Learning Technologies [SOLETE].
- vii. Four members of the faculty took membership in the International Association of Engineers [IAENG].
- viii. Ten members of faculty took membership in Institute of Research Engineers & Doctors (IRED).
- ix. A faculty member took membership in Indian Plumbing Association [IPA].
- x. Five members of faculty took membership in Materials Research Society of India [MRSI]

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].
- iii. 64 students took memberships in Institution of Engineers [IE].

c. Cultural / Literacy activities: Nil

d. Equipment Procured:

S. NO	Name of the Laboratory	Name of the Equipment	COST (Rs.)
1.	Composite Materials Lab	Digital Weight Measuring Apparatus	59,000
2.	Metrology Lab	Speed Measurement Trainer Rota Meter Internal Micro Meters	58,469
3.	CAD Lab	ANSYS AMC (License Renewal)	1,94,700
4.		Creo Elements /Pro-E University Pius Lab Bundle (License Renewal)	1,86,865
5.	Dassaults systems Lab	LASE Projector	61,500
6.	Engineering Mechanics Lab	New Lab Established	91,750

e. Alumni Interaction:

- i. Mr. Y Venu (04501A0321 ME, 2004-2008 Batch) currently engaged in the role of Senior System Analyst . The interaction occurred with II B.Tech II Sem Sec-1 on 15.02.2024, focusing on "Opportunities in IT industries."

13. Students Corner:

i) కొడుకు బాధ్యత

పరిచయం: అనగనగ ఒక ఊరు ఆ ఊరులో ఒక చిన్న ఇల్లు. ఆ ఇంట్లో అమ్మ నాన్న కొడుకు కూతురు. ఇంట్లో వాళ్ళ గుర్తు ఈ కథ. అమ్మ గృహిణి, నాన్న రోజువారీ కూలీ, కొడుకు B.tech 4వ సంవత్సరం cse గ్రూప్, చెల్లి ఇంటర్మీడియట్ 2 సంవత్సరం చదువుతోంది.

ప్రధాన కథ : ఎప్పు డూ లాగ అమ్మ పొద్దున లేచి అందరికీ వంట రెడీ చేసింది. నాన్న కూడా పనికి రెడీ అయ్యి వెళ్ళి పోయాడు. కొడుకు కూతురు కూడా కాలేజ్ కి రెడీ అయ్యి వెళ్ళారు. అలా ఇంట్లో అమ్మ ఇంట్లో పనులు చేసుకుంటుంది. సాయంత్రానికి కొడుకు కూతురు ఇంటికి వచ్చారు కాలేజ్ నుంచి. నాన్న కూడా పని నుంచి వస్తూ బిరియాని తెచ్చాడు పిల్లలు ఇష్టంగా తింటారు అని చిన్న చిన్న ఆనందాలు తో కుటుంబంలో అందరు సంతోషం గా ఆనందం గా ఉన్నారు, ఒక రోజు కొడుకు కాలేజీలో ఉండగ ఫోన్ వచ్చింది. పనిలో అలా మీ నాన్నకి దెబ్బలు తగిలాయి అని ఆ మాట విన్నా క కొడుకు కాలేజీ మధ్యలోన నుండి వెళ్ళాడు హాస్పిటల్ కి. కొడుకు హాస్పిటల్ లో డాక్టర్ ని కలవగా డాక్టర్ చెప్పాడు ప్రమాదం ఏమి లేదు కాకపోతే మీ నాన్న ఇంకా పని చేయలేరు అని చెప్పి వెళ్ళి పోయారు డాక్టర్. ఒక వారం రోజుల తరవాత హాస్పిటల్ నుండి నాన్న డిశ్చార్జ్ అయ్యారు. కొన్ని రోజులు ఇంట్లో ఇలా చెప్పాడు కొడుకు నేను చదువు మానేసి చిన్న ఉద్యోగం చూసుకుంటాను. నాన్న కి బాగోలేదు గా ఇంట్లో ఏం గడవదు కదా అని అన్నాడు. కాని అమ్మ నాన్న విని కొడుకుకి చెప్పి కాలేజ్ మానవద్దు అని చెప్పారు కొడుకుకి. ఇలా జరుగుతూ ఉండగ కాలేజీ లో ఇంటర్వ్యూ లో కొడుకు కి జాబ్ వచ్చింది 4 లక్షల ప్యాకేజీ అని చెప్పాడు అమ్మకి. కానీ కొడుకు కి ఆ జాబ్ మిథ ఇంట్రెస్ట్ లేదు. ఇంతలో అమ్మ అందరికీ సిటీలో జాబ్. ఇంట్లో వాళ్ళందరికీ ఉద్యోగం వచ్చింది అని చెప్పింది ఇంట్లో వాళ్ళ ఆనందానికి హద్దులు లేవు. ఇంట్లో వాళ్ళ కష్టాలు అర్థం చేసుకొని జాబ్ లో జాయిన్ అయ్యాడు 10 రోజులలో సిటీకి వెళ్లి కంపెనీ పక్కన హాస్టల్ అన్ని చూసుకున్నాడు. కంపెనీ లో జాయిన్ అయ్యాడు. అయిన కొని రోజులు చేరండి కంపెనీ లో సీనియర్లు అందురు వాళ్ళ పని కుడా చేయమని మని ఇబ్బందిపెడతారు.

ఈ ఇబ్బంది తట్టుకోలేక ఇంటికి వెళ్లిపోదాం అనుకుంటాడు. కాని ఇంట్లో పరిస్థితులు వల్ల భరిస్తున్నాడు. అలా గడుస్తూ ఉండగ. ఇంటి దగ్గర నుంచి ఫోన్ వచ్చింది. ఫోన్ లో అమ్మ మాట్లాడుతుంది చెల్లి కిమంచి పెళ్లి సంబంధం వచ్చింది అని చెప్పింది. పెళ్లి కొడుకు మంచి వాడు ప్రభుత్వ ఉద్యోగం బాగా సెటిల్ అయ్యాడు అనీ అమ్మ చెప్పింది. చెల్లికినచ్చాడు, మంచి కుటుంబం వాళ్ళది అని చెప్పింది అమ్మ. కాకపోతే కట్నం కొంచెం ఎక్కువ అడుగుతున్నారు అని చెప్పింది అమ్మ. కొడుకు కొంచెం సేపు ఆలోచించి డబ్బు విషయం నేను చూసుకొంటా అని చెప్పాడు. కొడుకు ఆలోచిస్తూ నా జీతం 35 వేలు దాంట్లో 15 వేలు హాస్టల్ కి అవుతున్నాయి, 5 వేలు నా ఖర్చు లకి, మిగిలినా 15 వేలు ఇంట్లో

వాళ్లకిపంపాలని ఆలోచిస్తున్నా డు .బయట తెలిసిన ఫ్రెండ్ దగ్గర అప్పు తీసుకున్నా డు.ఎంగేజ్మెంట్ కి ఉంగరాలు కొని రెండు రోజులు ఆఫీస్ లో లీవ్ పెట్టి ఇంటికివెళ్ళా డు.

నిశ్చితార్థం బాగా జరిగిందిపెళ్లి డేట్ ఫిక్స్ అయ్యి ంది. ఆఫీస్ కివెళ్లి పోయాడు.చేసిన లోన్ తిర్చా లి కాబట్టి వచ్చే జీతం సరిపోదు కాబట్టి. ఆఫీస్ అయిపోగానే పార్ట్ టైమ్ చిన్న జాబ్ చూసుకోవాలి.ఆఫీస్ వర్క్ చేసిసాయంత్రం పార్ట్ టైమ్ వర్క్ చేస్తు ఉండగ .పెళ్లి రోజు దగ్గరకి వచ్చి ంది,

పార్ట్ టైమ్ కి 5 రోజులు లీవ్ పెట్టి ఇంట్లో వాళ్ళందరిని షాపింగ్ కి తీసుకువెళ్ళాడు. పెళ్లి పనులు అని

చూసుకుంటున్నా డు.కొడుకు పెళ్లిని బాగా గ్రాండ్ గా జరిపించాడు.మళ్ళీ సిటీకిరిటర్న్ అయ్యా డు. అమ్మా నాన్న ని అప్పు డప్పు డు వచ్చి చూస్తు, వాళ్ల ఆరోగ్యం బాగోగుల కోసం హాస్పి టల్ కి తీసుకు వెళ్లి చూపిస్తు.అమ్మ నాన్న కివ కష్టం రాకుండ చూసుకుంటున్నా డు కొడుకు.

by
N. Anil kumar
22501A0321

ii) గెలుపు

గెలుపు అనేది నీడలాంటిది దాన్ని పట్టుకోవాలని చూడకు నీ వారిలో నువ్వు సాగిపో దానంతట అదే నీ వెంట వస్తుంది. కాని నీ అడుగులు వెలుగు వైపు పడితేనే నీడ ఉంటుందని గమనించాలి

నీ మొదటి విజయం తరువాత అలక్ష్యం ప్రదర్శించవద్దు. ఎందుకంటే నీ రెండవ ప్రయత్నంలో కనుక నువ్వు ఓడిపోతే, నీ మొదటి గెలుపు అదృష్టం కోద్ది వచ్చింది అని చెప్పడానికి చాల మంది ఎదురుచూస్తూ ఉంటారు.

by
P. Dinesh Kumar III ME
22501A0325

iii) ISRO - INDIAN SPACE RESEARCH ORGANISATION

Is a space agency in India. It was established in 1969. ISRO aims to explore space & develop satellite technology for various purposes. It has launched numerous Satellites for Communication, navigation, & scientific research ISRO's achievements include the man's Orbiter Mission, which made India the first Asian nation to reach the Mars orbit. It also launched mission Like chandrayaan & Mangalyaan, contributing to space exploration. ISRO plays a vital role in India's technological advancement & International space Cooperation.

Chandrayaan-1

Was India's first mission to the moon, launched on october 22 in 2008. The mission is failed we lost the communication with the spacecraft was lost on August 29 in 2009, ending the mission.

Chandrayaan 2

It was India's second lunar exploration mission, launched on July 22 in 2019 from Satish Dhawan space centre in siharikota is located in Andhra pradesh. chandrayaan 2 way successfully entered into the elliptical orbit around the moon.

Chandrayaan-3

Chandrayaan-3 is India's 3rd Moon mission that comes after the chandrayaan 2. On July 14 in 2023 chandrayaan 3 started its journey to space. The launch happend same place which happen chandrayaan 1&2 sriharikota on August 17, the vikram rovert left the part helped it fly & began it's main mission. On August 23 lander gently landed on the Moon. with smooth landing first country to do smooth Landing India become fourth country to land on Moon. After us china & Russia. This mission is Landed on south pole of the Moon first country to land on south pole on August 23, that day is now called National space day.

by
P.BHANU TEJA
22501A0326

iv) Some of the interesting myths

Let me explain about what is myth?

Let's assume that you have faith on something but you don't have proof of it, then it is called myth.

1. Myth: shaving hair makes it grow back thicker.

Truth: Shaving hair doesn't affect its thickness. Hair may appear thicker after shaving. The blunt ends make it look Coarser, but the rate and Quality of growth are determined by genetics not Shaving.

2. Myth: Swallowed gum stays in Your stomach for years.

Truth: Gum does not stay in your stomach for years. It passes through the digestive system like other nondigestible substance Usually within a few days.

3. Myth: If a black Cat Crosses Your path, it brings bad luck.

Truth: This is a Common Superstition. There is no evidence to Suggest that a black Cat crossing Your path brings bad luck.

4. Myth: If you go outside with wet hair on a cold day you'll catch a cold.

Truth: Colds are Caused by viruses, which you Can't get just from being outside in the Cold.

6. Myth: Sugar Causes hyperactivity in children's.

Truth: Multiple studies have shown no evidence that sugar directly Causes hyperactivity in children.

7. Myth: Bats are blind.

Truth: Bats are not blind. Most species of bats have function eyes and can see, especially in low light.

8. Myth: Bulls hate the red Colour.

Truth: Bulls are Colour blind to red and green. The myth likely originated from bullfighting.

by
B. Aravind sai
23505A0301

v) **Dastaar" or "Pagri**



Sikhs wear turbans, known as "Dastaar" or "Pagri," as a crucial part of their religious and cultural identity. The turban holds significant importance in Sikhism, and here are some reasons why Sikhs wear turbans:

1. **Spiritual significance:** The turban is a symbol of spirituality, honor, and self-respect. It is believed to help Sikhs maintain a connection with their Creator.
2. **Equality and humility:** Wearing a turban is a reminder of the equality of all humans. It is also a symbol of humility, as it is believed to help Sikhs remain grounded and humble.
3. **Identity and community:** The turban serves as a visual identifier of a Sikh. It represents a sense of belonging to the Sikh community and a commitment to the faith's values.
4. **Respect for hair:** Sikhs believe in keeping their hair uncut, as it is considered a gift from God. The turban helps to keep the hair clean, tidy, and protected.
5. **Historical significance:** The turban has been an integral part of Sikh attire since the time of Guru Nanak Dev Ji, the founder of Sikhism. It was worn by Sikh warriors during battles to identify friend from foe.
6. **Cultural heritage:** The turban is an important part of Sikh cultural heritage, and its tying and wearing are considered an art form Overall, the turban is an essential aspect of Sikh identity, spirituality, and culture.

by
B. MAHESH SINGH,
23505A0302

