



DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE Affiliated to JNTU Kakinada)

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FACULTY PROFILE

Name of the faculty

Dr. Putti Venkata Siva Teja

Designation

Assistant Professor

Email & Phone No

pvsteja1990@gmail.com

Department

Mechanical Engineering

Educational Background

1. Ph.D., From Annamalai University, Chidambaram

2. M.E From Sathyabama University, Chennai

3. B.Tech From GITAM University, Visakhapatnam

Research Areas

Composite and Alloy Materials

Experience

09 Years

Date of Joining

17-05-2016



Sl.No	Institute	Designation	Period
3	Dhanekula Institute of Engineering & Technology	Assistant Professor	2016-Till Date
2	Gudlavalleru Engineering College	Assistant Professor	2015-2016
1	GVPR Engineers Limited	Graduate Engineer Trainee	2012-2013



Book Chapters

- Published Book Chapter titled “**Biohydrogen Production from Biomass**” in Bioenergy Research: Revisiting Latest Development by Springer with ISBN: 978-981-33-4614-7
- Published Book Chapter titled “**Drilling of glass fiber reinforced plastics (GFRPs): An experimental investigation and finite element study**” in Woodhead Publishing Series in Composites Science and Engineering Hole-Making and Drilling Technology for Composites Advantages, Limitations and Potential. ISBN: 978-0-08-102397-6

List of Publications (National and International Journals)

- Published a paper on **“Investigation on the effect of thermal cycling on Ti-6Al-4V alloy thermal property using differential scanning calorimeter”** AIP Conf. Proc. 2747, 020014-1–020014-8; <https://doi.org/10.1063/5.0132532>
- Published a paper on **“Tensile Properties of Thermal Cycled Titanium Alloy (Ti–6Al–4V)”** in Advances in Materials Science and Engineering Volume 2022, Article ID 2707879, 8 pages <https://doi.org/10.1155/2022/2707879>
- Published a paper on **“Mechanical Properties of Al6061 Sheets Through Shot Peen Forming”** International Journal of Scientific Research and Engineering Development— Volume 6 Issue 3, May-June 2023
- Published a paper on **“Effect of thermal cycling on mechanical and microstructural properties of heat-treated Ti-6Al-4V alloy”** in Materials Research Express 2022 <https://doi.org/10.1088/2053-1591/ac487d>
- Published a paper on **“Vibrational Analysis on Hemp and Okra Fibres Mixed Glass Fiber polyester Composite”** in International Journal of Research and Review, 2021 DOI:<https://doi.org/10.52403/ijrr.20211108>
- Published a paper on **“Design & Analysis of an Artificial Ankle Joint Under Various Loading Conditions”** in International Research Journal of Engineering and Technology Volume: 08 Issue: 04 | Apr 2021, ISSN: 2395-0056.
- Published a paper on **“Empirical Modeling of Roughness Parameters in Drilling Composites- A Response Surface Approach”** in materials today proceedings Volume 16, Part 2, 2019, Pages 1117-1123. <https://doi.org/10.1016/j.matpr.2019.05.203>.
- Published a paper in Journal of Applied Mechanics and Materials on **“Multiple Response Optimization of Drilling a Particle Board Using Grey Relational Analysis”** in Applied Mechanics and Materials Vols.592-594 (2014) pp 530-533. <https://doi.org/10.4028/www.scientific.net/AMM.592-594.530>
- Published a paper on **“ANFIS modeling of delamination during drilling of Medium Density Fiber (MDF) board”** in Procedia Engineering 97 (2014) 258 – 266. DOI:[10.1016/j.proeng.2014.12.249](https://doi.org/10.1016/j.proeng.2014.12.249)
- Published a paper on **“A Fuzzy Logic Model To Evaluate Thrust Force In The Drilling Of Medium Density Fibre Board”** at All India Manufacturing Technology, Design and Research Conference conducted by IIT Guwahati.
- Published a paper on **“A Review on Applications of Image Processing in Inspection of Cutting Tool Surfaces”** in Applied Mechanics and Materials (Volumes 766-767) <https://doi.org/10.4028/www.scientific.net/AMM.766-767.635>
- Published a paper on **“Finite Element Analysis in Drilling GFRP Composites”** at Indian Journal of Science and Technology Vol 8(15), DOI: [10.17485/ijst/2015/v8i15/59588](https://doi.org/10.17485/ijst/2015/v8i15/59588).
- Published a paper on **“Analysis of Effect of Internal Structures on Tensile Strength of the FDM Parts”** in International Journal of Pure and Applied Mathematics. Volume 115 No. 6 2017, 123-131 ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version)

Utility Patents

- Title of the invention: **“Conductive bi-layer composition and coating method for fuel cells”** Application No: 202141000301, Publication Date : 08/01/2021
- Title of the invention: **“Manufacturing of enhanced conductive polymer composites”** Application No: 202141055575, Publication Date : 10/12/2021
- Title of the invention **“Novel Osteoconductive material composition and coating thereof.”**Australian Official Journal Of Patents 29 October 2020 (ISSN 0819-1794) Patent number: 2020102595
- Title of the invention: **“Material and Method of Coating Conductive Oxides For Solid Oxide Cells Application”** International Classification: H01M0008124000, C23C0004110000, C23C0004134000, H01M0008022800, C23C0004020000 Publication Date : 21/02/2020

- Title of the invention: **“Composite Layered Protective Coat for Solid Oxide Fuel Cell Applications”**
International classification :H01M8/00 Publication Date : 09/08/2019
- Title of the invention: **“Deposition of Solar Reflective Coat on the Outer Wall of Plastic Container for Enhanced Solar Water Disinfection Applications”** International classification :H02S20/00 Publication Date : 10/05/2019

Design Patents

- Title of the invention: **“Spring Activated Pressure Tank for Water Purifier- Rectangular”** Application No: 335749-001
- Title of the invention: **“Cashew Microwave Dryer with Shaker”** Application No: 340782-001
- Title of the invention: **“Airless Tyre for Motorcycle”** Application No: 332808-001
- Title of the invention: **“Spring Activated Pressure Tank for Water Purifier- Circular”** Application No: 335748-001
- Title of the invention: **“Mechanical Counter for pressure Cooker”** Application No: 335747-001
- Title of the invention: **“Aerosolid Tyre for Motorcycle”** Application No: 332810-001
- Title of the invention: **“Convertible Tri Bicycle for Kids”** Application No: 351270-001
- Title of the invention: **“Convertible Tri Bicycle for Kids”** Application No: 352632-001
- Title of the invention: **“Pill Bottle”** Application No: 341248-001
- Title of the invention: **“Automatic Switch off Water Heater with Safety Buzzer”** Application No: 341591-001
- Title of the invention: **“ Negative Stiffness Tyre”** Application No: 359848-001

National/ International Conferences

- Presented a paper on **“Study of Storage modulus on heat treated and thermal cycled Titanium Alloy (Ti-6Al-4V)”**, Newer Materials for Energy and Environmental Applications (NCNM-2022), Annamalai University.
- Presented a paper on **“Influence of Heat Treatment and Thermal Cycling on Visco-Elastic Properties of Ti-6Al-4V Alloy”**, National Conference on Engineering Applications of Alternate Fuels, Sustainable Energy and Bio-Materials, 27 April 2023, Annamalai University.
- Presented a paper on **“Dynamic Mechanical Analysis on Thermal cycled Ti-6Al-4V Alloy”** International Conference on Advances in Chemical and Materials Sciences ACMS-2022 Organized by Indian Institute of Chemical Engineers, Kolkata In association with National Institute of Technology, Jalandhar Heritage Institute of Technology, Kolkata Osmania University College of Technology, Hyderabad
- Presented a paper on **“Thermal Cycling and its effects on mechanical properties of heat treated Ti64 Alloy”** in the two days International Virtual Conference On Research Innovation In Science, Engineering And Technology on 1st Mar 2022 to 2nd Mar 2022.
- Presented a paper on **“Thermal Cycling of Ti64”** at International conference on advanced materials and characterization organized by Mattest Research Academy, Chennai, Tamil Nadu, India during 24-26 April 2021.
- Presented a paper on **“Thermal Cycling of Ti-6Al-4V”** at International conference on advanced materials and characterization organized by Mattest Research Academy, Chennai, Tamil Nadu, India during 18-23 July 2020.
- Presented a paper on **“Effects of Heat Treatment on Mechanical Properties of Ti-6Al-4V alloy”** at International Conference on Materials, Manufacturing and Machining conducted by Bannari Amman Institute of Technology, Erode during 8th - 9th March 2019.
- Presented a paper on **“Applications and Features of Ti6Al4V Alloy”** at 8th International Conference Conducted by Sri Ganesh School of Business Management, Salem on 22nd February 2019.
- Presented a paper on **“ANFIS modeling of delamination during drilling of Medium Density Fiber**

(MDF) board” at 12th Global Congress on Manufacturing and Management conducted by VIT, Vellore during 8th – 10th 2014.

- Presented a paper on **“A Review on Applications of Image Processing in Inspection of Cutting Tool Surfaces”** at First International Conference on Advances in Materials and Manufacturing Engineering conducted by Sri Sai Ram Engineering College during December 19th & 20th, 2014

Organized Workshops

- Co-Convener of Students Development Programme On **“Solid Works”** organized by ASME, MEA and IE(I) student chapters during 14th – 19th March, 2016 in Gudlavalleru Engineering College.
- Organizing committee member for faculty development programme on **“Computational Fluid Dynamics”** organized by Department of Mechanical Engineering on 2nd – 7th January 2018 in Dhanekula Institute of Engineering and technology.
- Organizing committee member for faculty development programme on **“Mechatronics & Automation”** organized by Department of Mechanical Engineering on 26th – 28th August 2019 in Dhanekula Institute of Engineering and technology.

Certification Courses

- **Ferrous Technology I** an online non-credit course authorized by Pohang University of Science and Technology and offered through Coursera Verify <https://coursera.org/verify/2UU3E3XE396A>
- **Collaborative Robot Safety: Design & Deployment** an online non-credit course authorized by University at Buffalo, The State University of New York and offered through Coursera Verify at <https://coursera.org/verify/EFPUGDWQYZGF>
- **Energy: The Enterprise** an online non-credit course authorized by University at Buffalo, The State University of New York and offered through Coursera Verify at <https://coursera.org/verify/FMZM53CHFKD6>
- **Create a Virtual Classroom using Google Slides** an online non-credit course authorized by Coursera Project Network and offered through Coursera Verify at <https://coursera.org/verify/JRT8QD6JXA95>
- **Applications in Engineering Mechanics** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/6DQPQMHG635T>
- **Engineering Systems in Motion: Dynamics of Particles and Bodies in 2D Motion** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/MNWCVB4GUYQU>
- **Introduction to Engineering Mechanics** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/KJLYUSU5N25Y>
- **Mechanics of Materials I: Fundamentals of Stress & Strain and Axial Loading** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/984ZR5FWUBQJ>
- **Mechanics of Materials II: Thin-Walled Pressure Vessels and Torsion** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/PSSS2J2XW3RQ>
- **Mechanics of Materials III: Beam Bending** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/736X33ATW2TW>
- **Mechanics of Materials IV: Deflections, Buckling, Combined Loading & Failure Theories** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/KE99E6U2RL4E>
- **Custom Prediction Routine on Google AI Platform** an online non-credit course authorized by Coursera Project Network and offered through Coursera Verify at <https://coursera.org/verify/MYK6PTRVQVGR>
- **Introduction to Basic Vibrations** an online non-credit course authorized by Korea Advanced Institute of Science and Technology(KAIST) and offered through Coursera Verify at <https://coursera.org/verify/NG8RUBYNH9T6>

- **Machine Design Part I** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/AWH8QFTXWJWL>
- **Digital Manufacturing & Design** an online non-credit course authorized by University at Buffalo, The State University of New York and offered through Coursera Verify at <https://coursera.org/verify/RX6YHBXX3HTZ>
- **Cyber Security in Manufacturing** an online non-credit course authorized by University at Buffalo, The State University of New York and offered through Coursera Verify at <https://coursera.org/verify/Z44GNG5ZRQF9>
- **Intro to Digital Manufacturing with Autodesk Fusion 360** an online non-credit course authorized by Autodesk and offered through Coursera Verify at <https://coursera.org/verify/CGB64TDHF686>
- **AI For Everyone** an online non-credit course authorized by DeepLearning.AI and offered through Coursera Verify at <https://coursera.org/verify/RZKLL2XPW4PQ>
- **Wind Energy** an online non-credit course authorized by Technical University of Denmark (DTU) and offered through Coursera Verify at <https://coursera.org/verify/4WHVC4GXEEY8>
- **Introduction to Thermodynamics: Transferring Energy from Here to There** an online non-credit course authorized by University of Michigan and offered through Coursera Verify at <https://coursera.org/verify/AGVEWZ6WTKQ9>
- **Materials Science: 10 Things Every Engineer Should Know** an online non-credit course authorized by University of California, Davis and offered through Coursera Verify at <https://coursera.org/verify/2673UZ5DRDL>
- **Advanced Manufacturing Process Analysis** an online non-credit course authorized by University at Buffalo and The State University of New York and offered through Coursera Verify at <https://coursera.org/verify/FTD7W6N795HK>
- **Material Behavior** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/7EBW2TLERCFP>
- **Material Processing** an online non-credit course authorized by Georgia Institute of Technology and offered through Coursera Verify at <https://coursera.org/verify/3N2XVWACS923>

Faculty Development Programs Attended

- Five Day Online FDP on “**Making Villages Smart**” during 13th to 17th February 2023 organized by NITTR, Chandigarh.
- Six Day Online FDP on “**Artificial Intelligence/Machine learning for mechanical Engineering Problems**” during 21st to 26th March 2022 organized by Shri Vishnu Engineering College.
- Five Day Online FDP on “**Hybrid Electric Vehicles** ” Jointly organized by the Departments of Mechanical Engineering of GMR Institute of Technology, Rajam and Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada during 21st -25th November 2022.
- Five Day International Online FDP on “**Emerging Trends in Nano Technology**” organized by Vishnu Institute of Technology in association with Physical Research Laboratory from 9th to 13th November 2021.
- Three Day National level FDP on “**Advanced concepts of outcomes based education**” organized by Inpods India Private Limited from 6th to 8th October 2021.
- Five Day FDP on “**Vehicle Dynamics Setup using MBD**” organized by Andhra Pradesh State Skill Development Corporation in association with Dassault Systems from 10th to 14th May 2021.
- One week International FDP on “**Applications of Mechanical Engineering**” during 9th to 14th June 2021 by SVR Engineering College.
- Five Day ATAL FDP on “**Robotics**” by Dhanekula Institute of Engineering & Technology from 4th to 8th January 2021.
- Three Day FDP on “**Outcome Based Education; Importance of Outcomes, Assessment and Evaluation for Accrediation**” during 14th to 16th August 2020 by VRSEC, A.P.
- Six Day FDP on “**Recent Developments in Mechanical Engineering**” during 10th to 14th August 2020 by Prasad V Potluri Siddhartha Institute of Technology.
- Five Day FDP on “**Recent trends in mechanical & industrial engineering**” from 17th to 21st August 2020 by Vallurupalli Nageswara rao vignanajyothi institute of engineering and technology.
- Five Day FDP on “**Contemporary Research in Manufacturing Processes**” from 22nd to 26th December 2020

by Karpaga Vinayaga College of Engineering and Technology.

- Six Day FDP on “**Digital Technology in Design and Smart Manufacturing**” from 7th to 12th December 2020 by Sreenidhi Institute of Science and Technology.
- Five Day FDP on “**Catia V5 Chassis Design**” from 20th to 24th July 2020 by Andhra Pradesh State Skill Development Corporation in association with Dassault Systems.
- Five Day FDP on “**Frontiers in Mechanical Engineering**” from 8th to 12th June 2020 Organized by KKR & KSR Institute of Technology and science.
- Five Day FDP on “**Modelling and optimization techniques for materials and manufacturing processes**” from 18th to 22nd May 2020 organized by Lakireddy Bali Reddy College of Engineering.
- Five Day FDP on “**Emerging Technologies in Robotics**” from 26th to 30th May 2020 Organized by Malla Reddy Engineering College.
- Five Day FDP on “**Materials for Thermal and Renewable Energy Research**” from 20th to 24th May 2020 organized by Sri Sai Ram Institute of Technology.
- Five Day FDP on “**Optimization Techniques for Mechanical Engineers**” from 27th July to 1st August 2020 organized by Vignan Institute of Technology & Science.
- Six Day FDP on “**Innovation to Academicians**” from 11th to 16th May 2020 organized by National Science & Technology Entrepreneurship development Board.
- Five Day FDP on “**Recent Advances in 3D Printing Technologies**” from 4th to 8th June 2020 Organized by Dhanekula Institute of Engineering & Technology.
- Six Day FDP on “**Research Methodology**” from 20th to 25th May 2020 organized by Shri Chhatrapati Shivajiraje College of Engineering.
- Five Day FDP on “**Development and Characterisation of Composite Materials**” from 25th to 29th May 2020 Organized by Lingayas Institute of Management and Technology.
- Six Day FDP on “**Advanced Research Challenges in Materials Science**” from 1st to 6th June 2020 organized by Sri Vasavi Engineering College.
- 60 Hours FDP on “**AI and Deep Learning**” from 1st to 28th July 2020 organized by Andhra Pradesh State Skill Development Corporation.
- Four Day FDP on “**Automotive Structures Design Using CATIA**” from 30th April to 2nd May 2020 Organized by Andhra Pradesh State Skill Development Corporation in association with Dassault Systems.
- Three Day FDP on “**Mechatronics & Automation**” from 26th to 28th August 2019 organized by Indiasoft Technologies Pvt.Ltd. & Dhanekula Institute of Engineering & Technology.
- Six Day FDP on “**Computational Fluid Dynamics**” from 2nd to 7th January 2018 organized by Dhanekula Institute of Engineering & Technology.
- Six Day AICTE FDP on “**Research Methodology, Scientific Writing and Critical Analysis of Scientific Publications**” from 4th to 9th June 2018 organized by Annamalai University.
- Six Day FDP on “**Advances in Manufacturing of Composites**” from 27th November to 2nd December 2017 organized by Sasi institute of technology & engineering.
- Five Day FDP on “**Matlab Applications in Mechanical Engineering**” from 7th to 11th September 2015 organized by Gudlavalleru Engineering College.
- Six Day FDP on “**Training Program on ANSYS**” from 22nd to 27th June 2015 organized by Gudlavalleru Engineering College.

Professional Societies Memberships: L MISTE, ISEST, IAENG, IFERP, UAMAE

Journal Editor

- Indian Journal of Design Engineering
- International Journal of Innovative Science and Modern Engineering
- International Journal of Inventive Engineering and sciences
- Lattice Science Publication and its journals
- Blue Eyes Intelligence Engineering and Sciences Publication and its journals

Achievements/ Awards etc.,

- Best Paper award for the titled “**Thermal Cycling and its effects on mechanical properties of heat treated Ti64 Alloy**” in the two days International Virtual Conference On Research Innovation In Science, Engineering And Technology on 1st Mar 2022 to 2nd Mar 2022.
- Excellence in Reviewing in recognition of an outstanding contribution to the quality of the journal “Journal of Scientific Research and Reports” 2020.
- Got Best Researcher award for academic year 2019 by International Journal for Research Under Literal Access which is accredited by World Research Council.
- **Gold Medal** in Masters of Engineering.

Putti Venkata Siva Teja