Faculty Profile

Name: **Dr. Avinash Malladi**

Designation: Associate Professor

Teaching Areas: Mechatronics System Design, CAD/CAM, Composite Materials Additive Manufacturing, 3D Printing, Design & Manufacturing Cloud Manufacturing, Advances in Mechanical Engineering, Production Techniques, Engineering Graphics'

Research Interests: Metal Additive Manufacturing, 3D Printing, Composite Materials, Bio Manufacturing.

Education:

- **Ph.D.**, **Mechanical Engineering (Area: Metal Additive Manufacturing),** VEL's University, Chennai, 2023.
- **M.E (CAD/CAM)**, Osmania University in Industrial Collaboration with Central Institute of Tool Design (CITD), Hyderabad, 2011.
- **B.E (Mechanical -Production Engineering)**, Osmania University, Hyderabad, 2009.

Professional Certifications:

- Certified in **CATIA V5 Part Design Specialist** from **Dassault Systeme's, France**
- Certified in **Solidworks Professional** from **Dassault Systeme's, France**
- Certified in **Additive Manufacturing in Solid Works** from **Dassault Systeme's, France**

S. No.	Details	Description
1	**Patents**	Total 7 Patents, where 2 International Design Patents, & 1 National Design patent along with 4 Utility patents.
2	**Publications & Reviews**	Overall, 44 publications and reviewed Papers for prestigious journals in various national and international journals & conferences.
3	**Books Published**	12 Books, 4 Book Chapters were published
4	**FDP's Attended**	Participated in 33 national and international in reputed organizations
5	**Reviewer**	Served as a Scientific Reports (Springer Nature) reviewer in **2025** for **2** Reports

Research / Selected Publications:

- Avinash Malladi. **"Effect of silane-treated lignin and hybrid bamboo-green pea sheath fiber on mechanical, wear, and wettability behavior of epoxy structural composite",** Springer Nature, Biomass Conversion and Biorefinery, 2025.
- Avinash Malladi. **"Effectiveness of Thermal and Mechanical Properties of Jute Fibers under Different Chemical Treatment for Automotive Interior Trim",** SAE International, 2024.
- Avinash Malladi. **"Optimizing Resource Allocation in Healthcare Systems for Efficient Pandemic Management using Machine Learning and Artificial Neural Networks",** IEEE Explore, 2024.
- Avinash Malladi. **"Assessment of solar thermal monitoring of heat pump by using zeolite, silica gel, and alumina nanofluid",** Springer Nature, Clean Technologies, and Environmental Policy, 2023.
- Avinash Malladi. **"Synthesis, Thermal Adsorption, and Energy Storage Calibration of Polysulfone Nanocomposite Developed with GNP/ CNT Nanofillers",** Hindawi, Adsorption Science & Technology in collaboration with SAGE Publishing, 2023.
- Avinash Malladi. **"Mechanical Interlocking Approaches to the Prediction of Mechanical and Tribological Behavior of Natural Fiber-Reinforced Polymer Hybrid Nanocomposites or Automotive Applications",** Hindawi, Advances in Polymer Technology, 2023.