



MITALI PRADEEP HANDE
B.Tech. - Mechanical Engineering - Robotics & Artificial Intelligence
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PROFESSIONAL SUMMARY

A motivated and adaptable Mechanical Engineering student with a strong passion for innovation, problem-solving, and continuous learning. I enjoy transforming ideas into practical engineering solutions through creativity, teamwork, analytical thinking, and hands-on experience. With a proactive mindset and a commitment to excellence, I embrace new challenges as opportunities to learn, innovate, and grow. Dedicated to continuously enhancing my technical and professional skills, I strive to make meaningful contributions, deliver high-quality results, and create value through collaboration, integrity, and a solution-oriented approach in every opportunity I undertake.

KEY EXPERTISE

Battery Thermal Management Systems (BTMS), Thermal Analysis, CFD Analysis (Learning), AutoCAD, ANSYS, SolidWorks
Creo, Product Design & Development, Heat Transfer, Machine Learning, AI & Robotics, Python
MATLAB, PLC Programming, IoT, Technical Problem Solving, Team Collaboration, Leadership, German Language (Learning)

EDUCATION

MIT ADT - School of Engineering B.Tech. - Mechanical Engineering - Robotics & Artificial Intelligence - MIT ADT - School of Engineering	2023 - 2027
Pune Vidyarthi Griha's Maharashtra Vidyalyaya High School and Junior College, Pune City 12 th Science Percentage: 55.33 / 100	2023
Sinhgad Spring Dale School (Ambegaon) Pune, Pune City 10 th CBSE Percentage: 55 / 100	2021

PROJECTS

Design and Development of Battery Cooling System Using PCM-Based Heat Sink Mentor: Prof. Dr. Sandeep Ohol Team Size: 4 Key Skills: Battery Thermal Management, PCM, Heat Sink Design, ANSYS CFD, Thermal Analysis, EV Battery Systems * Designed and developed a PCM-based heat sink for EV battery thermal management. * Improved battery safety, thermal performance, and operational lifespan. * Performed CAD modeling and ANSYS CFD-based thermal analysis. * Developed a compact, lightweight, and cost-effective passive cooling solution. * Research paper submitted to ISDETM 2026 and currently under review. * Patent application under preparation for the proposed battery cooling system.	01 Jul, 2025 - 23 Jun, 2027
Demonstration of Gear Mechanism Mentor: Pro Dr Savita Shinde Team Size: 3 Demonstration of Gear Mechanism — Mar 2025 — Apr 2025 • Built a multi-gear system powered by a DC motor • Demonstrated practical working of gear mechanism.	23 Jul, 2025 - 23 Jul, 2025
Automatic Irrigation System using Arduino Team Size: 3 Automatic Irrigation System using Arduino — Jan 2024 — Feb 2024 • Developed a moisture-sensing automated irrigation system • Optimized water usage using soil moisture data	23 Jul, 2024 - 23 Jul, 2024

PUBLICATIONS / RESEARCH / WHITE PAPERS

Design and Development of Battery Cooling System Using PCM-Based Heat Sink

30 Jul, 2026

Conference Research Paper | International Conference on Sustainable Developments in Engineering, Technology & Management (ISDETM 2026) | **Mentor:** Prof. Dr. Sandeep Ohol | **No. of Authors:** 4

Key Skills: Battery Thermal Management, PCM, Heat Sink Design, ANSYS CFD, Thermal Analysis, EV Battery Systems

Research paper on a Phase Change Material (PCM)-based heat sink for battery thermal management in electric vehicles. The study presents a compact and cost-effective passive cooling solution to improve battery safety, thermal performance, and lifespan using CAD design and CFD-based thermal analysis. The paper has been submitted to the International Conference on Sustainable Developments in Engineering, Technology & Management (ISDETM 2026) and is currently under review for publication. The project is also under patent preparation.

ASSESSMENTS / CERTIFICATIONS

Completed training under Godrej in collaboration with SimuSoft Technologies focusing on PLC Programming and Simulation. Also gained exposure to RoboDK and 3D Printing technologie

Provider: Godrej and Mit adt

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POSITIONS OF RESPONSIBILITY

Design Lead

- Led the Design Team of the SAE Collegiate Club (SAECC) in planning and executing engineering design activities.
- Coordinated CAD modeling, product design, and technical documentation for club projects.
- Guided team members in design methodologies, problem-solving, and project execution.
- Collaborated with cross-functional teams to organize technical events, workshops, and competitions.
- Promoted teamwork, innovation, and effective project management while ensuring timely completion of design tasks.

SEMINARS / TRAININGS / WORKSHOPS

Industrial Robotics and Automation Student Training Program (150 Hours)

01 Jan, 2026 - 04 Apr, 2026

Institute Name: Godrej Enterprises Group & Ashirvad Growth Foundation

Key Skills: Industrial Robotics, PLC Programming, SCARA Robot, Dobot, RoboDK, 3D Printing, EV Systems, Drone Technology

- * Successfully completed a 150-hour Industrial Robotics and Automation Student Training Program.
- * Gained hands-on experience with Dobot Magician, Dobot Magician Lite, and SCARA Robot.
- * Learned PLC programming and industrial automation fundamentals.
- * Explored Drone Technology, 3D Printing, and Electric Vehicle (EV) systems through practical demonstrations.
- * Enhanced knowledge of robotics, automation, smart manufacturing, and Industry 4.0 technologies under the Disha Employability Program by Godrej Enterprises Group, conducted by Ashirvad Growth Foundation.

CO-CURRICULAR ACTIVITIES

- Design Lead, SAE Collegiate Club ,Completed training under Godrej in collaboration with SimuSoft Technologies focusing on PLC Programming and Simulation ,

EXTRA CURRICULAR ACTIVITIES

- SAE colligate club Activities

PERSONAL INTERESTS / HOBBIES

- * Automobile Technologies * Electric Vehicle (EV) Technology * Robotics & Automation * Product Design * Technical Research * Learning German Language(Target: C1 Proficiency) * Sketching & Design * Listening to Music * Photography * Travelling

PERSONAL DETAILS

Gender: Female

Marital Status: Single

Current Address: Flat no -1806 , E Building, Sargam Nanded city, Nanded city Pune -411041, Pune City, Maharashtra, India - 411041

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Date of Birth: 21 Dec, 2005

Known Languages: English, Hindi , Marathi , German

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