



Shri Vile Parle Kelavani Mandal's

DWARKADAS J.SANGHVI COLLEGE OF ENGINEERING

(Empowered Autonomous) Affiliated to the University of Mumbai



DEPARTMENT OF MECHANICAL ENGINEERING

List of Final Year Projects Completed by Students

Academic Year: 2025-26

1. IoT-Enabled multisensor product inspection system
2. Modal analysis of composite tanks for cryogenic applications
3. Fault detection of two stage spur gearbox with vibration analysis
4. Piezoelectric embedded smart slab speed breaker
5. CNC Manufacturing Workflow Generation and Optimization using AI agents and advanced prompting
6. Design and performance evaluation of scalable perforated vortex generation system for heat exchanger
7. Optimization of Synthetic Jet Actuators
8. Design and development of soft pneumatic actuators for robotic glove
9. Design of smart robotic system for agricultural sector
10. HHO Gas Flame Generator
11. Development of mechanical system for switching from active to passive mode for roll prevention.
12. Design and Analysis of Pipe Inspection Robot
13. Design and fabrication of AWD fertilizer sprayer
14. Development of a solar panel cleaning machine
15. Buoyant Agricultural Unmanned Aerial System
16. Thermal analysis of battery pack
17. Development of silent air purifier using water
18. Springless car suspension using bevel gears
19. Autonomous/RC Water Surface Cleaning Robot.
20. Development & implementation of cruise control system for passenger cars
21. Design and analysis of lower limb physiotherapy exoskeleton for assisted rehabilitation



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22. Design, analysis and fabrication of deployable air brakes for a formula one car
23. Design and Analysis of a CanSat Payload Recovery System
24. Methodology for Production & Qualitative Analysis for Surface Treatment of Aluminium Alloy Substrates
25. Design and fabrication of a Z layer PVA/Bi₂O₃ nanofiber composite for radiation attenuation
26. Design and fabrication of open ended wind tunnel for educational use to determine the forces induced
27. Motorized driven roller for conveyer applications
28. Energy harvesting backpack
29. Design and development of mini-AGV for confined spaces using ArUco marker & IMU assisted navigation
30. Pneumatic sheet metal stamping machine
31. Automated scarecrow machine
32. Sustainable transformation of post compostable PET waste into high quality 3D printing filament
33. Design and Fabrication of a Floating Bag
34. Designing of a compact plastic shredder
35. Design and analysis of Bio-Morf bat
36. Design and Development of Enhanced Thermal Management System for Gun Barrel
37. Design and Development of a Bio-inspired gripper with dual robotic arm to capture space debris
38. Design and Development of the Lifted Hele-Shaw Cell
39. Filament Dynamics: Design and Development of Extruder Machine for Plastic Waste Managements
40. Design and Analysis of 3D Printed Fixtures for CNC Milling
41. Design and development of lean I4.0/5.0 integration framework of small scale industry
42. Underwater Drone
43. Bicycle conversion using hub motor



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44. Development of a modular assembly drone
45. Development of Next-Generation Composite for Anti-Cut Security Infrastructure
46. Design optimization of viscous gel filling machine
47. Design and Development of a Sustainable Recycling System for 3D printing Waste
48. Design & Production of Automated & Adaptive End Effector for Finishing & Inspection of Aluminium Alloy Substrates