

Mechanical Projects

I. MECHANICAL based AUTOMATION (LIGHT MOTOR VEHICLE) AND MECHATRONIC

1. *Fabrication of automatic turbo charger at low and high speed of vehicle*
2. *Design and fabrication of Automatic door closer using mechanical system*
3. *Design and fabrication of Drainage cleaning robot*
4. *Design and fabrication of Geneva paper cutting machine*
5. *Design and fabrication of Automatic brake in hill station*
6. *Design and fabrication of Automatic rain water saving system.*
7. *Design and fabrication of industrial conveyor using four bar mechanism.*
8. *Design and fabrication of Motorized gate valve.*
9. *Design and fabrication of automatic Blackboard duster.*
10. *Automatic rain operated wiper.*
11. *Design and fabrication of motorized screw jack.*
12. *Design and fabrication of rolling shutter.*
13. *Automatic Pneumatic Bumper.*

14. Automatic Reverse Braking and Distance Measurement Using Ultrasonic

15. Automatic fire detecting and control robot.

16. Automatic Railway Gate Controller

17. Design and fabrication of magnetic shock absorber

II. MECHANICAL based MACHINES AND PROCESS

1. Design and fabrication of rocker bogie mechanism

2. Design and fabrication of box shifter using four bar link mechanism

3. Multi spindle drilling machine

4. Design and fabrication of double side power hack saw machine using quick return mechanism

5. Design and fabrication of adjustable multi spindle hand drill system

6. Design and fabrication of robotic elevator

7. Design and fabrication of Geneva paper cutting machine

III. MECHANICAL based PHYSICALLY CHALLENGED

1. Design and fabrication of hand free vehicle for disabled person

2. Design and fabrication of hand less drive in four wheelers

3. *Design and fabrication of hand power tricycle for handicapped person using hand lever and crank system*
4. *Reverse gear in motor cycle for physically challenged people*
5. *Design and fabrication of hand operated gear shifting mechanism for disabled*

IV. MECHANICAL based COMPOSITE MATERIALS

1. *Comparison and Experimental Investigation of Glass Fiber and Natural Fiber Reinforced Composites*
2. *Mechanical behavior of E-GLASS JUTE natural hybrid composite.*
3. *Mechanical behavior coconut coir fiber reinforced with epoxy polymer.*
4. *Helical gear using metal matrix composite*
5. *Development of Asbestos Free Brake Pad Using Orange Peel.*
6. *Development and Mechanical Characterization of Low Cost Natural Hybrid Date/Jute Fiber Reinforced Epoxy Composite.*
7. *Composite material using banana and jute fibers.*

V. MECHANICAL based AGRICULTURE PROCESS

1. *Robotic pesticide sprayer*
2. *Design and fabrication of Haraka machine for agriculture*
3. *Multi crop cutter*
4. *Design and fabrication of portable multi agricutter*
5. *Pesticide sprayer with seed sowing mechanism*
6. *Fabrication of Manual Lawn Mower.*

VI. MECHANICAL based PNEUMATIC APPLICATION

1. *Design and fabrication of pneumatic can crusher*
2. *Design and fabrication of Pneumatic sheet cutter machine*
3. *Design and fabrication of pneumatic vice and jack*
4. *Design and fabrication of Automatic gear changing using pneumatic cylinder*
5. *Fabrication of Pneumatic Mobile Crane*

VII. **MECHANICAL based AUTOMOBILE**

1. *Fabrication of intelligent reverse braking system.*
2. *Fabrication of flywheel based regenerative breaking system.*
3. *Rough Terrain Vehicle Using Rocker Bogie Mechanism.*
4. *Automatic Fog Maker Machine*
5. *Design & Fabrication of Motorized Scissor Jack.*
6. *Motorized 2 Wheel Scooters.*
7. *Performances increasing in mini car*
8. *Design and fabrication of wiper inside the front mirror in government bus*
9. *Multi oscillation motion in wiper*
10. *Design and fabrication of gearless power transmission*
11. *Fabrication of automatic 2,3 point drill machine*
12. *Design and fabrication of automatic side-stand retrieval system*
13. *Design and fabrication of Sand ramping using rack and pinion*
14. *Design and fabrication of Pedal operated dual pump to increase efficiency*
15. *Design and fabrication of Foot press hand wash machine*
16. *Design and fabrication of Two axis paint spraying machine*
17. *Energy-harvesting shock absorber with a mechanical motion rectifier.*

18. *Design and fabrication of advanced drilling machine based on belt and roller mechanism.*
19. *Design and fabrication of homemade wind turbine water pumping system for four bar link system.*
20. *Design and fabrication of mechanism conveyor using eccentric rotation drive system.*
21. *Design and fabrication of smooth chassis in cantilever suspension system.*
22. *Design and fabrication of portable heat exchanger to purify water.*

VIII. **MECHANICAL based ROBOTICS**

1. *Line Follower Robot*
2. *Pick and Place Robot*
3. *Bluetooth Control Mobile Robot*
4. *Voice Recognition Robot*
5. *Bomb Detection Robot*
6. *Hanging Robot*
7. *Firefighting Robot*
8. *Pipe Lining Robot*
9. *Wall Follower Robot*
10. *Obstacle Detection Robot*

IX. **MECHANICAL based RENEWABLE ENERGY**

1. *Controlling Solar Energy Charge*
2. *Solar Panel with Sun Position Tracking*
3. *Fully Automated Solar Grass Cutter*
4. *Low pressure solar water heater with auto Tracking*
5. *Advanced solar water heater with electricity generation*
6. *A Project on Electricity and water pumping system using wind mill*
7. *Fabrication of solar sterling engine (Model)*
8. *Solar powered automatic fire fighting robot*
9. *A Project on Solar automatic step climber*
10. *Solar powered auto charging grinding machine*