

**CHENNAI-PONDICHERRY****JOURNAL PAPERS 2019-2020****AUTOMOBILE**

1. Design of gas carburetor for producer gas engine operated in single fuel mode
2. Effects of preheating of hone oil (ho) on injection system, performance and emission of a diesel engine
3. Design and fabrication of radio controlled car
4. An experimental study of flow through a dump combustor model with inlet swirl
5. Biodiesel applications as fuels for low heat rejection engine
6. Design and development of prototype of magnetic engine using neodymium iron boron (Nd<sub>2</sub>Fe<sub>14</sub>B) as magnetic material
7. Experimental investigations on high grade semi adiabatic diesel engine with cotton seed biodiesel
8. Modelling and optimization of electromagnetic type active control engine mount system
9. Retarder used as braking system in heavy vehicles—a review
10. Alternative transmission system for 4 wheelers
11. Design and implementation of kinetic energy recovery system (kERS) in bicycle
12. New technologies used in automotive exhaust systems, review
13. Waste plastic fuel used in petrol engine
14. Articulated vehicle systems
15. Cylinder deactivation on two different cubic capacity engine
16. Advanced passive suspension with inerter devices and optimization design for vehicle oscillation
17. A conventional diesel engine running in dual fuel mode with diesel & LPG
18. Experiment on multi blend biodiesel using jatropha and pongamia biodiesel on single cylinder diesel engine with base line of diesel fuel
19. Automotive product design and development of car dashboard using quality function deployment
20. Fuzzy control of vehicle active suspension system
21. Smart electronic fuel injection system using magnetic fuel vaporizer

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22. Air powered engine
23. New 5 stroke engine with splitting concept
24. Fabrication of biogas –petrol dual fuel in si engine
25. Development of multi cylinder crd-i engine to meet euro vi emission norms
26. Effect of compression ratio and rpm on the performance and emission characteristic of lpg fuelled si engine
27. Experimental investigation on ci engine performance fueled with biodiesel and its blends
28. Review on methods of homogeneous charge preparation for hcci mode engine
29. Experimental investigation of rhombus shaped grooves on piston crown of a single cylinder 4-stroke diesel engine
30. Daily management process for reduce cost of quality in automobile industry

**MECHANICAL**

1. Implementation of taguchi methodology for defect reduction in manufacturing industry- a case study
2. A review on agile manufacturing system
3. A survey on switching median filters for impulse noise removal
4. The influence of abrasive water jet machining parameters on various responses - a review
5. Recent development in wire edm
6. Resistance spot weld ability of dissimilar materials in 1mm thick sheet
7. Review of effective methodology for optimization of pump discharge conditions to enhance operational efficiency
8. Modular relative Jacobian for combined 3-arm parallel manipulators
9. Design and development for spot welding jig for window lower and upper of middle block in ss ac emu
10. Design and the operating of cyclone separator - a review
11. Initiation and enhancement of precipitation formation by vortex mechanism
12. Advancement in micro-manufacturing using edm and its applications
13. Design and fabrication of four bar mechanism for wheels for climbing
14. Hybrid force-position control for manipulators under transitions free to constrained motion
15. Visual servo control for balancing a ball-plate system
16. Cooperative object transportation using virtual electric dipole field
17. Optimization of camera-based field of view

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18. Machining of unidirectional glass fiber reinforced polymers (ud-gfrp) composites
19. Design of material handling equipment: belt conveyor system for crushed biomass wood using v merge conveying system
20. Design and control of small Quad copter system with motor closed loop speed control
21. Design and development of tool kit for team performance
22. A 4-dof upper limb exoskeleton for stroke rehabilitation: kinematics mechanics and control
23. Spring-back in multi-point discrete die v-bending
24. Performance evaluation of bus depots using ahp
25. A critical review on kinematics of hydraulic excavator backhoe attachment
26. Encompassing rotary-draw-tube bending process with sheet metal rolling by three-roll-push-bending
27. Friction stir welding
28. Performance improvement of centrifugal slurry pump using additives
29. Design and development of an electrochemical spark micro manufacturing equipment
30. Vertical material handling system
31. Dexterity indices of 6-ups parallel manipulator
32. 4-wheel steering system mechanism using dpdt switch
33. Smart vehicle and smart signboard system with zonal speed regulation
34. Design and fabrication of double acting winch type elevator
35. Water-pump driving mechanism using an orthogonal double-slider joint
36. Novel and eco-friendly ant chalk and mosquito mat from coconut shell oil
37. Design of adaptive multi tool arbor attachment
38. Force isotropy of three-limb spatial parallel manipulator
39. Multi-link structure for rear independent suspension of heavy vehicle
40. Elevation system for 3-tier sleeper coaches
41. Experimental study of high speed cnc machining quality by noncontact surface roughness monitoring
42. Development of portable rehabilitation device using flexible spherical actuator with built-in embedded controller and valves
43. design and fabrication of non-dust paper wood cutter
44. Parameter optimization in vertical machining center cnc for en45 (steel alloy) using response surface methodology
45. Self-learning vehicle detection and tracking from uav's
46. Self-powered pesto-sprayer

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47. Design and fabrication of disc type hybrid turbine-pump
48. Mechanically operated wheelchair convertible stretcher
49. Scope for design & development of 2r edge trimming mechanism & tool adjustment
50. Design of special purpose machine head to improve the production of engine block
51. Electromagnetic jigsaw: metal-cutting by combining electromagnetic and mechanical forces
52. Smart street lighting system based on sensors using plc and scada
53. Design of three axis pick and place mechanism for friction welding machine to reduce the time cycle and to increase productivity
54. PLASTIC EXTRUSION PROCESS

**NON-CONVENTIONAL PROJECTS**

1. application of piezoelectric device in automotive control going towards hybridization
2. Production of domestic hot water with solar thermal collectors
3. Solar distillation system
4. Study on water model of solar energy and vacuum glass grain drying equipment
5. Experimental study of a single basin solar still with water cooling of the glass cover
6. Fabrication of a solar paper drier for small-scale paper sheet production
7. Design of fixed dome domestic bio digester for degradation of kitchen waste using mesophilic&thermophilic reactions (anaerobic)
8. Converting sound energy into electricity using piezoelectric material
9. Foot step power generation
10. Performance evaluation of a solar still coupled to an evacuated tube collector type solar water heater
11. Theoretical and experimental studies on stepped solar still
12. Use of vibration energy for charging electric car
13. Environment friendly solar roof top plant
14. Low expense vertical axis wind turbine using permanent magnets
15. An experimental study on box-type solar cooker
16. Car runs by solar energy
17. Power generation from pressure reduction in the natural gas supply chain
18. Performance of horizontal water-in-glass evacuated tube solar collectors
19. Preparation of conducting carbon from rice husk char

### **CHENNAI-PONDICHERRY**

20. Water spray cooling technique applied on a photovoltaic panel: the performance response
21. A review on solar tunnel greenhouse drying system

### **THERMAL AND REFRIGERATION PROJECTS**

1. Critical assessment of literature in the field of enhanced heat transfer techniques
2. Study of heat transfer on broken arc roughness elements on the absorber plate for solar energy based heater
3. Waste heat recovery to increase boiler efficiency using bagasse as fuel
4. Energy efficient multiproduct cold storage system design
5. Natural convection heat and mass transfer in a rectangular porous cavity having partially thermally active walls
6. Design of shell and tube heat exchanger using ant colony optimization technique
7. An experimental study of energy in a corrugated plate heat exchanger
8. Heat transfer augmentation in a plate-fin heat exchanger: a review
9. To conduct the performance test on chiller unit by using nanofluids cooled condenser
10. Experimental study on a domestic refrigerator using LPG as a refrigerant
11. Industrial waste heat used in typical thermal power plant
12. Effect of (mgo) nanofluids on heat transfer characteristics for integral finned tube heat exchanger
13. Heat transfer enhancement using dimple surfaces under natural convection-an experimental study
14. Magneto hydrodynamic mixed convection flow and boundary layer control of a nanofluids with heat generation/absorption effects
15. Cpu cooling of desktop computer by parallel miniature heat pipes
16. Thermodynamic study of diffusion absorption refrigeration system with organic fluid
17. Thermo acoustic refrigeration system setup
18. Experimental study of heat transfer characteristics of r744/r134a in a smooth horizontal tube

### **ROBOTICS**

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1. Semantic expansion of auto-generated scene descriptions to solve robotic tasks
2. Extended kalman filter based mobile robot localization in indoor fire environments
3. Position and force control of tele-operation system based on phantom Omni robots
4. The tilt sensor & rfid based wireless robotic arm using multi-microcontrollers
5. Telecontrol of automerlin robot by employing fuzzy logic
6. Proper Jacobian pseudo inverse neural network matrix method applied to robot inverse kinematics controlling
7. An object exploration strategy for com and mass determination for robot grasping
8. Automatic docking with obstacle avoidance of a differential wheel mobile robot
9. A discriminative approach for people detection using color camera for mobile robot platforms
10. Instrument state recognition and tracking for effective control of robotized laparoscopic systems
11. Decentralized multi-robot cooperative localization with extended information-weighted con-sensus filter
12. Three D.O.F in a single spherical joint realized by Omni-wheels for industrial robots
13. Automatic land mine detection and sweeper robot using microcontroller
14. Development of mobile robot slam based on ros
15. Robust control for the motion five fingered robot gripper
16. Drawbot: a mobile robot for image scanning and scaled printing
17. Robotic crack detection and classification via adaboost-rvm implementation
18. Mobile robot coordination using fear modeling algorithm