

JOURNAL PAPERS 2020-2021

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 (nd2fe14b) 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 deastivation on two different cubic capacity engine
- 16. Advanced passive suspension with inerter devices and optimization design for vehicle oscillation
- 17.A conventional desel 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



- 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 hoci mode engine
- 29.Experimental investigation of rhombus shaped groover on piston crown of a single cylinder 4-stroke diesel engine
- 30. Daily management process for reduce cost of quarity 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 entry
- 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



.....Innovations Simplified

CHENNAI–PONDICHERRY

- 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 ustal rolling by three-rollpush-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 which type elevator
- 35. Water-pupp driving mechanism using an orthogonal double-slider joint
- 36. Novel and eco-friendly ant chark 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 reax 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 collector
- 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 interelectivity 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



- 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 bagyste 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 childer unit by using nanofluids cooled condenser
- 10. Experimental study on a domestic retrigerator 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 uxdrodynamic mixed convection flow and boundary layer control of a nanofluids with heat generation/absorption effects
- 15. Cpt 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
- Experimental study of heat transfer characteristics of r744/r134a in a smooth horizontal tube

ROBOTICS



- 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 cumera for mobile robot platforms
- 10. Instrument state recognition and tracking for exective control of robotized laparoscopic systems
- 11. Decentralized multi-robot cooperative localization with extended informationweighted 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. Robolic crack detection and classification via adaboost-rvm implementation
- 18. Mobile robot coordination using fear modeling algorithm