

(54) Title of the invention : SOLAR AND ELECTRIC POWERED FOOT OPERATED VEHICLE WITH REVERSE MECHANISM FOR ARM IMPAIRED PERSON

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(57) Abstract :

In this work, a two wheeler with foot operated steering mechanism is proposed for the use of hand impaired and arm-less persons. The two wheeler equipped with foot operated steering mechanism was designed, fabricated and its functioning was tested. The mechanism includes braking, speed change as well as turning. Two pedal linked driving mechanisms are implemented which work on the pressure received from the rider's legs. The rider can turn the vehicle to any direction by turning the pedal linked with steering towards the required direction. The right side pedal serves for speed change and the left side pedal serves for braking. A lever is provided for changing reverse run. A chassis like base structure provided on the back side of the vehicle with 3 wheels. The 2 wheels attached on either side provide the required balancing effect and the centre wheel gives the required drive. Suspension and brake systems are suitably modified. The vehicle is also provided with reverse mechanism which makes its operation easy by the differently abled persons. Thus, the vehicle is completely controlled and operated by foot The vehicle is designed environment friendly, by being fitted with solar panel and electric chargeable battery for driving the vehicle.

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