DESIGN & FABRICATION OF ADAPTIVE DRIVING ATTACHEMENT TO AN EXISTING FOUR-WHEELER VEHICLE TO HELP DIFFERENTLY ABLED PERSON

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Traditionally, a vehicle's accelerator and brake pedals are positioned so the driver can easily and accurately control them with their feet. This **setup** allows the driver to apply gradual pressure to either pedal, depending on **the** situation. However, it may be possible to develop a Joystick-Based Control **System** (JBCS) that connects to both those pedals and is both safe and effective to use. For example, the joystick could be designed to sense the driver's hand pressure adjust the vehicle's speed, and apply brakes accordingly, such a system could be implemented in a commercial vehicle. This concept can be utilized for cars that do not have a manual clutch mechanism, i.e. Automatic Transmission/CVT transmission/Electric vehicles, etc.

Furthermore, the mention of the words “Four-wheeler vehicle” in the entirety of this synopsis refers to the type of Four-wheeler vehicles without a manual clutch mechanism or Four-wheeler vehicles without a manual gearbox mechanism.

This synopsis introduces a novel joystick attachment designed to serve as an addition to the conventional pedals and offers an alternative method for controlling acceleration and braking in cars.

Moreover, the joystick attachment can enhance safety by offering an additional layer of redundancy. In emergencies, such as sudden obstacles or potential collisions, the joystick can provide a quicker response compared to traditional pedals. This feature has the potential to reduce reaction times and mitigate the severity of accidents, thus increasing overall road safety.