AI BASED SINGLE PEDAL CONTROLLED TWO-WHEELER VEHICLE FOR PHYSICALLY CHALLENGED (ARMLESS) PEOPLE

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Keywords:

Collision Tolerant, Mechanical Gimbal, Inspection, drone cage, unmanned sewage inspection.

Introduction:

Industrial pipeline and sewage inspections pose significant risks to human safety. To address this
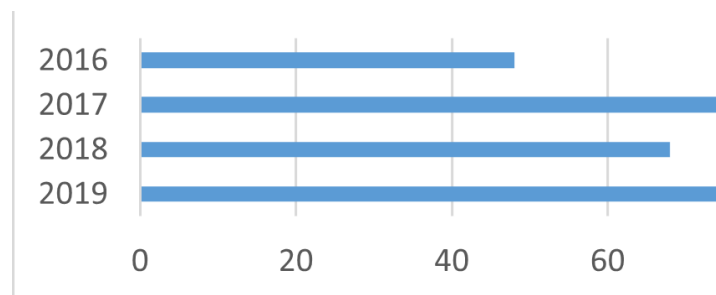
Objectives:

1. The primary objective of the proposed project is to provide a self-controlled vehicle with comfortable riding control for the arm-less people.

List the objectives 3 of project

The entire design module is divided into two parts namely

2. Mechanical design and
3. Electronics module

Methodology:

Firstly, the bike is designed in 3-D model using auto CAD tool as shown in fig.1. The product prototype is developed based on the modifications made on commercially available vehicle. The mechanical design modifications on commercial vehicle are as follows

- Direction control by using right pedal

- Acceleration and braking system by using left pedal

- The stability for the bike for withstand while in rest condition is given by the supporting wheel in the backside of the bike.

Result and Conclusion:

electronic module includes the voice recognition system for the operations like switching ON/OFF the engine, head light ON/OFF. Based on the mobile application, the voice is given as input by using commands like 'engine ON', 'engine OFF', 'horn', 'Left indicator' and 'Right indicator'. The embedded system receives the command and does it role as a result in term of action. A 12V, 9A battery is connected with the voice recognition module for the power supply

Future Scope:

The future scope of this project includes:

The voice is fetched as input using mobile application where the commands are stored such as Ignition on /off, beep etc. as shown in fig.8. In the existing prototype, the voice commands are received by the Bluetooth module and send to embedded system. The voice command system.