

“AUTOMATIC TRANSMISSION FOR TWO WHEELERS”

(Approved by KSCST)

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ABSTRACT

Motorcycles are widely used around the world and particularly in Asian countries to a large extent. In conventional system of motorcycles, every operation from disengaging the clutch to shifting of gears is done manually by the rider. If the rider wants to shift the gear, he has to first press the clutch (which will be at the left side of the handle bar) and then tap the gear lever with his foot upward or downward to get the desired gear .So, it becomes increasingly difficult for an in-experienced rider as it needs a lot practice and skill to perform desired operation. Sometimes due to improper operation, there may be a sudden jerking, which affects both the engine and gear system. Also excess throttling leads to reduced fuel economy resulting in unpleasant ride.

This report covers a development of an automatic gear shifting/changing system for a standard motorcycles .In this system the internal setup the gearbox will remain unchanged, because an additional electro-mechanical system is adopted on to the vehicle to shift the gears and the same time for controlling of clutch.

This system makes use of a low cost microcontroller to make accurate decisions for shifting the gears up and down by sensing both the engine RPM and vehicle speed and it controls clutch transmission where ever necessary.