VISVESWARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM- 590014

A Project Report on

"PERMANENT MAGNETIC SHOCK ABSORBER"

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ABSTRACT

Shock absorber is a mechanical device (one kind of dashpot) design to smooth out or damage shock impulse, and dissipate kinetic energy

A magnetic unit comprising a plurality of groups of permanent magnets such as neodymium magnets arranged in a pair one above the other relationship with like poles facing each other .Group of neodymium magnets with like poles facing each other so that the group of magnets respectively repel or attract one another. A pair of neodymium magnets is mounted on nylon shaft (outer cylinder hollow), another pair of neodymium magnets is mounted on nylon shaft (inner cylinder) in a telescopic way. When load is applied on the shaft, it tries to compress. The shock absorbers duty is to absorb or dissipate energy

The main objective of this project is to develop a magnetic unit which is used as a shock absorber or load leveler for a vehicle and is capable of handling the road shocks smoothly with minimum effort and avoids the unwanted shocks to the vehicle structure .

The uniqueness of the Permanent Magnetic Shock Absorber platform has become the reason for many researchers to continue investigates this nature of the system. The idea of a Permanent Magnetic Shock Absorber has come in the research world for a few years. Due to its new technology, many advantages are incurred in that.

In this project we could only afford to build a prototype of the Permanent Magnetic Shock Absorber which could sustain a load of 20-30 Kg.