VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM, KARNATAKA

A

PROJECT REPORT

ON

"MEMS ACCELEROMETER SENSORS BASED SEMI-AUTOMATED RASH DRIVING, TRAFFIC SIGNAL JUMP AND ALCOHOL DETECTION UNIT"

Submitted in partial fulfillment of the requirements for the Award of Bachelor of Engineering degree in Instrumentation Technology during the year 2013-14.

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CHAPTER 1

INTRODUCTION

Now-a-days accidents are a common feature of deaths. The common feature of accidents will be rash driving, signal jumping, drunk and driving, minor drivers. Rash driving and signal jumping is nature of driver which causes panic in the traffic and finally leads to accidents.

These are critical things to be controlled, so here we come up with a concept to reduce rash driving, signal jumping, and people who drink and drive. Some points will be given to driver and if he is a victim of either rash driving or signal jumping then a point will be deducted from his quota. When the points become nil then he'll be charged. So this system reduces rash driving as well as signal jumping.

The Micro-Electro-Mechanical Systems, or MEMS, is a technology that in its most general form can be defined as miniaturized mechanical and electro-mechanical elements (i.e., devices and structures) that are made using the techniques of micro fabrication.

The critical physical dimensions of MEMS devices can vary from well below one micron on the lower end of the dimensional spectrum, all the way to several millimeters. Likewise, the types of MEMS devices can vary from relatively simple structures having no moving elements, to extremely complex electromechanical systems with multiple moving elements under the control of integrated microelectronics.

The one main criterion of MEMS is that there are at least some elements having some sort of mechanical functionality whether or not these elements can move.