

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A PROJECT REPORT ON

"SMART TOLL COLLECTION SYSTEM"

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BACHELOR OF ENGINEERING

In

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ABSTRACT

This project outlines the mechanism to reduce the traffic congestions at tollgates using smart system. The major cause leading to traffic congestion is the manual handling of toll collection centres which consumes time. Therefore, the project aims to develop a smart system prototype using Radio Frequency Identification (RFID), Infrared (IR) sensor, stepper motor and 8051 microcontroller.

The system is concerned with automated toll collection system using the RFID tags; vehicles are made to pass through a sensor system that is embedded on the highway just before the tollgate. The system will electronically classify the vehicle into paid and unpaid groups and corresponding path division will get unlocked. Once the payment process is over, the owner will be allowed to travel until the destination without undergoing any other toll collection process. Therefore smart structure will automate the toll gate function which will ultimately speed up the whole process.