VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Belagavi – 590 010

PROJECT REPORT

ON

"SMART PETROL PUMP"

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING
IN
ELECTRONICS & COMMUNICATION ENGINEERING

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CERTIFICATE

Certified that the project work entitled **"SMART PETROL PUMP"** *is a bonafide work carried out by*

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in partial fulfillment for the award of BACHELOR OF ENGINEERING in **ELECTRONICS & COMMUNICATION ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2015-2016. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

Today almost all petrol pumps have a microcontroller to control the electrical pump, drive the display, measure the flow and accordingly turn OFF the electrical pump. But still a person is required to collect the money. The proposed system is designed to eliminate the human interaction so that there is no need of workers to fill the petrol. In the proposed system all drivers have a RFID Card called as Smart Card. The RFID Card can be recharged at Smart Card recharge points. At the Petrol Pump the driver swipes the card, where the petrol pump is equipped with a RFID reader. The RFID reader reads the amount in the card and is displayed on the LCD. The driver then enters the quantity of petrol that has to be filled. The corresponding amount is calculated and deducted from the Smart Card. The electrical pump is then turned ON according to the entered amount. The microcontroller plays the key role performing all the tasks in a very systematic way. The microcontroller reads the data from the smart card reader, processes the data, starts the pumping system to fill the tank upon the user request given through the keypad, displays the amount on the LCD, and deducts the amount from the card based on the petrol amount. It also stops the pump after the desired amount of petrol flows. Keypad is used as an input device allowing the user to enter the quantity of petrol to be filled in his vehicle tank. The LCD is used to display the number of units consumed by the user and display the related messages. The LCD consumes low power and is a user friendly output device.