

A Project Report Submitted To The
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Entitled
HOME AUTOMATION WITH LPG CYLINDER
REGULATION AND SECURITY SYSTEM

*In Partial Fulfilment Of Requirement For The Award Of The Degree Of Bachelor Of Engineering Of
The Visvesvaraya Technological University, Belgaum, Karnataka.*

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ABSTRACT

In today's world the LPG cylinder plays a vital role not only for domestic but also use in industries, hospital, automobiles, educational sector (school and colleges using LPG cylinder for laboratory purpose) and public sector. It is panic that these cylinders get empty without any intimation. In these days where the refilling is not an easy task, these cylinders get empty at unexpected situation.

Another major problem is the leakage of LPG which may to lead bursts resulting in heavy loss of life and wealth. Hence the project outlays the protection systems from hazards due to LPG leakage and fire, using special components like gas sensor and temperature sensor.

Each and every individual wants to be secured, Hence the security system has to be managed in the kitchen and the entire place where LPG is used. Unfortunately none of existing security systems has all the attributes i.e. leak detection, fire detection, weight detection along with protection and alarm.

This project is aimed at providing indication of gas content remaining in the LPG cylinder while it is in use so that it is helpful to the user to place the order for the new cylinder at an appropriate time and cylinder refill alert message is sent to the user's mobile numbers. The security system incorporated consists of leak detection and fire detection unit along with alarm unit. Further on detecting leak, the signal is transferred to GSM and the Microcontroller sends signal to the solenoid valve to cut off the further gas supply. Simultaneous GSM switches off the A.C mains of the kitchen and sends the alert message to the user's mobile numbers and also makes the alert calls to the user's mobile numbers until they are attended at regular. In this way "LPG cylinder regulation and security system" provides a complete security for LPG cylinder users.