

A. Yalmar, M. Parihar, V. Kadam and K. Kharat, "Implementation of automatic safety gas stove," *2015 Annual IEEE India Conference (INDICON)*, New Delhi, 2015, pp. 1-6.

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Abstract: Automatic safety gas stove explicitly concentrates on additional safety as a fundamental argument towards the usage of domestic LPG. The paper focuses on modes developed to automatically prevent any kind of threat from usage of the gas stove. This project is AT89C51 microcontroller based embedded application which deals only with turning OFF mechanism of kitchen gas stove in various situations. It turns off the gas when it is not in use. The project is a precise division working in three modes namely the detection mode, the timer mode and the remote access mode. The detection of the utensil is done by an IR sensor placed near the burner of the stove. Timer mode turns off the gas after a particular interval of time and a remote access mode can turn off the stove knob using the cellular mobile phone. DTMF module is setup in interface with the microcontroller such that when the signal to turn off is received from the cellular mobile to the DTMF module, the microcontroller will turn off the gas knob. The various modes involved in this project are based on microcontroller functioning. This project highlights the provision for automation in kitchen. It greatly assists in securing safety and making use of gas stove more convenient and easy.

keywords: {domestic appliances;domestic safety;embedded systems;home automation;infrared detectors;microcontrollers;telecontrol;AT89C51 microcontroller;DTMF module;IR sensor;automatic safety gas stove;cellular mobile phone;detection mode;domestic LPG;embedded application;gas knob;remote access mode;timer mode;DC motors;Furnaces;Microcontrollers;Mobile handsets;Safety;Shafts;Turning;DTMF;IR detection;automation;safety},

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