HOME AUTOMATION WITH TELEGRAM APP

AIM:

Design and Development of Home automation with telegram app.

PURPOSE:

Home automation can be implemented in many ways. Normal home automations like RF, IR, Zigbee or normal IOT systems doesn't have any additional features. They just turn ON and OFF loads from remote location. Here we have a smart home automation that can control home appliances from telegram app. Also we can get photo of home by sending request from telegram app. Along with home appliances control we can monitor home surveillance through telegram app.

DESCRIPTION AND WORKING:

In this project we have used ESP32-CAM. Two relays connected with ESP32-CAM digital pins. DC fan and AC bulb controlled by relays. ESP32-CAM can be connected to WIFI or hotspot through SSID and password to get internet access. With internet access it can easily communicate with telegram APP. We can control Fan and bulb from telegram app by sending request commands. Also while controlling loads it will send photo of room or place where installed ESP32-CAM. This feature brings us to visualize the room or home.

TECHNICAL SPECIFICATIONS:

HARDWARE:

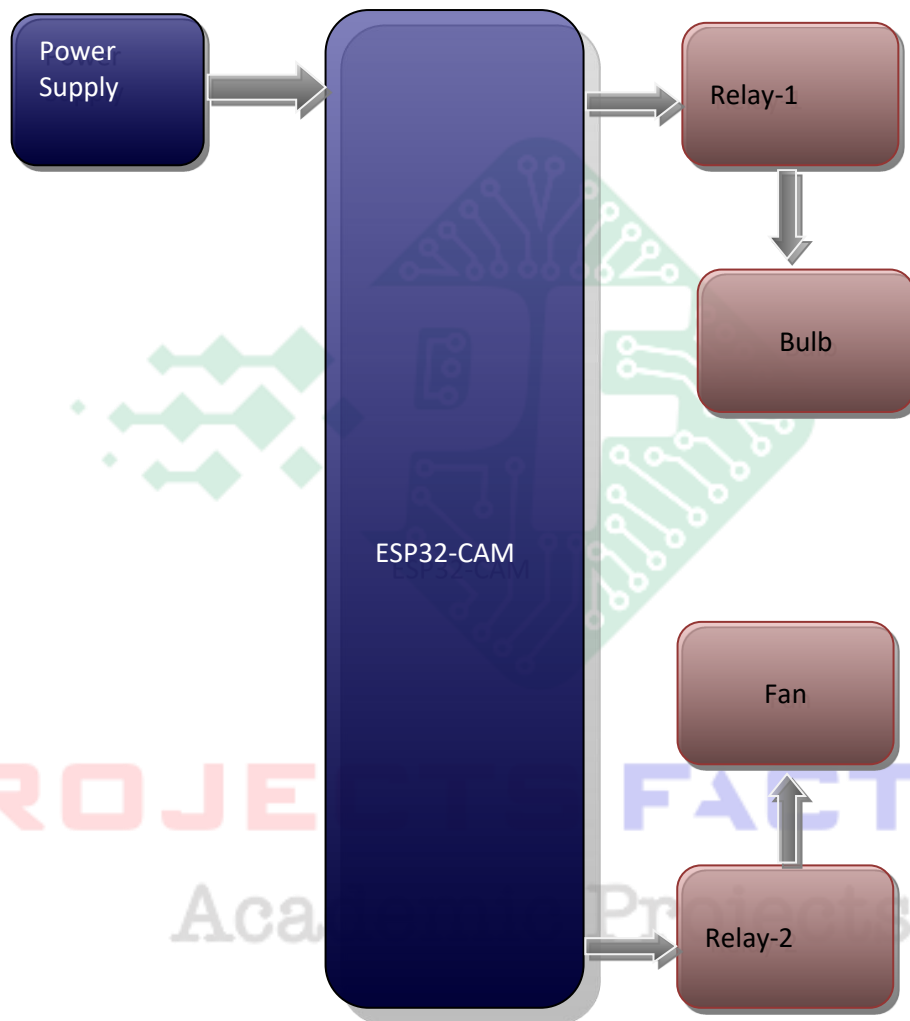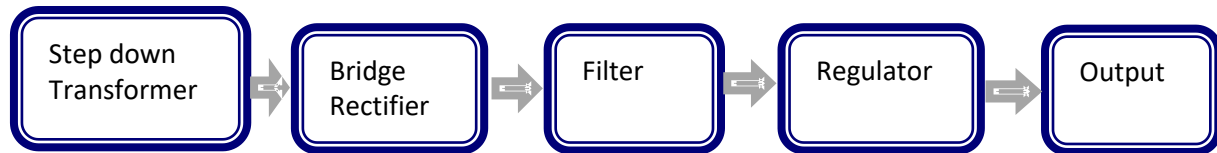|		
Microcontroller	:	Esp32-Cam
Relay	:	12V DC
Bulb	:	230V AC
Fan	:	12V DC
Power Source	:	12v 2 amp Adaptor

SOFTWARE:

Arduino IDE

APPLICATIONS:

- ➤ Home appliances Control
- ➤ Industrial appliances control
- ➤ Smart homes
- ➤ Smart premises
- ➤ Remote Street controls

BLOCK DIAGRAM:

POWER SUPPLY BLOCKDIAGRAM:

| Step down Transformer | → | Bridge Rectifier | → | Filter | → | Regulator | → | Output |

INTERFACES COVERD:

- We have covered Esp32-Cam
- Relays with fan and bulb interface