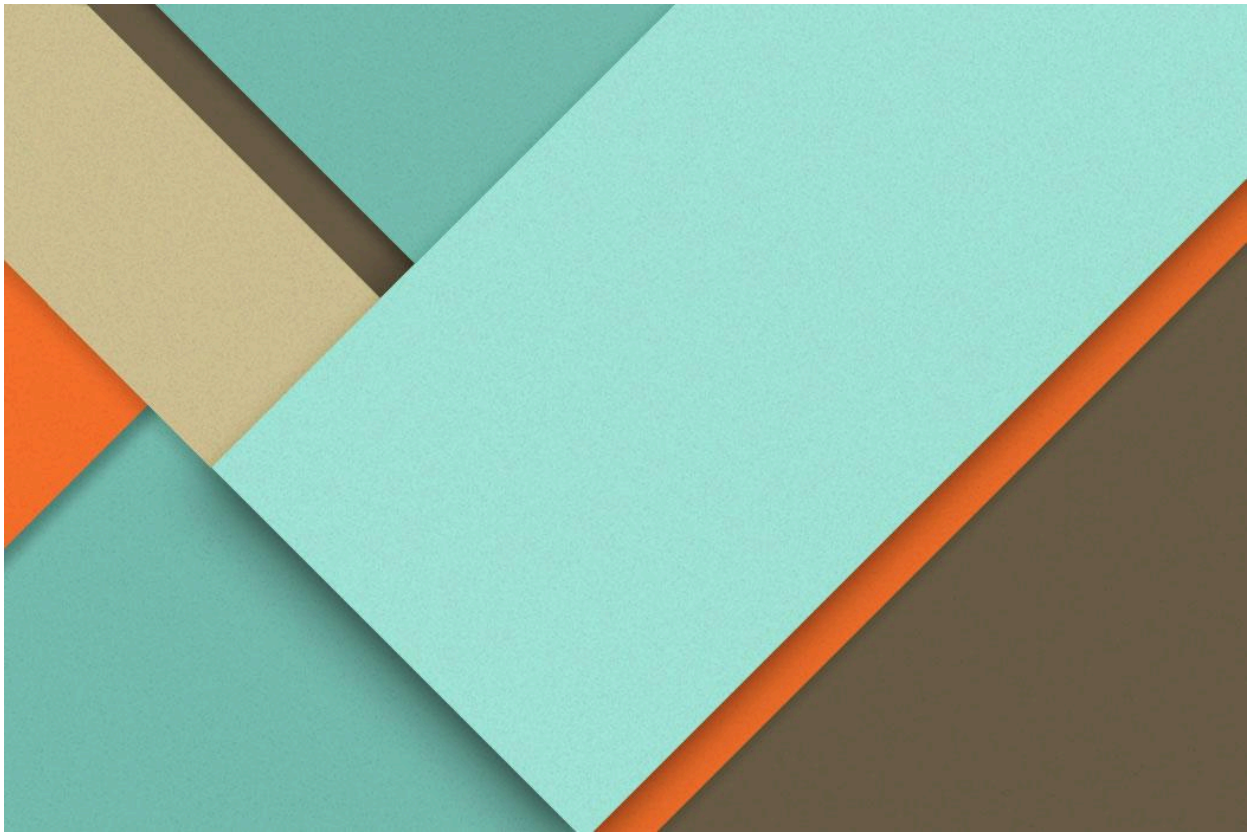

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HOME AUTOMATİON SYSTEM

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OVERVİEW

This project aims to add automatic shutdown features to essential devices in home (like desktop) to prevent overconsumption of electricity. Devices will be equipped with sensors that detect user activity and usage profiles. For example, a computer will shut down at midnight if it's inactive during regular usage (an example of profile), but will stay on during exam week to prevent any problems.

Objectives

1. Enable devices to automatically shut down based on usage profiles.
2. Reduce unnecessary energy consumption..

Features

1. Sensors will detect usage activity on the devices.
2. Different usage profiles, such as standard use and exam weeks, will be created.
3. Devices like refrigerators, which need to remain on continuously, will be excluded.

Steps

I. Problem definition

In this phase identify which devices will shut down automatically and how the sensors will be used. Scenarios will be created for devices like computers and refrigerators.

II. Verilog Coding

Write Verilog code that receives sensor data and controls device behavior. Device states (on or off) will be determined based on the user profile.