Smart home

Team Members

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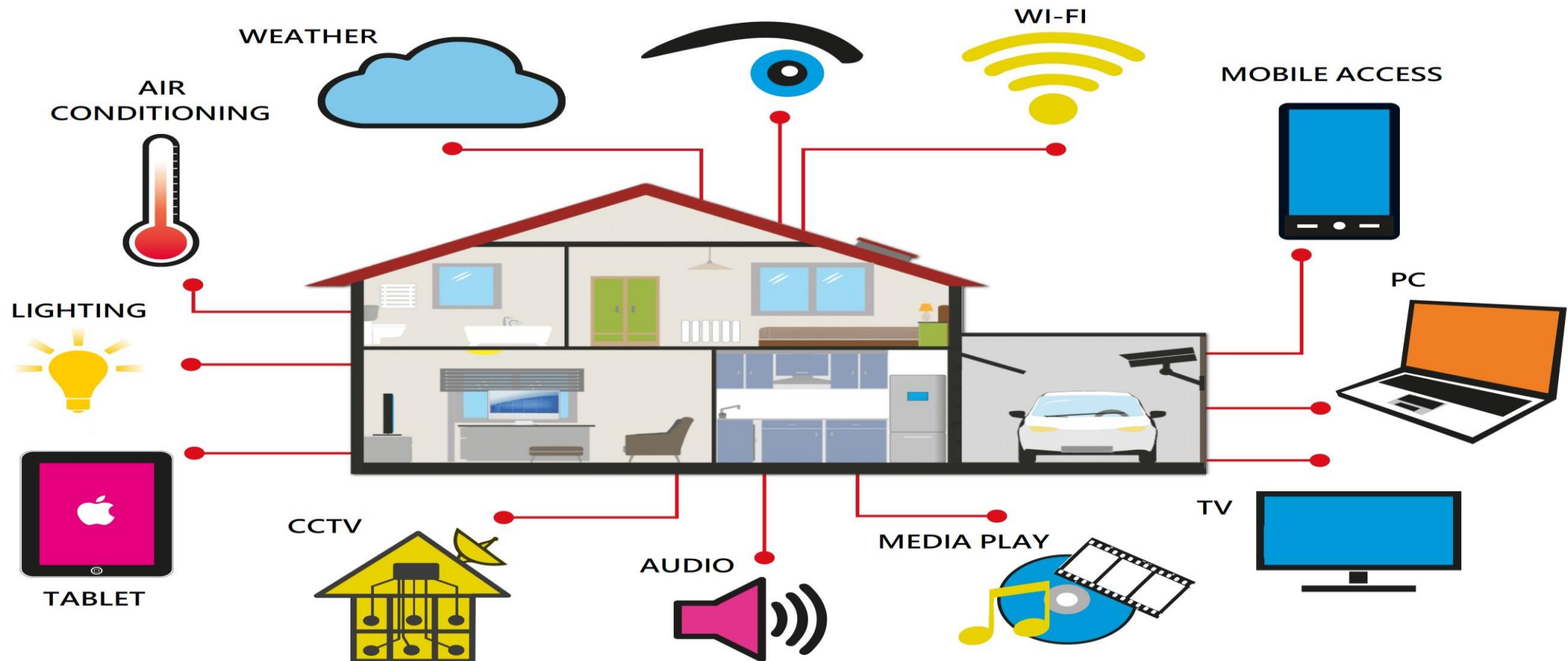- Ahmed Alaa

Introduction

- A smart home is a residence that uses internet-connected devices to enable the remote monitoring and management of appliances and systems, such as lighting and heating.

- Smart home technology, also often referred to as home automation or domotics (from the Latin "domus" meaning home), provides homeowners security, comfort, convenience and energy efficiency by allowing them to control smart devices, often by a smart home app on their smartphone or other networked device. A part of the internet of things (IoT), smart home systems and devices often operate together, sharing consumer usage data among themselves and automating actions based on the homeowners' preferences.
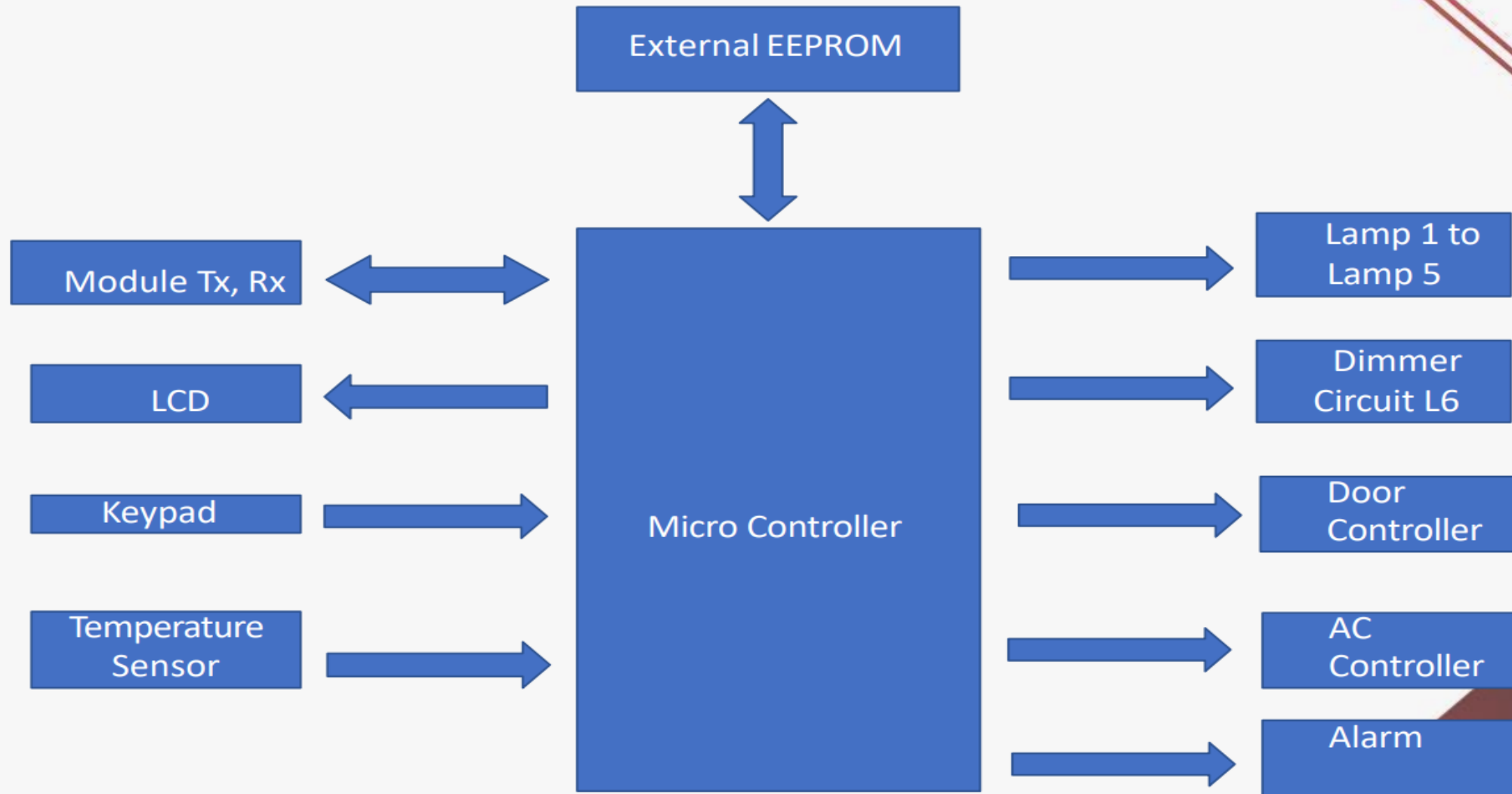
Abstract

- The technology development is paving way for the automation to be made to the existing machines. Things get connected with each other over Internet that reduces human workload. The home is built with electrical devices for comfortable living style. But, the devices are operated manually in the home. The devices are in running state even users left the home with unaware of the electrical devices status. Hence, users should come back to the home to stop the devices. It leads to wastage of human energy, electrical energy and devices life time. This project is proposed to implement the smart home automation that controls the devices such as fan, lamp and motor from remote location over the network. The experiments have been conducted to implement the automation using home gateway where it acts as and operates the devices using web, android applications through smartphone, laptop. This work is proposed to reduce human workload and reduce the electricity consumption. Keyword: smart home, internet, Home automation, connected home

Circuit

SMART HOME SYSTEM

Micro Controller

Objectives

Measure: the consumption of utilities

Authentication: System to identify each user

Access :from mobile app through Internet

Actions : against devices through the mobile app

Plans :and suggestions to reduce the consumption

Notifications: for warnings and important events

Tools

o Hardware Tools

o Software Tools

oHardware Tools

❏Simulation

❏Proteus

oSoftware Tools

☐Eclipse

☐GitHub

✓ Thank you for your attention

Any Questions?