**Flyers**

*One is about research project - thermal comfort, smart grid, secure communications*

*Other is about the product - features of the smart home*

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***First page***

PHOTO

*A project done by Yildiz Technical university in cooperation with Parkyeri about a smart home where you control everything with one touch and make your home more efficient, convenient and comfortable.*

Logo

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***Second page***

Smart home, smarter owner

A *smart home* is a home that has highly advanced, automated systems to control and monitor any function of a house—lighting, temperature control, multi-media, security, window and door operations, air quality, or any other task of necessity or comfort performed by a home's resident.

It provides its home owners comfort, security, energy efficiency and convenience at all times, regardless of whether anyone is home.

The appeal of the smart home is that it enables owners to remotely control parts of the home and configure time schedules for smart home-enabled devices to help control costs and be more energy-efficient, while providing added convenience and potential time savings.

Features of smart home:

* efficient usage of energy
* smart lighting system controlled via app
* motion sensor in each room and reports about movement of people
* Fingerprint sensors for entering house
* talking to the house to do different tasks
* smart curtains adjusting to the sun light
* thermoregulation connected to AC

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**Research brochure**

***First page:***

Photo

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*(title)* AKEV

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*(short about)* AKEV is a home application designed for making yourhouse more efficient, comfortable, secure and came as a result of cooperation between Yildiz Technical university and Parkyeri.

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***Second page:***

The project aims to maximize human comfort by regulating not only air temperature but also radiation and humidity values. It has a more efficient use of energy sources in smart buildings, prevents unnecessary energy use and manages the needed energy. The aim is to ensure optimum cost.

***Smart grid***

Smart grid is a two-way dialogue where information and electricity can be exchanged between utility and its consumers. In this case technology will work with electric grid to respond digitally. Smart home has all the embodies all the pros that a smart grid offers, like:

* Most efficient transmission of energy,
* Quicker restoration of electricity.
* Lower electricity rates.
* Improved security.
* Sustainability

***Smart plug***

Designed to make homes more dynamic and functional. Smart plug products give users intelligent control over all of their home electronics.

One of the most important features of smart plugs is energy consumption tracking and efficient use of electric energy to cut the cost for the home owner, everything connected to your smartphone.

***Thermal comfort***

Thermal comfort expresses satisfaction with the thermal environment and is assessed by subjective evaluation.

Things that influence thermal comfort are: air temperature, air velocity, radiant temperature (the temperature of a person’s surroundings), relative humidity

In our research, we examined all the possible outcomes that can affect the thermal comfort of a person and found the best measure to completely fulfill the conditions.

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**NOT IN THE FLYER**

Within this project, the sensors and actuators that use the following functions will be used:

- Can be plugged into every electrical outlet and key, can measure electricity consumption and manage usage

- Valve to control the water flow to the radiators,

- Sensors to measure indoor and outdoor temperature and radiation

- Combine to install and manage the combination

- Wired or wireless / infrared communication devices with air conditioners

- Sensors to detect rooms where people are present and mobile application detection

Software required:

1. Communication of the control unit with the devices

2. Measuring energy consumption of devices according to time

2 things to come from mobile app: user location and

4. the forecasting model software will work in the control unit

- ensuring that the household combination is switched on and off

- adjusting the temperature of the combination

- ensuring that the air conditioning in the house is switched on and off

- ensuring that white goods at home are turned on and off

- ensuring that the curtains in the house are opened and closed

- ensuring that small household appliances are turned on and off

Some of the innovative features of the project are:

1- Heating and cooling, beyond the thermostat, which operates only with air temperature in conventional systems, measurement and control of radiation. It works to maximize comfort.

2- Using device-based historical consumption data where it is possible to estimate the future energy demand in minutes. It can plan the working time and time of the feeders and devices

3 - The sensor and actuator that can be used for intelligent home are not limited to just one protocol, but different protocols can be used as simultaneously.

AKEV

Research aspects of the project

* Innovative features of project
* smart plug
* smart grid
* thermal comfort

*Names brainstorming:*

housesmart

**CleverCompanion**

ESHA

**IntelHome**

**HomeIN**

Smart dwelling

ProHouse

ProHome

ProHouseAssistant - PHA  
HousePro

ParkHome

ParkHouse

YeriHouse

YeriHome

CleverFeel

**SmartFeel**

SmartEx(patience)

**HomEF**

ParkyeriHomeEF

Parkyeri EF Home

smarEFhome

efsmarhome

parkyeri home

home for all

be smart choose a smart home

**smart owner smart home**

**smart owner smarter home**

**smart home smarter owner**

smart home smart decision

be smart choose parker smart home invention

**EF Home - efficient for all**

be efficient choose EF Home

Some of the advantages of smart plugs in our Smart home are:

* **Save**: Save time and power
* **Easy**: Manage your home electronics anywhere / anytime
* **Smart**: Control your appliances from your smartphone or tablet