



Intelligent Home System-Control by PIC



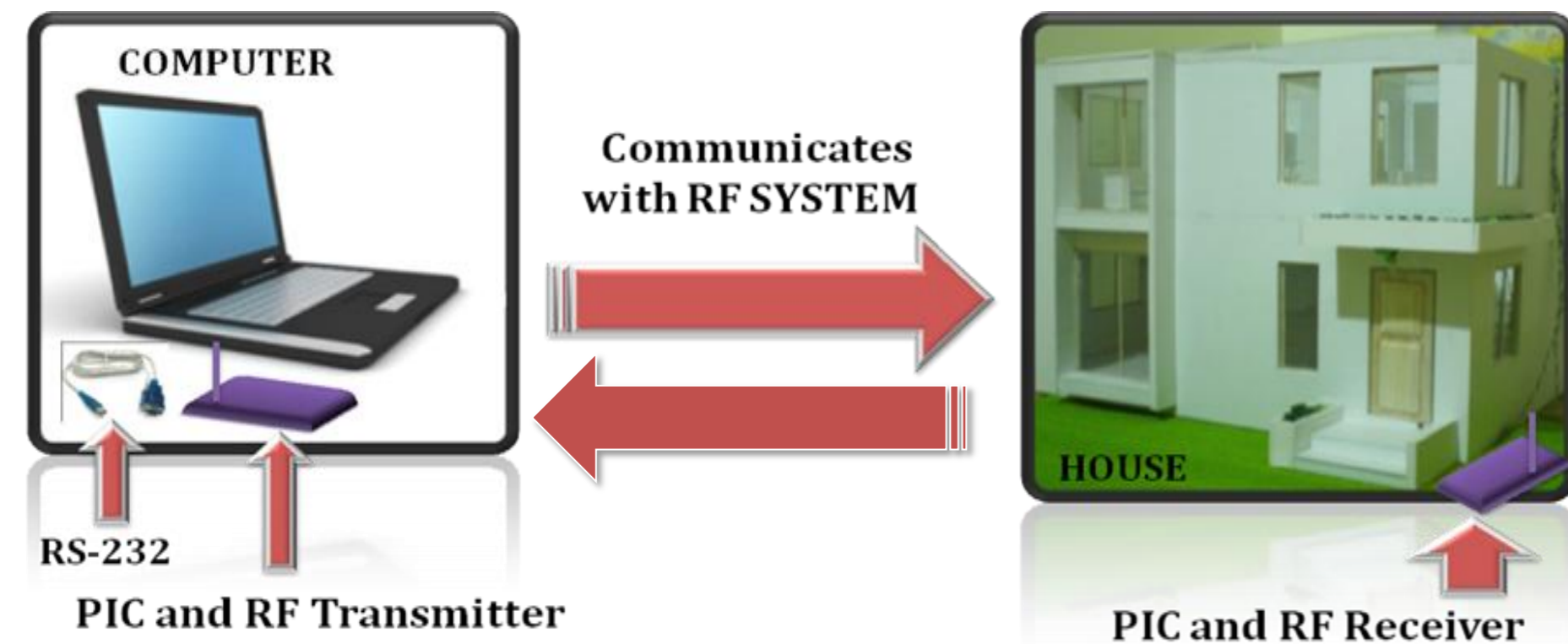
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Abstract

In this project basic systems (lighting, electronic household equipments, entrance door and alarm system) which are used in home was controlled by PIC. A small house prototype was designed and proper control element PIC controlled the home system. The electronic systems of house was controlled by two PICs with RF communication of each other. One of them was taken the information from Visual Basic via RS-232, the other one will take the information from first PIC via RF then transmits the information to the electronic systems of house.

Flowchart



Which equipments to be controlled by remotely



Oven

Air Conditioner

Lamps



Entrance Door

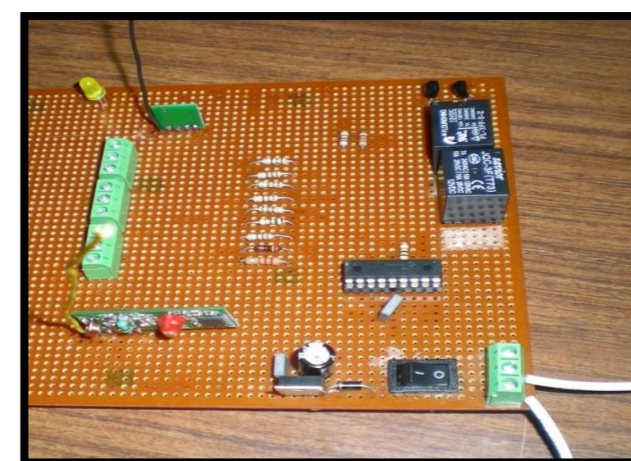
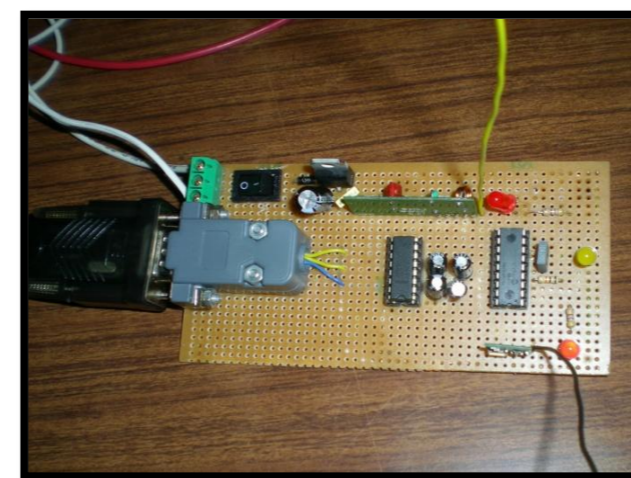


Alarm System

Aim Of The Project

- Remote controlled house makes an easier life for people.
- To give comfort to them
- To provide energy saving and
- To increase safety

The Transmitter and Receiver Circuit



Main Components

- Computer
- PIC Microcontroller
- RS-232
- RF System
- LEDs and Lamps
- DC Motor for door
- The Prototype House

Project Development

- First Phase : Prototyping
- Second Phase : Implementation

Conclusion

The system provide home owner a smart environment where he or she can observe PC monitor and has a complete control over the household functions, access, security, automation, energy savings which also incorporates.

Acknowledgement

I would like to thank to my supervisor, Dr. Sema KOÇ, for her valuable contributions and guidance throughout the project. I would also like to thanks to my friend Özgür YILDIZ for supports.

References

- Yavuz EROL, Hasan H. BALIK, Serkan INAL and Duygu KARABULUT Safe and Secure PIC Based Remote Control
- Mohammad Syuhaimi Ab-Rahman, Aswir Premadi and Kasmiran Jumari "Remote Monitor and Control based Access Control System using PIC Microcontroller
- <http://www.kontrolkalemi.com>
- Jeffrey, K. Visual Basic .NET: A Beginner's Guide. McGraw