**CHAPTER-4**

**CONCLUSIONS AND FURTHER EXTENSIONS**

**4.1. Conclusion**

In conclusion, our project is not great but in real life we hope to get a lot of helpful. The project has purposed the ideas of smart homes that can support a lot of home automation systems. A smart home contains a connection between wireless communication, sensors, monitoring and tracking. Smart homes are a huge system that include multiple technologies and applications that can be used to provide security and control of the home easily.

This project discussed the designed modules like sensors’ circuits, monitoring and tracking of the home through the internet with phones, tablets, laptops and PCs.

In this project, an efficient approach for smart homes was proposed and implemented. Arduino programming language and Arduino micro-controller have been used to connect the sensors circuit to the internet and to control from the website.

A series of experiments have been carried out on the proposed smart home. These experiments show how to detect motion, smoke, light, temperature and fingerprint. Also how to detect any intruder to the home, detect and watching the temperature of any room and how to secure the home through a fingerprint. In addition, this project illustrates the way to monitoring and tracking the home through sensors and the way to send data to the homeowner about the actions in the home to measuring the temperature in all rooms and detect any fire happens and to detect any motion in the home by using IR sensors. Central control for the entire home has been designed using three micro-controller system designs. These designs were for access control to the home, temperature validation, and control board system to connect all the security and control circuits together.