



INFORMATION TECHNOLOGY INSTITUTE

Embedded Systems Intake 40 Fire Alarm System

Group 2

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Abstract

Fire Alarm system with temperature sensor and Java made application that turn on an alarm and plays an audio file as alert when sensing high temperature.

The main features of this system are:

- We use java as the main software for the application.
- Pc based processing.
- Arduino based signal processing and encoding.

Description

This project consist of hardware and software, the hardware is temperature sensor that senses high temperature, the software is Desktop application, frame based, shows the Fire Alarm GUI with a warning message, playing an audio file as alert when sensing high temperature. Soft button is needed to stop the alarm.

HARDWARE AND SOFTWARE REQUIREMENTS

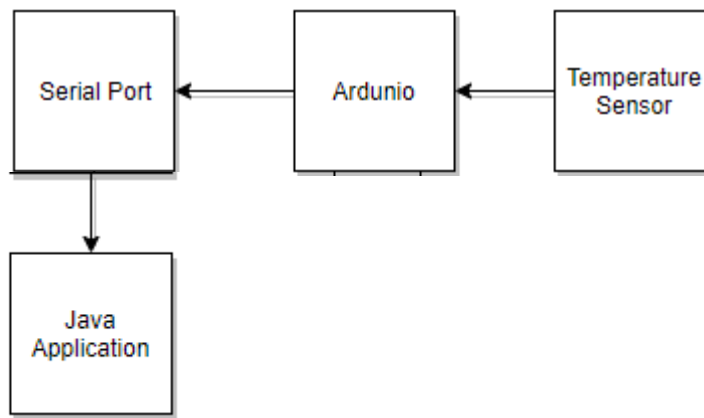
HARDWARE REQUIREMENTS:

- Arduino
- DHT11

SOFTWARE REQUIREMENTS:

- Operating System: Windows.
- Platform: jdk1.8.
- Language Used : Java

Block Diagram



Conclusion

Thus the Project entitled “JAVA BASED FIRE ALARM SYSTEM” was successfully completed. All the modules were tested separately and put together to form the main system. Finally the system was tested with real data and everything worked successfully. Thus the system has fulfilled the entire objective identified. The entire system is user friendly. The performance of the system is proved to be efficient. The system was tested with and was found to have an effective planning of the functions or process with a high degree of accuracy and user friendliness.

This project helps in providing alerts in short intervals of time. This time interval can be extended as needed in the future. There can be many future enhancements made like sending alert to multiple applications.