

INDOOR AND OUTDOOR AIR QUALITY MONITORING SYSTEM USING IOT

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ABSTRACT

Along with development of industries there seem a rapid increase in different kinds of pollution caused by it. Among them pollution of air is major problem which is directly related to human health. Several studies exposed the importance of micro-level pollution information, including human personal exposure and acute exposure to air pollution. The quality of air is vital for human beings for maintaining good health. So, for healthy and better life it is very important to keep track of air quality.

In this project, we are designing a system which will monitor the air quality in indoor and outdoor places like home, communities, hospitals, schools etc. using technologies and concepts of IOT.

Project Status:

Till now we have gathered the required hardware for the project and tried to assemble them. Also, created a GUI for displaying the collected information using the help of tools in IOTGecko.com.

Hardware Requirements:

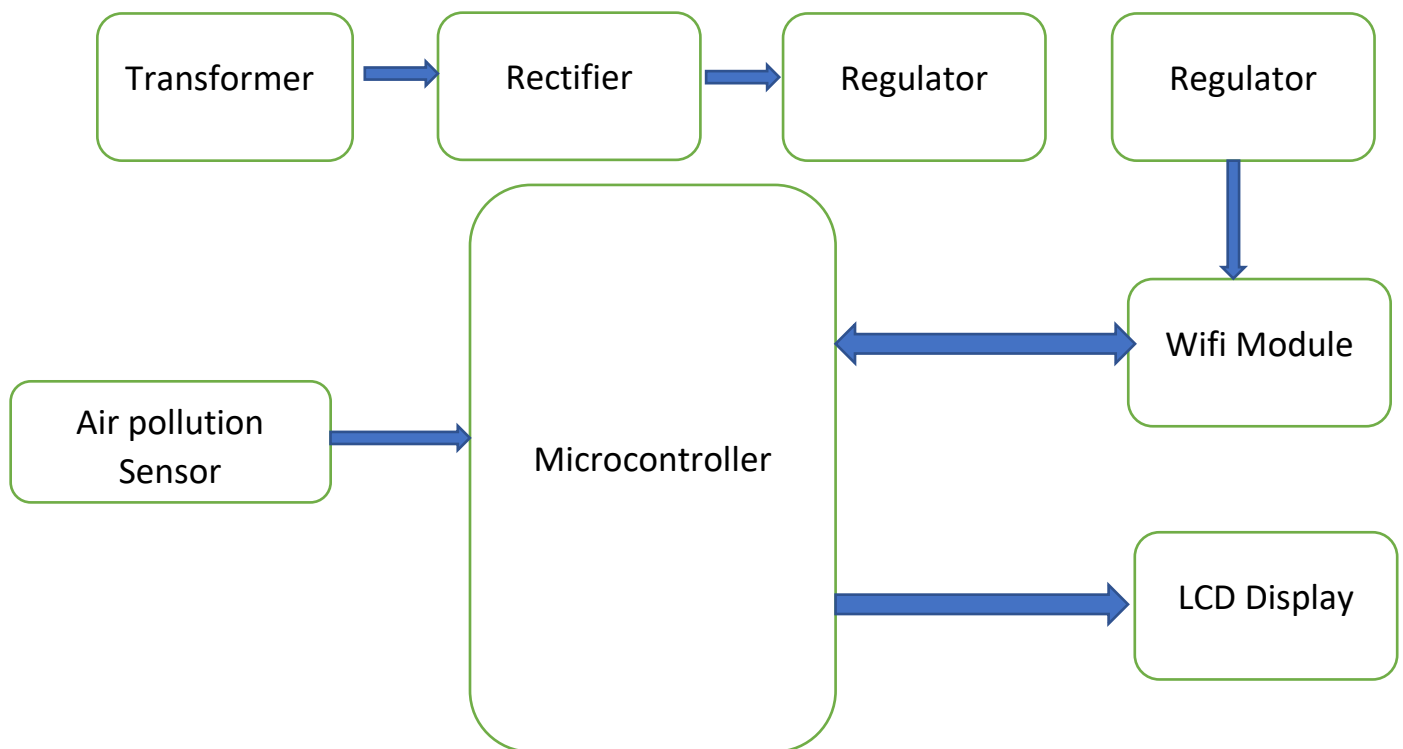
- Air pollution sensor
- Microcontroller
- Wifi modem
- LCD display

- LED's
- Transformer
- Resistor
- Capacitor
- Diodes

Software requirements:

- Arduino Compiler
- MC Programming language: C

Block diagram for assembling the gathered hardware:



We use air sensors to capture the amount of hazardous gases present in the air and this data is channeled to microcontroller which is transmitted over internet. If the level of pollutants is higher than the desired level, then a message is sent to the concerned persons/ authorities. When used indoors the system will measure the

impurities of the air and when the level is higher than the certain level then it notifies the user. If there is any gas leakage in the house and the user is unaware of that situation the system alerts the user by sending a message.