

Implementation of wireless sensors network for Wild Fire monitoring system

<https://www.youtube.com/watch?v=cV6YOCsVI3Q>

This project aims in detection of occurrence of fire in forests. Fire detection should be taken place in right time to avoid damage for large amounts of natural resources. Our project succeeds in detecting the occurrence of the fire along with the exact location in which it is occurred without any delay and provides the same to a control station, so that they act immediately with the necessary actions.

The whole controller of the project is PIC microcontroller. Here, components like temperature sensor, flame sensor, gas sensor, Wi-Fi module are interfaced to microcontroller. Fire sensor is used to detect the flame, The microcontroller is responsible for receiving the information sent by fire, temperature and smoke sensors and when it receives information for presence of fire it, then data is monitored in Android mobile through Wi-Fi module. If fire is occurred temperature is increased and smoke value also increases then we can also know with these sensors that fire is detected.

Features:

1. Remote monitoring of forest fire.
2. Wireless transmission of fire occurrence.
3. Data logging is using IOT.
4. High sensitivity.

The major building blocks of the project:

1. Microcontroller
2. Fire sensor
3. Temperature sensor

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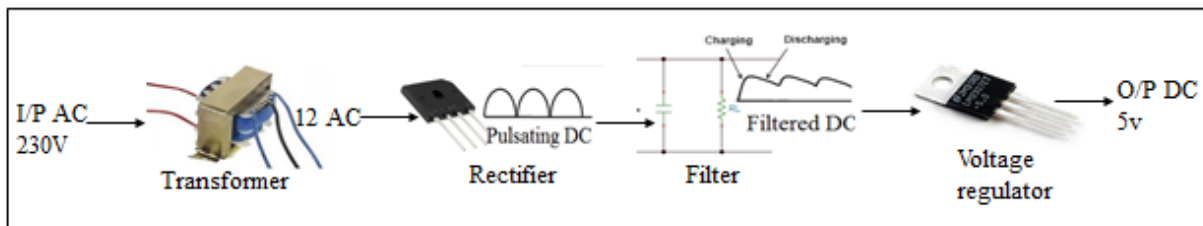
Ameerpet: #A-7, 2nd floor, Eureka court, Above KS bakers, Ameerpet, Hyderabad – 73.

4. Smoke sensor
5. Wi-Fi module
6. Reset button
7. Crystal oscillator
8. LED indicator

Software's used:

1. PIC-C compiler for Embedded C programming.
2. PIC kit 2 programmer for dumping code into Micro controller.
3. Express SCH for Circuit design.

Regulated power supply:



Block Diagram:

