

New Era of Technology

IOT ON FIRE ALERTING SYSTEM



INTRO- DUCTION

"Every second matters when a fire breaks out!
How can technology make response times faster?"

- **IoT Fire Alerting System using Arduino & SIM900A,"** is an innovative fire detection system designed to provide real-time alerts when a fire is detected. Unlike traditional fire alarms that only sound within a building, our system sends SMS alerts and makes phone calls to emergency contacts, ensuring immediate response.
- It is built using affordable and widely available components, including an Arduino Uno, a Flame Sensor, and a SIM900A GSM Module, making it cost-effective, scalable, and independent of internet connectivity.
- By providing instant remote alerts, our project can help reduce fire damage, save lives, and improve emergency response times in homes, offices, and industries.



WHAT MAKES OUR PROJECT UNIQUE?

Comparison: Existing Solutions vs. Our System

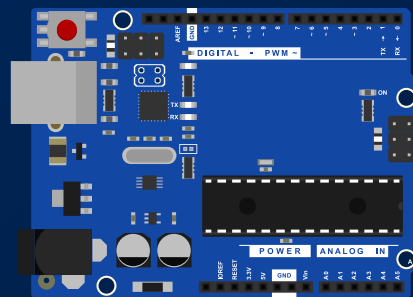
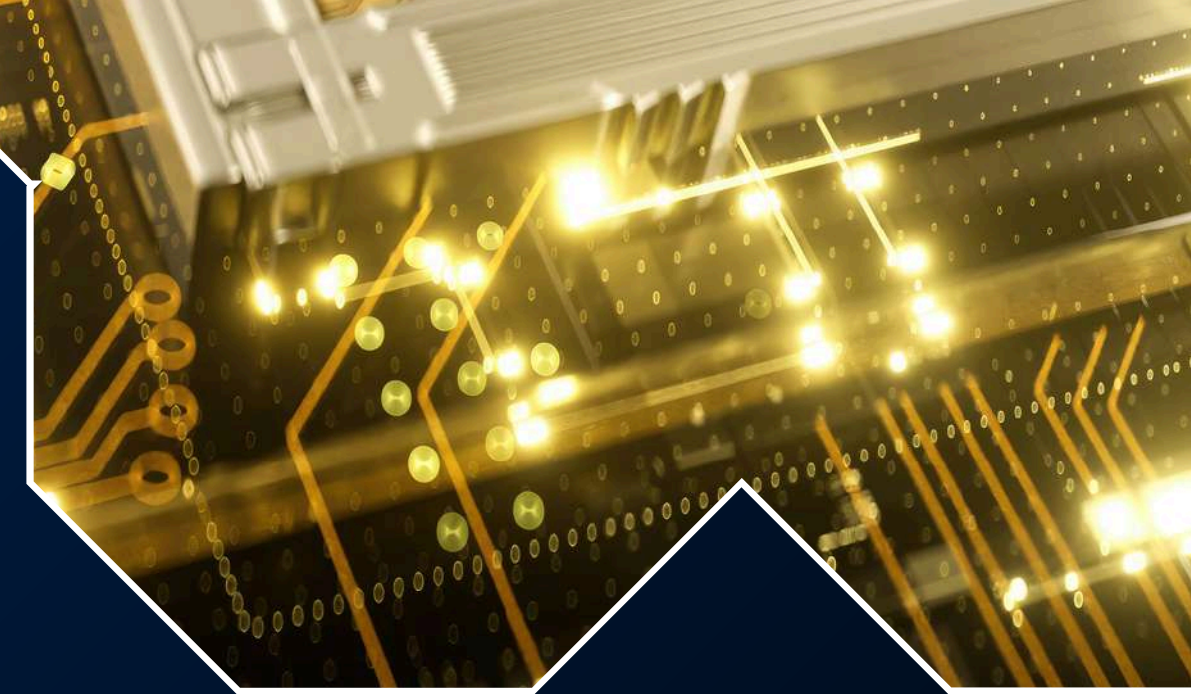


- Traditional alarms: Only local alerts .
- Our system: Remote alerts via SMS & Phone Call
- Key Differentiators:
 - Real-time detection (Immediate response)
 - Phone Call Alerts (Ensures attention even if SMS is missed)
 - Cost-effective (Affordable components)
 - No Internet Dependency (Works anywhere GSM is available)
 - Scalable (Can be expanded for industrial, residential, or rural areas)



SYSTEM COMPONENTS

The Tech Behind It



ARDUINO UNO

THE BRAIN

This is the central controller of our system. It processes the sensor input and decides what actions to take.



SIM900A GSM MODULE

THE MESSENGER

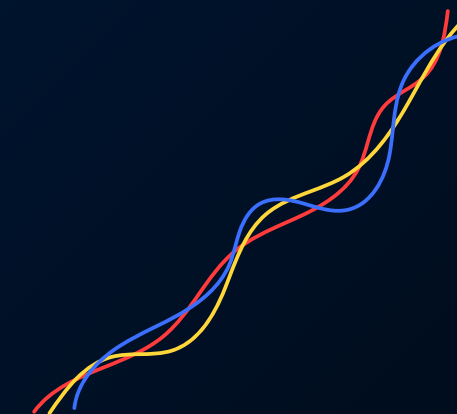
This module is responsible for sending SMS alerts and making phone calls to ensure the fire warning reaches the right people instantly.



FLAME SENSOR

THE DETECTOR

This small but powerful sensor detects fire by sensing infrared radiation from flames. Once fire is detected, it sends a signal to the Arduino.



POWER SUPPLY, JUMPER WIRES

THE CONNECTORS

These ensure all components are connected properly and powered efficiently.

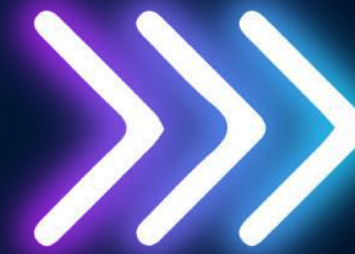
HOW IT WORKS?



Fire detected by
Flame Sensor



Sensor sends
data to Arduino



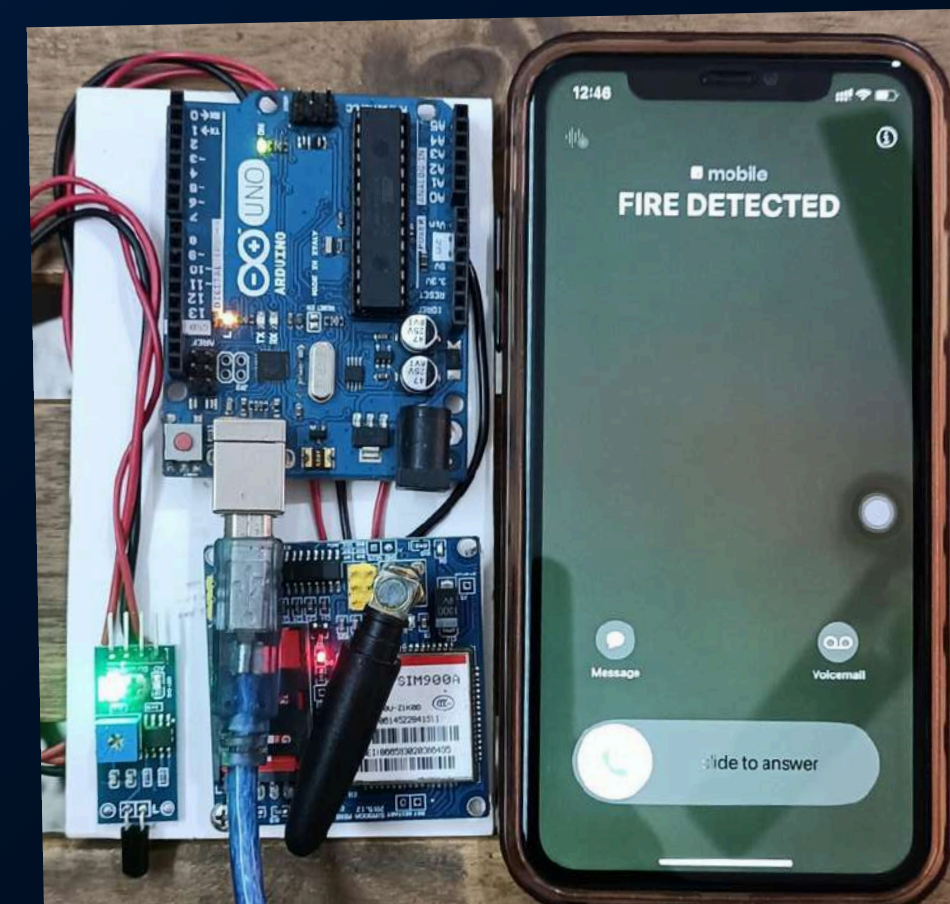
Arduino processes the
signal and Triggers
SIM900A GSM Module



SIM900A sends an
SMS alert and makes
a phone call



UNIQUE WORKING DEMONSTRATION





"Early detection saves lives!"

Our system is smart, fast, and accessible, ensuring instant fire alerts via SMS and phone calls for quick action anytime, anywhere—no internet needed!

With minimal setup and maximum impact, we're making fire safety smarter and more efficient than ever.

"Prevention is better than cure!"

THANK YOU!

