Fire Fighting Robotic Vehicle

Abstract:

- This project introduces a robotic vehicle designed for fire-fighting applications, featuring autonomous navigation and firefighting capabilities.

- The objective is to develop a versatile and efficient robotic platform capable of detecting and extinguishing fires in hazardous environments.

- The robotic vehicle integrates various sensors, including infrared (IR) sensors for fire detection, ultrasonic sensors for obstacle avoidance, and temperature sensors for environment monitoring.

- A microcontroller unit (MCU) serves as the brain of the robot, processing sensor data and controlling actuators for movement and firefighting operations.

- The project aims to address challenges associated with traditional firefighting methods by introducing a robotic solution capable of entering hazardous areas autonomously and performing firefighting tasks efficiently.