

## **Abstract.**

Despite being a valuable tool to the mankind, fire has always been a source of destruction, mainly due to the misuse of it, and the lack of safety precautions. Fire accidents have caused an uncountable amount of property damage and life losses throughout the history. Even today, a fire accident is never off the cards.

This safety concern has pushed the mankind to pursue for innovations and investments on technologies that can protect them from fire damages. A firefighting robot is such innovation that takes safety measures to the next level.

This report presents the designing of a robot that can be highly useful during a fire accident. It presents an intelligent robot that can sense the presence of a fire in its area and can move towards it and extinguish completely without the human intervention. While a study of different methods and components that can be used for this project is mentioned, the most suitable of them are chosen to proceed.

**Keywords:** Fire, firefighting robot, extinguish, sense