

# Fire Detection with Image Processing using Live Camera

**Rushikesh Bhujbal<sup>1</sup>, Rushikesh Shinde<sup>2</sup>, Pappu Talwar<sup>3</sup>, Akshay Raykar<sup>4</sup>, Prof. Shailesh Bendale<sup>5</sup>**

Students, Department of Computer Engineering<sup>1,2,3,4</sup>

Faculty, Department of Computer Engineering<sup>5</sup>

NBN Sinhgad School of Engineering, Pune, Maharashtra, India

Savitribai Phule Pune University, Pune, Maharashtra, India

**Abstract:** *People's safety and property can only be saved if the fire alarm signal is precisely detected and identified as early as possible in the fire, which is a terrible catastrophe for the security of people's lives and properties. Fire detection accuracy and validity are degraded as a result of growing ambiguity in the fire signal. – An algorithm for the detection of one dimensional fire space is provided to demonstrate the suggested method's fine fault tolerance, robustness, and accuracy in a novel technique for detecting uncertainty fire signals based on fire scenarios. First, an analysis of fire scenario performance yields a fractal character for the fire space, and then an intelligent method based on rough set theory and trend integration is used to process the multi-source signal obtained from a group of fire detectors. When a relationship between the two characters is recognised as being logically coincident, an actual alarm for a fire is triggered.*

**Keywords:** Fire Detection, Camera.

## REFERENCES

- [1]. Research on Image Fire Detection Based on Support Vector Machine Ke Chen ,Chunjie Mou ,Yanying Cheng ,Yuchun Zhang ,Hui Bai
- [2]. Using Popular Object Detection Methods for Real Time Forest Fire Detection Shixiao Wu
- [3]. An Improved Multi-Scale Fire Detection Method Based On Convolutional Neural Network .Huang Hongyu, Kuang Ping, Li Fan, Shi Huaxin
- [4]. Prototype of Fire Symptom Detection System .Oxxy Giandi
- [5]. Design and experimental research of video detection system for ship fire