

Group 6
Mini Project

Problem statement title:

AI-ML based intelligent de-smoking/de-hazing algorithm

Title breakdown:

* Intelligent de-smoking/de-hazing algorithm

↓ For reproducing

* Real-time video

↓ of

* Area under fire

Specifically → Indoor fire hazards

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Aim: To aid rescue operation

Input, Process, Output:

Device with camera (pc, laptop, smart phone)



For real-time monitoring input

Process

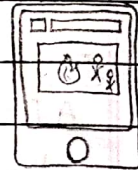
Image processing techniques

- Contrast enhancement
- Histogram equalization
- Median filtering
- Gaussian filtering

In OpenCV

For de-smoking/de-hazing

Web page for real-time monitoring output



For access to fire department for ease in rescue

De-smoking/de-hazing system

Input device

- Smartphone, PC, laptop, tablet
- Kept stationary at a place for real-time video capturing
- Indoor place

Algorithm

- Performs video processing
- Implemented at backend

Output web page

- Accessible by fire department officials
- In the form of web page portal
- Desmoked & dehazed video visible

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Technology stack:

Frontend: HTML, CSS, JavaScript, Bootstrap

Backend: Flask, Django

Processing: OpenCV in Python

Work split:

Frontend → Priya, Anshul

Backend → Shrutika

Algorithm → Sumit