

# HUMAN LIFE DETECTION DURING FIRE

A PROJECT REPORT

*Submitted by,*

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*Under the guidance of,*

**Ms. MONISHA GUPTA**

*in partial fulfillment for the award of the degree of*

**BACHELOR OF TECHNOLOGY**

IN

**INFORMATION SCIENCE AND TECHNOLOGY  
(Artificial Intelligence and Data Science)**

At



**PRESIDENCY UNIVERSITY**

**BENGALURU**

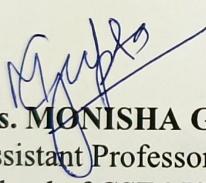
**JANUARY 2025**

# PRESIDENCY UNIVERSITY

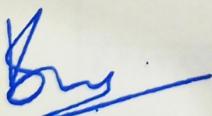
## SCHOOL OF COMPUTER SCIENCE ENGINEERING

### CERTIFICATE

This is to certify that the Project report "**HUMAN LIFE DETECTION DURING FIRE**" being submitted by "**SUNKU SAI YASWANTH, GAJALA AKHILA, K PAVAN KUMAR**" bearing roll number(s) "**20211ISD0007, 20211ISD0015, 20211ISD0027**" in partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in Information Science and Technology (Artificial Intelligence and Data Science)** is a bonafide work carried out under my supervision.

  
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**PRESIDENCY UNIVERSITY**  
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**DECLARATION**

We hereby declare that the work, which is being presented in the project report entitled **HUMAN DETECTION DURING FIRE** in partial fulfillment for the award of Degree of **Bachelor of Technology in Information Science and Technology (Artificial Intelligence and Data Science)**, is a record of our own investigations carried under the guidance of **Ms. MONISHA GUPTA, Assistant Professor, School of Computer Science Engineering & Information Science, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

Name(s)	Roll No(s)	Signature(s)
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## **ABSTRACT**

This project focuses on the development and evaluation of a robust detection system for identifying humans, fire, and smoke in real-time using advanced deep learning algorithms YOLOv8 and YOLOv9. Leveraging a dataset from Roboflow that contains a variety of images featuring these elements, we aim to implement a model that accurately detects and classifies the presence of humans, fire, and smoke in uploaded images and live camera feeds. The system will be developed in Python using Google Colab as the integrated development environment. By employing the capabilities of YOLOv8 and YOLOv9, we will compare their performance in terms of accuracy, speed, and robustness in various detection scenarios. The model will be capable of processing images from a laptop camera, although we acknowledge potential limitations due to the camera's resolution and clarity, which may affect detection accuracy. The expected outcome is a functional application that provides real-time alerts and visual feedback when fire, smoke, or human presence is detected, enhancing safety and response measures in critical situations. This project aims to contribute to the growing field of computer vision and its applications in safety and security systems.