**Title of Project:** MODERN FIRE DETECTION SYSTEM

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**PROGRESS REPORT**

**Project Objective:**

Detection of forest fire using advanced sensors and cameras. Along with that It also aims to reduce human efforts by using artificial intelligence like image classification algorithm.

**Project planning:**

Considering a real-world scenario, the forest will be divided into some number of sections. Then revolving cameras and fire detection sensors will be installed in each section. All real time data will be collected and stored in hard drive. A fire detection algorithm will be developed. Then a model is created. It is trained with training dataset and tested with testing dataset. After the model is tested fine, it is deployed for real time application. The resultant dataset form the model will be transferred to Arduino. According to that data Arduino will blow the buzzer. As we have already divided the forest into sections, it will be easier to get the exact location of fire.

**Status of work completed:**

The data required for our project has been scarped from various sources like Kaggle, UCI Machine Learning Repository etc. Now the algorithm for digital image processing is in development stage. About 20% to 30% work is completed. In coming months if there will not be any lock down then we will present a hardware prototype of our project otherwise we will present a simulation using MATLAB or Proteus.

**Keywords:**

Machine Learning, Classification, Image Processing, Fire Detection, Arduino

**References:**

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Signature of Supervisor Signature of Students