

# Emerging Methods for Early Detection of Forest Fires

## PROJECT FLOW

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Project Name	Emerging Methods for Early Detection of Forest Fires

### PROJECT FLOW:

- The user interacts with a web camera to read the video.
- Once the input image from the video frame is sent to the model, if the fire is detected it is showcased on the console, and alerting sound will be generated and an alert message will be sent to the Authorities.

**To accomplish this, we have to complete all the activities and tasks listed below**

- Data Collection.
- Collect the dataset or create the dataset.
- Image Preprocessing.
- Import Image Data Generator Library.
- Define the parameters /arguments for Image Data Generator class
- Applying Image Data Generator on trainset and test set.
- Model Building
- Import the model building Libraries
- Initializing the model
- Adding CNN Layers
- Adding Hidden Layer
- Adding Output Layer
- Configure the Learning Process
- Training and testing the model
- Optimize the Model
- Save the Model
- Video Streaming and alerting
- OpenCV for video processing • Creating an account in Twilio service
- Use Twilio API to send messages.