

# Emerging methods for early detection of forest fire

## PROJECT FLOW

Team ID	PNT2022TMID34027
Project Name	Emerging methods for Early detection of forest fire

### 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.
- **Image Preprocessing.**  
Import ImageDataGenerator Library.  
Define the parameters /arguments for ImageDataGenerator class  
Applying ImageDataGenerator on trainset and test set.
- **Model Building**  
Import the model building Libraries  
Initializing the model  
Adding CNN Layers  
Adding Dense Layer  
Configure the Learning Process  
Training and testing the model  
Save the Model  
Prediction
- **Video analysis**  
OpenCV for video processing  
Creating an account in Twilio service  
Use Twilio API to send messages.