EARLY DETECTION OF FOREST FIRE USING DEEP LEARNING

PROJECT FLOW

Team ID	PNT2022TMID30386
Project Name	Project-Early detection of forest fire using deep learning

PROJECT FLOW:

- The user interacts with a web camera to read thevideo.
- Oncetheinputimagefromthevideoframeissenttothemodel,ifthefireisdetectedit isshowcasedontheconsole,andalertingsoundwillbegeneratedandanalertmessage will be sent to theAuthorities.

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

- DataCollection.
  - Collect the dataset or create thedataset.
- ImagePreprocessing.
  - Import ImageDataGeneratorLibrary.
  - Define the parameters /arguments for ImageDataGeneratorclass
  - Applying ImageDataGenerator on trainset and test set.
- Model Building
  - Import the model buildingLibraries
  - Initializing themodel
  - Adding CNNLayers
  - Adding HiddenLayer
  - Adding OutputLayer
  - Configure the LearningProcess
  - Training and testing the model
  - Optimize theModel
  - Save theModel
- Video Streaming andalerting
  - OpenCV for videoprocessing
  - Creating an account in Twilioservice
  - Use Twilio API to sendmessages.