EARLY DETECTION OF FOREST FIRE USING DEEP LEARNING

PROJECT FLOW

Team ID	PNT2022TMID12327
Project Name	Project-Early detection of forest fire using deep learning

PROJECT FLOW:

The input image from the video frame is provided to the model, and if the fire is identified it is exhibited on the console, an alerting sound will be made, and an alert message will be sent to the authorities. The user interacts with a web camera to read the video.

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 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 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.