EARLY DETECTION OF FOREST FIRE USING DEEP LEARNING

PRE - REQUISITES

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

Pre-Requisites:

To complete this project you should have the following software and packages

Anaconda Navigator:

For applications relating to data science and machine learning, Anaconda Navigator is a free and open-source distribution of the Python and R programming languages. It can be set up on Linux, macOS, and Windows. A cross-platform, open-source package management system is called Conda. JupyterLab, Jupyter Notebook, QtConsole, Spyder, Glueviz, Orange, Rstudio, and Visual Studio Code are just a few of the excellent tools that come with Anaconda. Jupiter notebook and Spyder will be the tools we use for this project.

You need the following packages in order to develop deep learning models.
To build Deep learning models you must require the following packages

Tensor flow: A complete open-source machine learning platform is called TensorFlow. Researchers can advance the state-of-the-art in machine learning thanks to its extensive, adaptable ecosystem of tools, libraries, and community resources, while developers can simply create and deploy ML-powered applications.

Keras: In order to simplify and improve the performance of high-level neural network API, Keras makes use of a variety of optimization approaches. The following functionalities are supported by it:

- An expandable, straightforward, consistent API.
- Simple structure that makes it simple to obtain the desired effect.
- It works with a variety of platforms and backends.
- It is an easy-to-use framework that utilises both the CPU and GPU.
- Extremely scalable computation.

Open cv: OpenCV is a library of programming functions mainly aimed at real-time computer vision

- Type “pip install numpy” and click enter.
- Type “pip install pandas” and click enter.
- Type “pip install matplotlib” and click enter.
- Type “pip install scikit-learn” and click enter.
- Type "pip install tensorflow==1.14.0” and click enter.
- Type "pip install keras=2.2.4” and click enter.
- Type "pip install opencv-python” and click enter.
- Type “pip install Flask” and click enter.