

Emerging Methods for Early Detection of Forest Fires

TEAM ID: PNT2022TMID53546

Model Building

Training The Model:

At this point, we have training data and a fully configured neural network to train. All that is left is to pass the data to the model for the training process to commence, a process that is completed by iterating on the training data. Training begins by calling the `fit()` method.

The arguments are the batch size as you are using “adam” (both gradient descent and epochs: no: of times the model should get trained).

```
In [ ]: #Training the model
        model.fit_generator(x_train, steps_per_epoch=14,
                           epochs=10, validation_data=x_test,
                           validation_steps=4)
```

- `steps_per_epoch`: It specifies the total number of steps taken from the generator as soon as one epoch is finished and the next epoch has started. We can calculate the value of `steps_per_epoch` as the total number of samples in your training folder divided by the batch size.
- `Epochs`: an integer and number of epochs we want to train our model for.
- `Validation_data` can be either input and targets list generator inputs, targets, and `sample_weights` list which can be used to evaluate.

The loss and metrics for any model after any epoch has ended.

- `Validation_steps`:

Only if the `validation_data` is a generator then only this argument can be used. It specifies the total number of steps taken from the generator before it is stopped at every epoch and its value is calculated as the total number of validation data points in your dataset divided by the validation batch size.