LITERATURE SURVEY ON THE SELECTED PROJECT & INFORMATION GATHERING

[1]ARTIFICIAL INTELLIGENCE FOR FOREST FIRE PREDICTION

The proposed method introduces a fire risk index on a scale of 1 to 4, where 1 corresponds to the lowest fire risk and 4 to the highest fire risk. This index corresponds to the potential number of fires that could occur on a specific day and hence can be used to estimate the actual number of fires on that day. In order to perform prediction, it is required to specify the parameters or features monitored during the day that are used in the prediction algorithm.

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ALGORITHM USED:

There are 5 different data mining algorithms used.

- multiple regression (MR)
- Decision Tree
- Random Forest
- Neural Networks
- Support Vector Machine

STEPS INVOLVED IN THIS SYSTEM:

1)Forecasting and trend analysis

2)Association rule mining for prediction of ongoing forest fire development

3)Pattern Detection for the sequence of fire events

4)Cluster analysis and identification of fire spots

CHALLENGES:

The results demonstrate the ability to predict forest fire risk with a limited amount of data.

[2]FOREST FIRES DETECTION USING MACHINE LEARNING TECHNIQUES

Machine learning models play a major role in the process of evaluation and prediction. Prediction is often done by using the available variables within the data set. Through the available variables within the data set, the machine learning models can make predictions for the long term.

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ALGORITHMS USED:

- Linear regression
- Support Vector Machine (SVM)
- Artificial Neural Networks (ANN)
- Decision trees

CHALLENGES:

- This research proposes three machine learning approaches, linear regression, ridge regression, and lasso regression algorithm with data set the size of 517 entries and 13 features for each row.
- This paper uses two versions, all features are included in the first, and 70% of the features were included in the second.
- The paper uses a training set that is 70% of the data set, and the test set is 30% of the data set which is very difficult to monitor.