Chapter 5   Rainfall Prediction Using Machine Learning

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Abstract

Rainfall prediction is one of the most important and challenging task in the modern world. This paper analyses the monthly rainfall data of various regions of India between the year1901-2015. Multiple linear regression is used for training and testing the model to predict the average rainfall using the previous months' data from the equivalent time period. Prediction is done month-wise according to the sub-division and compared with the actual value. In this paper, the prediction model basically deals with steps such as data acquisition, data cleaning, feature extraction, prediction.

Keywords: Multiple Linear Regression (MLR); Rainfall Prediction; Historical Data

1.   Introduction

In the current scenario forecasting the rainfall is measured to be an important and thought-provoker task, as it's closely associated with the agriculture, economy, and human life. Accuracy of a rainfall predicts has importance for countries like India whose economy majorly depends on agriculture. The rainfall prediction has to predict the state of the current weather conditions. The weather is dynamic in nature; statistical techniques are unsuccessful to provide thee decent accuracy of rainfall. Agriculture is the largest occupation in India, accounting for about 52% of