Electricity Price Prediction

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Introduction to Project :

Electricity price prediction project tells us about the future price of electricity which is very useful for industrial companies to know as electricity plays a vital role in their expenses. I have developed an application which can predict electricity prices for the future. Electricity prices depend on various factors which includes Wind Energy, Temperature, day of the month, season of the year etc. Knowing all these factors we can predict electricity prices by feeding all these values to get the desirable results.

Basic working of Project :

In this Project I have used machine learning using Python to develop the application. I have used the data set of Punjab State Power Power Corporation. I have used Pandas to read the data from a CSV file. In this Project necessary libraries have been used in order to forecast the price accurately. First task is to train an electricity price prediction model. So, I split the data into Training and testing. For training the model I have used the Random Forest Regression algorithm where we feed necessary data to get the desirable prediction (results).

Tools and Software used :

Python :- To develop the application using machine learning.
Pandas :- To read and write data from and to CSV files.
Matplot library :- Library is used to build graph which compares predicted prices compared to future variables like Year, Temperature, seasons, etc.
Sklearn library : - We use this library to split data into training dataset and test dataset.
H5Py :- This library is used to create HD5 file and write data into that file.

Summary :

Electricity price prediction model is very useful for the industries which use heavy machinery. It helps to predict the future electricity bills yearly and help them to know how much they have to pay for the electricity thus determining their financial costs. Knowing the various factors like season, temperature, Wind produced etc factors It would be feasible to predict the future prices of electricity.