Time Series Prediction of Agricultural Products Price Based on Time Alignment of Recurrent Neural Networks

Abstract

India being an agricultural country, its economy predominantly depends on agriculture yield growth and allied agro industry products. In India, agriculture is largely influenced by rainwater which is highly unpredictable. Agriculture growth also depends on diverse soil parameters, namely Nitrogen, Phosphorus, Potassium, Crop rotation, Soil moisture, Surface temperature and also on weather aspects which include temperature, rainfall, etc. India now is rapidly progressing towards technical development. Thus, technology will prove to be beneficial to agriculture which will increase crop productivity resulting in better yields to the farmer. The proposed project provides a solution for Smart Agriculture by monitoring the agricultural field which can assist the farmers in increasing productivity to a great extent. Weather forecast data obtained from IMD (Indian Metrological Department) such as temperature and rainfall and soil parameters repository gives insight into which crops are suitable to be cultivated in a particular area. This work presents a system, in form of an android based application, which uses data analytics techniques in order to predict the most profitable crop in the current weather and soil conditions. The proposed system will integrate the data obtained from repository, weather department and by applying machine learning algorithm: Multiple Linear Regression, a prediction of most suitable crops according to current environmental conditions is made. This provides a farmer with variety of options of crops that can be cultivated. Thus, the project develops a system by integrating data from various sources, data analytics, prediction analysis which can improve crop yield productivity and increase the profit margins of farmer helping them over a longer run.

SHIELD TECHNOLOGIES

SHIELD TECHNOLOGIES,
2232, 3RD FLOOR, 16TH B CROSS, YELAHANKA NEW TOWN, BANGALORE-64
Mail us: shieldtechnoblr@gmail.com / manager@shieldtechno.com
Contact: 9972364704 / 8073744810

SHIELD TECHNOLOGIES

SHIELD TECHNOLOGIES,
2232, 3RD FLOOR, 16TH B CROSS, YELAHANKA NEW TOWN, BANGALORE-64
Mail us: shieldtechnoblr@gmail.com / manager@shieldtechno.com
Contact: 9972364704 / 8073744810