

**BE Project Group No. : 32**

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## **Predicting Agricultural Produce Prices Using Deep Learning**

**Abstract:** One of the most pressing issues in India is the large number of farmer suicides. More than 11,000 Indian farmers committed suicide in 2016, according to the National Crime Records Bureau. The Indian government has been taking measures to solve this problem for several years. Government markets buy crops at the minimum support prices but only a minimum quota. As a result, the farmers end up selling their crops to third-party vendors that don't guarantee minimum support prices, and the farmers don't make a profit. We propose a deep learning model that can estimate the price of a certain crop at a certain market in India. The price predicted by the model can help farmers to determine where and when they should sell their produce. The primary motivation behind this project is to maximize the profit of an individual farmer thus decreasing their likelihood of suffering a loss.

**Problem Statement:** To design a model to predict market prices for agricultural produce. The determining factors are location, type, variety and quality of crop, volume patterns, historical pricing, etc. The input will be processed by a deep neural network. Performance of the model will be maximised by tuning the hyperparameters. The output of the model will be the predicted price for a particular crop in a particular market. The dataset will be web-scraped from the Indian government website 'Agriculture Marketing'

### **Publications:**

1. Decision Making Support System for Prediction of Prices in Agricultural Commodity ; 29/04/2019
2. Improving Lives of Indebted Farmers Using Deep Learning: Predicting Agricultural Produce Prices Using Convolutional Neural Networks; 19/11/2019
3. CROP PRICE FORECASTING SYSTEM USING SUPERVISED MACHINE LEARNING ALGORITHMS; 04/04/2019
4. Agricultural Price Forecasting Using Neural Network Model: An Innovative Information Delivery System; 10/02/2013