

## Ideation

### 1)Crop yield prediction using WEKA tool.

WEKA is a Java based dialect programming used for less challenging assistance with information data sets, assigning design outcomes tool was applied for dataset processing and the overall methodology of the study includes,

(1) pre-processing of dataset (2) Building the prediction model utilizing WEKA and (3) Analyzing the outcomes.

### 2)Crop yield predictions using support vector Machine.

Weeds and pests were the major crop damaging biotic agents and the farmers are need to be well-informed in accessing the various data mining technologies to acquire a knowledge on applications of effective weed and pest control strategies and managing techniques to reduce crop damage.

Collection of data related to the various weeds and pest, modeling of the data to prepare for the mining, selection of appropriate methodology, interpretation and sharing the information become the major challenges in weed and pest control to protect the crop damage. A study was conducted to evaluate the major challenges and noteworthy opportunities and applications of of Big Data in controlling the weed and pest damage and hence to achieve higher crop yield.

### 3)Assesment of agriculture field based on weather conditions.

Crop yield gaps, measured as difference between expected yields based on the potency and actual farm yield received.

In order to achieve the higher crop yield, farmers must need to Understand the influencing factors such as influence of change in climate conditions on

the prospects of crop yields, and change in the usage of agricultural land to assess and ultimately reduce the crop yield gaps.

#### 4)Crop predictions using Multiple linear regression.

The accurate prediction of crop yield certainly benefits the farmers in choosing the right method to reduce the crop damage and gets best prices for their crops.

A research group conducted a work with an objective of accurate prediction of crop yield through big data analytics to assess various crop yield influencing factors.

#### 5)Prediction using CLARA.

Clustering large applications to deal with large number of objects and reduce computing time and RAM storage problems.

6)Crop yield can be predicted by focusing on the density based spatial clustering of application with noise (DBSCAN)clustering method.

#### 7)Using PAM for crop yield predictions.

8) Digital agriculture based on big data analytics: a focus on predictive irrigation for smart farming