

Krsika: An Intelligent, Cost effective Predictive Soil Management System through IOT sensors and AIML based Analytics platform.

APPLICATION

To increase crop productivity without causing environmental injury by precision use of soil nutrients and effective irrigation management.

COMPANY NAME	TECHNOLOGY READINESS LEVEL (TRL)	INTELLECTUAL PROPERTY
Arrelic Reliability Pvt Ltd	TRL: 6 (90% of analytical platform is developed. Design & Simulation of NPK sensors are also done. Integration with KRSIKA is not yet done.)	Patent: NPK Sensor to get the qualitative analysis through Image Processing
FOUNDER'S NAME		
Deepak Sahoo		

PROBLEM ADDRESSED

India has reached saturation level in productivity of major crops. Farmers, now-a-days consistently struggling to get greater yield with better quality of crops in order to feed ever increasing population with ever decreasing farm lands. With the ever increasing population, the demand for crop cultivation has raised enormously which in turn has led to increased use of fertilizers to meet the demands. However, over application of fertilizers besides hampering the quality of crops, also leads to ecological imbalance by polluting water bodies as well as ground water due to chemical run off.

ABOUT THE TECHNOLOGY

KRSIKA: A intelligent predictive soil management system encompasses on-the-go soil sampling, deployment of sensors for measuring various essential soil parameters such as pH, Electrical Conductivity, Organic Carbon, NPK Nitrogen, Phosphorus, Potassium content which play a vital role for crop growth. The sensor data is then sent to cloud and our own analytics platform ARLYTIC, upon retrieving and processing it, can advise the appropriate practice to the farmer. Where the existing system of soil testing takes 5-15 days based on testing methods and availability of testing laboratories, our system can reduce that time to merely few minutes and being a mobile system which can be attached to a tractor, it can cover a wide area and large group of farmers in a few days

END USERS/CUSTOMERS

- Selling machine to Govt. of India, State Governments, and leasing the machine to gram panchayat

PRODUCT IMAGE



USP

- 42% reduction in fertilizer consumption.
- 27% reduction in cost of production/cultivation
- 40% more crop yield
- 55% increase in farmer's income
- 85% prediction of soil nutrient mapping accuracy

FUNDS RAISED/ACHIEVEMENTS

Supported under BIRAC BIG worth INR 49.65 Lakhs
 IIM Calcutta: Smart Fifty 4.00 Lakhs
 S K MISHRA (Chairman Aditya Alumina) INR 10.00 Lakhs
 Nezar Al Shamshi (Director ARAMCO) INR 10.00 Lakhs
 Husain Al Ali (Managing Partner, Iptkar Energy) INR 10.00 Lakhs
 Chairman Indian Chamber of Commerce Odisha) INR 25.00 Lakhs