KISAN KRANTI

Kisan Kranti: “Technology Meets Tradition for Farmer Upliftment”

What we Provide?

- AI Driven Crop Disease Prediction Crop Health Report Generation
- Weather Forecasting
- Live Crop Price in different states
- Kisan E-Dukaan
- 24x7 Virtual Assistant/Chatbot
- Government & Non-Government Schemes for Kisan
- Plant Inventory w. r. t. States
- Tutorials of Organic Farming
- Complaint logging system
- Our AI Architecture
- FAQs

More Information

https://kisan-kranti.vercel.app/

Disclaimer

Our website suggests diseases based on the neural network models trained on less amount of dataset. Also, the medicine and chemicals suggested by our website is based on the mixed data from internet. We have made this website based on the data available on internet so we do not claim guarantee of any treatment suggested by us. We just display an example of how the crop should be treated and any chemical must be applied on crop under the supervision of a plant doctor. We are not responsible for any loss faced by user as we have clearly specified that this website is made on mixed data and authenticity should be consulted with professionals.

About Developers

Our team include 6 members from the esteemed university of GGSIPU, i.e., University School of Automation and Robotics, Guru Gobind Singh Indraprastha University (East Delhi Campus).

- Amaan Naseh – B.Tech in Automation and Robotics (2022-2026) : Team Lead, Full stack web developer, neural networks and flask developer.
- Teena – B.Tech in Artificial Intelligence and Machine Learning (2023-2027) : UI Designer, Machine Learning and Neural Networks Developer
- Priyanshu – B.Tech in Automation and Robotics (2022-2026) : Full stack web developer
- Dhruv Taneja – B.Tech in Automation and Robotics (2022-2026) : Full stack web developer
- Ankit Gupta – B.Tech in Artificial Intelligence and Data Science (2024-2028) : AWS, DevOps and Deployment
- Aditya Choudhary – B.Tech in Automation and Robotics (2022-2026) : Chatbots, LLM and Frontend Web Developer

Features

> AI powered Crop Disease Prediction
We provide solution for around 100 diseases (110 categories including healthy) in 26 crops. We have 26 Convolutional Neural Network models for 26 different crops. Crops include:

- Leaf: Apple, Banana, Cassava, Cherry, Maize, Cucumber, Eggplant, Grape, Money Plant, Peach, Pepper, Potato, Strawberry, Sugarcane, Tomato, Watermelon and Wheat
- Pest: Banana, Cashew, Maize, Cotton, Eggplant, Potato and Wheat
- Seed: Maize and Soybean

> Crop Health Report Generation
We provide solution for predicted disease in the form of crop report which includes disease name, description, precautions against disease, natural home remedies, common remedies, organic remedies, chemical treatments and use of waste crops.

> Weather Forecast
We provide live weather with upcoming 15-16 days forecast based on API offered by https://open-meteo.com.

> Live Crop Price in Different States
We provide live prices of crops in different states of India based on API offered by https://data.gov.in.

> Kisan E-Dukaan
We have created a full stack market page for farmers to sell their crop or by-products or even their waste crops after recycling. Farmers can upload data about their product including name, image, and description which other users can view and buy in the cart. We have integrated Razorpay API to handle the monetary exchange.

> 24x7 Virtual Assistant/Chatbot
We have integrated a virtual assistant made using botpress i,.e., on our custom data. It offers multilingual support along with voice commands.

> Government & Non-Government Schemes for Kisan
We have built schemes page for showing government and non-government schemes which support kisans monetarily to relief their pressure of loans.

> Plant Inventory w.r.t. States
We have built this inventory page to show state-wise data about different crops and soil fount there.

> Tutorials for organic farming
We have integrated two playlist from youtube, for two languages i.e., Hindi and English, into our website through which kisans can learn about organic farming.

> Complaint logging system
We have built complaint logging system through which Kisans can mail to their local official body like Pradhan and sarpanch about their farm issues. They can obtain the email id of their local leaders from eGramSwaraj website which is displayed on our page.

About Dataset

We have built 26 neural network models based on datasets available on Kaggle and other references. Dataset links are displayed below:

- https://www.kaggle.com/datasets/vipoooool/new-plant-diseases-dataset
- https://www.kaggle.com/datasets/mdhasanahmad/diseaseclassifier-money-plant-dataset
- https://www.kaggle.com/datasets/kaushigihanml/cucumber-leaf-disease-dataset
- https://www.kaggle.com/datasets/sujaykapadnis/watermelon-disease-recognition-dataset
- https://www.kaggle.com/datasets/akilesh253/sugarcane-plant-diseases-dataset
- https://www.kaggle.com/datasets/gauravduttakiit/soybean-seeds-stage-prediction
- https://naagar.github.io/cornseedsdataset/
- https://www.kaggle.com/datasets/nirmalsankalana/crop-pest-and-disease-detection
- https://www.kaggle.com/datasets/jawadali1045/20k-multi-class-crop-disease-images
- https://www.kaggle.com/datasets/emanfarhat/crop-disease-detection786
- https://www.kaggle.com/datasets/kamalmoha/eggplant-disease-recognition-dataset
- https://www.kaggle.com/datasets/sujaykapadnis/banana-disease-recognition-dataset

Conclusion

The "Kisan Kranti" initiative represents a transformational step towards empowering farmers with modern equipment, sustainable practices and advanced technologies to increase agricultural productivity and profitability. By bridging the gap between tradition and innovation, this movement aims to secure a brighter future for the farming community

AI Architecture

We provide solutions for around 100 diseases (110 categories including healthy) across 26 crops. We have 26 Convolutional Neural Network models for 26 different crops. More information about individual crops can be found on our website.