Project Synopsis

On

FARM CONNECT: PATHWAY TO PROGRESS

Submitted to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur in partial fulfillment of requirement for the award of the degree of

BACHELOR OF TECHNOLOGY

In

Computer Science & Engineering

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NAGPUR INSTITUTE OF TECHNOLOGY

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Department of Computer Science & Engineering

DECLARATION

We hereby declare that the Project Report entitled **farm Connect:Pathway To Progress** submitted here in has been carried out by us in the **Department of Computer Science & Engineering** at Nagpur Institute of Technology, Nagpur. The presented work is original and has not been submitted earlier as a whole or in part for the award of any degree / diploma at this or any other Institution / University.

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Department of Computer Science & Engineering

Vision of the Institute:
Service to the Society by creating Technical & Skilled Manpower through value based Technical Education.

Mission of the Institute:

- To provide quality technical Education to meet the requirement of industries and society.
- To equip students with need based technical skills through continual improvement in Teaching Learning Processes and research activity.
- To inculcate ethical values for overall holistic development of students.

Vision of the Department:
To foster Computer Science and Engineering graduates by imparting quality technical education through need-based technical skills with ethical values.

Mission of the Department

- To provide quality initiatives in the skill-based teaching learning process to improve technical knowledge in Computer Science and Engineering.
- To enhance intellectual capital of stakeholders by providing research and innovation avenues and improved industry interactions.
- To increase societal, connect for need-based problems through extra-curricular activities.

Program Specific Outcomes (PSO):

- **PSO-1**: To demonstrate knowledge and understanding of CS engineering concepts and apply these to the industries.
- **PSO-2**: The ability to understand, analyze and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexity.
- **PSO-3**: The ability to employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur, and a zest for higher studies.

Program Educational Objectives (PEO):

- **PEO1:** Graduates will pursue successful careers as software professionals, IT consultants and system administrators.
- **PEO2:** Graduates will adapt to the changing technologies, tools, and societal requirements.
- **PEO3:** To create and sustain a community of learning in which students acquire knowledge and apply in their concerned fields with due consideration for ethical, ecological, and economic issues.

Program Outcomes (UG)

- **PO1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, andan engineering specialization to the solution of complex engineering problems.
- **PO2. Problem analysis:** Identify, formulate and analyze real world problems to reach substantial conclusionsusing computer science and engineering concepts.
- **PO3. Design/development of solutions:** Design a system component and process to meet desired needs.
- **PO4. Conduct problem investigations:** use research based knowledge and methods including design, interpretation of data, analysis & synthesis of the information to provide valid conclusion.
- **PO5. Modern tool usage:** apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- **PO6. The engineer, industry and society:** communicate effectively both in written & oral formats.
- **PO7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts.
- **PO8. Ethics:** Demonstrate professional skills and ethics .
- **PO9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO10. Communication:** Ability to communicate effectively with peer community and society on complex software/system engineering activities through unambiguous spoken language, written reports,presentations.
- **PO11. Project management and finance:** Ability to apply the knowledge of Engineering and Management principles to manage projects as a team member or leader in multidisciplinary teams.
- **PO12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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Department of Computer Science & Engineering

YEAR/SEM: IV/VIII **COURSE NAME: PROJECT**
COURSE CODE: BTECHCSE705T

BTECHCSE705T	PROJECT
	After studying the course, the students will be able to
CO1	To display the working knowledge and skills to the industry.
CO2	Deeper knowledge of methods in major fields of study.
CO3	Collection To gain a consciousness of ethical aspects of research and development work.
CO4	Capability to plan and use adequate methods to conduct qualified tasks in given frameworks and evaluate the work.

ABSTRACT

Farm Connect: Pathway to Progress is a comprehensive, multi-functional agricultural support system developed to empower farmers through the integration of technology into rural development. The project addresses critical challenges faced by farming communities, particularly the lack of timely information, limited market access, and difficulties in availing government schemes, loans, and machinery. By offering real-time data, direct market linkages, and early warning alerts, Farm Connect seeks to bridge the information and accessibility gap that often hinders agricultural productivity and farmer welfare.

The system has been designed with a strong user-centric approach, incorporating regional language support and voice input features to ensure inclusivity for farmers with limited literacy or technological skills. Its modular architecture allowed each component—such as market access, government scheme integration, and alert systems—to be developed, tested, and validated individually before being integrated into the full platform. Data collection was carried out through farmer feedback, mock deployments, and agricultural databases, ensuring that the system remained practical, relevant, and adaptable to diverse farming contexts. The findings from pilot testing highlight significant improvements in farmers' decision-making processes, enhanced market reach, and better access to essential resources. The platform demonstrated ease of use, adaptability, and scalability across varied agricultural communities, making it suitable for widespread adoption. By bridging the digital divide and fostering inclusivity, Farm Connect contributes to sustainable agricultural growth and supports India's vision of rural digital transformation.

In conclusion, Farm Connect emerges as a transformative solution capable of reshaping agricultural practices, strengthening rural livelihoods, and driving progress in the agricultural sector. Its emphasis on accessibility, innovation, and farmer empowerment positions it as a scalable model for inclusive rural development.

Keywords: Agriculture, Support System, Real-time Information, Market Access, Rural Development, Technology Integration.

1. INTRODUCTION

1.1 continues to be a foundational pillar of emerging economies such as India, where a substantial proportion of the population depends on farming as its primary source of livelihood. Despite the sector's importance, farmers—especially small and marginal cultivators—face persistent challenges in accessing timely and reliable information related to crop management, weather changes, market prices, and government support services. Traditional information-dissemination channels remain slow, fragmented, and often inaccessible due to language barriers and limited digital exposure. With the rapid expansion of mobile connectivity and digital infrastructure in rural regions, there is a significant opportunity to leverage technology to bridge these long-standing gaps.

1.2 In response to these needs, the proposed system **Farm Connect: Pathway to Progress** seeks to provide a comprehensive, user-friendly, and regionally adaptable digital platform designed specifically for Indian farmers. The platform aims to integrate real-time weather updates, pest and disease alerts, market linkages, government schemes, and resource accessibility into a unified interface. Its design emphasizes inclusivity through regional-language support and voice-enabled interaction, making it particularly suitable for semi-literate or digitally inexperienced users. Recent global investments in agri-tech, exceeding $1.5 billion in 2024, further highlight the increasing recognition of technology's potential to transform agriculture at scale.

1.3 The theoretical foundation of this research draws upon established frameworks such as the **Diffusion of Innovations Theory**, which explains technology adoption patterns; the **Technology Acceptance Model (TAM)**, focusing on perceived usefulness and ease of use; the **Information Systems Success Model**, emphasizing system and information quality; and **Socio-Technical Systems Theory**, which underlines the alignment between technology and users' cultural and social environments. These models collectively guide the design, implementation, and evaluation of Farm Connect.

1.4 A review of recent literature—spanning IoT-based smart farming, market digitalization through platforms like eNAM, mobile-based agricultural extension, voice-technology adoption, and integrated weather-advisory systems—reinforces the need for a holistic, accessible digital solution. By addressing existing limitations in current agri-tech tools, Farm Connect aims to enhance productivity, increase farmers' income, and strengthen their access to institutional support.

2. LITERATURE SURVEY

1.Patil & Deshmukh (2021) – Smart Agriculture System Using IoT

Patil and Deshmukh present an IoT-based smart agriculture framework that uses sensors to monitor soil moisture, temperature, humidity, and environmental conditions. Their study highlights how real-time data collection and automated alerts enable farmers to take timely decisions, improving crop health and reducing resource wastage. The system demonstrates how IoT can reduce labour dependency while supporting precision farming practices. The paper also identifies common barriers such as cost, connectivity issues, and sensor calibration. This study is relevant to Farm Connect as it supports real-time monitoring, advisory generation, and the integration of low-cost IoT solutions in digital agriculture platforms.

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2. Rao & Kumar (2022) – Smart Agriculture Monitoring with Low-Cost Sensors

Rao and Kumar's work focuses on creating a cost-effective agricultural monitoring system using affordable sensors and microcontrollers. Their research demonstrates that even smallholder farmers can benefit from digital tools when designed with affordability and simplicity in mind. By integrating sensors like DHT11 and soil moisture probes, the system automates irrigation decisions and provides continuous environmental updates. The study also emphasizes data accuracy, ease of deployment, and resource optimization. This directly supports Farm Connect's objective of enabling accessible digital monitoring, reinforcing the possibility of scalable solutions for small- and marginal-farmer communities.

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3. Ministry of Agriculture (2020) – eNAM: Transforming Agricultural Markets

The Government of India's eNAM report evaluates the impact of digital marketplaces on agricultural trade. It highlights how eNAM improves transparency, market competitiveness, and access to national buyers, reducing dependence on middlemen. The report identifies operational constraints such as inadequate grading, digital literacy gaps, and infrastructural limitations. Despite these challenges, eNAM has significantly enhanced price realization for participating farmers. This literature is important for Farm Connect as it shows the transformative potential of digital marketplaces and emphasizes the need for user-friendly interfaces, training, and seamless integration to support fair and efficient agricultural trade.

4. Singh & Mehta (2021) – Mobile Apps for Agricultural Extension in India

Singh and Mehta analyze several mobile applications used in agricultural extension and find common issues such as language barriers, fragmented data, poor interface design, and inconsistent content quality. Their study reveals that farmers tend to abandon apps that lack clarity, reliability, or local-language support. They emphasize that for digital tools to succeed, they must provide region-specific advisories, simple navigation, and clear visual aids. The paper supports the idea that technology should adapt to user limitations rather than expecting rural farmers to adapt to complicated systems. This directly strengthens Farm Connect's focus on inclusive, local-language, user-centered design.

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5. Kumar & Verma (2022) – Mobile-Based Agricultural Extension Services

Kumar and Verma assess the adoption and impact of mobile-based extension services across Indian farming communities. Their results indicate that mobile advisories significantly improve farmers' knowledge and decision-making related to crop management, input selection, and risk mitigation. The study identifies trust, clarity of information, and source credibility as the strongest determinants of adoption. Farmers who receive regular, actionable, and localized suggestions show measurable improvements in productivity. The authors also stress the importance of two-way communication between farmers and extension officers. These insights guide Farm Connect in designing reliable, trustworthy advisory modules supported by credible data sources and expert validation.

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6. Google Research Team (2019) – Voice Access for the Next Billion Users

The Google Research report studies voice interface adoption among low-literacy users in developing regions. It highlights that voice technology significantly reduces barriers to digital engagement by offering a natural, intuitive mode of interaction. However, challenges remain, particularly in handling diverse accents, dialect variations, contextual understanding, and noisy environments. The study recommends building region-specific speech models and designing simple, structured conversational flows. These findings are crucial to Farm Connect, which aims to serve semi-literate farmers through voice-enabled navigation, content retrieval, and advisory access, ensuring accessibility even for individuals unfamiliar with smartphones or text-based interfaces.

7. Medhi, Sagar & Toyama (2011) – Text-Free User Interfaces

This study explores the effectiveness of text-free user interfaces for low-literate populations, demonstrating how icons, visuals, and guided navigation can dramatically improve usability. The authors identify limitations of text-heavy systems and show how intuitive visual layouts reduce cognitive load and support independent use. The research recommends using culturally relevant icons, audio cues, and minimal text to enhance comprehension. These insights are directly applicable to Farm Connect, which intends to incorporate icon-based navigation and voice instructions for easier app usage in rural areas. The findings support the need for multimodal interfaces combining text, visuals, and speech.

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8. Hansen & Coffey (2020) – Climate Information for Agricultural Risk Management

Hansen and Coffey emphasize the importance of integrating weather forecasts, climate predictions, and advisory systems to mitigate agricultural risks. Their study examines how timely, localized weather information helps farmers plan irrigation, fertilizer use, and pest control strategies. They highlight the need for accurate downscaling of regional forecasts to local farm-level conditions. The research also discusses the challenges of communicating scientific data in formats farmers can easily understand. These insights support Farm Connect's real-time weather and early-warning module, ensuring that the information delivered is both accurate and actionable, reducing crop losses and improving farm productivity.

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9. Sharma & Rao (2021) – Weather-Based Agro-Advisory Services

Sharma and Rao examine the effectiveness of Weather-Based Agro-Advisory Services (WBAAS) and their role in improving farming outcomes. Their findings show that farmers who regularly receive weather-based recommendations experience fewer losses related to unexpected rainfall, pests, and climatic variability. The study also highlights the importance of localized advisories, delivered through channels like SMS, IVR, and mobile apps. Farmer trust and timely dissemination are key factors influencing adoption. This research validates Farm Connect's approach of combining real-time forecasts with crop-specific recommendations, delivered through multiple channels to ensure reach across varying literacy and connectivity levels.

10. FAO (2021) – Digital Agriculture Transformation in Developing Countries

The Food and Agriculture Organization's report highlights how digital agriculture solutions such as mobile advisory services, e-markets, and remote sensing are transforming farming in developing nations. The study emphasizes that digital platforms improve productivity, improve supply chain transparency, and enhance farmer resilience to climate risks. However, it also stresses the importance of digital capacity building and gender-inclusive technology access. This report is highly relevant to Farm Connect as it validates the global need for inclusive, farmer-centered digital platforms that integrate advisory, market access, and climate intelligence in a unified ecosystem.

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11. Joshi & Kulkarni (2022) – Farmer Adoption of Mobile-Based Advisory Systems

Joshi and Kulkarni analyze behavioral factors influencing farmers' adoption of mobile advisory services in India. Their findings show that ease of use, trust in information sources, and language compatibility play a crucial role in sustained app usage. The study highlights that farmers prefer platforms that offer localized content, simple visuals, and practical problem-solving features. The authors also observe that peer influence and community promotion significantly accelerate adoption. These findings strongly support Farm Connect's design philosophy of localized language support, community engagement, and expert-verified advisory systems for higher user trust and long-term adoption

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12. Mishra & Tiwari (2020) – Digital Supply Chain Management in Agriculture

Mishra and Tiwari assess the impact of digital supply chain platforms on agricultural logistics and market efficiency. Their study demonstrates that digital integration reduces post-harvest losses, improves price discovery, and enhances coordination between farmers, traders, and transporters. The research highlights the role of real-time data sharing in minimizing delays and market volatility. However, infrastructural constraints and fragmented adoption remain challenges. This study strengthens Farm Connect's scope of integrating market connectivity, logistics support, and transparent digital trading mechanisms for better farmer profitability.

13. Verma & Singh (2021) – Impact of Weather Forecast-Based Decision Support Systems

Verma and Singh evaluate weather forecast-based decision support systems and their influence on farm-level decision-making. Their findings reveal that farmers using predictive weather tools improve crop scheduling, reduce pest damage, and enhance fertilizer efficiency. The study also indicates that acceptance increases when information is delivered in simple language with clear actionable recommendations. The research validates Farm Connect's weather advisory module by highlighting the importance of transforming complex climate data into simplified, farmer-friendly decision guidance.

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14. Choudhary & Jain (2022) – AI-Based Crop Disease Detection Systems

Choudhary and Jain analyze the application of artificial intelligence in crop disease detection using image processing and machine learning models. Their research demonstrates that AI-based systems can accurately identify early-stage crop diseases, enabling timely preventive action. The authors highlight the importance of image quality, dataset diversity, and user-friendly interfaces for effective field deployment. This study directly contributes to Farm Connect's future AI roadmap, particularly in integrating automated crop health monitoring and disease diagnosis tools for precision farming.

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15. Narayanan & Iyer (2021) – Digital Literacy and Rural Technology Adoption

Narayanan and Iyer investigate how digital literacy levels influence technology adoption in rural India. Their findings reveal that lack of basic smartphone skills limits farmers' ability to utilize advanced digital services. The study stresses the importance of training programs, voice-based systems, and assisted digital onboarding. This literature strongly reinforces Farm Connect's emphasis on voice interfaces, guided navigation, training content, and digital inclusion strategies to ensure maximum farmer participation and sustainable system adoption.

3.PROJECT OBJECTIVES

- **To develop an integrated digital platform** that connects farmers with essential agricultural resources and services.

- **To provide AI-based crop advisory** for improved decision-making related to crop selection, fertiliser application, irrigation, and pest management.

- **To deliver real-time market price updates** and create direct market linkages between farmers, traders, and buyers.

- **To include a multilingual, voice-enabled interface** to ensure accessibility for farmers of all literacy levels.

- **To enable future integration of IoT sensor data** for soil moisture, pH level, temperature, and crop health monitoring.

- **To offer consolidated information on government schemes**, subsidies, and agricultural support programs.

- **To issue early warning alerts** for adverse weather conditions, pest outbreaks, and crop diseases using predictive analytics.

- **To build a community-based support system** where farmers can interact with experts and other farmers for knowledge sharing.

- **To increase farm productivity and profitability** through data-driven insights and personalized recommendations.

- **To develop a secure, scalable, and user-friendly platform** capable of supporting large numbers of rural users

4.PROBLEM FORMULATION

4.1 Existing System

The existing agricultural support system in India suffers from major fragmentation and inaccessibility. Farmers rely heavily on traditional, informal information channels that are often outdated, unreliable, or incomplete. Government schemes, market prices, and weather updates are available across multiple platforms, but there is no unified source that brings them together in a farmer-friendly manner. Many farmers lack digital literacy, making text-based or English-only systems difficult to use. Existing applications also fail to support regional languages or voice input, creating further barriers for semi-literate users. Market access is limited, and farmers often depend on middlemen due to the absence of direct digital marketplace connectivity. Early disease warnings, pest alerts, and weather forecasts are either delayed or unavailable at village levels, resulting in crop loss. Overall, the current system is scattered, non-integrated, slow, and inaccessible, preventing farmers from making informed, timely decisions to improve productivity and income.

4.2 Proposed System

The proposed system, Farm Connect, aims to address the limitations of current agricultural information platforms by creating a unified, intelligent, and accessible digital ecosystem for farmers. It integrates real-time weather updates, crop disease prediction, market prices, government schemes, and loan information into a single platform. The system is regional- language based and includes voice input to support farmers with low literacy levels. Using AI/ML model, it provides early warnings for pests, crop diseases, and market trends, helping farmers take timely action. A direct marketplace module reduces dependency on middlemen by enabling transparent price access. The platform's modular design ensures scalability and easy integration with government APIs. By offering a simple, user-centered interface, Farm Connect improves usability and trust among rural communities. The system ultimately enhances decision-making, increases scheme utilization, and promotes digital empowerment, addressing key socio-technical gaps in the current agricultural ecosystem.

5. RESEARCH METHODOLOGY

The research methodology for this project follows a systematic and structured approach to develop an effective AI-based soil analysis and crop recommendation system. The methodology consists of six major steps: **Data Collection, Preprocessing, Model Development, Evaluation, Implementation, and Deployment**. Each phase ensures accuracy, efficiency, and real-world applicability of the system.

1. Data Collection

- Surveys and interviews conducted with farmers for real-time needs.
- Weather, market price, and crop disease data collected from official APIs.
- User interaction logs recorded during prototype testing.
- Government schemes and loan information gathered from public portals.

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2. Preprocessing

- Cleaning of missing, duplicate, and inconsistent data.
- Translation and normalization of text into regional languages.
- Feature extraction for weather, crops, and price prediction models.
- Splitting datasets into training, validation, and testing sets.

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3. Model Development

- CNN-based model created for crop disease prediction.
- Time-series and regression models built for price forecasting.
- Rule-based/ML system developed for scheme and loan recommendations.
- NLP-based voice and language module implemented for user interaction.

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4. Evaluation

- Accuracy, precision, and recall are measured for ML models.
- Usability testing performed using SUS scores.
- Field testing conducted with farmers to validate alerts and features.
- Error analysis done to improve model performance.

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5. Implementation

- Backend developed using Python/Flask; frontend using React/Android Studio.
- APIs integrated for weather, market, and scheme data.
- Database configured using MySQL/Firebase for real-time storage.
- Simple, multilingual UI designed for easy farmer use.

6. Deployment

- Pilot launches conducted in selected rural regions.
- System hosted on cloud for scalability and uptime.
- Real-time monitoring of model and API performance.
- Feedback collected from farmers for iterative improvements.

Proposed Solution

The proposed system, Farm Connect, offers a unified and intelligent digital platform designed to address the major challenges faced by farmers. Instead of relying on scattered and outdated sources, the platform integrates all essential agricultural information into one accessible application. The solution focuses on real-time updates, AI-driven predictions, and farmer-friendly accessibility.

Key Features of the Proposed Solution

• Real-time Information: Weather forecasts, pest alerts, and market prices updated instantly.

• AI/ML Predictions:

– Crop disease prediction using CNN models

– Price forecasting using time-series analysis

• Scheme & Loan Support: Personalized recommendations based on eligibility and location.

• Multilingual Access: Interface available in regional languages with voice input support.

• Direct Market Linkage: Reduces middlemen involvement and increases profit margins.

• User-Centered Design: Simple UI for farmers with low literacy.

System Strengths

• Centralized platform removes fragmentation.

• Voice-enabled interaction increases accessibility.

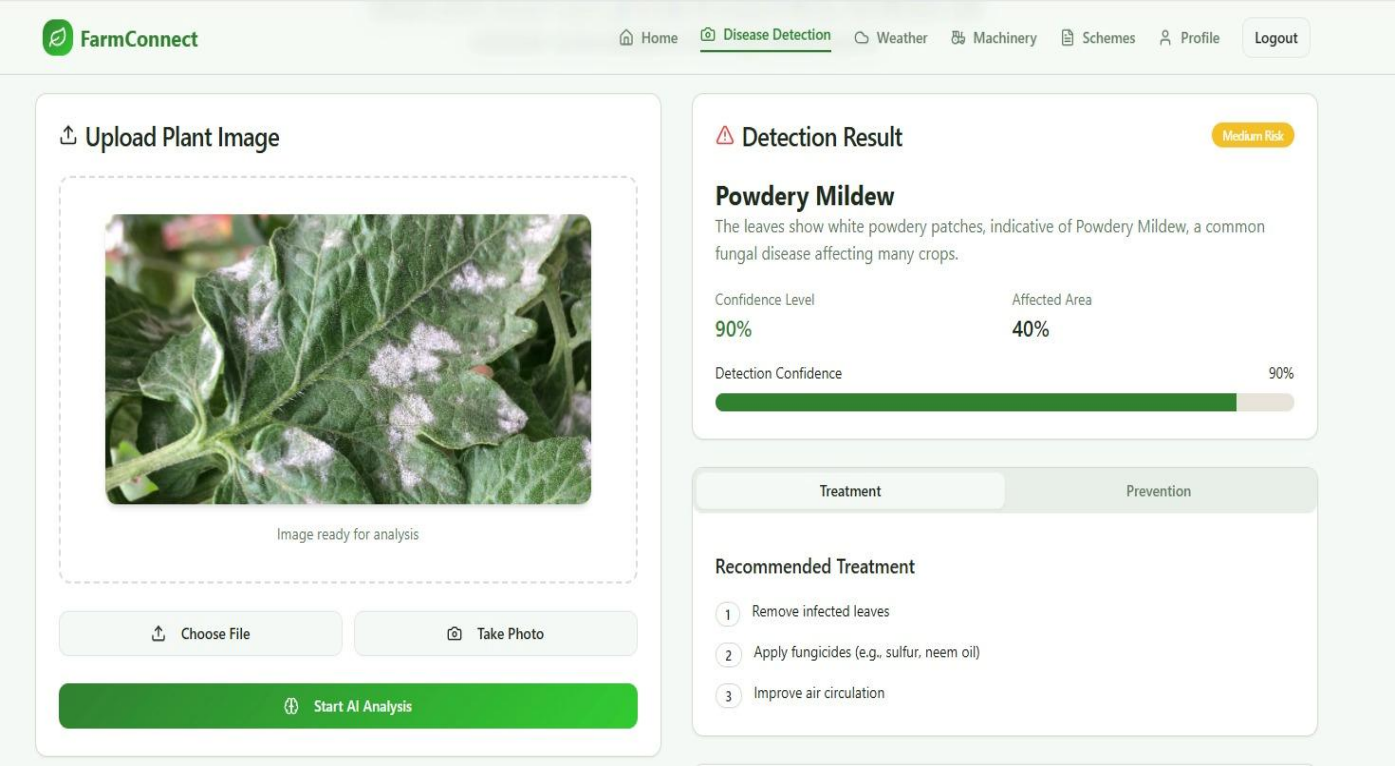
• Modular architecture allows easy integration with government APIs.

• Real-time alerts help in early decision-making.

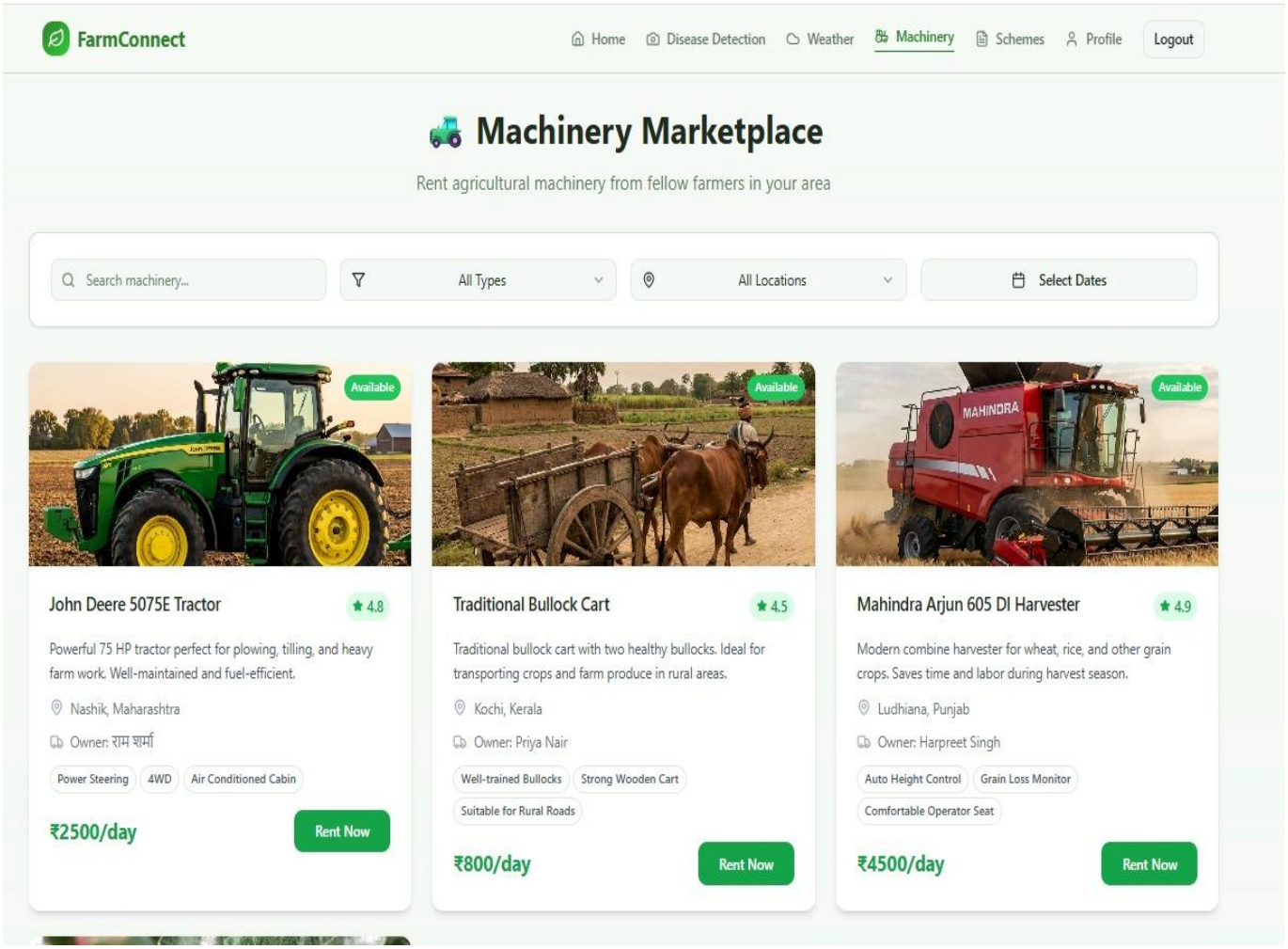
Overall, Farm Connect ensures digital empowerment, better productivity, and informed decision-making for farmers by providing all essential services through a single, easy-to-use platform.

6.RESULT

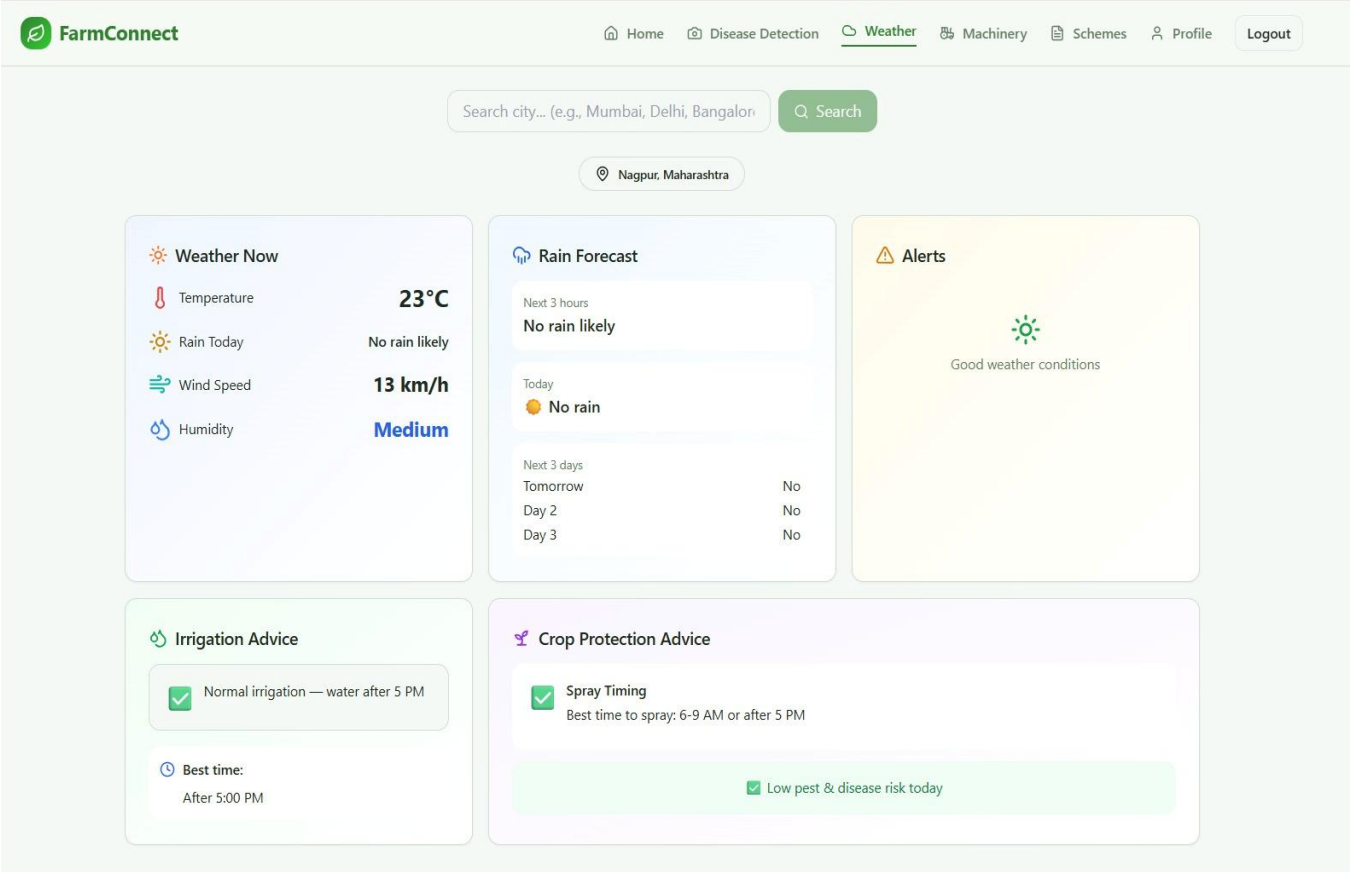
This image shows the FarmConnect homepage, featuring the platform's AI-powered farming assistance, multilingual support, and quick access to major features.



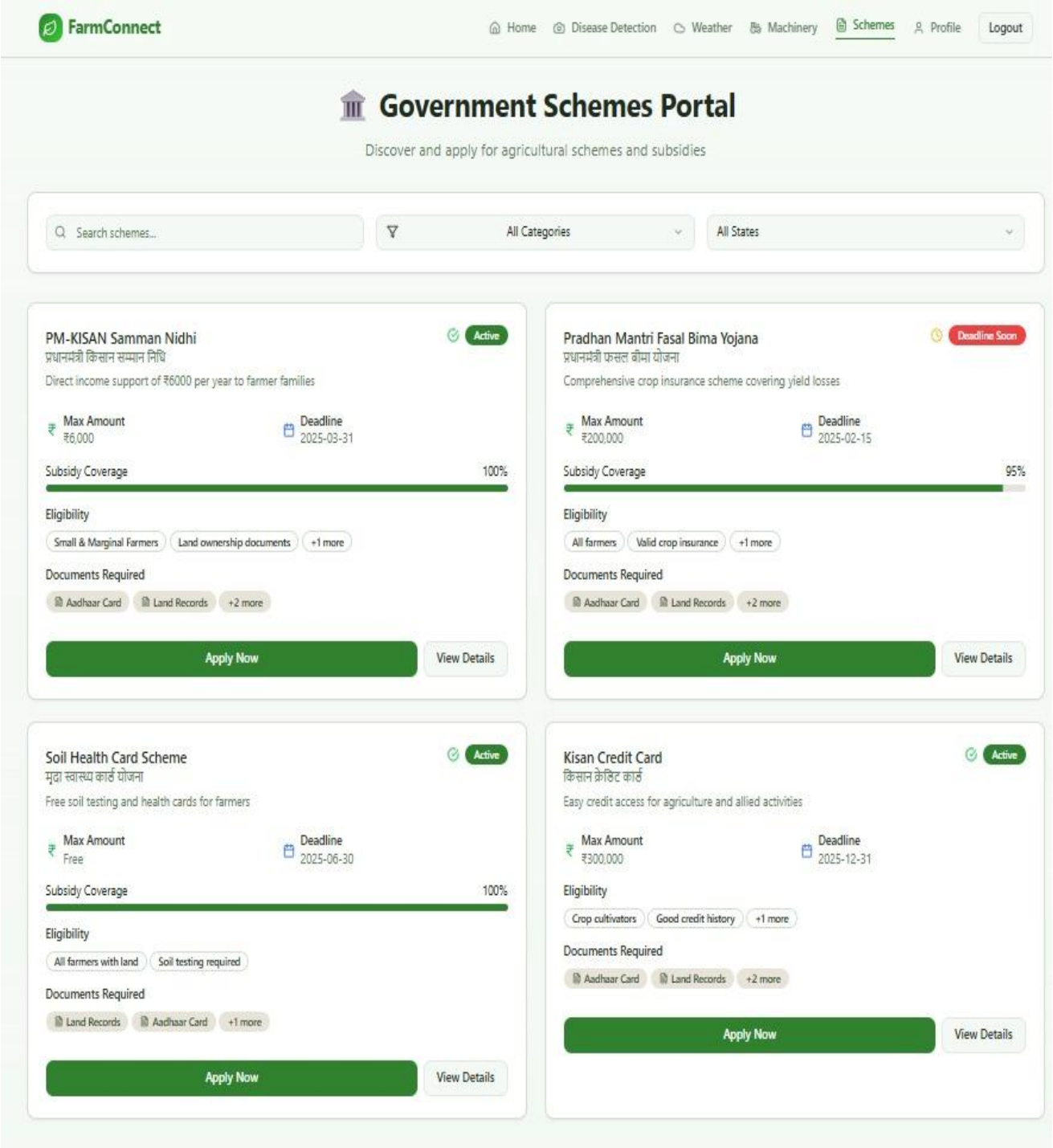
This image displays the AI Disease Detection module, where farmers can upload crop images and instantly get disease identification, confidence levels, and treatment suggestions.



The screenshot highlights the Machinery Marketplace, allowing farmers to browse, compare, and rent agricultural machinery from nearby locations.



This image shows the Weather Dashboard, providing real-time weather updates, rain forecasts, alerts, and personalized irrigation and crop protection advice.



The screenshot displays the Government Schemes Portal, where farmers can discover, check eligibility, and apply for various agricultural schemes and subsidies.

7.FACILITIES REQUIRED:

Hardware Requirements

For Developers

- Laptop/PC with minimum: Processor: Intel i5 or higher, RAM: 8 GB or above, Storage: 256 GB SSD or higher.
- Smartphones for testing (Android recommended, 3–4 devices with different specs).

For Users (Farmers)

- Smartphone (Android 7.0+).
- Basic Internet Access (3G/4G).

Software Requirements

- Programming Languages: Python, JavaScript, Java/Kotlin (for Android).
- Frameworks:

  Backend: Flask/Django

  Frontend: React / Android Studio
- Database: MySQL / Firebase
- Machine Learning Libraries: TensorFlow, Scikit-learn, NumPy, Pandas.
- APIs Used: Weather API, Market Price API, Government Scheme APIs.
- Tools:

  VS Code / PyCharm (development)

  Postman (API testing)

  GitHub/GitLab (version control)

  Draw.io/Lucidchart (diagram design)

8. PLAN OF WORK:

SR. NO.	STEPS	MONTH (calendar)
1	**Topic Selection and Requirement Analysis** Selecting the project theme and understanding farmers' problems through discussions and observations. Identify the scope, objectives, and expected outcomes of the Farm Connect system.	Aug 2025
2	Studying existing research papers, agricultural digital platforms, government schemes, and market systems. Understanding challenges such as low digital literacy, lack of real-time data, and fragmented resources.	Aug–Sep 2025
3	Collecting information about required features: real-time weather, market prices, crop disease alerts, and scheme integration. Gathering user needs through surveys and interviews with farmers.	Aug–Sep 2025
4	Analyzing collected requirements to identify key modules and system objectives. Preparing flowcharts and requirement notes.	Sep 2025
5	Finalizing functional and non-functional requirements (multilingual support, voice input, real-time updates, ease of use). Completing SRS documentation.	Sep 2025
6	Designing the system architecture, data flow diagrams, and module interactions. Selecting appropriate tools and technologies.	Sep–Oct 2025
7	Beginning dataset collection: weather records, market data, crop disease datasets, and scheme information from APIs and portals.	Oct–Nov 2025
8	Starting development of ML models: CNN for disease prediction, regression/time-series for price forecasting, and scheme recommendation logic.	Oct–Dec 2025
9	Building an initial prototype UI (Android/React). Integrating basic features such as login, dashboard, and weather updates. Preparing for early testing.	Nov–Dec 2025
10	Preparing reports, diagrams, and project documentation. Creating slides and visuals for final project presentation.	Dec 2025–Jan 2026

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Project Guide	Project Co-Cordinator	HoD. CSE