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REVIEWER'S REPORT

Manuscript No.: IJAR- 57103

Title: Sarv Sampoorna Kisan Mitra - AI Based Crop Disease Detection and Management System.

Recommendation:

Accept as it is

Accept after minor revision

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity			✓	
Significance			✓	

Reviewer Name: **ANAPANA GOPAL**

Reviewer's Comment for Publication.

General Comments

The manuscript presents an AI-based integrated system ("Sarv Sampoorna Kisan Mitra") for crop disease detection, recommendation, and predictive analytics. The topic is highly relevant to smart agriculture and precision farming, particularly in the Indian context. The attempt to integrate CNN-based diagnosis, knowledge graphs, and predictive analytics into a single platform is commendable.

However, the manuscript reads more like a project proposal or conceptual framework rather than a fully validated research study. While the idea is promising, the paper lacks sufficient experimental validation, methodological depth, and critical scientific analysis required for publication in a research journal.

Content and Originality

The manuscript proposes:

AI-based disease detection using CNN

Knowledge Graph-based recommendation system

Predictive analytics for disease risk

Strengths:

Integration of multiple technologies (AI + KG + ML)

Focus on practical agricultural application

Identification of real-world gaps (fragmentation, reactive management)

Limitations:

Concept is not entirely novel; similar integrated systems already exist

Literature review supports the concept but does not clearly differentiate this work

Innovation is incremental rather than groundbreaking

Overall, the originality is moderate, mainly in system integration rather than methodology.

Technical Quality

The technical quality is below publication standards and needs major improvement:

Key Issues:

No detailed model architecture:

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CNN type not clearly defined (only mentions ResNet/VGG)
No hyperparameters, training procedure, or loss functions
Dataset description is basic:
Source of dataset not specified
No preprocessing steps described
Performance claims (96–99% accuracy) are not supported by:
Confusion matrix
Precision, recall, F1-score
Validation/testing methodology
No comparison with existing models
Predictive module lacks:
Model equations
Feature selection explanation
Conclusion:
The work lacks experimental rigor and reproducibility, which is a major weakness.

Language and Presentation

The language quality is average but inconsistent:
Several formatting issues:
Missing spaces (e.g., "Ifagriculturegoeswrong")
Inconsistent typography
Overuse of promotional language (e.g., "definitive solution")
Some sections appear non-academic and narrative-heavy
Figures (e.g., system architecture on page 10) are useful but:
Not properly labeled or referenced in text
The manuscript requires thorough language editing and formalization.

Structure and Organization

The paper follows a general structure but has issues:
Strengths:
Logical division into modules (M1, M2, M3)
Clear explanation of system workflow (page 10 diagram)
Weaknesses:
Abstract describes a "review paper" but the content is a proposed system
Results section lacks real experimental results (appears simulated/descriptive)
Excessive descriptive text in introduction and research gap
Figures are described in text but not always presented clearly
Overall, the structure is acceptable but needs refinement and clarity.

References and Citations

This is a major weakness:
Many references are incomplete:
Missing journal names, DOIs, publication details

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Some entries contain instructions instead of citations (e.g., "you should search for...")

Duplicate references present

Citation style inconsistent

The reference section requires complete revision and standardization.

Final Decision

Minor to moderate revisions required.