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(57) Abstract :
A system for image-based plant disease detection and management is described herein. The device comprises a user device (10), an image recognition and classification module (20), a disease information database (30), a diagnosis module (40), a deep learning-based image analysis module (50), a user interface (60), a geotagging module (70), a data collection module (80) , an offline processing module (90), a recommendation module (100), a notification module (110), an Internet of Things (IoT) integration module (120), an educational resource and community interaction module (130). The system enables integrated image-based plant disease detection and management within a unified and scalable architecture, providing accurate disease identification with data-driven analysis and user-friendly operation.

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