

A Survey on Aeroponic System with Automated Nutrition and Disease Analysis

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Abstract: *The study introduces an innovative aeroponic system approach that automates nutrient delivery and integrates machine learning for disease analysis. The system leverages sensors to monitor critical environmental parameters, ensuring precise nutrient administration. By employing image processing and machine learning techniques, it provides real-time health diagnostics, identifying diseases and nutrient deficiencies early. Designed for scalability and cost-effectiveness, The system offers a robust solution for both small-scale and commercial agriculture, improving yields while reducing manual intervention and resource waste. This paper reviews the methodologies, applications, and advancements in automated aeroponic systems*

Keywords: Aeroponics, Automated nutrient delivery, Disease analysis, Machine learning, Image processing, Internet of Things (IoT) Precision agriculture, Sustainability, Deep learning, Real-time monitoring, Nutrient optimization, Crop health diagnostics, Controlled-environment agriculture