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IoT-Based Plant Protection and Monitoring System: Protecting Crops and Increasing Yields

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Abstract: *The primary industry and source of livelihood in many nations is agriculture. However, diseases frequently affect agricultural crops, which may result in a decline in both crop quantity and quality. In this article, we suggest a method for analyzing and identifying paddy illnesses and choosing fertilizers that is computationally efficient. For classification, diagnosis, and treatment, this suggested system makes use of a number of image processing principles, including image acquisition, image preprocessing, feature extraction, and training convolutional neural networks. Additionally, we intend to create a Smart Farming System using IoT technology that will enable farmers to access real-time data via a mobile app. Farmers will be able to make decisions about their crops based on the system's real-time information on temperature, humidity, and water levels.*

Keywords: Plant protection system, convolutional neural network algorithm, image processing

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