University of Rajasthan, Bandar Sindri, Ajmer, Rajasthan -

(19) INDIA

(22) Date of filing of Application :26/07/2023

(43) Publication Date: 25/08/2023

(71)Name of Applicant:

305817 -----

(54) Title of the invention : MACHINE LEARNING BASED PEST DETECTION AND ALERT SYSTEM FOR FARMERS USING IOT TO IMPROVE AGRICULTURE YIELD

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(57) Abstract:

The present invention relates to provide a Machine Learning based Pest Detection and Alert System for farmers using IoT to improve agriculture yield. The IoT-Based Machine Learning Pest Detection and Alert System is a novel approach that overcomes the mitations of traditional pest monitoring techniques. By incorporating IoT devices, such as smart cameras and environmental sensors, with state-of-the-art machine learning algorithms, this system can continuously monitor crop fields for signs of pest infestations. By timely and accurately identifying potential pest threats, farmers can take preventive measures, minimizing crop damage and increasing agricultural yield. This system stands apart from previous pest detection approaches due to its autonomous, data-driven nature, offering unprecedented efficiency and yield enhancement.

No. of Pages: 9 No. of Claims: 3