(54) Title of the invention : MACHINE VISION BASED IOT ENABLED PEST IDENTIFICATION DRONE WITH CLOUD COMPUTING DATA ANALYTICS

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(57) Abstract :
This invention is an image processing product with hardware and software components for identification of pests on crops and sending an alert message to the farmer. Pests and insects are one of the most common problems in agriculture. As a generic solution, pesticides and insecticides are sprayed over the plants which affect the food grains. There is always a certain level of residue insecticide or pesticide on the food grains which has a certain level of toxicity. In this invention, an image processing based drone system is made'to scan or comb through the field identifying the insects or pests. An early identification system can give enable a solution where these insects or pests are eliminated without chemical spraying. The on-board electronic computing unit on the drone sends the image or the processed information to the server. The server sends the notification to the farmer's mobile application on identification of the pest or insect. Conventional tested image processing algorithms like CNN and SVM are employed integrated with standard machine vision data analysing techniques.

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