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## (71)Name of Applicant:

## 1)Chitkara University

Address of Applicant: Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ------

#### 2) Chitkara Innovation Incubator Foundation

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor:

# 1)LAMBA, Shweta

Address of Applicant: Chitkara University Institute of Engineering & Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ------

### 2)BALIYAN, Anupam

Address of Applicant: Chitkara University Institute of Engineering & Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ------

## 3)KUKREJA, Vinay

Address of Applicant: Chitkara University Institute of Engineering & Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ------

#### 4) UPADHYAY, Rishabh

Address of Applicant :SCO 121, Industrial Area Phase 2, Chandigarh - 160002, India. Chandigarh ------

### (57) Abstract:

The present disclosure discloses a plant disease diagnostic system (100) by analysing videos of an agriculture field. The system includes an image acquisition unit (102) attached to an unmanned aerial vehicle (UAV), that moves in the agricultural field, and the image acquisition unit (102) acquires video of the agricultural field. A processing unit (106) analyse the received video and extracts plant disease from the received video by analysis each frame of the video by using deep learning techniques to determine whether to spray fluid on the plant or cut the plant and provide this information to an entity. Additionally, the system (100) accurately classifies diseases at an early stage and minimises expense of chemical treatment by deciding to remove severely affected plants.

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