National Highway, Village Jhansla, Rajpura, Punjab - 140401,

(71)Name of Applicant:

India. -----

(19) INDIA

(22) Date of filing of Application: 17/01/2022 (43) Publication Date: 11/11/2022

## (54) Title of the invention: APPARATUS FOR CLEANING AND DISINFECTING EDIBLE PRODUCTS

1)Chitkara Innovation Incubator Foundation Address of Applicant :SCO: 160-161, Sector - 9c, Madhya :G06N0003040000, G06N0003080000, (51) International Marg, Chandigarh- 160009, India. -----G03G0021160000, A23G0003280000, Name of Applicant: NA classification A21D0013470000 Address of Applicant: NA (86) International (72)Name of Inventor: :NA Application No :NA 1)KAUR, Inderpreet Filing Date Address of Applicant: Chitkara University, Chandigarh-Patiala (87) International : NA National Highway, Village Jhansla, Rajpura, Punjab - 140401, **Publication No** India. -----(61) Patent of Addition:NA 2)KAUR, Gagandeep to Application Number :NA Address of Applicant: Chitkara University, Chandigarh-Patiala Filing Date National Highway, Village Jhansla, Rajpura, Punjab - 140401, (62) Divisional to India. -----:NA Application Number 3)SINGH, Amanpreet :NA Filing Date Address of Applicant: Chitkara University, Chandigarh-Patiala

## (57) Abstract:

The present disclosure discloses an apparatus 100 for facilitating cleaning and sanitizing of edible products. The apparatus 100 can include a casing 102 for accommodating edible products, such as vegetables and fruits. Upon receiving the edible products in the casing 102, a scanning unit 106 may acquire images of the edible products stores, and a control unit 110 analyse the images using an artificial neural network such as convolutional neural network (CNN) to detect severity index of dust particles on the edible products, and correspondingly dispense water stored in a first part of a container 108. In addition, a sensor 114 configured to detected microorganism on the edible products, and correspondingly dispense disinfectant from a second part of the container 108 to sanitize the edible products.

No. of Pages: 20 No. of Claims: 9