(21) Application No.202311054432 A

(19) INDIA

(22) Date of filing of Application: 14/08/2023 (43) Publication Date: 08/09/2023

(54) Title of the invention: AUTONOMOUS POWER CLEANING SYSTEM

:F21Y0115100000, A61B0017220000, (51) International H04W0004029000, F24F0008100000, classification F24F0011300000 (86) International :NA Application No :NA Filing Date (87) International : NA Publication No 1)Dr. Ayush Dogra (61) Patent of Addition :NA to Application Number :NA Filing Date (62) Divisional to :NA **Application Number** :NA

(71)Name of Applicant: 1)Chitkara University

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

India Rajpura -----

2) Chitkara Innovation Incubator Foundation

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

Address of Applicant : Chitkara University Research and Innovation Network, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401,

India Rajpura -----

2)Dr. Archana Mantri

Address of Applicant : Vice - Chancellor, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura,

Punjab - 140401, India Rajpura -----

(57) Abstract:

Filing Date

ABSTRACT AUTONOMOUS POWER CLEANING SYSTEM The present disclosure discloses an autonomous power cleaning system (APCS) (102) comprising a battery (104) for providing power to a plurality of components, a switch (106) for activating and deactivating the system as required, an ultrasonic sensor (108) equipped with detection capabilities for identifying obstacles or hurdles in the path of the APCS system (102), a plurality of motors (110) driving omni-directional wheels (112) to provide mobility to the APCS system (102) and enabling navigation within indoor environments, said plurality of motors (110) powering centrifugal fans responsible for collecting dust particles and directing them into an attached dustbin, two centrifugal fans (114) operating in opposite directions to create a rotational suction force, thereby capturing dust particles and other small particles from indoor environments, and guiding them into the dustbin effectively, and a dustbin (116) serving as a collection reservoir for accumulating dust particles suctioned by the fans. FIG. 1

No. of Pages: 15 No. of Claims: 10