

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202111020943 A

(19) INDIA

(22) Date of filing of Application :08/05/2021

(43) Publication Date : 03/03/2023

(54) Title of the invention : AUTOMATED CLEANING ASSEMBLY AND METHOD

(51) International classification	:A61H0003060000, A47L0009280000, B65F0001000000, B23H0009140000, G06N0003080000	(71)Name of Applicant : 1)Chitkara Innovation Incubator Foundation Address of Applicant :SCO: 160-161, Sector - 9c, Madhya Marg, Chandigarh- 160009, India. Chandigarh India
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(33) Name of priority country	:NA	2)SHARMA, Bhanu
(86) International Application No	:NA	3)KUMAR, Naveen
Filing Date	:NA	4)KHURANA, Meenu
(87) International Publication No	: NA	5)GEETANJALI
(61) Patent of Addition to Application Number	:NA	6)JINDAL, Poonam
Filing Date	:NA	7)GUPTA, Sheifali
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(57) Abstract :

The present disclosure provides an automated cleaning assembly (100) and method, configured to detect and identify debris including dried leaves, using a set of sensors (124), collect the debris by a suction unit (112) of the assembly (110), store the debris in one or more hollow chambers (104), operatively coupled to the suction unit (112) and dispose the debris from the one or more hollow chambers (104). The proposed assembly is configured to include one or more controllers (122), operatively coupled to the set of sensors (124) and a plurality of a set of actuators (110) for executing a set of instructions configured to perform the functionalities of the assembly. The plurality of a set of actuators (110) facilitates locomotion of the assembly (100) and suction of the debris. The proposed assembly (100) is configured to be electrically powered by at one or more power sources (130) including solar power.

No. of Pages : 26 No. of Claims : 8