(19) INDIA

(22) Date of filing of Application :24/03/2022 (43) Publication Date : 02/02/2024

## (54) Title of the invention: SELF-CLEANING DOORMAT DEVICE

(51) International classification	:A47L0023260000, B08B0003020000, B08B0005020000, A47L0011400000, D06B0001020000	(71)Name of Applicant:  1)Chandigarh Group of Colleges, Jhanjeri Address of Applicant: State Highway 12A Jhanjeri, Sahibzada, Ajit Singh Nagar, Punjab 140307, India. Punjab India (72)Name of Inventor:
(31) Priority Document No	:NA	1)Richa Mehta
(32) Priority Date	:NA	2)Sonia Bhukra
(33) Name of priority country	:NA	3)Manbir kaur
(86) International Application No	:NA	4)Saurabh Kumar
Filing Date	:NA	5)Shipra Maini
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number:NA		
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

## (57) Abstract:

The present invention relates to a self-cleaning doormat device consists of cuboidal frames 1, wherein, each of the frame 1 has first and second portion is configured in such a manner that the first portion is installed with a primary 3 and secondary 4 mat through motorized shaft, while second portion is installed with two sets of wheels 6, a cleaning assembly fitted inside the cleaning section consists of a vacuum pump 7, an electronic nozzle 9 attached with water storage chamber 8, a sprayer 11 connected with sanitizer storage chamber 10, and a hot air blower 12 to clean the mat such that when the user's footwear detect more than a set threshold value, microcontroller actuates the footwear cleaning unit, an artificial intelligence based imaging unit 14 plugged over the frames 1 determine the number of users approaching towards the frames and microcontroller de-activates the electromagnetic joint 2 accordingly.

No. of Pages: 14 No. of Claims: 6