

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202111014532 A

(19) INDIA

(22) Date of filing of Application :30/03/2021

(43) Publication Date : 23/12/2022

(54) Title of the invention : VACUUM BASED ELECTRIC DOOR MAT

(51) International classification	:A47L0023260000, A61J0001140000, F24F0011330000, A47L0023220000, A63B0071020000	(71)Name of Applicant : <b>1)Chandigarh Group of Colleges, Jhanjeri,</b> Address of Applicant :State Highway 12A Jhanjeri, Sahibzada Ajit Singh Nagar, Punjab 140307, India. Punjab India
(31) Priority Document No	:NA	(72)Name of Inventor :
(32) Priority Date	:NA	<b>1)Sushant</b>
(33) Name of priority country	:NA	<b>2)Rishabh</b>
(86) International Application No	:NA	<b>3)Shubham</b>
Filing Date	:NA	<b>4)Jatinder Kaur</b>
(87) International Publication No	: NA	<b>5)Dr. Sarabpreet Kaur</b>
(61) Patent of Addition to Application Number	:NA	<b>6)Dr. Sajjan Singh</b>
Filing Date	:NA	<b>7)Dr. Rajneesh Talwar</b>
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

A vacuum based electric door mat comprising, a door mat having two layers, wherein a first layer is equipped with multiple suction pores 1 each having a twister 2 that is rotated and rubbed against sole of person's footwear to remove dust, multiple pipes 3 connected to the pores 1 to receive the dust, a second layer equipped with multiple sensors 4 configured to detect weight applied on the mat, wherein the sensors 4 are configured to generate voltage, two containers interconnected via a tube to receive and accumulate the dust transferred from the pipes, a motor arranged with a fan is installed in a one of the containers 5, 6 connected with the sensors 4 to receive the voltage for activation, wherein the fan creates a suction force upon activation for collecting the dust presented on the twisters 2 to ensure automatic cleaning of the mat. Ref Figure 1

No. of Pages : 17 No. of Claims : 7