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| <p>(51) International classification :A61H0003000000, B66F0007060000, B62B0005000000, E04F0011180000, G01B0011060000</p> <p>(86) International Application No :NA<br/>Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA<br/>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA<br/>Filing Date :NA</p> | <p>(71)Name of Applicant :<br/><b>1)Jaipur National University</b><br/>Address of Applicant :Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----<br/>-----</p> <p>Name of Applicant : NA<br/>Address of Applicant : NA</p> <p>(72)Name of Inventor :<br/><b>1)Dr. Manish Soni</b><br/>Address of Applicant :School of Engineering &amp; Technology, Jaipur National University, Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----<br/>-----</p> <p><b>2)Dushyant Kumar</b><br/>Address of Applicant :School of Engineering &amp; Technology, Jaipur National University, Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----<br/>-----</p> <p><b>3)Hitendra Agrawal</b><br/>Address of Applicant :School of Engineering &amp; Technology, Jaipur National University, Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----<br/>-----</p> <p><b>4)Mayank Joshi</b><br/>Address of Applicant :School of Engineering &amp; Technology, Jaipur National University, Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----<br/>-----</p> |
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(57) Abstract :

A staircase climbing assistive device for physically impaired comprises a cylindrical body 1 to be located above a handrail of staircase, a telescopically operated rod 2 for positioning the body 1, an artificial intelligence enabled image capturing module to capture images of staircase, an optical thickness sensor to detect the width of handrail, a set of plates 4 to lock the body 1 on the rails, a set of telescopically operated bars 5 configured on the body 1 to position the rod 2 above the stairs, a primary 6 and a secondary platform 7 to accommodate the foot of the user, a weight sensor to detect the presence of foot, a scissor lift arrangement 8 to lift the primary platform 6, a motorized grooved wheel 9 for maneuvering the plates 4 on the handrail and a suction cup 11 to clasp the staircase wall.

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