

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311074915 A

(19) INDIA

(22) Date of filing of Application :02/11/2023

(43) Publication Date : 01/12/2023

(54) Title of the invention : ADAPTABLE LEG SUPPORTING DEVICE

(51) International classification :A61B0005000000, A61B0005020500, A61B0005145500, A61B0005010000, G16H0040630000

(86) International Application No :NA
Filing Date :NA

(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

(71)Name of Applicant :

1)Noida Institute of Engineering and Technology, Greater Noida

Address of Applicant :Plot No. -19, Knowledge Park-II, Institutional Area, Greater Noida, Uttar Pradesh-201306, India. Greater Noida -----

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Dr. Himanshu Sharma

Address of Applicant :Department of Electronics and Communication Engineering, Noida Institute of Engineering and Technology, Greater Noida, Plot No. -19, Knowledge Park-II, Institutional Area, Greater Noida, Uttar Pradesh-201306, India. Greater Noida -----

2)Ambrish Kumar Sharma

Address of Applicant :Master of Computer Applications, Noida Institute of Engineering and Technology, Greater Noida, Plot No. -19, Knowledge Park-II, Institutional Area, Greater Noida, Uttar Pradesh-201306, India. Greater Noida -----

(57) Abstract :

An adaptable leg supporting device, comprising a platform 1 developed to be positioned on a ground surface and accessed by a user to place feet, multiple hinges 2 for providing movement to platform 1 allows bending of platform 1, a touch sensor 3 detecting placement of feet, multiple primary suction cups 4 are arranged on platform 1 for affixing with surface of feet to secure feet on platform 1, an artificial intelligence based imaging unit 5 determines positioning of user's calve portion and accordingly microcontroller directs a L-shaped telescopic rod 6 for extending to position a motorized clamp 7 attached with rod 6 parallel to calve portion and synchronously microcontroller directs clamp 7 to grip calve portion, a FBG (Fiber Bragg Grating) sensor for detecting vital health parameters of user for actuating a speaker 8 for generating voice commands to notify user to consult a medical practitioner.

No. of Pages : 12 No. of Claims : 5