

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341063258 A

(19) INDIA

(22) Date of filing of Application :20/09/2023

(43) Publication Date : 06/10/2023

(54) Title of the invention : TRANSFEMORAL PASSIVE PROSTHETIC LEG MECHANISM FOR USER POWERED WALKING GAIT GENERATION

<p>(51) International classification :A61F0002600000, A61F0002640000, A61F0002500000, A61F0002760000, A61F0002680000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)I Arun Kumar Address of Applicant :3A, MKB ARCADIA apartment, Plot No. 468 , Kamarajar Street, K.K.Nagar , Tiruchirappalli Tamil Nadu - 620021 Tiruchirapalli -----</p> <p>2)Ravi Kumar Mandava Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)I Arun Kumar Address of Applicant :3A, MKB ARCADIA apartment, Plot No. 468 , Kamarajar Street, K.K.Nagar , Tiruchirappalli Tamil Nadu - 620021 Tiruchirapalli -----</p> <p>2)Ravi Kumar Mandava Address of Applicant :Department of Mechanical Engineering, Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kurnool, Andhra Pradesh-518007 Kurnool -----</p>
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(57) Abstract :

The proposed invention relates to a mechanism and more particularly to a Transfemoral Prosthetic Leg Mechanism for User Powered Walking Gait Generation (0) based on the principle of quick return mechanism and cross belt drive mechanism which constitute a single degree of freedom. The prosthetic leg (0) has a belt or a harness (1) worn by the user at the waist attached over the socket (18) with a cavity supported by shank/pylon (17) with the quick return mechanism as crank disc (4), slotted bar (5) connecting rod (6) to provide oscillating motion to the knee (10) which further provide motion to the foot joint (14) with the help of cross belt drive consists of cross link 1 (7), cross link 2 (8), and crosslink 3 (9) to generate the gait.

No. of Pages : 20 No. of Claims : 8