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(54) Title: PROSTHETIC KNEE WITH SWING ASSIST

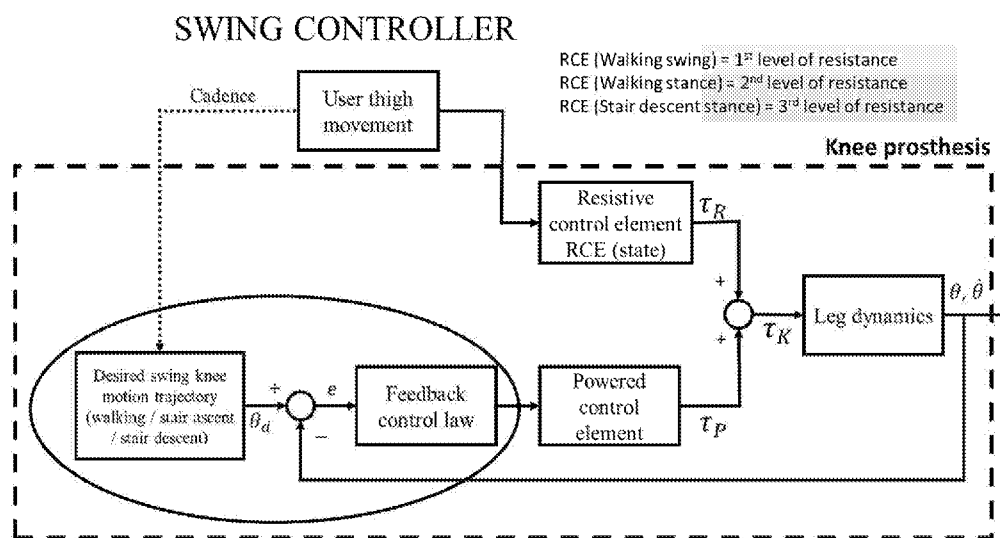


FIG. 1

(57) **Abstract:** The present disclosure provides for a device and method of control for an artificial prosthetic knee. A prosthetic knee according to the present disclosure relies on strictly passive means of providing support during weight bearing and supplements a resistive swing-phase mechanism with a small powered actuator. This actuator adds power to the knee, exclusively during swing phase, to improve swing-phase behavior. In particular, the knee still relies on the resistive swing-phase mechanism to provide nominal swing-phase knee motion, but supplements that motion as needed with the small powered actuator.

UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER
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 CPC - A61F 2/642; A61F 2/64; A61F 2/644 (2019.02)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC - 623/24; 623/43; 623/45 (keyword delimited)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/0098828 A1 (BALBONI et al) 28 April 2011 (28.04.2011) entire document	1-10
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Y		13
Y	US 2004/0249467 A1 (MEYERS et al) 09 December 2004 (09.12.2004) entire document	13
A	US 5,545,233 A (FITZLAFF) 13 August 1996 (13.08.1996) entire document	1-15
A	US 7,588,604 B2 (OKUDA et al) 15 September 2009 (15.09.2009) entire document	1-15
A	US 5,704,945 A (WAGNER et al) 06 January 1998 (06.01.1998) entire document	1-15

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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"&" document member of the same patent family

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