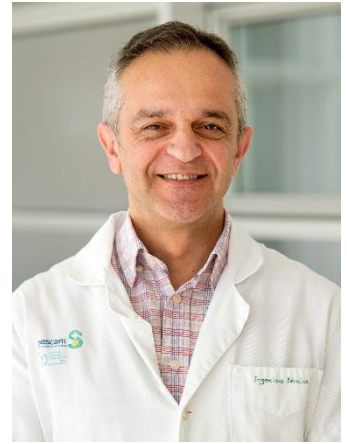


Curriculum Vitae

Enrique Pérez Rizo

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PROFILE

1. Main Research Interests and Current Projects

Enrique Perez-Rizo is a 52 years old Electronic Industrial Technical Engineer (University of Castilla la Mancha, 1997) and Master in Biomedical Engineering, specialized in Biomechanics and Rehabilitation Engineering (Polytechnic University of Valencia, 2012). With 15 years of experience in the private sector, he worked for 4 years in the paper industry as an Instrumentation Engineer. He joined the team of the Biomechanics R & D + I and Technical Aids Unit at the National Hospital for Paraplegics in Toledo in 2003, actively involved in the installation and setting up of the Movement Analysis Laboratory. Since then he has been participating in numerous research projects and publications related to gait analysis, analysis of wheelchair propulsion, biomechanical behavior of technical aids for gait, analysis of sitting pressures and the behavior of exoskeletons for gait on paraplegics. He has also developed several prototypes and software related to biomechanics and neurophysiology. His main interest is focused on biomechanical movement analysis and instrumentation and surface electromyography. In addition, he is currently Associate Professor of Instrumentation at the University of Castilla la Mancha.

2. Academic Degrees

- Master's in Biomedical Engineering. Politécnic University, Valencia, Spain (2012).
- Industrial Technical Engineering. Castile-La Mancha University. Toledo Spain (1997).

3. Current Position

- Researcher Engineer at the Biomechanics and Technical Aids Department, Paraplegic National Hospital, Toledo, Spain. (2003 - Present).

4. Publications

- Pérez-Rizo E, Trincado-Alonso F, Pérez-Nombela S, Del-Ama AJ, Jiménez-Díaz F, Gil-Agudo. Application of a model to analyze shoulder biomechanics in adult patients with spinal cord injury when walking with crutches in two different gait patterns. *NeuroRehabilitation*. 2017;40(1):129-140.
- Gil-Agudo A, Mozos MS, Ruiz BC, Del-Ama AJ, Pérez-Rizo E, Segura-Fragoso A, Jiménez-Díaz F. Shoulder kinetics and ultrasonography changes after performing a high-intensity task in spinal cord injury subjects and healthy controls. *Spinal Cord*. 2016 Apr;54(4):277-82.
- Gómez-Soriano J, Bravo-Esteban E, Pérez-Rizo E, Ávila-Martín G, Galán-Arriero I, Simón-Martínez C, Taylor J. Abnormal cutaneous flexor reflex activity during controlled isometric plantarflexion in human spinal cord injury spasticity syndrome. *Spinal Cord*. 2016 Sep;54(9):687-94.
- Perez-Rizo E, Casado-Lopez R, Lozano-Berrio V, Trincado-Alonso F, Martin-Majarres S, Gil-Agudo A. Shoulder kinematics in reciprocal and swing-through gait. A case study. *Gait Posture*. 2014; 39(1):S104-S105.
- Gil-Agudo A, Pérez-Nombela S, Pérez-Rizo E, Del Ama-Espinosa A, Crespo-Ruiz B, Pons JL. Comparative biomechanical analysis of gait in patients with central cord and Brown-Séquard syndrome. *Disabil Rehabil*. 2013;35(22):1869-76.

- Pérez-Rizo E, Solís-Mozos M, Belda-Lois JM, Page A, Taylor Julian, Pons JL, Gil-Agudo A. Instrumentation and biomechanical model for kinematic and kinetic analysis of upper limbs during gait with crutches. *JACCES*, 2013 - 3(2): 135-156.
- Gil-Agudo A, Pérez-Nombela S, Pérez-Rizo E, del Ama-Espinosa A, Crespo-Ruiz B, Pons JL. Comparative biomechanical analysis of gait in patients with central cord and Brown-Séquard syndrome. *Disabil Rehabil.* 2013;35(22):1869-76. doi: 10.3109/09638288.2013.766268. Epub 2013 Apr 19. PubMed PMID: 23600711.

1. Projects

- Biomechanics analysis of upper limbs during gait with crutches. Comparative study of two different types of gait patterns". Castile-La Mancha Social & Health Foundation. Castile-La Mancha Healthcare Services. PI2010/50. Spain. 2012-2013.
- Evaluation of robotic therapy with exoskeletons in gait rehabilitation in incomplete spinal cord injury patients. Call for FIS 2015. 2016-2018. PI15/01437
- Motor rehabilitation of spinal cord injury through combined application of robotic exoskeleton, spinal cord stimulation and cortical modulation. RECODE 2017 Call for "Explora Ciencia" and "Explora Tecnología" projects. State Research Agency. Ministry of Economy and Competitiveness. DPI2017-91117-EXP.