

Curriculum vitae

Imre Cikajlo, PhD, Associate Professor

Education

- 1999 graduated from University of Ljubljana, Faculty of electrical engineering, automatic control/robotics, supervisor: prof.dr.Tadej Bajd
- 2003 obtained Doctoral Degree (doctor of science, PhD) from University of Ljubljana, Faculty of electrical engineering, Slovenia, supervisor: prof.dr.Tadej Bajd, thesis title: »Sensory integration in gait re-education«.

Working experience

- 1999 - 2003 University of Ljubljana, Faculty of electrical engineering, Laboratory for robotics and biomedical engineering, junior researcher - Ljubljana, Slovenia
- 2003 - 2004 Postdoctoral Fellow, Tohoku University, Graduate School of Engineering, Sendai, Japan
- 2003 - 2008 Institute for rehabilitation, Republic of Slovenia – independent researcher.
- 2008 - 2011 Institute for rehabilitation, Republic of Slovenia - Research Associate.
- 2009 - University of Nova Gorica, School of Engineering and Management - Associate Professor
- 2011 - University rehabilitation institute, Ljubljana, Slovenia - Senior Research Associate

Postdoctoral education

- 2003 - 2004 postdoctoral research (funded by JSPS - Japanese Society for the Promotion of Science) research Fellow at Tohoku University, Graduate School of Engineering, Sendai, Japan.
- 2007- 2008 guest researcher at Tokyo University, Institute for Industrial Sciences, Tokyo, Japan (Funded by JSPS)

Foreign languages

English, German, Spanish, Hungarian, Serbian (basic Cyrillic), basic Japanese

Tenure-Accruing Titles

- Teaching assistant, University of Ljubljana, Faculty of electrical engineering, Ljubljana, Slovenia, 2003
- Research Associate: Institute for rehabilitation, Republic of Slovenia, Slovenia , 2006
- Associate Professor: University of Nova Gorica, School of Engineering and Management, Slovenia, 2009
- Senior Research Associate: University rehabilitation institute, Ljubljana, Slovenia, 2011

Research activities:

- Research and development of sensory system for gait analysis and control of functional electrical stimulator,
- Analysis of bipedal gait in normal and pathological human gait,
- The effect of cognitive feedback on gait of persons with incomplete spinal cord injury
- Development of the original system for gait re-education after incomplete spinal cord injury
- Research of postural responses and development of novel methods for objective evaluation of postural responses for each perturbation direction
- Biomechanical gait analysis of children with cerebral palsy,
- Research and development of virtual environment tasks for integration into rehabilitation robotics,
- Development of virtual environment for balance training in clinical and home environment – telerehabilitation.

Awards

National Prešeren Award (2000) University of Ljubljana, Faculty of electrical engineering, Ljubljana, Slovenia, »Telekinesthetic feedback« supervisor: prof. Tadej Bajd

Membership in international associations

- IFESS – International functional electrical stimulation society
- IFMBE – International federation for medical and biological engineering
- ISVR – International society for virtual rehabilitation
- IEICE Section Europe

Membership in domestic associations

- DMBTS – Društvo za medicinsko in biološko tehniko Slovenije, Member of the board

Selected journal publications:

1. CIKAJLO, Imre, RUDOLF, Marko, GOLJAR, Nika, BURGER, Helena, MATJAČIĆ, Zlatko. Telerehabilitation using virtual reality task can improve balance in patients with stroke. *Disabil. rehabil.* [Print ed.], 2012, vol. 34, no. 1, str. 13-18
2. PERRY, Joel C., OBLAK, Jakob, JUNG, Je H., CIKAJLO, Imre, VENEMAN, Jan F., GOLJAR, Nika, BIZOVIČAR, Nataša, MATJAČIĆ, Zlatko, KELLER, Thierry. Variable structure pantograph mechanism with spring suspension system for comprehensive upper-limb haptic movement training. *J. rehabil. res. dev.* [Print ed.], 2011, vol. 48, no. 4, str. 317-333
3. EMBORG, Jonas, MATJAČIĆ, Zlatko, BENDTSEN, Jan D., SPAICH, Erika G., CIKAJLO, Imre, GOLJAR, Nika, ANDERSEN, Ole Kaeseler. Design and test of a novel closed-loop system that exploits the nociceptive withdrawal reflex for swing-phase support of the hemiparetic gait. *IEEE trans. biomed. eng.*, Apr. 2011, vol. 58, no. 4, str. 960-970
4. OBLAK, Jakob, CIKAJLO, Imre, MATJAČIĆ, Zlatko. Universal haptic drive : a robot for arm and wrist rehabilitation. *IEEE trans. neural syst. rehabil. eng.* [Print ed.], 2010, vol. 18, no. 3, str. 293-302,
5. CIKAJLO, Imre, MATJAČIĆ, Zlatko. Directionally specific objective postural response assessment tool for treatment evaluation in stroke patients. *IEEE trans. neural syst. rehabil. eng.* [Print ed.], 2009, vol. 17, no. 1, str. 91-100

6. BURGER, Helena, ERZAR, Dominik, MAVER, Tomaž, OLENŠEK, Andrej, CIKAJLO, Imre, MATJAČIĆ, Zlatko. Biomechanics of walking with silicone prosthesis after midtarsal (Chopart) disarticulation. *Clin. biomech.* (Amsterdam). [Print ed.], 2009, vol. 24, no. 6, str. 510-516
7. CIKAJLO, Imre, MATJAČIĆ, Zlatko, BAJD, Tadej. Efficient FES triggering applying Kalman filter during sensory supported treadmill walking. *J. med. eng. technol.*. [Print ed.], 2008, vol. 32, no. 2, str. 133-144
8. CIKAJLO, Imre, MATJAČIĆ, Zlatko. The influence of boot stiffness on gait kinematics and kinetics during stance phase. *Ergonomics*, 2007, vol. 50, no. 12, str. 2171-2182
9. CIKAJLO, Imre, MATJAČIĆ, Zlatko, BAJD, Tadej, FUTAMI, Ryoko. Sensory supported FES control in gait training of incomplete spinal cord injury persons. *Artif. organs*, 2005, vol. 29, no. 6, str. 459-461
10. KAWANISHI, Tsutomu, KANO, Shin'ichiro, CIKAJLO, Imre, FUTAMI, Ryoko. Development of EMG-driven type lower limb FES control system. *Denshi Jōhō Tsūshin Gakkai gijutsu kenkyū hōkoku*, 2004, vol. 104, no. 429, str. 57-60
11. CIKAJLO, Imre, MATJAČIĆ, Zlatko, BAJD, Tadej. Development of a gait re-education system in incomplete spinal cord injury. *J. rehabil. med.*, 2003, vol. 35, no. 5, str. 213-216