



**DEPARTMENT OF AUTOMATION AND HUMAN MACHINE
INTERACTIONS**

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professor

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Curriculum

1979-1984	University of Technology in Košice, Faculty of Electrical Engineering
1984	electrical engineer - radio electronics
1984-1989	researcher - VUST A.S. Popova Praha
1989	Technical University of Košice, FME - assistant
2000-2003	Postgraduate studies Forensic Engineering, Department of Electrical Engineering, Institute of Forensic Engineering, Žilina
2009	PhD., bionics and biomechanics
2013	associate professor, Automation
2020	professor, Machine and process control

Jazykové znalosti

English, Russian

Vedecká orientácia

- wireless sensor networks
- methods of motion analysis
- neural networks
- assistive technologies

Pedagogické aktivity

Leadership training and lectures on selected subjects:

- Systems with artificial intelligence
 - Programming languages and tools
 - Electrical engineering for automation
 - Electrical engineering and electronics
 - Medical electronics
 - Basics of automation
 - Term project
 - Methods of technical creativity and project management
 - Wireless monitoring and control Teória automatického riadenia I.
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Projects

International projects

- Enable - network of ICT supported learning for disabled people, reference no 518537-LLP-1-2011-1-SIGRUNDTVIG-GNW, doba riešenia: 01.11.2011 - 31.10.2014, spoluriešiteľka
- ASPIRE - Access to Society for People with Individual Requirements, TEMPUS IV, Number of project: 530345-TEMPUS-1-2012-1-GE-TEMPUS-JPHES, doba riešenia: 1. 10. 2012 – 30.9. 2015, spoluriešiteľka
- ETNA - European Thematic Network on Assistive Information and Communication Technologies, FP7, CIP-ICT-PSP-2009-4, CIP Thematic Network
- eACCESS+- the eAccessibility Network, FP7, ICT PSP Project 2009: CIP-ICT-PSP-2009-3
- Self Mobility Improvement in the eLderly by counteractING falls - SMILING (2008-2010) contract number 215493, 7th RTD Framework Programme – Specific Programme Cooperation, Theme 3 "Information and Communication Technologies", Objective ICT2007.7.1 "ICT and Ageing", team member
- Design for All for eInclusion - DfA@eInclusion" (2007-2009) IST Coordination Action, team member
- MonAMI – Mainstreaming on Ambient Intelligence (2006-2010) Integrated project, FP6-2005-IST-5, team member
- InfoRedis – IST Requalification of Disabled Persons (2004-2007) Leonardo, CZ/04/B/F/NT-168025, team member
- GATEWAY – Guidance for Assistive Technology in Education and Workplace Advancing Young People with Disabilities (2004-2006) Leonardo, IRL/04/B/F/PP - 153.203, team member
- ATTRAIN – Assistive Technology Consultant/Advisor Training Development and Delivery (2002-2004) Socrates Grundtvig, 101255-CP-1-2002-1-SKGRUNDTVIG-G1, pilot project, team member
- IUESD – Integrated University Education System for Disabled (1999-2002) TEMPUS UM_JEP, Contract N°: JEP - JEP - 14 226 -1999 EU Funding, team member
- LEONARDO DA VINCI SK/02/A/F/PL-202463, mobility project, team member
- eMotion Grant – The influence of intensive pre-surgical rehabilitation before total hip endoprosthesis on post surgical status of patients(2002-2004) supported by eMotion, Italy, team member

Projects in Slovakia

- KEGA 054TUKE-4/2016 Inovácia výučby predmetov so zameraním na automatizáciu v reakcii na požiadavky priemyslu a služieb
- VEGA 1/0911/14 Uplatnenie bezdrôtových technológií v nových výrobkoch a službách pri ochrane ľudského zdravia
- VEGA 1/1162/11 Teoretické princípy, metódy a prostriedky diagnostiky a rehabilitácie mobility seniorov
- Výskum a vývoj inteligentných nekonvenčných aktuátorov na báze umelých svalov Štrukturálne fondy Európskej únie, operačný program Výskum a vývoj, opatrenie 2.2 Prenos poznatkov a technológií získaných výskumom a vývojom do praxe, projekt, ITMS projektu 26220220103
- APVV DO7RP-0004-09, Self Mobility Improvement in the eLderly by counteractING falls
- KEGA 3/6441/08 Rehabilitačné inžinierstvo - nová učebnica a výskumný koncept nového študijného programu
- VEGA 1/0820/08 Dynamická analýza pohybu človeka pre klinickú prax v rehabilitácii a športovom
- Lekárstve

Zahraničné pobyty

- Kurz pohybovej analýzy – Milano, Taliansko – ESMAC/SIAMOC 2001 (certifikát)
- Prístupnosť www stránok (Web accessibility – kurz, Ľubľana, Slovinsko (2001) - certifikát
- University of Bristol, 21 dní, kurz Podporné technológie pre zdravotne postihnutých, projekt Tempus 2000, 2001

- SIVA Milano, 21 dní, kurz podpornej technológie pre zdravotne postihnutých projekt Tempus 2000, 2001
- Letná škola pohybovej analýzy Bologna, Taliansko Jún 18-24, 2006 (certifikát)

Memberships, awards

- member of AAATE - Association for the Advancement of Assistive Technology in Europe
- member of ICTA Europe – International Commission for Technology and Accessibility, Subcommision of Rehabilitation International
- member of EDEaAN – European Design for All e-Accessibility Network
- member of BEL – Biomechanics European Laboratory

Selected publications

Use of MEMS Sensors in Walking Speed Monitoring for Purposes of Behavioral Analysis / KARCHŇÁK, Ján - ŠIMŠÍK, Dušan - GALAJDOVÁ, Alena - JOBBÁGY, Boris - 2015. In: International Journal of Engineering Research in Africa. Vol. 18 (2015), p. 159-166. - ISSN 1663-3571

Testing properties of E-health system based on Arduino / RÁKAY, Róbert - VIŠŇOVSKÝ, Martin - GALAJDOVÁ, Alena - ŠIMŠÍK, Dušan - 2015. In: Journal of Automation and Control. Vol. 3, no. 3 (2015), p. 122-126. – ISSN 2372-3033

Experimental testing of wireless sensors network functionality / Alena Galajdová, Dušan Šimšík - 2015. In: Journal of Automation and Control. Vol. 3, no. 3 (2015), p. 53-57. - ISSN 2372-3033

Ergonomical aspects in design of mechatronical rehabilitation device / Dušan Šimšík, Alena Galajdová, Miroslav Gorlický - 2012. - 1 elektronický optický disk (CD-ROM). In: Journal of Biomechanics. Vol. 45, no. Supplement 1 (2012), s. 71. - ISSN 0021-9290

MonAMI Platform in Elderly Household Environment Architecture, Installation, Implementation, Trials and Results/ Dušan Šimšík ... [et al.] - 2012. In: Lecture Notes in Computer Science : Computer Helping People with Special Needs. - Berlin Heidelberg : Springer-Verlag, 2012 No. 7383 (2012), p. 419-422. - ISBN 978-3-642-31533-6 - ISSN 0302-9743

Experimental testing of the innovative rehabilitation shoe for gait training / A.Galajdova, D. Simsik, P. Pavlov - 2011. - 1 elektronický optický disk (CD-ROM). In: European Journal of Physical and Rehabilitation Medicine. Vol. 47-suppl. 1, no. 2 (2011), p. 62. - ISSN 1973-9087

First experience of implementation of social services based on ICT in Slovakia / D. Simsik ... [et al.] - 2011. – 1 elektronický optický disk (CD-ROM). In: European Journal of Physical and Rehabilitation Medicine. Vol. 47-suppl. 1, no. 2 (2011), p. 33-34. - ISSN 1973-9087

Services for seniors - experience of testing in Slovakia field trials / Dušan Šimšík ... [et al.] - 2011. In: AAATE 2011: Everyday Technology for Independence and Care : 11th European conference : assistive technology research series : volume 29 : August 31 - September 2, 2011, Maastricht, Netherland. - Amsterdam : IOS Press BV, 2011 P. 1082-1089. - ISBN 978-1-60750-813-7