INSTITUTE OF CONTROL AND INDUSTRIAL INFORMATICS

http://www.urpi.fei.stuba.sk/

Director
Prof. Ing. Ján Murgaš, PhD.   Tel/Fax: +421-2-602 91 781
e-mail: jan.murgas@stuba.sk   Mob.: +421-908 706 215

I. STAFF

Professors	Prof. Ing. Mikuláš Huba, PhD., Prof. Ing. Ladislav Jurišica, PhD., Prof. Ing. Václav Kalaš, DrSc., Prof. Ing. Štefan Kozák, PhD., Prof. Ing. Ján Murgaš, PhD., Prof. Ing. Vojtech Veselý, DrSc., Prof. Ing. Milan Žalman, PhD.
Associate Professors	Doc. Ing. Igor Hantuch, PhD., Doc. Ing. Peter Hubinský, PhD., Doc. Ing. Alena Kozáková, PhD., Doc. Ing. Zdenka Králová, PhD., Doc. Ing. Eva Miklovičová, PhD., Doc. Ing. Danica Rosinová, PhD., Doc. Ing. Ivan Sekaj, PhD., Doc. Ing. Ján Šturcel, PhD., Doc. Ing. Anton Vitko PhD., Doc. Ing. Katarína Žáková, PhD.
Assistant Professors	Ing. Richard Balogh, Ing. Pavol Bisták, Ing. Michal Blaho, Ing. Jozef Dorner, Ing. Peter Drahoš, PhD., Ing. Mária Dúbravská, Ing. Jozef Dúbravský, Ing. Martin Foltin, PhD., Ing. Štefan Chamraz, PhD., Ing. Slavomír Kajan, PhD., Ing. Ján Kardoš, PhD., Ing. Ladislav Körösi, Ing. Marián Mrosko, Ing. Ivan Oravec, PhD., Ing. Ľubica Šimová, PhD., Ing. Peter Ťapák, PhD., Ing. Miroslav Toman, PhD.
Research Workers	Ing. Igor Bélai, PhD., Ing. František Duchoň,. Ing. Peter Fodrek, PhD., Ing. Miroslav Halás, PhD., Ing. Jaroslav Hanzel, PhD., Ing. Mária Hypiusová, PhD., Ing. Marián Kľúčik, Ing. Leo Mrafko, Ing. Jana Paulusová, Ing. Danica Sovišová, Ing. Jozef Vöröš, PhD.
Technical Staff	Peter Detvaj, Ing. Radoslav Dibarbora, Mgr. Alena Foltinová, Pavol Gašparovič, Katarína Horváthová, Katarína Macková (secretary), Jozef Turčánik
PhD. Students	Ing. Andrej Babinec, Ing. Pavol Bahník, Ing. Michal Bachratý, Ing. Peter Didek, Ing. Zuzana Dideková, Ing. Martin Ernek, Ing. Ľudovít Farkaš, Ing. Martin Gažo, Ing. Ivan Holič, Ing. Juraj Hnát, Ing. Peter Kurčík, Ing. Michal Leporis, Ing. Quang Nguyen, Ing. Michal Oravec, Ing. Jakub Osuský, Ing. Peter Pásztó, Ing. Ivan Pestún, Ing. Lukáš Palkovič, Ing. Tatiana Radičová, Ing. Jozef Rodina, Ing. Michal Sedlák, Ing. Miroslav Suchánek, Ing. Alexandra Šlezárová, Ing. Stanislav Števo, Ing. Juraj Švančara, Ing. Richard Tesár, Ing. Stanislav Triaška, Ing. Martin Urban, Ing. Kamil Valigura, Ing. Ján Vincel, Ing. Jakub Vonkomer, Ing. Vladimír Žilka

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Network Control Systems Laboratory
- Continuous Process Control Laboratory
- Optimization and Optimal Control Laboratory
- Multivariable Systems Laboratory

- Production Systems Modelling Laboratory
- Computational Intelligence Laboratory
- Actuators Laboratory
- Electronics Laboratory
- CAD CS Laboratory
- Automation Means Laboratory
- Sensors Laboratory
- SIEMENS Automation Technology Laboratory
- Smart Servosystems Laboratory
- Servosystems Laboratory
- Industrial Automation Laboratory
- Multimedial Laboratory
- Nonlinear Systems Laboratory
- Robot Control Laboratory
- Mechatronics Laboratory
- Robotics Laboratory
- Special Systems Laboratory
- Real-Time Programming Tools Laboratory
- CAD Systems Laboratory
- Flying Devices Laboratory
- Control System Software Laboratory
- Discreet Event Systems Laboratory

II.2 Special Measuring Instruments and Computers

- Mechanical Setup Position Control Plant
- Laboratory Models: Inverted Pendulum, Crane, Helicopter Rack, Helicopter Model, Thermal Plant, Thermo-optical Model, Magnetic Levitation Syst., Two - Tank System, Three - Tank System
- Digital Signal Processor Board for Real-Time Control
- CALYS 5 Digital Meas. and Calibr. Device for Process Measurement of Temperature
- Multitron PS 10 – Motion Control System
- Intelligent Mobile Robot System
- D Spice DS 1103 developing system
- Programmable Controllers: MicroLogix, Honeywell, Modicon
- Distributed Control System Yokogawa Centum
- Programmable Controllers: Simatic S7-300, S7-200, UDC Honeywell, Modicon TSX Premium, Mocrologix 1000, Allen Bradley
- Allen Bradley Motor Drives, FLEX IIO Modules, Panel View 900
- Production Line Models with: Crane, Conveyors, Manipulators
- Networked control system with CAN Bus & Ether CAT
- Transportation Model, Model for Ball Color Separation, Bouncing Ball Model, Tank Level Control Model, Magnetic Levitation Model, Helicopter Model, Railway Transfer Station Model
- Software: Matlab, MODES, WITNESS, LABREG, PROMOTIC, SAP ERP
- HMI Software - WinCC, WinCC Flexible, Protool
- Programming Software Step7 Professional
- DC servo drive system
- Software Wonderware InTouch
- RsLogix5000, RsLogix500, SoftLogix,
- ControlNet, DeviceNet, EtherNet,
- Emulate500, Emulate5000, LogixArchitect, RsLinx
- RsSQL, RsTune, RSView Supervisory Edition
- HW: ControlLogix PLC, CompactLogix, HMI
- Sinamics S 120
- B&R   APC 620 + ACOPOS 1016

- SIMOVERT
- LEGO Mindstorm NXT 2.0
- XCode Developer Tool

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer:

Introduction into Engineering	(1st sem., 2-2h)	K.Žáková, R .Ravas
Computer Architecture	(2nd sem., 3-2h)	Š. Chamraz, R. Ravas
Bases of Real Time Systems	(3rd sem., 2-3h)	Ľ. Šimová, I. Hantuch
Automatic Control Theory 1	(3rd sem., 2-3h)	M. Huba
Applied Computational Intelligence	(4th sem., 2-2h)	I. Sekaj
Software for Control Systems 1	(4th sem., 2-2h)	Ľ. Šimová, I. Hantuch
Automatic Control Theory 2	(4th sem., 2-3h)	J. Murgaš
Design of Web Applications	(4th sem., 2-2h)	K. Žáková
Modelling and Simulation	(4th sem., 2-2h)	M. Foltin, E. Miklovičová
Electronics for Control Systems	(4th sem., 2-2h)	M. Toman, J. Šturcel
Instrumentation of Control Systems	(4th sem., 3-2h)	J. Šturcel
Internet and Intranet Applications	(5th sem., 2-2h)	K. Žáková
Actuators	(5th sem., 2-3h)	M. Žalman
Software for Control Systems 2	(5th sem., 2-3h)	I. Hantuch, L. Kőrősi
Optimization	(5th sem., 2-2h)	D. Rosinová
Basic of Control Systems	(5th sem., 2-2h)	P. Hubinský
Cybernetics	(5th sem., 3-2h)	J. Murgaš
Sensor Systems for Cars	(5th sem., 2-2h)	V. Tvarožek, J. Šturcel
Automation 1	(5th sem., 3-2h)	J. Murgaš
Learning Management Systems 1	(6th sem., 2-2h)	M. Huba
Industrial Communication Bus	(6th sem., 2-2h)	P. Drahoš, J. Šturcel
Industrial Communication Systems	(6th sem., 3-2h)	I. Bélai, M. Žalman
Robotics	(6th sem., 3-2h)	P. Hubinský
Continuous Processes	(6th sem., 3-2h)	E. Miklovičová
Nonlinear Systems	(6th sem., 2-3h)	M. Huba
Automation 2	(6th sem., 2-2h)	M. Žalman

III.2 Graduate Study (Ing.)

CAD for Progr. Control Systems Development 1	(1st sem., 3-2h)	I. Hantuch
Multimedia in Control	(1st sem., 3-2h)	M. Huba

Optimal Control	(1st sem., 3-2h)	A. Kozáková
Servosystems	(1st sem., 3-2h)	M. Žalman
Theory of Automatic Control 3	(1st sem., 2-3h)	M. Huba
Linear Systems Control	(1st sem., 2-3h)	M. Hypiusová, V.Veselý
Flexible Manufacturing Systems	(1st sem., 3-2h)	L. Jurišica
Modelling and Simulation of Processes	(1st sem., 3-2h)	E. Miklovičová
Artifitial Neural Nets	(1st sem., 3-2h)	I. Sekaj
Internet and Intranet Applications	(1st sem., 2-3h)	K. Žáková
Evolutionary Computing	(2nd sem., 2-3h)	I. Sekaj
Databases of Control Systems	(2nd sem., 2-3h)	Z. Králová
Adaptive Control	(2nd sem., 3-2h)	J. Murgaš
Discrete Event Systems	(2nd sem., 3-2h)	A. Vitko
Multivariable System Control	(2nd sem., 3-2h)	V.Veselý
Sensor Systems in CIM	(2nd sem., 3-2h)	M. Toman, J. Šturcel
Fuzzy and Neural Controllers	(3rd sem., 3-2h)	I. Sekaj
Smart Sensors Systems	(3rd sem., 3-2h)	J. Šturcel
Intelligent Systems	(3rd sem., 3-2h)	S. Kajan, I. Sekaj
Theory of VSC in Robotics	(3rd sem., 3-2h)	L. Jurišica, J. Kardoš
CAD for Progr. Control Systems Development 2	(3rd sem., 3-2h)	I. Hantuch
Production Systems Management and Control	(3rd sem., 2-3h)	Z. Králová
Robots Modelling and Control	(3rd sem., 3-2h)	A. Vitko
Network Technologies	(3rd sem., 2-3h)	J. Murgaš, M. Foltin
Mobile Robotics Systems	(3rd sem., 3-2h	L. Jurišica
Mechatronics	(3rd sem., 3-2h)	L. Jurišica
CAD of Control Systems	(3rd sem., 3-2h)	P. Drahoš, J. Šturcel
System Identification	(4th sem., 2-3h)	E. Miklovičová
Control of Complex Systems	(4th sem., 2-2h)	D. Rosinová
Intelligent Servosystems	(4th sem., 3-2h	M. Žalman

III.3 Undergraduate and Graduate Study for Foreign Students
   (in English Language)

Robotics	programm LLL, kapitols Erasmus (P. Hubinský)	
Automation	programm LLL, kapitols Erasmus (P. Hubinský)	

III.4 Undergraduate Study (Bc.) Distance Education Method

Algorithmisation and Programming	(1st sem.)	Ľ. Šimová
Introduction into Engineering	(1st sem.)	L. Jurišica, K. Žáková
Computer Architecture	(2nd sem.)	Š. Chamraz

Bases of Real Time Systems	(5th sem.)	Ľ. Šimová
Automatic Control Theory 1	(5th sem.)	M. Huba, I. Oravec
Automatic Control Theory 2	(6th sem.)	J. Murgaš
Control System Software 1	(6th sem.)	Ľ. Šimová, I. Hantuch
Instrumentation of Control Systems	(6th sem.)	J. Šturcel
Modelling and Simulation	(6th sem.)	M. Foltin, E. Miklovičová
Electronics for Control Systems	(6th sem.)	M. Toman, J. Šturcel
Actuators	(7th sem.)	M. Žalman
Optimization	(7th sem.)	D. Rosinová
Control System Software 2	(7th sem.)	I. Hantuch, L. Kőrősi
Industrial Communication Systems	(8th sem.)	I. Bélai, M. Žalman
Robotics	(8th sem.)	P. Hubinský
Continuous Processes	(8th sem.)	E. Miklovičová
Nonlinear Systems	(8th sem.)	M. Huba

III.5 Graduate Study (Ing.) Distance Education Method

CAE of Mechatronics Systems	(1st sem.)	M. Kľúčik, V. Goga, J. Murín
Flexible Manufacturing Systems	(1st sem.)	L. Jurišica
Multimedia in Control	(1st sem.)	M. Huba
Servosystems	(1st sem.)	I. Bélai, M. Žalman
Event Systems	(2nd sem.)	A. Vitko
Sensor Systems in CIM	(2nd sem.)	M. Toman, J. Šturcel
Robots Modelling and Control	(3rd sem.)	A. Vitko
Mechatronics	(3rd sem.)	L. Jurišica

IV. RESEARCH PROJECTS

IV.1 International projects

- Reviewing and Reviving Existing VET Curriculum. LLP-LdV-TOI-2008-LT-0022 (M. Huba)
- E-xcellence + Cross sectoral valorisation. 135375-LLP-2007-NL-KA4MP (M. Huba)
- Enhancing NO-SK cooperation in automatic control APVV VMSP-P-0004-09 (M. Huba)

IV.2 National projects

- Modern network control system for demanding industrial applications. APVV-99-045805 (J. Murgaš)
- Algebraic methods in nonlinear control systems and their application to autorotation problem. APVV LPP-0127-06 (M. Huba, M. Halás)
- Teaching aids for distance education study program in Industrial Informatics KEGA 3/5201/07 (J. Šturcel)
- Proposal and preparation of the new interdisciplinary subject Intelligent buildings (IB). KEGA 3/5179/07 (I. Hantuch)

- Design of a methodology of exploitation the 3D-modelling and virtual reality means in conditions of teaching in specialized laboratories. KEGA 3/7307/09 (L. Jurišica)
- Building virtual and remote experiments for a network of online laboratories. KEGA 3/7245/09 (M. Huba)
- Advanced control methods for industrial processes. VEGA 1/0544/09 (V. Veselý)
- Integration and development of nonlinear and robust control methods and their integration to control flying vehicles. VEGA 1/0656/09 (M. Huba)
- Research and development of marginal Power Alternate Traction Drive. APVV -0530-07 (M. Žalman)
- Hybrid triangulation - optical system for working quality checking of tire. APVV VMSP-P-0030-09 (P. Drahoš)
- Clutch Inspector. APVV VMSP-P-0155-09 (M. Žalman)
- Optimization of the mechatronic systems control. VEGA 1/0690/09 (L. Jurišica)
- Intelligent control of service robot APVV VMSP – P-0004-09 (L. Jurišica)
- Building grant for the Centre of Excellence for Smart Technologies, Systems and Services (SMART), ASF EÚ MS SR, ITMS 26240120005, (J. Murgaš)
- Building grant for the Centre of Excellence for Smart Technologies, Systems and Services 2 (SMART 2), ASF EÚ MS SR, ITMS 26240120029, (J. Murgaš)

V. COOPERATION

V.1 Cooperation in Slovakia

- ABB Bratislava, Ltd.
- ATEC Ltd., Bratislava
- AXESS Ltd., Bratislava
- Armed Forces Academy, Liptovský Mikuláš
- Business for Excellence Ltd., Bratislava
- Comenius University, Bratislava, Faculty of Natural Sciences
- ControlTech Industrial Automation Ltd., Trnava
- DATALAN Bratislava, Ltd.
- E-Academia Slovaca, n.o., Bratislava
- Eltis Ltd., Banská Bystrica
- Emerson Ltd., Bratislava
- Gratex International Ltd., Bratislava
- HMH Ltd., Bratislava
- Honeywell Ltd., Bratislava
- Institute of Informatics, Slovak Academy of Sciences, Bratislava
- Johnson Controls Ltd., Bratislava
- KFB Control Ltd., Bernolákovo
- Legrand Slovakia
- Matador Púchov, Inc.
- Meret Ltd., Bratislava
- MicroStep Ltd., Bratislava
- Microstep MIS Ltd., Bratislava
- NES Ltd., Nová Dubnica
- PosAm Ltd., Bratislava
- PPA Energo Ltd., Bratislava
- PROXY, Nové Mesto n/Váhom
- PZ Bratislava, Inc.
- Q – EX Trenčín, Inc.
- RELKO, spol. s r.o.
- RMC Nová Dubnica, Ltd.
- S&A Ltd., Banská Bystrica

- SAP Slovakia, Ltd.
- SE Inc., Bratislava
- Schneider Electric Slovakia, Ltd.
- Siemens Ltd., Bratislava
- Slovak Electricity Transmission System Ltd., Bratislava
- Slovakodata, Inc., Bratislava
- Slovnaft Bratislava, Inc.
- SPP – Slovtransgaz Inc., Nitra
- SWH – Siemens Business Service, Bratislava
- Technical University of Košice
- Telegyr Systems (Slovakia) Ltd., Bratislava
- UMB Banská Bystrica
- UNIT Ltd., Bratislava
- University of Agriculture, Nitra
- University of Economics, Bratislava
- University of Žilina
- Volkswagen Slovakia Inc., Bratislava
- Vonsch Brezno, Ltd.
- VUJE Inc., Trnava
- Robotika Sk, Bratislava
- ME inspection, Bratislava
- ZTS VVU Košice

V.2 International Cooperation

- Institute de Recherche en Communications et Cybernetique, C.N.R.S, Nantes, France
- Department of Mathematical Sciences, Chalmers University of Technology, Gothenburg, Sweden
- Budapest University of Technology and Economics, Budapest, Hungary
- Czech Technical University of Prague, Czech Republic
- Democritos University of Thrace, Xanthi, Greece
- Eidhoven University, The Netherlands
- Faculty of Industrial Organisation and Management, Silesian Technical University, Gliwice, Poland
- Fern Universität - Gesamthochschule in Hagen, Hagen, Germany
- Heilbronn University, Germany
- Humusoft Ltd., Praha, Czech Republic
- Hungarian Fuzzy Association, Hungary
- HTL Spengergasse, Vienna, Austria
- IIASA Laxenburg, Austria
- InnoC.at, Austria (Austria Association for Innovative Computer Science)
- Institute for Problems of Mechanical Engineering, St.Petersburg, Russia
- Institute of Information Theory and Automation, Academy of Sciences of the Czech Republic, Prague, Czech Republic
- Institute of Cybernetics at Tallinn University of Technology, Tallinn, Estonia
- Key Lab of Mathematics Mechanization, AMSS, Chinese Academy of Sciences, Beijing, China
- MES – DEA, Ltd., Switzerland
- Moscow Power Institute, Moscow, Russia
- Profibus International, Germany
- Schneider Electric, Germany
- Strasbourg University, BETA, Strasbourg, France
- Technical University of Brno, Czech Republic
- Technical University of Liberec, Czech Republic
- Technical University of Ostrava, Czech Republic
- Technical University of Tomas Bata in Zlín, Czech Republic

- Technical University of Ancona, Italy
- Technical University of Graz, Austria
- Technical University of Vienna, Austria
- University of Maribor, Slovenia
- University of Bochum, Germany
- University of Defence, Czech Republic
- University of Technology, Pilsen, Czech Republic
- University of West Bohemia in Pilsen, Czech Republic
- University of Zagreb, Croatia
- Vytautas Magnus University, Kaunas, Lithuania
- FH Technikum, Vienna, Austria
- Technical University Riga

V.3 Membership in International Organizations and Societies

- IEEE The Institute of Electrical and Electronics Engineers, Inc. (L. Jurišica, M. Žalman, J. Murgaš, V. Veselý)
- IEE The Institute of Electrical Engineers, Inc. (L. Jurišica, M. Žalman, M. Huba, P. Hubinský)
- IFAC TC Nonlinear Control (M. Huba)
- IFAC, member of the Technical Committee on Adaptive and Learning Systems (J. Murgaš)
- IFAC, member of the Technical Committee on Robust Control (V.Veselý, M. Huba)
- Publishing House Pergamon Press (M. Huba - editor)
- Profibus International (URPI, FEI STU)
- CLAWAR Association, Member of the Board of Trustees. (A.Vitko)
- IMEKO, Member of the Technical Committee on Measurement and Control in Robotic (A.Vitko)

VI. THESES

VI.1 Masters Theses
Masters theses supervised at the Institute of Control and Industrial Informatics. The names of supervisors are in brackets.

Alumni Robotics, Cybernetics, January 2009

[1] Bartos,P.: Design of algorithm of trajectory control with preventing residual oscillation of elastic unit. (P. Hubinský)
[2] Brežný, B.: HMI animation of robotic workstation controlled with PLC (J. Kardoš)
[3] Červenák,Ľ.: Creating a simulation process in an eM-Plant on the basis of real production line of transmissions in Volksawagen Slovakia a.s. (J. Gabriel)
[4] Dorkovič, N.:Design and realization of physical model of the portal gantry cranes (M.Žalman)
[5] Gažo, M.: Control speed of one-way engine (J. Dúbravský)
[6] Gregorovič, P.: Master-Slave control of vertical cutting saw (M. Žalman)
[7] Hlavatý, A.: Associated cotrol of mobile robot (P. Hubinský)
[8] Hudoba, J.: E-learning system designed with OOP (P. Bisták)
[9] Jesenská, J.: Library of the Institute of Control and Industrial Informatics (M. Hejdová)
[10] Ličko, M.: Objects recognition using image processing (J. Dorner)
[11] Machlica, P.: Movement simulation in 3D area – Svatat (J. Grman)
[12] Mókus, Š.: Simulation of strategies for production planning on the laboratory model with manipulators (Z. Králová)
[13] Nguyen, Q., T.: Robust controller design for the 3DCRANE process (V. Veselý)
[14] Novomeská, Z.: Application of the evolutionary computation methods in solving multicriterial optimization tasks (I. Sekaj)
[15] Ráchel, Ľ.: Triangulation in the environment using a laser scanner (F. Duchoň)
[16] Sarvaš, T.: Realization of parallel genetic algorithms on multiple computers (S. Kajan)

[17] Šlezárová, A.: Heuristic adaptive control (J. Murgaš)
[18] Štrenger, M.: Mobile robot navigation in unknown enviroment (F. Duchoň)
[19] Šuplata, M.: Human face recognition (R. Ravas)
[20] Tóth, V: The system for presentation of product sale through electronic media
     using the database of Lotus Notes/Domino placed on a web server (P. Kratműller)

Alumni Cybernetics, June 2009

[1] Babeľa, P.: Robust controller design of magnetic levitation in the frequency domain
     (M. Hypiusová)
[2] Bulko, J.: Predictive control design for laboratory system (A. Kozáková)
[3] Čalfa, M.: TSP solution using artificial neural network (A. Kozáková)
[4] Didek, P.: Application of evolutionary computing for solving of logistics problems (I. Sekaj)
[5] Fodrek, T.: JavaScript Teaching portal (M. Blaho)
[6] Gašpárek, J.: Robust controller design for laboratory crane model (M. Hypiusová)
[7] Gedai, T.: Design of robust PID auto-tuner for control of linear SISO systems with uncertainties
     (Š. Bucz)
[8] Harušťák, P.: Web interface for automatic testing web applications (Ľ. Farkaš)
[9] Hinka, M.: Analysis and design of software solution of deduction states in power industry
     (M. Dúbravská)
[10] Holič, I.: Design of continuous and discrete correcting elements with specified and general
     structure (M. Dúbravská)
[11] Jašková, M.: Design and analysis of chosen model control in lab C026 (P. Drozd)
[12] Jurčacko, B: Design of control and diagnostics of a laboratory model of production line with
     Simatic S7 (L. Mrafko)
[13] Kadlic, B.: Actuator SMA (P. Drahoš)
[14] Kamenský, J.: Distributed computations using Java Ethernet (P. Fodrek)
[15] Lavo, J.: Design of predictive PID controller, which has parameters automatically tuned using
     fuzzy methods (J. Paulusová)
[16] Le Huy Nam: Direct adaptive control (J. Murgaš)
[17] Marič, L.: Design of robust PID controller of processes with parameters and unknown
     mathematical model (Š. Bucz)
[18] Marton, K.: Design controllers for the laboratory model of servo system (M. Hypiusová)
[19] Matúš, R.: Predictive control of a laboratory thermal process (E. Miklovičová)
[20] Matušík, J.: Record attendance system (M. Dúbravská)
[21] Michalových, T.: Robust controllers design for angular velocity of DC-motor
     (M. Hypiusová)
[22] Nagy, P.: Distributed computations using Java RPMI (M. Foltin)
[23] Nízky, M.: Control with pole placement for systems with constraints (P. Ťapák)
[24] Orlík, V.: Internet based administration of journals (K. Žáková)
[25] Pásztó, P.: Mobile robot with visual system controlling (P. Hubinský)
[26] Pintér, M..: Optimization of steady states of complex dynamic system (D. Rosinová)
[27] Radičová, T.: Master-slave servo-drive with LM PM without iron (M. Žalman)
[28] Schlosser, M.: Control of direct motor model with PLC Simatic S7-200 (M. Mrosko)
[29] Šandera, M.: Solving optimization tasks in simulation environment Comsol using genetic
     algorithms (I. Sekaj)
[30] Škoda, M.: Network control system for metal parts separating (J. Murgaš)
[31] Švančara, J.: Using simulation in optimization of production process in the company Power-
     One, s.r.o. (Z. Králová)
[32] Triaška, S.: Virtual laboratory of servosystems (M. Žalman)
[33] Uhrík, M.: Movement control of robotic head in space (J. Murgaš)
[34] Urban, M.: Control of hydraulic model using PLC Simatic S7-200 (M. Mrosko)
[35] Valigura, K.: SimEvents-flexible and transport system modeling tool (M. Foltin)
[36] Valo, A.: Control technological processes (outages, planned outages) via system OMS
     (I. Hantuch)

[37] Varga, T.: Higher-level visualization of digital measurement of the length and data exchange with warehouse management system (J. Gabriel)
[38] Varga, I.: Design and realization of gantry stage motion control system of cutting machine (M. Žalman)
[39] Vavra, M.: Wind power plant control (M. Poliačik)
[40] Vereš, P.: Temperature control in an intelligent house (P. Drahoš)
[41] Veselský, J.: Fuzzy prediction control methods (Š. Kozák)
[42] Vincel, J.: Design of virtual models of technological processes (I. Sekaj)
[43] Vrábel, P.: Control of the model of thermal system (M. Mrosko)
[44] Vydra, J.: Alarm management and failure diagnostics in control system with PLC Simatic S7 (L. Mrafko)
[45] Žáčik, M.: Business model of the web development company and its commercionalisation (M. Zajko)

Alumni Robotics, June 2009

[1] Amena, P.: Wireless temperature control in thermostatic valves (E. Vavrinský)
[2] Babinec, A.: Remote operator control of mobile robot influenced by time-delay in communication channel (F. Duchoň)
[3] Bačík, M.: Autonomous road vehicle control in normal traffic Supervisit (M. Kľúčik)
[4] Bakoš, J.: Visual system of a remotely controlled mobile robot (L. Jurišica)
[5] Bella, Ľ.: Inspection robot (L. Jurišica)
[6] Brozman, J.: Virtual model AC variable speed servo-drive with the ACS 800 (M. Žalman)
[7] Duong, Q., K.: Visualization of motion control algorithms (P. Hubinský)
[8] Ďurfina, M.: Electronic book for the course ´Industrial Communication Systems´ (I. Bélai)
[9] Gondžúr, R.: Methods of sensor fusion of robotic device and using the result in robot control (Ľ, Petrovič)
[10] Grossmann, F.: The case for using RFID in e-commerce (B. Mišota)
[11] Hupka, M.: HART protocol implementation (P. Drahoš)
[12] Juhaniak, J.: Virtual model of a DC speed servo-drive with a converter DCS 600 (M. Žalman)
[13] Kolenčík, M.: Internet based inverted pendulum control (K. Žáková)
[14] Korcsmáros, T.: Design of transportation system control and visualization with WinCC (L. Mrafko)
[15] Kotrčka, R.: Numeric control of conveyor model (M. Žalman)
[16] Kytka, L.: Determination of the robot position using MEMS gyroscopes and accelerometers (M. Kľúčik)
[17] Liška, P.: Modification of algorithm of movement trajectory generation of 2-axis mechanism for elimination of residual oscillations (P. Hubinský)
[18] Masár, V.: Speed control of direct current engine (J. Dúbravský)
[19] Mihálik, P.: Creating grid-based map using NN (J. Hanzel)
[20] Mihaľo, M.: Drive unit with synchronous motor (J. Dúbravský)
[21] Miklo, J.: Design and implementation of algorithms for the controlled conditions of the planning production in the textile industry (P. Bisták)
[22] Mináč, M.: Speed servo drive with BDCM (M. Žalman)
[23] Molčány, M.: Actuator with the Stepper motor (J. Dúbravský)
[24] Monsberger, P.: Actuator with the Direct-current motor (J. Dúbravský)
[25] Morávek, M.: Serial programmer of ATMEL microcontrollers - BOOTLOADER (Š. Chamraz)
[26] Palkovič, L.: Design of portal crane control (P. Hubinský)
[27] Pestún, I.: Helicopter control (M. Halás)
[28] Pľuta, J.: Creating a control interface in C#NET to control servomechanism via TCP / IP (T. Surovčík)
[29] Rodina, J.: Control design of gyroscopic stabilized robotic drive (P. Hubinský)

[30] Rosa, J.: The user of SAP application software in purchase management of industrial enterprise (M. Zajko)
[31] Rydzyk, L.: ABAP programming guide in SAP ERP (V. Rossa)
[32] Sámel, P.: Software equipment for robotic workstation with vision system (M. Žalman)
[33] Slodička, M.: Control system proposal of mobile robotic system (J. Dorner)
[34] Spilý, P.: Graphical user interface to support identification and control of systems (K. Žáková)
[35] Tuhý, P.: A simple information system for small business as promoting e-commerce (B. Mišota)
[36] Varga, T.: Robust controller design for MIMO system (inverted pendulum) (D. Rosinová)
[37] Vonkomer, J.: Sensorless speed servodrive with an induction motor (M. Žalman)
[38] Záborský, J.: Virtual models of mobile robots and their control (I. Sekaj)

Alumni Robotics, June 2009 (Distance Education Method)

[1] Balec, M.: Automatic adaptation of the PS settings using RFID (K. Žáková)
[2] Bisák, B.: Optimization and security of information in automatization (M. Bittera)
[3] Jankovič, J.: Temperature controller with SMT 160-30 (Š. Chamraz)
[4] Jurčovičová, J.: Sensor subsystem of the mobile robot (R. Balogh)
[5] Kmeť, A.: Genetic algorithms (J. Grman)
[6] Martinček, J.: Universal control system for use in robotics (M. Kľúčik)
[7] Mikula, V.: Creation and optimization the simulation of lift control by PLC SIMATIC S7-300 90 (L. Jurišica)
[8] Moravčík, T.: Design of network laboratory with use of multi-layer visualization (I. Hantuch)
[9] Pšitek, M.: Online multi-conference system (K. Žáková)
[10] Repčok, M.: Application of parallel genetic algorithms on problems solving in Matlab and Comsol (I. Sekaj)
[11] Štefánik, P.: Security system of college`s positron (L. Jurišica)
[12] Truben, G.: Microcomputer control system with possibility of program and parameters modification using BOOT-Loader (Š. Chamraz)
[13] Vyžinkár, I.: System for enviromental information collecting (R. Balogh)

VI.2 Doctoral Thesis

[1] Pospiech, T.: Optimized methods of the mechatronic system kontrol (P. Hubinský)
[2] Ťapák, P.: Constrained pole assignment control for third order systems with input constraints (M. Huba)

VII. OTHER ACTIVITIES

Conferences organized by the Institute:
  - Workshop on ´New Trends in Cybernetics, Automation and Informatics´ (held during Meeting of Departments of Cybernetics, Measurement and Control and Automation from Czech and Slovak Republic, Gabčíkovo, Slovak Republic, 7-9 September 2009)
  - 11th Conference of Doctoral Students ELITECH`09 - (A. Kozáková - responsible for organization, editor of Conference Proceedings)
  - Days of the Mobile Robotics – exhibition on ELOSYS tradefair. Trenčín, SK. October 2009 (R. Balogh)
  - Istrobot: Competition of Mobile Robots, Bratislava, SK. April 2009 (R. Balogh)
  - Summer School of Robotics. Vienna, AT, August 2009 (R. Balogh, P. Hubinský)
  - 10th International Conference Virtual University VU'09 December 10 - 11, 2009, Bratislava (M. Huba)

Other events:
  - Celebration of 50th anniversary of Automation at FEI STU (´Automation and Slovakia´), 7 September 2009

Conferences Participation, Membership in Committees:
- ELOSYS 2009, Trenčín. SK. October 2009, J. Murgaš, I. Sekaj – PC members, Profibus exposition)
- Austria, Vienna: Robotchallenge Competition participation (R. Balogh)
- AT&P Journal (L. Jurišica, J. Šturcel, M. Žalman, I.Hantuch, J. Murgaš, V. Veselý – Editorial Board members)
- Selected Topics in Modelling and Control (V. Veselý - Editor , L. Jurišica, J. Murgaš – Editorial Board members)
- Accreditations Board of SAS (L. Jurišica – member)
- Profibus Slovakia Association (P. Drahoš – chairman)
- International Machine Fair Nitra, May 2008 (Profibus exposition)
- Cooperation with Encyclopedic Institute of Slovak Academy of Sciences on the Slovak Encyclopedia (Lexical Group Cybernetics): L. Harsanyi, L. Jurišica, A. Kozáková, D. Rosinová, J.Šturcel, M. Žalman, K. Žáková
- Accreditation Board of the Government of Slovakia. (Working Group - L. Jurišica, J. Murgaš – member)
- Local Centre of Distance Education (M. Huba-head, D. Sovišová - Study coordinator
- P. Bisták- equipment manager, K. Žáková-international cooperation)
- Computer Viruses Analysis ESET Ltd. Bratislava (P. Hubinský)
- Administration of Shareware Archive of Slovak Antivirus Centre (P. Hubinský)
- Slovak Society of Cybernetics and Informatics (M. Huba – deputy Head)
- SSKI (Slovak Society for Cybernetics and Informatics): V. Veselý
- Journal 'Cybernetics and Informatics':   D. Rosinová - Managing Editor. J. Murgaš, Veselý - members of Editorial Board
- Journal of Electrical Engineering: V. Veselý - member of Editorial Board
- Slovak Society for Operations Research: Z. Králová - council member
- MacPlanet: M. Foltin – editor internet journal www.macplanet.sk

Projects:
- Schneider-electric courses, automation and control systems (M. Mrosko)
- EU Leonardo Da Vinci project 'REVIVE - Reviewing and Reviving Existing VET Curriculum' (M. Huba, K. Žáková)
- Creating the Future – Centrobot International Project Slovakia – Austria, EFRE N-0023 (R.Balogh, P. Hubinský)
- Istrobot (APVV LPP-0301-06) Popularization Project (R. Balogh)

VIII. PUBLICATIONS

VIII.1 Journals

[1] BALOGH, R.: ISTROBOT 2009. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 7 (2009), p. 60. (in Slovak)

[2] BALOGH, R.: ISTROBOT 2009. In: Robot revue. – Vol. 1, October (2009), p. 4-6. (in Slovak)

[3] BENICKÝ, P., JURIŠICA, L.: Real Time Edge Detection in Binary Images. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 8 (2009), p. 53-55. (in Slovak)

[4] BENICKÝ, P., JURIŠICA, L.: Fuzzy Logic-Based Real Time Motion Detection. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 5 (2009), p. 95-97. (in Slovak)

[5] BENICKÝ, P., JURIŠICA, L.: Corner Detection in Binary Images. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 11 (2009), p. 54-55. (in Slovak)

[6]   BLAHO, M., FOLTIN, M.: Matlab (9). Database Toolbox. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 1 (2009), p. 58-59. (in Slovak)

[7]   BUCZ, Š., MARIČ, L., HARSÁNYI, L., VESELÝ, V.: Controller Parameter Tuning Using External Signals. In: Elektrotechnický magazín. - ISSN 1210-5422. - Vol. 19, No. 11-12 (2009), p. 34-38. (in Slovak)

[8]   BUCZ, Š., MARIČ, L., HARSÁNYI, L., VESELÝ, V.: Design of Robust PID Controller on the Base of Practical Experiments. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 15, Special Issue (2009), p. 180-184. (in Slovak)

[9]   CIGÁNEK, J., KOZÁK, Š.: An Effective Robust Controller Algorithm Design. In: In: AT&P Journal Plus. - ISSN 1336-5010. - No. 2: Process Control (2009). - p. 93-96. (in English)

[10] CHAMRAZ, Š.: Microprocessor Control of Temperature System. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 15, Special Issue (2009), p. 188-192. (in Slovak)

[11] CHAMRAZ, Š., BALOGH, R.: Implementation of the First Order Control System. In: Journal of Applied Mathematics, Statistics and Informatics. - ISSN 1336-9180. - Vol. 5, No. 2 (2009), p. 63-76. (in English)

[12] DIDEKOVÁ, Z., KOZÁK, Š.: Modeling and Control of Non-Linear Systems Using Soft Computing. In: International Review of Automatic Control. - ISSN 1974-6059. - Vol. 2, No. 4 (2009), p. 366-371. (in English)

[13] DIDEKOVÁ, Z., KAJAN, S.: Neural Control of Non-Linear Processes Designed by Genetic Algorithms. In: Posterus.sk. - ISSN 1338-0087. - October (2009), http://www.posterus.sk/?p=3138. (in English)

[14] DUCHOŇ, F., KĽÚČIK, M.: Application of Sensory Systems in Welding. In: Zvárač. - ISSN 1336-5045. - Vol. 6, No. 4 (2009), p. 7-11. (in Slovak)

[15] DUCHOŇ, F., JURIŠICA, L.: Detection of Environment Marks by Laser Scanner. In: AT&P Journal Plus.- ISSN 1336-5010. - No. 1: Intelligent Motion Control Systems (2009). - p. 43-48. (in Slovak)

[16] DUCHOŇ, F., KĽÚČIK, M., JURIŠICA, L.: Reactive Navigation of Mobile Robot with Visual System. In: Acta Mechanica Slovaca. - ISSN 1335-2393. - Vol. 13, No. 2-A (2009), p. 47-52. (in English)

[17] DUCHOŇ, F., JURIŠICA, L.: Position Triangulation of Mobile Robot by Detected Inherent Environment Marks. In: AT&P Journal Plus. - ISSN 1336-5010. - No. 1: Intelligent Motion Control Systems (2009). - p. 49-52. (in Slovak)

[18] DUCHOŇ, F., ŠTRENGER, M.: Creating Visual Model for Physical Model in Microsoft Robotics Developer Studio. In: AT&P Journal Plus. - ISSN 1336-5010. - No. 1: Intelligent Motion Control Systems (2009). - p. 64-68. (in Slovak)

[19] DUCHOŇ, F., JURIŠICA, L., ŠTRENGER, M.: Creation of Own Sensors, Environment, Robot and Simulation in Microsoft Robotics Studio. In: AT&P Journal Plus. - ISSN 1336-5010. - No. 1: Intelligent Motion Control Systems (2009). - p. 76-81. (in Slovak)

[20] FODREK, P.: European Parlament had Voted for Open Source. In: ROOT.cz. - (2009), www.root.cz. (in Slovak)

[21]   FODREK, P.: OSADL 11th Realtime Linux Workshop. In: Posterus.sk. - ISSN 1338-0087. - September (2009), http://www.posterus.sk/?p=265http://www.posterus.sk/? p=2659. (in Slovak)

[22]   FODREK, P., FOLTIN, M., BLAHO, M.:: OSADL RTLWS 2009 – Part 1. In: Posterus.sk. - ISSN 1338-0087. - October (2009), http://www.posterus.sk/?p=3291. (in Slovak)

[23]   FODREK, P., FOLTIN, M., BLAHO, M.:: OSADL RTLWS 2009 – Part 2. In: Posterus.sk. - ISSN 1338-0087. - October (2009), http://www.posterus.sk/?p=3381. (in Slovak)

[24]   Fodrek, Peter: OSADL RTLWS 2009 – Part 3. In: Posterus.sk. - ISSN 1338-0087. - October (2009), http://www.posterus.sk/?p=3409. (in Slovak)

[25]   FOLTIN, M.: Apple Party 2009. In: Posterus.sk. - ISSN 1338-0087. - September (2009), http://www.posterus.sk/?p=2471. (in Slovak)

[26]   FOLTIN, M., BLAHO, M., VALIGURA, K.: Modeling of the Variable Transport Delay in Network Communication. In: Sdělovací technika. - ISSN 0036-9942. - Vol. 57, No. 6 (2009), p. 12-13. (in Slovak)

[27]   FOLTIN, M., ERNEK, M.: Matlab (7). SimPowerSystems. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 11 (2009), p. 64-65. (in Slovak)

[28]   GACHO, J., ŽALMAN, M.: Speed-Sensorless Control of Induction Motors Using Luenberger Observer. In: AT&P Journal Plus. - ISSN 1336-5010. - No. 1: Intelligent Motion Control Systems (2009). - p. 30-38. (in Slovak)

[29]   HALÁS, M., KOTTA, Ü.: A Note on Model Matching for Nonrealizable Nonlinear Systems. In: Archives of Control Sciences. - ISSN 0004-072X. - Vol. 19, No. 4 (2009), p. 451-461. (in English)

[30]   HALÁS, M., HUBA, M., KOTTA, Ü.: An Overview of Transfer Function Formalism for Nonlinear Systems. In: Journal of Cybernetics and Informatics. - ISSN 1336-4774. - Vol. 8 (2009), on-line. (in English)

[31]   HALÁS, M.: Nonlinear Systems - from Theory to Practice. In: Automatizace. - ISSN 0005-125X. - Vol. 52, No. 9 (2009), p. 516-519. (in Slovak)

[32]   HALÁS, M., KOTTA, Ü., LI, Z., WANG, H., YUAN, Ch.: Submersive Rational Difference Systems and Formal Accessibility. In: Mathematics-Mechanization Research Preprints. - Vol. 28 (2009), p. 40-57. (in English)

[33]   HANZEL, J., JURIŠICA, L.: Control of Mobile Robot by WEB Interface. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16 No. 12 (2009), p. 46-. (in Slovak)

[34]   HUBINSKÝ, P., POSPIECH, T.: Input Shaping for Slosh-Free Moving Containers with Liquid. In: International Journal of Mechanics and Control. - ISSN 1590-8844. - Vol. 9, No. 2 (2009), p. 27-34. (in English)

[35]   HUBINSKÝ, P., POSPIECH, T.: Method of Resonance-Free Motion Control of Filling Line. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16 No. 12 (2009), p. 49-51. (in Slovak)

[36]   HUBINSKÝ, P.: Use the Software for Advantageous Price (10). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 12 (2009), p. 107. (in Slovak)

[37]   HUBINSKÝ, P.: Use the Software for Advantageous Price (9). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 11 (2009), p. 107. (in Slovak)

[38] HUBINSKÝ, P.: Use the Software for Advantageous Price (1). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 3 (2009), p. 106. (in Slovak)

[39] HUBINSKÝ, P.: Use the Software for Advantageous Price (2). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 4 (2009), p. 108. (in Slovak)

[40] HUBINSKÝ, P.: Use the Software for Advantageous Price (3). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 5 (2009), p. 112. (in Slovak)

[41] HUBINSKÝ, P.: Use the Software for Advantageous Price (4). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 6 (2009), p. 99. (in Slovak)

[42] HUBINSKÝ, P.: Use the Software for Advantageous Price (5). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 7 (2009), p. 99. (in Slovak)

[43] HUBINSKÝ, P.: Use the Software for Advantageous Price (6). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 8 (2009), p. 96. (in Slovak)

[44] HUBINSKÝ, P.: Use the Software for Advantageous Price (7). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 9 (2009), p. 95. (in Slovak)

[45] HUBINSKÝ, P.: Use the Software for Advantageous Price (8). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 10 (2009), p. 87. (in Slovak)

[46] HUBINSKÝ, P., PALKOVIČ, L.: Prediction of End-Point Position Approach for Portal Crane Oscillation Damping. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 15, No. 5 (2009), p. 22-24. (in Slovak)

[47] HUBINSKÝ, P.: Shareware (1). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 1 (2009), p. 100. (in Slovak)

[48] HUBINSKÝ, P.: Shareware (2). In: PC revue. - ISSN 1335-0226. - Vol. 17, No. 2 (2009), p. 104. (in Slovak)

[49] HUBINSKÝ, P., POSPIECH, T.: Uncontrolled Motions Lead to Increased Costs. In: Motion & Drives News. - October (2009), p. 30. (in German)

[50] JANČOVIČ, M., ŽALMAN, M.: Parameter Identification of Induction Motor by Genetic Algorithm. In: AT&P Journal Plus. - ISSN 1336-5010. - No. 1: Intelligent Motion Control Systems (2009). - p. 21-29. (in Slovak)

[51] JUHÁSOVÁ, A., JANOV, V., JUHÁS, G.: Dynamic Deadlock Of WorkFlow Processes. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 15, Special Issue (2009), p. 205-208. (in Slovak)

[52] JURIŠICA, L., VITKO, A.: Cartesian (Linear) Robots. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 3 (2009), p. 69. (in Slovak)

[53] JURIŠICA, L., DUCHOŇ, F., ŠTRENGER, M.: Creation of Physical Model in Microsoft Developer Robotics Studio. In: AT&P Journal Plus. - ISSN 1336-5010. - No. 1: Intelligent Motion Control Systems (2009). - p. 69-75. (in Slovak)

[54] KAJAN, S.: Comparison of Some Neural Control Structures for Nonlinear Systems. In: Journal of Cybernetics and Informatics. - ISSN 1336-4774. - Vol. 8 (2009), on-line. (in English)

[55] KAJAN, S.: Mathematical Computing on Graphic Card in Environment Matlab. In: Posterus.sk. - ISSN 1338-0087. - July (2009), http://www.posterus.sk/?p=1661#more-1661 (in Slovak)

[56] KAJAN, S., SEKAJ, I., DIDEKOVÁ, Z.: Neuro-Predictive Controller Design Based on Genetic Algorithms. In: AT&P Journal Plus. - ISSN 1336-5010. - No. 1: Intelligent Motion Control Systems (2009). - p. 17-20. (in English)

[57] KARDOŠ, J.: Variable Structure Motion Control Systems. In: Automatizace. - ISSN 0005-125X. - Vol. 52, No. 12 (2009), p. 688-692. (in Slovak)

[58] KOZÁK, Š., PARÍZKOVÁ, J., TOMAŠOVIČ, T.: Databases for Embedded Systems. In: AT&P Journal. - ISSN 1335-2237. - Vol. 16 No. 12 (2009), p. 63-66. (in Slovak)

[59] KOZÁKOVÁ, A., VESELÝ, V., OSUSKÝ, J.: A New Nyquist-Based Technique for Tuning Robust Decentralized Controllers. In: Kybernetika. - ISSN 0023-5954. - Vol. 45, No. 1 (2009), p. 63-83. (in English)

[60] KOZÁKOVÁ, A., VESELÝ, V.: Design of Robust Decentralised Controllers Using the M-Delta Structure Robust Stability Conditions. In: International Journal of Systems Science. - ISSN 0020-7721. - Vol. 40, No. 5 (2009), p. 497-505. (in English)

[61] ORAVEC, M., SEKAJ, I.: Comparison of Some Fine-Grained and Coarse-Grained Parallel Genetic Algorithms with Population Reinitialization. In: Posterus.sk. - ISSN 1338-0087. - July (2009), http://www.posterus.sk/?p=789#more-789. (in English)

[62] PÁSZTÓ, P.: Navigation of Mobile Robot with Visual System to the Mark. In: Posterus.sk. - ISSN 1338-0087. - July (2009), http://www.posterus.sk/?p=3760. (in Slovak)

[63] POSPIECH, T., HUBINSKÝ, P.: Acceleration Profil for Filling Machine. In: ATP - Automatisierungstechnische Praxis. - ISSN 0178-2320. - Vol. 51, No. 6 (2009), p. 19-21. (in German)

[64] POSPIECH, T., HUBINSKÝ, P.: The Right Impulse. In: Automotion. – Vol. 8, No. 3 (2009), p. 32-34. (in German)

[65] POSPIECH, T., HUBINSKÝ, P.: With Know-How Against Leakage - Resonance Free Positioning of Oscillating Systems on Example with Positioning Opened Vessels with Liquid. In: Horizonte. - ISSN 1432-9174. - No. 33 (2009), p. 13-15. (in German)

[66] POSPIECH, T., HUBINSKÝ, P.: Resonance-Free Positioning of Oscillating Systems. In: IEE Automatisierung + Datentechnik. – Vol. 54, No.1 (2009), p. 50-52. (in German)

[67] POSPIECH, T., HUBINSKÝ, P.: Resonance Freepositioning of Oscillatory System. In: ETZ. - ISSN 0948-7387. - Nr. 9 (2009), p. 46-49. (in German)

[68] POSPIECH, T., HUBINSKÝ, P.: Damped Oscillation. In: [me]Magazin für Mechatronik & Engineering. - ISSN 1868-6036. - No. 4 (2009), on-line. (in German)

[69] RODINA, J., HUBINSKÝ, P.: Application of MEMS Sensors in Stabilization and Control of Mobile Robotic Platforms. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 15, No. 4 (2009), p. 38-40. (in Slovak)

[70] SUCHÁNEK, M.: Speed Control of BLDC Motor Based on Hall-Effect Sensors. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 15, Special Issue (2009), p. 201-204. (in Slovak)

[71] SUROVČÍK, T., JURIŠICA, L.: Real-Time Image Processing - Software (1). In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 1 (2009), p. 56-57. (in Slovak)

[72] SUROVČÍK, T., JURIŠICA, L.: Real-Time Image Processing - Software (2). In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 2 (2009), p. 68-69. (in Slovak)

[73] SUROVČÍK, T., JURIŠICA, L.: Real-Time Image Processing - Software (3). In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 3 (2009), p. 74-75. (in Slovak)

[74] ŠTEVO, S.: Catia V5.In: Posterus.sk. - ISSN 1338-0087. - July (2009), http://www.posterus.sk/?p=160. (in Slovak)

[75] ŠVANČARA, J., KRÁLOVÁ, Z.: Optimization of the Power Supply Manufacturing Using Simulation. In: Posterus.sk. - ISSN 1338-0087. - July (2009), http://www.posterus.sk/?p=1093. (in Slovak)

[76] ŠTURCEL, J.: Experimental Workplaces for Distance Learning. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 15, Special Issue (2009), p. 197-200. (in Slovak)

[77] VESELÝ, V.: Output Stable Model Predictive Control Design with Input Constraints. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 60, No. 6 (2009), p. 327-332. (in English)

[78] VESELÝ, V., ROSINOVÁ, D., KUČERA, V.: Robust Controller Design for Polytopic Systems via Robust Elimination Lemma. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 60, No. 1 (2009), p. 34-38. (in English)

[79] VESELÝ, V., ROSINOVÁ, D.: Robust Output Model Predictive Control Design: MBI Approach. In: International Journal of Innovative Computing, Information and Control. - ISSN 1349-4198. - Vol. 5, No. 4 (2009), p. 1115-1123. (in English)

[80] VÖRÖS, J.: Modeling and Identification of Hysteresis Using Special Forms of the Coleman-Hodgdon Model. In: Journal of Electrical Engineering. - ISSN 1335-3632. - Vol. 60, No. 2 (2009), p. 100-105. (in English)

[81] ŽÁKOVÁ, K., KOHÚT, M.: Matlab Based Remote Control of Thermo-Optical Plant. In: International Journal of Online Engineering. - ISSN 1861-2121. - Vol. 5, Special Issue (2009), p. 27-29. (in English)

[82] ŽALMAN, M.: Motion Control (1). In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 2 (2009), p. 63. (in Slovak)

[83] ŽALMAN, M.: Motion Control (2). In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 3 (2009), p. 70. (in Slovak)

[84] ŽALMAN, M.: Motion Control (3). In: AT&P Journal. - ISSN 1335-2237. - Vol. 16, No. 4 (2009), p. 52-53. (in Slovak)

VIII.2 Conference Proceedings

[1] BABINEC, A., DUCHOŇ, F.: Methods of Mobile Robots Reactive Navigation in Unknown Environment. In: New Trends in Cybernetics, Automation and Informatics: Technical Workshop. Gabčíkovo, Slovak Republic, 7.-9.9.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3107-2. - CD-Rom. (in Slovak)

[2] BACHRATÝ, M.: Priority Based Medium Control in CSMA Networks. In: ELITECH `09: 11th Conference of Doctoral Students. Bratislava, Slovak Republic, 25.5.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3091-4. - CD-Rom. (in English)

[3] BALOGH, R.: How to Teach Programming Practices. In: IMEM 2009: International Congress 'Interdisciplinary Relationship in the Theory and Practice of Informatics, Management, Economics and Mathematics'. Ružomberok, Slovak Republic, 9.-11.9.2009. - Ružomberok: Catholic University, 2009. - p. 104-112. (in English)

[4] BÉLAI, I., DRAHOŠ, P.: The Industrial Communication Systems PROFIBUS and PROFInet. In: Applied Natural Sciences 2009: International Conference. Trnava, Slovak Republic, 7.-9.10.2009. - Trnava: University of SS. Cyril and Methodius in Trnava, 2009. - ISBN 978-80-8105-127-2. - p. 329-336. (in English)

[5] BISTÁK, P.: Matlab and Java Based Virtual and Remote Laboratories for Control Engineering. In: 17th Mediterranean Conference on Control and Automation: Thessaloniki, Greece, 24.-26.6.2009. - Piscataway: IEEE, 2009. - ISBN 978-1-4244-4685-8. - p. 1439-1444. (in English)

[6] BISTÁK, P., ČIRKA, Ľ.: Reservation of Remote Laboratory using Moodle LMS. In: Virtual University 2009: 10th International Conference. Bratislava, Slovak Republic, 10.-11.12.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-89316-11-3. – CD-Rom. (in English)

[7] BISTÁK, P.: Virtual and Remote Laboratories Based on Matlab, Java and Ejs. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 506-511. (in English)

[8] BLAHO, M., FOLTIN, M., NAGY, P., HUDÁČEK, M., KOPČOK, I.: Operations Scheduling for Manufacturing Systems with Parallel Computing. In: Technical Computing Prague 2009: 17th Annual Conference Proceedings. Prague, Czech Republic, 19.11.2009. - Prague: Humusoft, Ltd., 2009. - ISBN 978-80-7080-733-0. - CD-Rom. (in English)

[9] CHAMRAZ, Š., BALOGH, R.: Implementation of the First Order Control System. In: Applied Natural Sciences 2009: International Conference. Trnava, Slovak Republic, 7.-9.10.2009. - Trnava: University of SS. Cyril and Methodius in Trnava. - ISBN 978-80-8105-127-2. - p. 98-111. (in English)

[10] DIDEKOVÁ, Z., KAJAN, S.: Applications of Intelligent Hybrid Systems in Matlab. In: Technical Computing Prague 2009: 17th Annual Conference. Prague, Czech Republic, 19.11.2009. - Prague: Humusoft, Ltd., 2009. - ISBN 978-80-7080-733-0. - CD-Rom. (in English)

[11] DIDEKOVÁ, Z., KAJAN, S.: Neural Control of Non-Linear Processes Designed by Genetic Algorithms. In: ELITECH `09: 11th Conference of Doctoral Students. Bratislava, Slovak Republic, 25.5.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3091-4. - CD-Rom. (in English)

[12] DRAHOŠ, P., ŠTURCEL, J., KUTIŠ, V.: Electro-Thermal Analysis of SMA Actuator with CRIMPS. In: CMAS 2009. Computational Modelling and Advanced Simulations: International Conference. Bratislava, Slovak Republic, 30.6.- 3.7.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3067-9. - CD-Rom. (in English)

[13] ELESCHOVÁ, Ž., BELÁŇ, A., MURGAŠ, J., ERNEK, M.: Influence of the Conditions of Power Lines Connection on Restoration of Power System after Blackout. In: Electric Power Engineering 2009: 10th International Scientific Conference. Kouty nad Desnou, Czech Republic, 12.-14.5.2009. - Brno: University of Technology, 2009. - ISBN 978-80-248-1947-1. - CD-Rom. (in English)

[14] ERNEK, M., FOLTIN, M.: Power Extension Library. In: Technical Computing Prague 2009: 17th Annual Conference Proceedings. Prague, Czech Republic, 19.11.2009. - Prague: Humusoft, Ltd., 2009. - ISBN 978-80-7080-733-0. - CD-Rom. (in English)

[15] FARKAS, Ľ., HNÁT, J.: Simulation of Networked Control Systems Using Truetime. In: Technical Computing Prague 2009: 17th Annual Conference. Prague, Czech Republic, 19.11.2009. - Prague: Humusoft, Ltd., 2009. - ISBN 978-80-7080-733-0. - CD-Rom. (in English)

[16] FODREK, P.: Bugzilla in Software Development Process. In: Open Software in Education, Research and IT Applications. - Žilina: University of Žilina, 2009. - DVD-Rom. (in Slovak)

[17] FODREK, P.: Problems Regarding Teaching Linux Programming for Industrial Realtime Programmers. In: Eleventh Real-Time Linux Workshop: Dresden, Germany, 28.-30.9.2009. - Dresden: TU, 2009. - p. 31-34. (in English)

[18] FODREK, P., KAMENSKÝ, J.: RTAI Based Measuring and Control over EtherCAT. In: Eleventh Real-Time Linux Workshop: Dresden, Germany, 28.-30.9.2009. - Dresden: TU, 2009. - p. 73-77. (in English)

[19] FODREK, P., FOLTIN, M., BLAHO, M., FARKAS, Ľ., POLIAČIK, M.: RTAI in CAN Bus Based Network Control of CNC for Plasma Cutting. In: Eleventh Real-Time Linux Workshop: Dresden, Germany, 28.-30.9.2009. - Dresden: TU, 2009. - p. 79-88. (in English)

[20] FODREK, P.: How to Use Subversion to Monitor Students Regular Study during the Semester and Classification. In: Open Software in Education, Research and IT Applications. - Žilina: University of Žilina, 2009. - DVD-Rom. (in Slovak)

[21] HALÁS, M.: A Polynomial Approach to Nonlinear Control Systems. In: EUROCAST 2009: 12th International Workshop on Computer Aided Systems Theory. Las Palmas de Gran Canaria, Spain, 15.-20.2.2009. - Universidad de las Palmas, 2009. - ISBN 978-84-691-8502-5. - p. 200-201. (in English)

[22] HALÁS, M., MOOG, C.H.: A Polynomial Solution to the Model Matching Problem of Nonlinear Time-Delay Systems. In: European Control Conference 2009. ECC '09: Budapest, Hungary, 23.-26.8.2009. - EUCA, 2009. - ISBN 978-963-311-369-1. - p. 3551-3556. (in English)

[23] HALÁS, M., KOTTA, Ü.: Model Matching for Nonlinear Systems not Having the State-Space Realization. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 10-13. (in English)

[24] HALÁS, M., KOTTA, Ü.: Realization Problem of SISO Nonlinear Systems: a Transfer Function Approach. In: 2009 IEEE International Conference on Control and Automation: Christchurch, New Zealand, 9.-11.12.2009. - Piscataway: IEEE, 2009. - ISBN 978-1-4244-4707-7. - p. 546-551. (in English)

[25] HALÁS, M., KOTTA, Ü., LI, Z., WANG, H., YUAN, Ch.: Submersive Rational Difference Systems and their Accessibility. In: ISSAC 2009: International Symposium on Symbolic and Algebraic Computation. Seoul, Korea, 28.-31.7.2009. - ACM Press, 2009. - ISBN 978-1-60558-609-0. - p. 175-182. (in English)

[26] HANTUCH, I., KOSSUTH, F.: Preparing of IB Designers. In: Facility Management 2009: 7th Conference with International Participation. Bratislava, Slovak Republic,7.-8.10.2009. - Bratislava: Slovenská spoločnosť pre techniku prostredia, 2009. - ISBN 978-80-89216-28-4. - p. 99-102. (in Slovak)

[27] HANTUCH, I.: Todays Automation and Heating. In: Heating 2009: 17th International Conference. Tatranské Matliare, Slovak Republic, 2.-6.3.2009. - Bratislava: Slovenská spoločnosť pre techniku prostredia, 2009. - ISBN 978-80-89216-27-7. - p. 497-500. (in Slovak)

[28] HÄUPTLE, P., UTZ, J., GRUHLER, G., HUBINSKÝ, P.: New Approach in Energy Saving on a Mobile Robot the 'MEXLEbot'. In: 1st IEEE Germany Student Conference. Hamburg, Germany, 14.-15.5.2009. - Hamburg: University of Technology, 2009. - CD-Rom. (in English)

[29] HUBA, M., JELENČIAK, F., ŤAPÁK, P.: Comparing Algebraic and Constrained Pole Assignment Controllers for a Thermal System. In: EUROCAST 2009: 12th International Workshop on Computer Aided Systems Theory. Las Palmas de Gran Canaria, Spain, 15.-20.2.2009. - Universidad de las Palmas, 2009. - ISBN 978-84-691-8502-5. - p. 204-205. (in English)

[30] HUBA, M., GERKE, M.: Robust control design based on a qualititive analysis. In: SSRP 2009: 16.Steirisches Seminar über Regelungstechnik und Processautomatisierung. Leibnitz, Austria, 8.-10.9.2009. - Graz: TU, 2009. - ISBN 978-3-901-439-08-7. - p. 29-38. (in German)

[31] HUBA, M., MARKO, Ľ., BAHNÍK, P., ORAVEC, I.: Numerical Issues in Designing PI Controller for IPDT Plant. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 57-64. (in English)

[32] HUBA, M.: Robust Design of Integrating Controllers for IPDT Plant. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 353-357. (in English)

[33] HUBA, M., ŤAPÁK, P.: Developing e-course Robust Constrained PID Control. In: Virtual University 2009: 10th International Conference. Bratislava, Slovak Republic, 10.-11.12.2009. - Bratislava: STU, 2009. - ISBN 978-80-89316-11-3. - CD-Rom. (in English)

[34] HUBINSKÝ, P., PALKOVIČ, L.: Resonance-Less Control of Gantry Crane with Prediction of Stop Point. In: Welding Technology 2009: Technology of Industry Development in European Union. Bratislava, Slovak Republic, 2.11.2009. - Trnava: AlumniPress, 2009. - ISBN 978-80-8096-102-2. (in Slovak)

[35] HUBINSKÝ, P., PALKOVIČ, L.: Resonance-Free Control of Portal Crane with Prediction of the Stop Position. In: Modelling of the Mechanics and Mechatronics Systems MMaMS '2009: 3rd International Conference. Zemplínska Šírava, Slovak Republic, 22.-24.9.2009. - Košice: TU, 2009. - ISBN 978-80-553-0288-1. - p. 206-209. (in English)

[36] HYPIUSOVÁ, M., KAJAN, S.: Robust Controller Design by Genetic Algorithm. In: Technical Computing Prague 2009: 17th Annual Conference. Prague, Czech Republic, 19.11.2009. - Prague: Humusoft, Ltd., 2009. - ISBN 978-80-7080-733-0. - CD-Rom. (in English)

[37] JANÍK, Z., ŽÁKOVÁ, K.: Online Design of Matlab/Simulink Block Schemes. In: Virtual University 2009: 10th International Conference. Bratislava, Slovak Republic, 10.-11.12.2009. - Bratislava: STU, 2009. - ISBN 978-80-89316-11-3. - CD-Rom. (in English)

[38] JELENČIAK, F., ŤAPÁK, P., HUBA, M.: Mathematical Modeling and Identification of Thermal Plant. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 219-225. (in English)

[39] KAJAN, S., SEKAJ, I, DIDEKOVÁ, Z.: Design of the Neural Model Structure Based on Genetic Algorithms. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 273-276. (in English)

[40] KAJAN, S.: GUI for Classification Using Multilayer Perceptron Network. In: Technical Computing Prague 2009: 17th Annual Conference Proceedings. Prague, Czech Republic, 19.11.2009. - Prague: Humusoft, Ltd., 2009. - ISBN 978-80-7080-733-0. - CD-Rom. (in English)

[41] KAJAN, S., SEKAJ, I., ORAVEC, M.: The Use of Matlab Parallel Computing Toolbox for Genetic Algorithm-Based MIMO Controller Design. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 277-280. (in English)

[42] KĽÚČIK, M., SEDLÁR, T.: Mechatronical Device for Training of the Service Dogs II. In: Modelling of the Mechanics and Mechatronics Systems MMaMS '2009: 3rd International Conference. Zemplínska Šírava, Slovak Republic, 22.-24.9.2009. - Košice: TU, 2009. - ISBN 978-80-553-0288-1. - p. 255-259. (in English)

[43] KĽÚČIK, M., JURIOVÁ, J., KĽÚČIK, M.: Time Series Modeling with Genetic Programming Relative to ARIMA Models. In: NTTS - Conferences on New Techniques and Technologies for Statistics. - Brussels: Eurostat, 2009. - p. 17-27. (in English)

[44] KOHÚT, M., ŽÁKOVÁ, K.: A Contribution to Remote Control of Thermo-Optical Plant. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 573-577. (in English)

[45] KOLENČÍK, M., ŽÁKOVÁ, K.: A Contribution to Remote Control of Inverted Pendulum. In: 17th Mediterranean Conference on Control and Automation. Thessaloniki, Greece, 24.-26.6.2009. - Piscataway: IEEE, 2009. - ISBN 978-1-4244-4685-8. - p. 1433-1438. (in English)

[46] KOSTROŠ, J., BALOGH, R.: Walking Mobile Robot Cricket. In: ŠVOČ 2009. Proceedings of Winning Works. Bratislava, Slovak Republic, 29.4.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3094-5. - CD-Rom. (in Slovak)

[47] KOTTA, Ü., KOTTA, P., HALÁS, M.: Irreducibility and Reduction of MIMO Nonlinear Control Systems: Unification and Extension via Pseudo-Linear Algebra. In: 2009 IEEE International Conference on Control and Automation. Christchurch, New Zealand, 9.-11.12.2009. - Piscataway: IEEE, 2009. - ISBN 978-1-4244-4707-7. - p. 763-768. (in English)

[48] KOZÁK, Š.: Trends in Application of Hybrid Systems Control. In: New Trends in Cybernetics, Automation and Informatics: Technical Workshop. Gabčíkovo, Slovak Republic, 7.-9.9.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3107-2. - CD-Rom. (in Slovak)

[49] KOZÁKOVÁ, A., VESELÝ, V., OSUSKÝ, J.: Decentralized Controllers Design for Performance: Equivalent Subsystems Method. In: European Control Conference 2009. ECC '09: Budapest, Hungary, 23.-26.8.2009. - EUCA, 2009. - ISBN 978-963-311-369-1. - p. 2295-2300. (in English)

[50] KOZÁKOVÁ, A., OSUSKÝ, J., VESELÝ, V.: Tuning Decentralized Controllers for Robustness and Performance. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 368-374. (in English)

[51] KRÁLOVÁ, Z., LEPORIS, M.: Comparison of Production System Bottleneck Detection Methods. In: Witness 2009: 12th International Conference. Pustevny, Czech Republic, 21.-22.5.2009. - Brno: University of Technology, 2009. - ISBN 978-80-214-3900-9. - p. 67-74. (in Slovak)

[52] MAGYAR, Z., STARÝ, T., SZOLIK, L., VÖRÖS, Ľ., ŽÁKOVÁ, K.: Modeling of Linear Dynamical Systems Using Open Tools. In: Virtual University 2009: 10th International Conference. Bratislava, Slovak Republic, 10.-11.12. 2009. - Bratislava: STU, 2009. - ISBN 978-80-89316-11-3. - CD-Rom. (in Slovak)

[53] MARKO, Ľ., SOVIŠOVÁ, D., ŽÁKOVÁ, K., HUBA, M.: Reviving E-learning Course on University Pre-entry Math. In: Virtual University 2009: 10th International Conference. Bratislava, Slovak Republic, 10.-11.12. 2009. - Bratislava: STU, 2009. - ISBN 978-80-89316-11-3. - CD-Rom. (in English)

[54] MICHÁLEK, S., ŠTEVO, S., FARKAS, G., HAŠČÍK, J.: MCNP5 Calculations and Genetic Algorithm for Delayed Neutron Fraction Determination. In: CMAS 2009. Computational Modelling and Advanced Simulations: International Conference. Bratislava, Slovak Republic, 30.6.- 3.7.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3067-9. - CD-Rom. (in English)

[55] MICHÁLEK, S., ŠTEVO, S., FARKAS, G., HAŠČÍK, J.: Methods of Delayed Neutron Fraction (ßeff) Determination in Training Reactor VR-1. In: ELITECH `09: 11th Conference of Doctoral Students. Bratislava, Slovak Republic, 25.5.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3091-4. - CD-Rom. (in English)

[56] MURGAŠ, J., MURGAŠ, T., FODREK, P., FARKAS, Ľ., BLAHO, M., POLIAČIK, M.: A Networked Control System for Industrial Applications. In: Preprints of IFAC Workshop on Programmable Devices and Embedded Systems PDES 2009: Rožnov p. Radhoštěm, Czech Republic, 10.-12.2.2009. - Ostrava: VŠB - Technical University of Ostrava, 2009. - p. 236-239. (in English)

[57] MURGAŠ, J.: Complex Power System Cybernetics Model. In: New Trends in Cybernetics, Automation and Informatics: Technical Workshop. Gabčíkovo, Slovak Republic, 7.-9.9.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3107-2. - CD-Rom. (in Slovak)

[58] MURÍN, J., SEDLÁR, T., KĽÚČIK, M., GOGA, V.: Mechatronical Device for Training of the Service Dogs I. In: Modelling of the Mechanics and Mechatronics Systems MMaMS '2009: 3rd International Conference. Zemplínska Šírava, Slovak Republic, 22.-24.9.2009. - Košice: TU, 2009. - ISBN 978-80-553-0288-1. - p. 319-322. (in English)

[59]   ONDERA, M., HUBA, M.: Simulation of Nonlinear Control Systems Represented as Generalized Transfer Functions. In: European Control Conference 2009. ECC '09: Budapest, Hungary, 23.-26.8.2009. - EUCA, 2009. - ISBN 978-963-311-369-1. - p. 1444-1449. (in English)

[60]   OSUSKÝ, J., VESELÝ, V.: Decentralized Controller Design with Interaction Rejection. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 125-128. (in English)

[61]   OSUSKÝ, J., HYPIUSOVÁ, M.: Robust Control Design for Thermo-Optical UDAQ28/LT. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 341-345. (in English)

[62]   OSUSKÝ, J., VESELÝ, V., KOZÁKOVÁ, A.: Robust Decentralized Controller Design for Stable Plants. In: ELITECH `09: 11th Conference of Doctoral Students. Bratislava, Slovak Republic, 25.5.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3091-4. - CD-Rom. (in English)

[63]   PÁSZTÓ, P.: Navigation of Mobile Robot with Visual System to the Mark. In: New Trends in Cybernetics, Automation and Informatics: Technical Workshop. Gabčíkovo, Slovak Republic, 7.-9.9.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3107-2. - CD-Rom. (in Slovak)

[64]   PAULUSOVÁ, J., DÚBRAVSKÁ, M.: Fuzzy Logic Autotuning Methods for Predictive Controller. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 397-401. (in English)

[65]   PAULUSOVÁ, J., DÚBRAVSKÁ, M.: Hybrid Predictive Controller Based on Fuzzy-Neuro Model. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 392-396. (in English)

[66]   PAVLÚSOVÁ, A., FOLTIN, M., ERNEK, M.: Modelling of Heating Systems. In: Technical Computing Prague 2009: 17th Annual Conference Proceedings. Prague, Czech Republic, 19.11.2009. - Prague: Humusoft, Ltd., 2009. - ISBN 978-80-7080-733-0. - CD-Rom. (in English)

[67]   RODINA, J., HUBINSKÝ, P.: Stabilization of the Segway Like Mobile Platform by Using MEMS Sensors. In: ŠVOČ 2009. Proceedings of Winning Works. Bratislava, Slovak Republic, 29.4.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3094-5. - CD-Rom. (in Slovak)

[68]   RODINA, J., HUBINSKÝ, P.: Stabilization of the Segway Like Mobile Platform by Using MEMS Sensors. In: Modelling of the Mechanics and Mechatronics Systems MMaMS '2009: 3rd International Conference. Zemplínska Šírava, Slovak Republic, 22.-24.9.2009. - Košice: TU, 2009. - ISBN 978-80-553-0288-1. - p. 402-406. (in English)

[69]   ROSINOVÁ, D., VESELÝ, V.: Robust Control Design for LTI Systems with Reduced Conservatism. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 381-386. (in English)

[70] ROSINOVÁ, D., KOZÁKOVÁ, A.: Robust Decentralized PID Controller Design: A Case Study. In: EUROCON 2009: International IEEE Conference devoted to the 150th Anniversary of Alexander S.Popov. Saint Petersburg, Russia, 18.-23.5.2009. - Piscataway: IEEE, 2009. - ISBN 978-1-4244-3861-7. - p. 946-953. (in English)

[71] ROSINOVÁ, D., VESELÝ, V.: Robust PID Controller Design Using BMI. In: EUROCON 2009: International IEEE Conference devoted to the 150th Anniversary of Alexander S.Popov. Saint Petersburg, Russia, 18.-23.5.2009. - Piscataway: IEEE, 2009. - ISBN 978-1-4244-3861-7. - p. 908-913. (in English)

[72] SEDLÁK, M.: Communication with Real Plant over USB under GNU/Linux. In: Virtual University 2009: 10th International Conference. Bratislava, Slovak Republic, 10.-11.12.2009. - Bratislava: STU, 2009. - ISBN 978-80-89316-11-3. - CD-Rom. (in English)

[73] SEKAJ, I., ORAVEC, M.: Comnparison of Some Fine-Grained and Coarse-Grained Parallel Genetic Algorithms with Population Reinitialization. In: ELITECH `09: 11th Conference of Doctoral Students. Bratislava, Slovak Republic, 25.5.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3091-4. - CD-Rom. (in English)

[74] SEKAJ, I., ORAVEC, M.: Comparison of Some Parallel Genetic Algorithms with Population Reinitialization. In: Mendel 2009. 15th International Conference on Soft Computing. Brno, Czech Republic, June 24-26, 2009. – Brno: University of Technology, 2009. - ISBN 978-80-214-3884-2. - CD-Rom. (in English)

[75] SEKAJ, I.: Evolution of Continuous-Time Controllers with Various Criterion Functions. In: Process Control 2009: International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 145-151. (in English)

[76] SEKAJ, I., ORAVEC, M.: Selected Population Characteristics of Fine-Grained Parallel Genetic Algorithms with Re-Initialization. In: GEC '09. 2009 World Summit on Genetic and Evolutionary Computation: Shanghai, China, 12.-14.6.2009. - ACM Press, 2009. - ISBN 978-1-60558-326-6. - CD-Rom. (in English)

[77] SUCHÁNEK, M.: Speed Control of BLDC Motor Based on Hall-Effect Sensors. In: ELITECH `09: 11th Conference of Doctoral Students. Bratislava, Slovak Republic, 25.5.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3091-4. - CD-Rom. (in English)

[78] SZOLIK, L., ŽÁKOVÁ, K.: Internet Supported Solution of OpenModelica Examples. In: ŠVOČ 2009. Proceedings of Winning Works. Bratislava, Slovak Republic, 29.4.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3094-5. - CD-Rom. (in Slovak)

[79] ŠLEZÁROVÁ, A.: Intelligent Building. In: Facility Management 2009: 7th Conference with International Participation. Bratislava, Slovak Republic, 7.-8.10.2009. - Bratislava: Slovenská spoločnosť pre techniku prostredia, 2009. - ISBN 978-80-89216-28-4. - p. 31-34. (in Slovak)

[80] ŠTEVO, S., ŠLEZÁROVÁ, A.: Heat Transfer Model of Building Calibration by Genetic Algorithm. In: ELITECH `09: 11th Conference of Doctoral Students. Bratislava, Slovak Republic, 25.5.2009. - Bratislava: FEI STU, 2009. - ISBN 978-80-227-3091-4. - CD-Rom. (in English)

[81] ŠTEVO, S.: Communication Systems in Public Safety. In: Enviromental and Safety Aspects of Fires and Accidents: Conference with International Participation. Trnava, Slovak Republic, 12.2.2009. - Trnava: AlumniPress, 2009. - ISBN 978-80-8096-080-3. - CD-Rom. (in Slovak)

[82] ŠTEVO, S.: Optimization of Heating Process according to Outer Conditions. In: Facility Management 2009: 7th Conference with International Participation. Bratislava, Slovak Republic, 7.-8.10.2009. - Bratislava: Slovenská spoločnosť pre techniku prostredia, 2009. - ISBN 978-80-89216-28-4. - p. 57-60. (in Slovak)

[83] ŠTEVO, S.: Optimalization Process of Heating System by Outer Conditions. In: Technical Computing Prague 2009: 17th Annual Conference. Prague, Czech Republic, 19.11.2009. - Prague: Humusoft, Ltd., 2009. - ISBN 978-80-7080-733-0. - CD-Rom. (in Slovak)

[84] ŠTEVO, S.: Heating System - Designing Process Support. In: Heating 2009: 17th International Conference. Tatranské Matliare, Slovak Republic, 2.-6. 3.2009. - Bratislava: Slovenská spoločnosť pre techniku prostredia, 2009. - ISBN 978-80-89216-27-7. - p. 463-468. (in Slovak)

[85] ŠTURCEL, J., BALOGH, R.: Learning Materials for Distance Learning Course. In: Applied Natural Sciences 2009: International Conference. Trnava, Slovak Republic, 7.-9.10.2009. - Trnava: University of SS. Cyril and Methodius in Trnava, 2009. - ISBN 978-80-8105-127-2. - p. 303-308. (in English)

[86] ŠVANČARA, J., KRÁLOVÁ, Z.: Simulation Based Performance Analysis of the Multi-Product Manufacturing System. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 249-253. (in English)

[87] ŤAPÁK, P., HUBA, M.: Modeling and Control of Thermal Plant. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 578-585. (in English)

[88] VALIGURA, K., FOLTIN, M., BLAHO, M.: Transport System Realization in SimEvents Tools. In: Technical Computing Prague 2009: 17th Annual Conference Proceedings. Prague, Czech Republic, 19.11.2009. - Prague: Humusoft, Ltd., 2009. - ISBN 978-80-7080-733-0. - CD-Rom. (in English)

[89] VESELÝ, V.: Output Stable Model Predictive Control Design within Input Constraints. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 281-287. (in English)

[90] VESELÝ, V.: Sequential Stable Model Predictive Control Design. In: EUROCON 2009: International IEEE Conference devoted to the 150th Anniversary of Alexander S.Popov. Saint Petersburg, Russia, 18.-23.5.2009. - Piscataway: IEEE, 2009. - ISBN 978-1-4244-3861-7. - p. 1021-1025. (in English)

[91] VITKO, A., JURIŠICA, L., KĽÚČIK, M., DUCHOŇ, F.: Neural Tuning of Fuzzy Rules (with Application to Robot Navigation). In: Mechatronika 2009: 12th International Conference on Mechatronics. Trenčianske Teplice, Slovak Republic, 3.-5.6.2009. - Trenčín: Alexander Dubcek University of Trenčín, 2009. - ISBN 978-80-8075-392-4. - p. 63-68. (in English)

[92] VÖRÖS, J.: On Modelling and Identification of Systems with General Backlash. In: Process Control 2009: 17th International Conference. Štrbské Pleso, Slovak Republic, 9.-12.6.2009. - Bratislava: STU, 2009. - ISBN 978-80-227-3081-5. - p. 234-237. (in English)

[93] ŽÁKOVÁ, K., KOHÚT, M.: Matlab Based Remote Control of Thermo-Optical Plant. In: IRF'2009: 3rd International Conference on Integrity, Reliability and Failure. Porto, Portugal, 20.-24.7.2009. - Porto: INEGI Edicoes, 2009. - ISBN 978-972-8826-21-5. - CD-Rom. (in English)

[94] ŽILKA, V., HALÁS, M., HUBA, M.: Nonlinear Continuous- and Discrete-Time Controller for a Fluid Tank System. In: EUROCAST 2009: 12th International Workshop on Computer Aided Systems Theory. Las Palmas de Gran Canaria, Spain, 15.-20.2.2009. - Universidad de las Palmas, 2009. - ISBN 978-84-691-8502-5. - p. 206-207. (in English)

VIII.3 Parts of books

[1] HALÁS, M.: Nonlinear Systems: A Polynomial Approach. In: Lecture Notes in Computer Science. - ISSN 0302-9743. - Vol. 5717 Computer Aided Systems Theory EUROCAST 2009. - Berlin Heidelberg: Springer Verlag, 2009. - ISBN 3-642-04771-8, p. 595-602. (in English)

[2] HALÁS, M.: Nonlinear Time Delay Systems: A Polynomial Approach Using Ore Algebras. In: Topics in Time Delay Systems. - Berlin: Springer, 2009. - ISBN 978-3-642-02896-0. - p. 109-119. (in English)

[3] HUBA, M., JELENČIAK, F., ŤAPÁK, P.: Comparing Algebraic and Constrained Pole Assignment Controllers for Thermal Systems. In: Lecture Notes in Computer Science. - ISSN 0302-9743. - Vol. 5717 Computer Aided Systems Theory EUROCAST 2009. - Berlin Heidelberg: Springer Verlag, 2009. - ISBN 3-642-04771-8, p. 610-617. (in English)

[4] SEKAJ, I.: Evolutionary Based Controller Design. In: Evolutionary Computation. - Vukovar: In-Tech, 2009. - ISBN 978-953-307-008-7. - p. 239-260. (in English)

[5] ŽÁKOVÁ, K., SZOLIK, L., SEDLÁK, M.: OpenModelica Programming Environment for Web Application Development. In: ASIS 2009. Adaptive Networks in Information Systems. - Nitra: Constantine the Philosopher University in Nitra, 2009. - ISBN 978-80-8094-593-0. - p. 109-114. (in Slovak)

[6] ŽÁKOVÁ, K.: WEB-Based Control Education in Matlab. In: Web-Based Control and Robotics Education. - Dordrecht: Springer, 2009. - ISBN 978-90-481-2504-3. - p. 83-102. (in English)

[7] ŽILKA, V., HALÁS, M., HUBA, M.: Nonlinear Controllers for a Fluid Tank System. In: Lecture Notes in Computer Science. - ISSN 0302-9743. - Vol. 5717 Computer Aided Systems Theory EUROCAST 2009. - Berlin Heidelberg: Springer Verlag, 2009. - ISBN 3-642-04771-8, p. 619-625. (in English)

VIII.4 Patent

[1] MURÍN, J., SEDLÁR, T., KĽÚČIK, M.: Device for Training of the Service Dogs: Patent No: SK 5212. – mediation date: 24.6. 2009. - 5 p. (in Slovak)