INSTITUTE OF CONTROL AND INDUSTRIAL INFORMATICS

http://www.elf.stuba.sk/departments/kar/kar.html

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I. STAFF

Professors	prof. Ing. Ladislav Andrášik, DrSc., 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. Ladislav Harsányi, PhD., doc. Ing. Milan Horniaček, PhD., doc. Ing. Mikuláš Huba, PhD., doc. Ing. Peter Hubinský, PhD., doc. Ing. Branislav Hrúz, PhD., doc. Ing. Ľubomír Jemala, PhD., doc. Ing. Zdenka Králová, PhD., doc. Ing. Anna Maďaričová, PhD., doc. Ing. Danica Rosinová, PhD., doc. Ing. Ivan Sekaj, PhD., doc. Ing. Ján Šturcel, PhD., doc. Ing. Jaroslav Zajac, PhD., doc. Ing. Marián Zajko, PhD., M.B.A.
Assistant Professors	Ing. Andrea Andrášiková, PhDr. Tatiana Arbe, Ing. Richard Balogh, Ing. Pavol Bisták, Ing. Jozef Dorner, Ing. Peter Drahoš, PhD., Ing. Mária Dúbravská, Ing. Jozef Dúbravský, Ing. Ľudmila Fabová, PhD. Ing. Peter Fodrek, Ing. Mária Hranaiová, PhD., Ing. Štefan Chamraz, PhD., Ing. Edita Jančíková, PhD., Ing. Slavomír Kajan, PhD., Ing. Ján Kardoš, PhD., Ing. Alena Kozáková, PhD., Ing. Ladislav Körösi, Ing. Eva Miklovičová, PhD., Ing. Leo Mrafko, Ing. Ľubica Šimová, PhD., Ing. Terézia Švantnerová, PhD., Ing. Miroslav Toman, PhD., Ing. Katarína Žáková, PhD.
Research Workers	Ing. Igor Bélai, PhD., PhDr. Marta Brinzová, Ing. Martin Foltín, PhD., Ing. Ivan Gáži, Ing. Ľubomír Grman, Ing. Miroslav Halás, PhD., Ing. Jaroslav Hanzel, Ing. Monika Hejdová, Ing. Mária Hypiusová, PhD., Ing. Ivan Ivanov, PhD., Ing. Ján Jovankovič, PhD., Ing. Milan Materák, Ing. Marián Mrosko, Ing. Branislav Mišota, Ing. Roman Murár, Ing. Ivan Oravec, PhD., Ing. Jana Paulusová, Ing. Mgr. Milan Potančok, Ing. Danica Sovišová, Ing. Jozef Vöröš, PhD.
Technical Staff	Ing. Jozef Babirád, Peter Detvaj, Ing. Radoslav Dibarbora, Pavol Gašparovič, Paula Knežíková, Katarína Macková (secretary), Dana Pintérová, Jozef Turčánik, Ing. Alžbeta Vajdová, Margita Záchejová

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory of Automation Hardware
- Laboratory of Sensors
- Laboratory of Intelligent Motion Control / ABB
- Laboratory of Robotic Systems
- Laboratory of Electronic Systems
- Laboratory of Nonlinear Control
- Laboratory of Real-Time Software

- Laboratory of Control Systems
- Multimedia Laboratory
- Telematics Developer`s Laboratory
- Laboratory of Actuators
- Profibus Laboratory
- Student Project Laboratory
- Electronic and Sensor Hardware Laboratory
- W. Siemens Laboratory
- Robotic Laboratory
- Laboratory of Information Systems and Communication Technologies
- Laboratory of Linear Systems
- Laboratory of Optimal Control
- Laboratory of Adaptive Control
- Laboratory of Control System Software
- Laboratory of Modelling and Control of Discrete Event Systems
- Laboratory of Control of Continuous Systems
- Laboratory of Industrial Information Technologies
- Laboratory of Simulation and Modelling of Intelligent Systems
- Laboratory of Computational Intelligence
- Servers for Internet
- Virtual Laboratory for Strategic Experimentation

II.2 Special Measuring Instruments and Computers

- Mechanical Setup Position Control Plant
- Laboratory Models: Inverted Pendulum, Crane, Helicopter Rack, Thermal Plant, Magnetic
  Levitation Syst., 2x Two - Tank System
- Control System SIMATIC PCS 7 – Compact (Siemens)
- 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 1104 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
- 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
- Software WinCC
- Programming Software Step7 Professional

III. TEACHING

III.1 Undergraduate Study (Bc.)

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

Economics   (1st sem., 3-2h)   M.Horniaček
                                                                   M.Hranaiová

Introduction into Engineering	(1st sem., 2-2h)	L.Jurišica, R.Ravas, B.Hučko
Computer Architecture	(2nd sem., 3-2h)	R.Ravas, Š.Chamraz
Automatic Control Theory 1	(3rd sem., 3-2h)	M.Huba
Modelling and Simulation	(3rd sem., 3-2h)	Š.Kozák
Programming Systems for RT Control	(3rd sem., 3-2h)	Ľ.Šimová
Systems Theory	(3rd sem., 2-3h)	M.Huba, P.Hubinský
Applied Computational Intelligence	(4th sem., 2-2h)	I.Sekaj
Business Management	(4th sem., 2-2h)	Ľ.Jemala
Control System Software 1	(4th sem., 2-2h)	I. Hantuch, Ľ.Šimová
Automatic Control Theory 2	(4th sem., 3-2h)	J.Murgaš
Design of Web Applications 1	(4th sem., 2-3h)	K.Žáková
Electronics for Control Systems	(4th sem., 2-2h)	M.Toman
Instrumentation of Control Systems	(4th sem., 3-2h)	J.Šturcel
Actuators	(5th sem., 2-3h)	M.Žalman
Computer Aided Control Systems Design	(5th sem., 2-2h)	M.Zajko
Control Systems	(5th sem., 3-2h)	Š.Chamraz
Economics 2	(5th sem., 2-2h)	M.Horniaček
Linear Systems	(5th sem., 3-3h)	Š.Kozák
Matlab	(5th sem., 2-2h)	Š.Kozák
Medium and Small Business Entrepreneurship	(5th sem., 2-2h)	M.Zajko
Economic and Legal Principles in Telecommunications	(6th sem., 2-3h)	M.Materák
Introduction to Control System Design	(6th sem., 2 2h)	B.Hrúz
Nonlinear Systems	(6th sem., 2-3h)	M.Huba
Optimization	(6th sem., 3-2h)	D.Rosinová
Sensors and Transducers	(6th sem., 3-2h)	J.Šturcel
Automated Administration	(7th sem., 2-2h)	I.Hantuch
Databases in Control Systems	(7th sem., 2-2h)	Z.Králová
Management of Pre-Production Phases	(7th sem., 2-2h)	Ľ.Jemala
Process Dynamics	(7th sem., 3-2h)	E.Miklovičová
Robotics	(7th sem., 3-2h)	L.Jurišica
Sensor Systems	(7th sem., 2-2h)	M.Toman
Servodrives	(7th sem., 2-3h)	M.Žalman
Continuous Process Control	(8th sem., 3-2h)	V.Veselý
Flexible Manufacturing Systems	(8th sem., 3-2h)	L.Jurišica

Industrial Communications	(8th sem., 2-3h)	I.Bélai
Industrial Information Systems Design	(8th sem., 2-2h)	B.Hrúz
Management	(8th sem., 2-2h)	Ľ.Jemala
Monolithic Microcomputers	(8th sem., 2-2h)	Š.Chamraz
Motion Systems	(8th sem., 3-2h)	P.Hubinský
Production Management	(8th sem., 2-2h)	Z.Králová

Every student had to choose during their studies (from the 1st to the 6th semester) one subject out of the following economic and social sciences:

Philosophy	(1-2h)	M.Brinzová
History	(1-2h)	A.Maďaričová
Politology	(1-2h)	A.Maďaričová M.Potančok
Banking and Stock Exchange	(1-2h)	Ľ.Fabová

III.2 Graduate Study (Ing.)

Advanced Control Methods	(1st sem., 3-2h)	Š.Kozák
Business Economics and Management	(1st sem., 2-2h)	T.Arbe
Business Informatics	(1st sem., 3-2h)	J.Zajac
CAD for Programming Contr.Syst.Developing 1	(1st sem., 3-2h)	I.Hantuch
Databases of Control Systems	(1st sem., 2-2h)	Z.Králová
Financial Management	(1st sem., 2-2h)	L.Andrášik
Game Theory and Decision-Making	(1st sem., 2-2h)	M.Horniaček
Industrial Information Systems Design	(1st sem., 2-2h)	B.Hrúz
Marketing	(1st sem., 3-0h)	Ľ.Jemala
Modelling of Economic Systems	(1st sem., 2-2h)	L.Andrášik
Multimedia in Control	(1st sem., 3-2h)	M.Huba, P.Bisták
Optimal Control	(1st sem., 2-2h)	A.Kozáková
Servosystems	(1st sem., 3-2h)	M.Žalman
Smart Sensors Systems	(1st sem., 3-2h)	J.Šturcel
Theory of Automatic Control 3	(1st sem., 3-2h)	M.Huba
Theory of Modelling of Economic Systems	(1st sem., 2-2h)	L.Andrášik
Accounting	(2nd sem., 2-3h)	E.Jančíková
Adaptive Control	(2nd sem., 3-2h)	J.Murgaš
Event Systems	(2nd sem., 3-2h)	B.Hrúz
Intelligent Servosystems	(2nd sem., 3-2h)	M.Žalman
International Business	(2nd sem., 2-2h)	T.Arbe

Fuzzy and Neural Controllers	(2nd sem., 2-2h)	I.Sekaj
Management	(2nd sem., 2-2h)	Ľ.Jemala
Multivariable System Control	(2nd sem., 3-2h)	V.Veselý
Sensor Systems in CIM	(2nd sem., 3-2h)	J.Šturcel
Intelligent Systems	(2nd sem., 3-2h)	Š.Kozák
System Identification	(2nd sem., 3-2h)	T.Švantnerová
Simulation of Economic Systems	(2nd sem., 2-2h)	L.Andrášik
Telematics and Control	(2nd sem., 3-2h)	M.Huba, P.Bisták
Theory of Large Scale Systems	(2nd sem., 3-2h)	D.Rosinová
CAD for Programming Contr.Syst.Developing 2	(3rd sem., 3-2h)	I.Hantuch
Mechatronics	(3rd sem., 3-2h)	L.Jurišica
Power System Control	(3st sem., 3-2h)	L.Harsányi
Production Systems Modelling and Management	(3rd sem., 3-2h)	Z.Králová
Modelling and Robots Control	(3rd sem., 3-2h)	A.Vitko
Mobile Robotic Systems	(3rd sem., 3-2h)	M.Varga
Web technologies in Control	(3rd sem., 2-3h)	J.Murgaš, M.Foltin

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

Automatic Control Theory	(3rd sem., 1h consul.)	M.Huba
Software of Control Systems	(4th sem, 1h consul.)	I.Hantuch

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

Algorithmisation and Programming	(1st sem.)	Ľ.Šimová
Economics	(1th sem.)	M.Horniaček
Introduction into Engineering	(1st sem.)	L.Jurišica
Internet	(1st sem.)	K.Žáková, L.Jurišica
Computer Architecture	(3rd sem.)	Š.Chamraz
History	(3rd sem.)	A.Maďaričová
Programming Systems for RT Control	(5th sem.)	Ľ.Šimová
Automatic Control Theory 1	(5th sem)	M.Huba
Automatic Control Theory 2	(6th sem.)	J.Murgaš
Politology	(6th sem.)	M.Potančok
Control Systems	(7th sem.)	Š.Chamraz
Linear systems	(7th sem.)	Š.Kozák
Actuators	(8th sem.)	J.Jovankovič
Optimization	(8th sem.)	D.Rosinová

Sensors and Transducers	(8th sem.)	J.Šturcel
Control System Software	(8th sem.)	J.Flochová
Process Dynamics	(9th sem.)	E.Miklovičová
Robotics	(9th sem.)	L.Jurišica
Sensor Systems	(9th sem.)	M.Toman
Servodrives	(9th sem.)	J.Jovankovič
Flexible Manufacturing Systems	(10th sem.)	L.Jurišica
Monolithic Microcomputers	(10th sem.)	Š.Chamraz
Continuous Process Control	(10th sem.)	V.Veselý

IV. RESEARCH PROJECTS

- Development and Integration of the Theory of Nonlinear Control Systems. VEGA 1/3089/06 (M.Huba)
- Algebraic Methods in Control of Nonlinear Systems and Their Application in solving the auto-rotation problem. APVV LPP-0127-06 (M.Huba, M. Halás)
- Advanced Control of Mechatronic Systems 1/ 0153 / 03 - VEGA, (L. Jurišica)
- Network of Virtual Laboratories for Real Process Control - KEGA project 3 / 3121 / 05, (M.Huba)
- Modern Network Control System for Complex Industrial Technologies. APVV-20-045805 (P.Hubinský)
- Controlled Rectifier with Active Filter of Harmonic Currents for SMART Frequency Converters. APVT – 99 – 026504 (M. Žalman – cooperation with Wonsch Brezno)
- Machines for Extreme Fast Material's Dividing.   APVT – 99 – 022604 (M. Žalman – cooperation with Microstep Bratislava)
- Research and development of New Generation of New Electric linear Drives with High Resolution of Position, APVV-99-031205 (M.Žalman - cooperation with EVPU Nová Dubnica)
- Mechatronics Systems and Progressive Technologies. APVT – 20-020904. (L. Jurišica)
- Advanced Control Methods, G 1/0158/03, V.Veselý
- Intelligent Control Systems, G 1/0155/03, Š.Kozák
- The Effect of Market Environment upon the Transfer and Conversion of Electric Energy, R&D State Program - 2004 SP 26 06K0C02, J.Murgaš
- Modelling, Control and Simulation of Distributed Manufacturing Systems, APVT - 51 – 011602, Š.Kozák
- Application of Artificial Intelligent Methods in Modelling and Control of Critical Processes in Power Industry, APVT - 20-031404, Š.Kozák
- Research and Development of HW and SW Modules of Positioning Sensoric Systems Carriers, APVV - 99-P05305, Š. Kozák
- Application of the Advanced Simulation Program Systems in Courses of the Study Program Production Technologies, KEGA 3/2411/04, Z. Králová
- Designing of Virtual Laboratories and Educational Programs, KEGA 3/3075/05, J. Murgaš
- Contractual Relations and Increasing of Ability to Compete in the Conditions of European – Integration. G 1/223/04, L. Andrášik
- Proposal Number 513396: NoE DIME, particular number 32

V. COOPERATION

V.1 Cooperation in Slovakia

- ABB Bratislava, Ltd.
- Alfa Base Ltd., Bratislava
- ATEC Ltd., Bratislava
- AXESS Ltd., Bratislava
- 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
- ESAB Ltd., Bratislava
- EVPU Nová Dubnica, Inc.
- First Welding Company, Bratislava
- Gratex International Ltd., Bratislava
- HMH Ltd., Bratislava
- Honeywell Ltd., Bratislava
- Institute of Economics, Slovak Academy of Sciences, Bratislava
- Institute of Informatics, Slovak Academy of Sciences, Bratislava
- Institute of Philosophy, Slovak Academy of Sciences, Bratislava
- Johnson Controls Ltd., Bratislava
- KFB Control Ltd., Bernolákovo
- Kybernetika Ltd., Košice
- Legrand Slovakia
- Matador Púchov, Inc.
- Meret, Bratislava, Ltd.
- MicroStep Ltd., Bratislava
- Microstep MIS, Ltd., Bratislava
- MicroStepHDO Ltd., Bratislava
- NES, Ltd. Nová Dubnica
- PI VUZ, Ltd., Bratislava
- PosAm, Ltd., Bratislava
- PPA Energo Ltd., Bratislava
- PPA Energo, Ltd. Bratislava
- ProCS Ltd., Šaľa
- PROXY, Nové Mesto n/Váhom
- PZ Bratislava, Ltd.
- Q – EX Trenčín, Inc.
- RMC Nová Dubnica, Ltd.
- S&A, Ltd. Banská Bystrica
- SE Inc., Bratislava
- Schneider Electric Slovakia, Ltd.
- Siemens Ltd., Bratislava
- Slovak Electricity Transmission System, Ltd, Bratislava
- Slovnaft Bratislava, Inc.
- SPP – Slovtransgaz Inc., Nitra
- Start Automation Ltd., Malacky
- SWH – Siemens Business Service, Bratislava
- Tecton Ltd., Bratislava
- Technical University of Košice
- Telegyr Systems (Slovakia) Ltd., Bratislava
- Termoreg Ltd., Bratislava

- TTC Ltd., Nitra
- 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

V.2 International Cooperation

- Budapest University of Technology and Economics, Budapest, Hungary
- Czech Technical University of Prague, CzR
- ČVUT Prague, CzR
- 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
- Ghent University, Belgium
- Hochschule, Heilbronn, Germany
- Humusoft Ltd., Praha, CzR
- Hungarian Fuzzy association, Hungary
- IIASA Laxenburg, Austria
- Institute for Machine and Process Automation, University of Technology, Vienna, Austria
- Institute for Problems of Mechanical Engineering, St.Petersburg, Russia
- Institute of Information Theory and Automation, Academy of Sciences of the Czech Republic,
  Prague, CzR
- IRCyN, Ecole Centrale de Nantes, France
- Moscow Power Institute, Moscow, Russia
- Profibus International, Germany
- Schneider Electric, Germany
- SOMMER, GmbH, Austria
- Strasbourg University, BETA, Strasbourg, France
- Technical University of Brno, CzR
- Technical University of Liberec, CzR
- Technical University of Ostrava, CzR
- Technical University of Tomas Bata in Zlín, CzR
- TU Ancona, Italy
- TU Brno, CzR
- TU Graz, Austria
- TU Chemnitz, Germany
- TU Liberec, CzR
- TU Plovdiv, Uni Gabrovo, Bulgaria
- TU Vienna, Austria
- TU Zagreb, Uni Split, Croatia
- University of Maribor, Slovenia
- University of Bochum, Germany
- University of Bremen, Germany
- University of Defence, CzR
- University of Maribor, Slovenia
- University of Technology, Pilsen, CzR
- University of West Bohemia in Pilsen, CzR

- University of Zagreb, Croatia
- University of Wisconsin - Whitewater, USA
- VŠB TU Ostrava, CzR

V.3 Membership in International Organizations and Societies

- IEEE The Institute of Electrical and Electronics Engineers, Inc. (L.Jurišica)
- IEE The Institute of Electrical Engineers, Inc. (L.Jurišica, M.Žalman, M.Huba, P.Hubinský)
- IFAC TC Nonlinear Control (M.Huba)
- IFAC (International Federation of Automatic Control), member of the Technical Committee on Discrete Event and Hybrid Systems (B.Hrúz)
- IFAC, member of the Technical Committee on Linear Control Systems (Š.Kozák)
- IFAC, member of the Technical Committee on Adaptive and Learning Systems (J.Murgaš)
- IFAC, member of the Technical Committee on Robust Control (V.Veselý)
- Members of IEEE / Institute of Electrical and Electronics Engineers (Š.Kozák, J.Murgaš, V.Veselý)
- Member of the American Mathematical Society (J.Murgaš)
- Publishing House Pergamon Press (Š.Kozák, M.Huba - editors)

VI. THESES

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

[1] T. Ágh: Model and control of a mechanical system designed by using Matlab/SimMechanics (M. Foltin)
[2] M. Bartoš: Design of LQG regulator (A. Kozáková)
[3] S. Bartoš: Virtual laboratory of process control. (I. Sekaj)
[4] M. Bartovič: Database modelling in PowerDesigner environment (M. Hejdová)
[5] L. Bašnák: Software environment for making internet selfeducational and testing applications (Z. Králová)
[6] M. Beránek: Client/server application for remote control of real systems (P. Bisták)
[7] P. Berec: Data-Processing in intelligent sensor systems (J. Šturcel)
[8] M. Blaho: Modelling and controlling of complex traffic problem (M. Foltin)
[9] K. Bočkay: Optimization of wood processing line (Z. Králová)
[10] P. Budzák: Client - server application to control a real system by using Bluetooth communication (P. Bisták)
[11] M. Bušniak: Software development for measurement and record of posturographic data by laboratory card (D. Rosinová)
[12] J. Bzdúšek: CMS system design and development using PHP (I. Hantuch)
[13] J. Dedinská: PID neural controllers (Š. Kozák)
[14] M. Dobšovič: Regulation in RT-LINUX (M. Kratmuller)
[15] J. Dojčan: Content management system (Z. Králová)
[16] M. Dysko: Production system analysis using Value Stream Mapping and DMAIC (Z. Králová)
[17] T. Goda: Computer animation of automatic system controllers (M. Huba)
[18] E. Grohman: Reflex optical range finder (M. Toman)
[19] V. Hudačín: Linux version of Matlab environment in pedagogical laboratory for distance study (P. Fodrek)
[20] J. Hupka: Actuator SMA (P. Drahoš)
[21] M. Huska: Petri nets in expert systems and its application in production and disassembly

processes (B. Hrúz)

[22] R. Chasník: Animation of controlling pole assignment systems with constrained output (M. Huba)

[23] M. Jenčo: Heat measurement (R. Balogh)

[24] M. Ježo: Virtual model of an industrial process (I. Sekaj)

[25] O. Jombík: Development of C++ program modules for fault diagnosis of discrete event systems modelled by Petri Nets (J. Flochová)

[26] M. Juríček: Planning IB-electrotechnical layer and programming a demo intelligent house (I. Hantuch)

[27] A. Kelčík: Interaction measures in MIMO system and their use in control design (D. Rosinová)

[28] M. Klč: Predictive controllers with IMC structure (Š. Kozák)

[29] J. Kližan: Application of the Robust Maximum Principle in the LQ Controller Design for a Multi-Model System (A. Kozáková)

[30] M. Klubal: Ultrasonic sensor system for a mobile robot (J. Hanzel)

[31] M. Klučka: Models of the temperature sensors (R. Balogh)

[32] M. Kollár: Programme system for automatic synthesis of control circuits using compensators (Š. Kozák)

[33] M. Kollárčik: Solving of complex optimization problems using evolutionary computation methods (I. Sekaj)

[34] I. Kompas: Analysis of the data security within technological network EMO Mochovce (M. Hejdová, M. Staňová)

[35] M. Kopča: Predictive control of nonlinear systems (E. Miklovičová)

[36] N. Környi: Software for HART communication protocol (R. Balogh)

[37] T. Kotes: Design if linear servo-drives for technologic tables for cutting (M. Žalman)

[38] M. Laboš: Discrimination and analysis of moving objects from captured frames (J.Grman)

[39] L. Lipovský: Industry controllers setting Toolbox (Š. Kozák)

[40] M. Liška: Virtual paedeutics – subsystem administrator (I. Hantuch)

[41] Ľ. Lukáčik: Control system for an autonomous mobile robot (R. Balogh)

[42] A. Marcík: Mobile robot movement visualization (R. Balogh)

[43] P. Matula: Linux version of Matlab environment in pedagogical laboratory (P. Fodrek)

[44] S. Matys: Modelling of intelligent telecommunication net in virtual reality (I. Hantuch)

[45] M. Melišík: Stepper motor control unit (R. Balogh)

[46] S. Migra: Models of chemical reactors in laboratory C025 and concept of regulation loops for models (P. Drozd)

[47] M. Móži: Adaptive predictive neural controllers (Š. Kozák)

[48] P. Mráz: Connecting of portal crane to PLC SIMATIC (I. Bélai)

[49] M. Nagy: Application of methods of residual vibrations elimination in the system of portal crane (P. Hubinský)

[50] J. Osuský: Design of robust decentralised controller (V. Veselý)

[51] T. Páleník: Genetic programming based controller design (I. Sekaj)

[52] T. Parvanov: Optimized system control of automatic guided vehicles in production processes (B. Hrúz)

[53] T. Perný: USB device for data acquisition (R. Balogh)

[54] Ľ. Petrovič: Design of solution for visualization and control of processes with WEB technologies (J. Dorner)

[55] M. Poliačik: Control of an unstable system (R. Balogh)

[56] P. Potrok: PC controlling system of two axis positioner (M. Žalman)

[57] M. Radakovič: Implementation of supervisory control in programming environment of PLCs (J. Flochová)

[58] T. Ragala: Measuring accuracy desk with strain-gauge sensors (J. Šturcel)

[59] R. Rozgonyi: Automation equipment Emerson in plant of Slovnaft (P. Drahoš)

[60] S. Rusnák: Control of portal crane position using online shaping methods (P. Hubinský)

[61] J. Rybárik: System of visualization data and export data between win-cc and microsoft sql database (P. Drozd)

[62] M. Sallay: Tracking and discrimination of moving objects from captured frames (J. Grman)

[63] T. Sekereš: AS interface (P. Drahoš)

[64] R. Snovák: Software for logopaedia support (J. Dúbravský)

[65] Z. Staňo: Automation on infiltrations processing systems (Š.Kozák)

[66] T. Surovčík: Tracing of a mobile robot trajectory (R. Balogh)

[67] M. Száraz: Automated system of searching information in documents (M. Hejdová)

[68] J. Šroba: Making of graphic interface in PHP designed for control of chosen system simulated in Matlab (P. Drozd)

[69] S. Števo: The designing of intelligent building - electrical layer and possibilities of utilization of 3D modelling (I. Hantuch)

[70] M. Šubrt: Universal client application for control of real systems using teleexperiment (P. Bisták)

[71] J. Šustek: New version of modular information system for e-learning MIBES4 (P. Bisták)

[72] P. Užek: Department's information system (L. Jurišica)

[73] P. Vanek: Multidimensional synthesis with use of IMC methods (Š. Kozák)

[74] T. Vida: Intelligent methods of predictive control (J. Paulusová)

[75] R. Vlček: Desing of MIMO DMC using genetic algorithms (E. Miklovičová)

[76] A. Wagner: Scout vehicle (J. Dúbravský)

[77] K. Zajcev: Position control of a portal crane using offline shaping methods (P. Hubinský)

[78] B. Zovčák: Virtual learning - part CLIENT (I. Hantuch)

VII. OTHER ACTIVITIES

- Conferences organized by institute:
   - 7th Int. Conf. Virtual University, Bratislava, SK. December 2006 (M.Huba OC, IPC Chairman, P.Bisták, K.Žáková, A.Vajdová, M.Halás, D.Sovišová, M.Kalinovský, M.Kamenský, M.Ondera, M.Šimúnek, P.Ťapák – OC members)
   - Istrobot: Competition of Mobile Robots, Dep. of Contr. and Autom. Bratislava, SK. April 2006 (R. Balogh)
   - International conference Cybernetics and Informatics, Michalovce, SK. June 2006 Š.Kozák - Chairman of the IPC, V.Veselý - Vice-Chairman of the IPC, M.Hejdová, P.Knežiková, A.Kozáková, L.Körösi, M.Mrosko, R.Memersheimer, D.Rosinová, M.Foltin – NOC members)
- Conferences Participation, Membership in Committees:
   - IFAC Workshop on Programmable Devices and Embedded Systems 2006, Brno, CZ. February 2006 (M.Huba, K.Žáková – IPC members)
   - 9th CASYS Conference, Liege Belgium. August 2006 (M.Huba-Intern.Scient. Committee Member)
   - DIVAI (Distance Education in Applied Informatics), UKF Nitra, SK. May 2006 (M. Huba, PC Member)
   - 7th Int. Symposium Mechatronics 2006, Trenčín SK. June 2006 (L. Jurišica , M.Žalman, P.Hubinský - IPC members)
   - Elosys 2006, Trenčín. SK. October 2006 (L.Jurišica, P.Hubinský, I.Sekaj – PC members, Profibus exposition)
   - 14th Annual Conference Technical Computing, Prague,CZ, October 2006 (M.Foltin – OC member)
   - 7th International Conference Process Control 2006, Kouty nad Desnou, CZ, June 2006 (Š. Kozák, V. Veselý – IPC members)
   - Conference WITNESS 2006, Čejkovice, CZ, June 2006 (Z.Králová - member of the Program Committee)
- Projects:
   - Visual servoing of a robot arm on a mobile platform. DAAD 7/2005 (P. Hubinský)
   - CEEPUS C II – CZ – 0031-01-0506 International Study in Automatic Control (M.Huba, K.Žáková)

- Leonardo: SOMA (Safety of Machinery) (M Huba)
- ESF Project: Program of Continuing Education in the Area of Industrial Automation and Information Technology. (M. Huba, P. Bisták - local coordinators)
- ESF Project: Preparation of the System and Program of Lifelong Education of the University Employees. (A. Vajdová – coordinator)
- ESF Project: Enhanced Preparation of Students of Bachelor and Engineering Study for Their Future Career. (K. Žáková – coordinator)
- ESF Project: Preparation for E-learning. (M. Huba - coordinator)
- ESF Project: Human Resource Development for Research and Development in Automation and Control. (M. Huba - coordinator)
- ESF Project: Preparation of university teachers for ICT in education (K.Žáková-coordinator)
- AT&P Journal (L.Jurišica, J.Šturcel, M.Žalman, I.Hantuch – Editorial Board members)
- Selected Topics in Modelling and Control (Jurišica – Editorial Board members)
- Accreditations Board of SAS (L.Jurišica – member)
- Profibus Slovakia Association (P.Drahoš – chairman)
- International Machine Fair Nitra, May 2006 (Profibus exposition)
- Cooperation with Encyclopedic Institute of Slovak Academy of Sciences on the Slovak Encyclopedia (Lexical Group Cybernetics): M.Huba, P.Hubinský, L.Jurišica, J.Šturcel, M.Žalman.
- Accreditation Board of the Government of Slovakia. (Working Group - L. Jurišica – member)
- Local Centre of Distance Education (M. Huba-head, A.Vajdová-manager, 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)
- Slovak Standards Institute (SUTN) - M. Huba: Working Group TK – 37, Information Technologies, Subgroup on e-learning – Head
- SSKI (Slovak Society for Cybernetics and Informatics): Š. Kozák - President, V. Veselý, B. Hrúz - Vice-Presidents
- Journal "Cybernetics and Informatics": Š. Kozák – Editor-in-Chief. B. Hrúz, V. Hudačin, L. Körösi, A. Kozáková, V. Král, E. Miklovičová, - Editors. D. Rosinová - Managing Editor. J. Murgaš, V. Veselý - member of International Editorial Board
- AT&P Journal: J. Murgaš V. Veselý - members of Editorial Board
- Journal of Electrical Engineering: V. Veselý - member of Editorial Board
- Journal "Selected Topics in Modelling and Control": V. Veselý - Editor, Š. Kozák, J. Murgaš - members of Editorial Board
- Š. Kozák: guarantor for the scientific branch Mechatronics
- Project Management Association of Slovakia: Z. Králová - member
- Slovak Society for Operations Research: Z.Králová - council member

VIII. PUBLICATIONS