

***FACULTY OF MANAGEMENT SCIENCE  
AND INFORMATICS***

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***ANNUAL REPORT 2008***

***UNIVERSITY OF ŽILINA***

Edited by Faculty of Management Science and Informatics  
University of Žilina  
SLOVAKIA

Printed by EDIS - Žilina University publisher

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## **FACULTY OF MANAGEMENT SCIENCE AND INFORMATICS**

### ***Foreword***

Faculty of Management Science and Informatics Faculty was established at the University of Žilina in July 1990. The Faculty primarily specialises in managing activities in extensive systems. These include problems of managing and optimising the transfer of objects, as well as the designing of integrated interactive information systems for decision making support including economic connections and technical background.

The Faculty is interested in control and information systems with application for management, and transport systems from small-sized networks, such as a firm or company, through medium-sized, such as a region, to large-sized networks.

The activities of the Faculty are determined by new trends in information and communication technologies. The priority of the Faculty is to provide continual links between research, education and the career prospects of graduates. Basic educational and scientific activities consist of:

- Design and realization of technical means for information and management systems
- Analysis and synthesis of regulation and automation systems
- Control and optimisation of goods and passenger transport
- Creation, control and optimisation databases
- Management, marketing, logistics, entrepreneurial skills, creation of transport and communication systems
- Data transmission and data processing
- Issues concerning multimedia information systems, graphic systems and simulation of components for communication networks, systems and mathematical modelling

Faculty provides educational programmes in accordance with University Law No: 131/2002 in following accredited programmes of study:

Full time 3–year **Bachelors degree** programme in:

- ***Informatics***
- ***Computer Engineering***
- ***Management***

The programme is a well-rounded higher education in the 1<sup>st</sup> degree.

Additional 2 years **Masters degree** programmes of study are in the following accredited fields:

- ***Information Systems***
- ***Computer Engineering***
- ***Management***
- ***Information-Communication Technologies***

In the Programme *Information Systems* there is possibility for the students to make choice in following Professional Orientations:

- **Systems of Support for Decision-Making**
- **Applied Informatics**
- **Information-Communication Networks**
- **Business Informatics**
- **Distributed and Parallel Systems**

### *PhD.- Programme*

PhD-programme is the highest level of higher education. The aim of PhD-programme is to prepare the graduate student for independent, creative scientific-research work by giving the student comprehensive theoretical knowledge and mastery of the methods of scientific work as demonstrated in a given scientific project. The programme lasts three years (full time). The PhD.-programme requires 3 semesters of advanced study, satisfactory completion of a comprehensive examination, then, after 3<sup>rd</sup> semesters, submission of a written dissertation, based on independent original research that must be a significant contribution to the field of study. Oral examination that is a defence of the dissertation. The graduate is granted the scientific academic title „**Philosophiae Doctor** (abbr. **PhD.**)“, which is written in abbreviation after the candidate's name.

The PhD.- programme at the Faculty involves the following scientific disciplines:

- *Applied Informatics*
- *Management*
- *Control of Transportation Systems*

### *Presidium of the Faculty:*

**Dean:** Prof. Ing. Karol **M a t i a š k o**, PhD.  
Tel.: ++421-41-513 40 51  
Fax: ++ 421-41-565 40 55  
e-mail: dekan@fri.uniza.sk

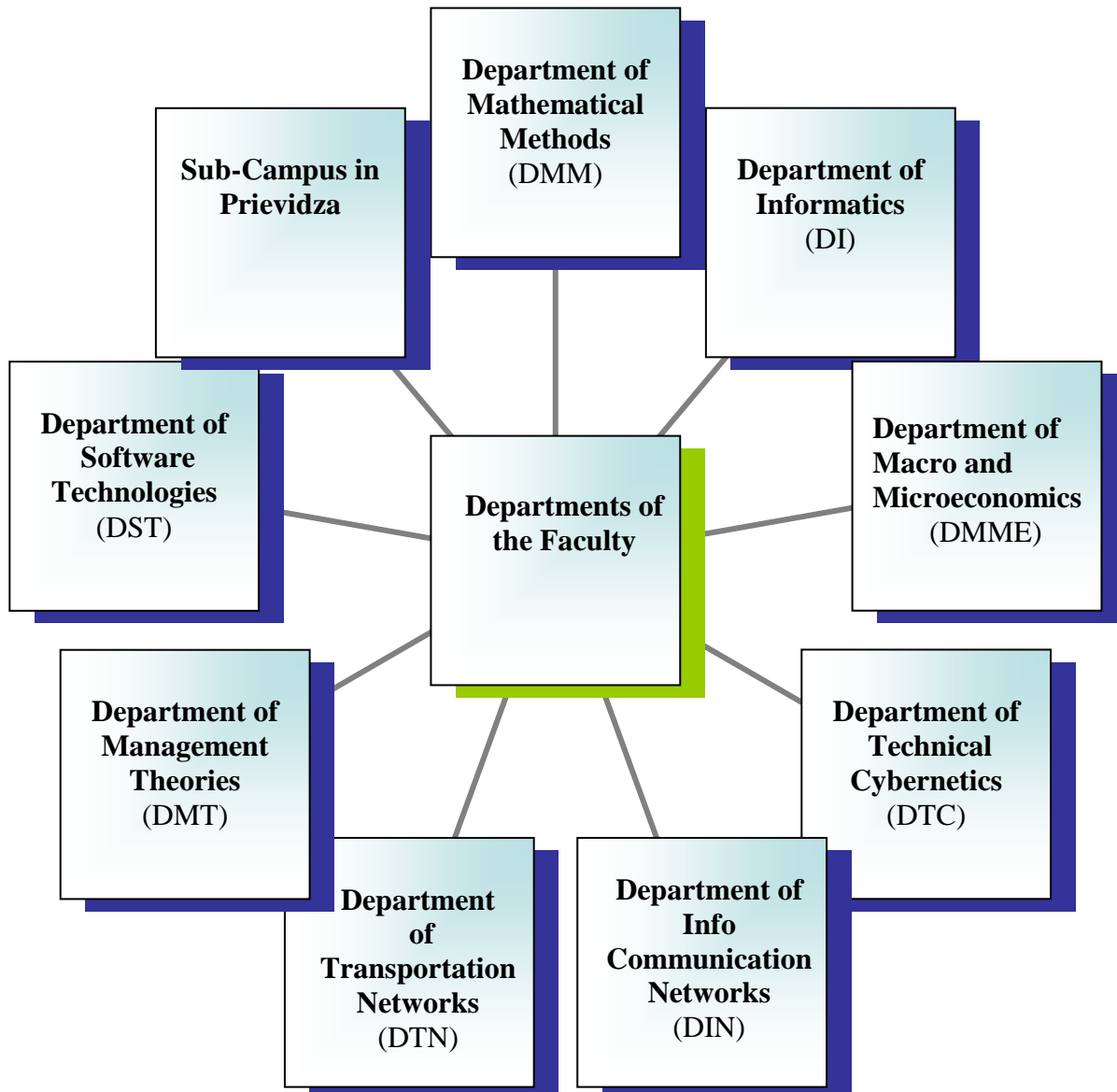
**Vice-Deans:** RNDr. Ida **S t a n k o v i a n s k á**, PhD.  
Vice-Dean for Education  
Tel.: +421-41- 513 40 72  
e-mail: ida.stankovianska@fri.uniza.sk

Assoc.Prof.Ing. Matilda **D r o z d o v á**, PhD.  
Vice-Dean for Science  
Tel.: +421-41- 513 40 71  
e-mail matilda.drozdova@fri.uniza.sk

Assoc. Prof. Ing. Juraj **S l o v á k**, PhD.  
Vice-Dean for International Affairs  
Tel.:+421-41- 513 43 63  
Fax: + 421-41-565 40 55  
e-mail: [juraj.slovak@fri.uniza.sk](mailto:juraj.slovak@fri.uniza.sk)

### Departments of the Faculty

The FMSI has eight Departments and one Sub-Campus. They are:



## ***Scientific and Professional Orientation of the Faculty***

The Faculty is involved in the following scientific fields:

- Analysis, synthesis and design of integrated information and control systems
- Creation of integrated systems for the support of decision-making, including its economical correlations and technical equipment requirements
- Management, marketing, logistics and enterprising in the general field of transportation and communication systems
- Problem-solving design in transportation and communication systems and relative tasks of control
- Control and optimisation of transportation of products and persons
- Control and optimisation of database creation, transmission and data processing
- Analysis, synthesis and design of multimedia information systems
- Analysis, synthesis and design of geographical information systems
- Design and realization of simulation components for communication networks and systems
- Design and realization of technical means for information and control systems

## ***Scientific activities of the Faculty***

In 2008 there were **11 International projects**, **16 Research projects from state agency VEGA and KEGA**, **22 other projects** and **33 Institutional projects** solved at the Faculty. They are:

### **International Projects:**

1. CZ/SK/ZU2/07 *Methods for Design of Optimal Structure in Public Service systems*  
Prof.Ing. Jaroslav **Janáček**, PhD.
2. CHINA/SK/ZU1/07 *Using of Simulation Techniques for Optimisation of Transportation Processes in Production Companies*  
Ing. Norbert **Adamko**, PhD.
3. CHINA/SK/ZU2/07 *Terminal Simulation Models in Multimedia Transport*  
Assoc.Prof.Mgr. Valent **Klima**, PhD.
4. CZ/SK/ZU3/07 *Actual Managerial and marketing Trends in the Theory and Praxis*  
Assoc.Prof.Ing. Jozef **Strišš**, PhD.
5. CZ/SK/ZU5/08 *Marketing Communication Forms Design for Support of Implementation of New Multimedia Products into Praxis*  
Ing. Milan **Kubina**, PhD.
6. BEL/SK/ZU/08/ *Research of Functions of Several Values Logics by Using of Logical Differential Calculus*  
Assoc.Prof.Ing. Vitaly **Levashenko**, PhD.
7. CH/SK/ZU/08 *Optimal Schema for Sorting of Cargo Wagons*  
Ing. Peter **Márton**, PhD.
8. CZ/SK/ZU6/08 *Using of Modern Software and Hardware Technologies in Modelling and Simulation of Transportation Processes*  
Mgr.Ing. Lubomír **Sadloň**, PhD.

9. FIN/SK/ZU/08 *Research for Using of Visualisation Techniques in Investigation of Wide-Ranging Databases*  
Assoc.Prof.Ing. Michal **Zábovský**, PhD.
10. CZ/SK/ZU4/07 *Adaptive Replication System for Mobile Devices*  
Prof.Ing. karol **Matiaško**, PhD.
11. BEL/FIN/SK/ZU/06 *System Reliability Investigation by Decision Trees*  
Assoc.Prof. Elena **Zaitseva**, PhD.

### Projects of State Scientific Agency:

#### VEGA Projects:

1. 1/4647/07 *Dynamic Model of Human Potential Motivation*  
Assoc.Prof.Ing. Martina **Blašková**, PhD.
2. 1/4061/07 *Error Rate Model for High-Speed Digital Network*  
Ing. Petr. **Ivaniga**, PhD.
3. 1/4064/07 *Development of the New Signal Pre-processing for the Technology Process Control and Monitoring*  
Assoc.Prof. Ing. Juraj **Miček**, PhD.
4. 1/4057/07 *Agent Oriented Architecture of Service Systems Simulation Models.*  
Assoc. Prof. Mgr. Valent **Klima**, PhD.
5. 1/0796/08 *Modelling and Processing of Data in Wide-Ranging Databases*  
Prof.Ing. Karol **Matiaško**, PhD.
6. 1/0664/08 *Design of Algorithms for Adjustment of Data Based on of Several Values Logics and Fuzzy Logics*  
Assoc.prof.Ing Vitaly **Levashenko**, PhD.
7. 1/0135/08 *Optimisation Problems in Logistics and Transportation Systems*  
Assoc.Prof.RNDr. Štefan **Peško**, PhD.
8. 1/0878/08 *Development of Theory of Cognitive Management*  
Prof.Ing. Štefan **Hittmár**, PhD.
9. 1/0495/08 *Design of New Access System and Methods for References of Effectively Exploitation and Optimal Combination of Production Inputs by Using of Macro- and Micro-Economy Aspect and Prior Orientation to Human Capital*  
Assoc.Prof.Ing. Alžbeta **Kucharčíková**, PhD.
10. 1/0808/08 *Self-Adjusting and Teaching Algorithms of Automatic Control*  
Prof.Ing. Mikuláš **Alexík**, PhD.
11. 1/0024/08 *Intelligent Techniques in Modelling and Prognostics of Economic Time Progressions and their Use in Managerial Predictive Systems*  
Prof.Ing. Dušan **Marček**, PhD.
12. 1/3775/06 *Decision Support Tools for Design of Complex Distribution and Servicing Systems.*  
Prof. RNDr. Jaroslav **Janáček**, PhD
13. 1/3818/06 *Modelling of Management and Marketing Communication in Sector*

of Services

Assoc. Prof. Ing. Jozef **Strišš**, PhD.

14. 1/3084/06 *Research of Structural-Complex Systems Reliability.*  
Assoc. Prof. Ing. Elena **Zaitseva**, PhD.

### **KEGA Projects:**

1. 3/5205/07 *Digital Libraries of e-Learning Metadata Objects and its Management.*  
Assoc. Prof. Ing. **Drozdová, M.**, PhD.
2. 3/4147/06 *Bilingual Multimedia Programme for e-Learning in the Field of Forced Dynamic Control Principles.*  
Prof. Ing. Mikuláš **Alexík**, PhD.

### **Other Research Projects:**

1. 6RP/FP6-506494 *Increasing of Safety and Reliability on the Roads of 2<sup>nd</sup> Category for Permanent Development of Surface Traffic*  
Prof. RNDr. Jaroslav **Janáček**, PhD
2. STF LoE S36/02 *Project IST FP7 - Customer in the Loop*  
Assoc. Prof. Tatiana **Kováčiková**, PhD.
3. PP7RP-0035-07 *Vehicle Status Information Based Data Flow through V2V21*  
Assoc. Prof. Ing. Juraj **Miček**, PhD.
4. STF LoE-331/05 *Technologies Interoperability and Standardization*  
Assoc. Prof. Tatiana **Kováčiková**, PhD.
5. STF LoE 342/05 *Personalization and User Profile Management Standardization*  
Assoc. Prof. Tatiana **Kováčiková**, PhD.
6. STF 311 *Consequences on the Standardization Activities on NGN from the EU ECN&S Regulatory View Point*  
Assoc. Prof. Tatiana **Kováčiková**, PhD.
7. 1/2008/FRI/PČ/190 *Composition of Address SW GTN for Controlled Region Dunajská Streda*  
Ing. Emil **Kršák**, PhD.
8. 2/2008/FRI/Úč/190 *Continuing of Development for the System ZONA*  
Prof. Ing. Karel **Šotek**, PhD.
9. 3/2008/FRI/PČ/190 *Providing of after Guarantee Services in the Project ZONA*  
Prof. Ing. Karel **Šotek**, PhD.
10. 4/2008/FRI/PČ/940 *Solution of Research Marketing Tasks 2008*  
Assoc. Prof. Miroslav **Hrnčiar**, PhD.
11. 5/2008/FRI/PČ/916 *Concept of Information Systems Development in the Žilina City*  
Prof. Ing. Karol **Matiaško**, PhD.
12. 5/2007/FRI/PČ/940 *Matrix of Distances ZUJ in Czech Republic*



- Assoc.Prof. Miroslav **Hrnčiar**, PhD.
13. 2/2008/FRI/R/180     *Transportation-Sociological Survey in Connection with Study of  
Implementation and with the Project IDS BSK*  
Assoc.Prof.Ing. Jozef **Strišš**, PhD.
14. 1/1706/2007/940     *Development of Geographical Information System for Slovak  
Gasworks, Joint Stock Company*  
Assoc.Prof. Miroslav **Hrnčiar**, PhD
15. 9/2008/FRI/R/940     *Measurement of Time for Waiting in the Selected Posts in Slovakia*  
Assoc.Prof. Miroslav **Hrnčiar**, PhD
16. 10/2008/FRI/R/190    *Optimisation of Telecom Slovak Railways – ICT*  
Prof.Ing. Karol **Matiaško**, PhD.
17. 01200706-10         *Modelling of IP Operation*  
Prof. Martin **Klimo**, PhD.
18. LPP-0154-07         *Mathematical Competition SEZAM and SEZAMKO for the Pupils of  
Grammar Schools.*  
RNDr. Hynek **Bachratý**, PhD.
19. APVV 20-018405     *Attributes of Molecules with Intricate Electron Structure*  
RNDr. Miroslav **Iliaš**, PhD.
20. 771362                *Study for Realization of Electronic Signature*  
Ing. Emil **Kršák**, PhD.
21. 771370                *Project of Implementation of Electronic Signature*  
Ing. Emil **Kršák**, PhD
22. 001ŽU-3/2008        *Voice Output for www*  
Prof.Ing. Martin **Klimo**, PhD.

### **Institutional Projects:**

1. *Diagnostic Process in Efficiency of Enterprise*  
Ing. Mária **Đurišová**
2. *Graph Isomorphism and its Applications*  
Mgr. Peter **Czimermann**
3. *Cryptographic Properties S-Boxes, Calculus of Non Linearity S-Boxes as a Minimum  
Distance of Linear Code*  
Ing. Tomáš **Majer**
4. *Decision Making about the Selection of CRM Information System*  
Ing. Viliam **Lendel**
5. *Mathematical Texts in Computer Processing of Voice*  
RNDr. Katarína **Bachratá**, PhD.
6. *Increasing of Qualified Exactness for Fuzzy Rules Inducted by Elimination of Attributes*  
Ing. Ján **Boháčik**
7. *Risks Insurance an Stability of Systems Bonus-Malus*  
RNDr. Aleš **Kozubík**

8. *Risks and Risks Factors in Transport*  
Ing. Zuzana **Kozubíková**
9. *Solving of Schedule Problems with Limited Sources in Transport by Method CPM*  
Ing. Peter **Jankovič**
10. *Identification of Diphons in Speech by means of Neuron Networks*  
Ing. Juraj **Boroň**
11. *New Forms of Marketing*  
Ing. Milan **Kubina**, PhD.
12. *Organisation System Models in Context for Learning Institution*  
Ing. Jaroslava **Štaffenová**
13. *Status and New Trends in the Field IP Telephony with Respect of SIP Protocol*  
Ing. Pavol **Segeč**, PhD.
14. *Analysis of Testing Specifications for NGN IMS*  
Ing. Michal Bruncko
15. *Toward a Systematic Repository of Knowledge about Managing Collaborative Design Conflicts*  
Ing. Marián **Hrubizna**
16. *Analysis of Risks in Evaluation Processes Real Estates*  
Ing. Iveta **Nedeljaková**
17. *Speech Sound Representatives Determination in Slovak Language for Synthesis of Speech*  
Ing. Ondrej **Škvarek**
18. *Increase Efficiency Modelling for Working with Human Potential*  
Ing. Radka **Majerová**
19. *Creativity as a Tool of Development in Management*  
Ing. Jana **Dicová**, PhD.
20. *Use of Operating System Extensions for Real-Time Control and Simulation*  
Ing. Štefan **Bocko**
21. *Using of Digital Picture Processing Technology for identification and Analysis of Lineal Objects*  
Ing. Peter **Tarábek**
22. *Identification of Linear continuous Systems Based on Recursive RLS in MATLAB*  
Ing. Adam **Jaroš**, PhD
23. *Optimisation of Capital Structure in Enterprise*  
Ing. Anna **Jacková**, PhD.
24. *Methods for Preserving and Searching of Relevant Information in the Knowledge System*  
Mgr. Erika **Monošiová**
25. *System of Perfect Acquiring Subject Matter in the Courses of Programming*  
Ing. Jana **Jacková**
26. *New Way to Manage Process of Knowledge*  
Ing. Marián **Hrubizna**
27. *Fuzzy Approach to the Capacitated Facility Location Problem*  
Mgr. Lýdia **Gábrišová**, PhD.

28. *YAWL Using for Modelling of Technological Procedure in the Railway Station.*  
Ing. Michal **Žarnay**, PhD.
29. *Rules of Moving Vehicle in the Cellular Automaton Described by Petri Nets*  
Ing. Peter **Kostúr**
30. *Study of Group Centres and Medians on Special Graphs.*  
RNDr. Rudolf **Blaško**, PhD.
31. *The Development of the New Signal Pre-Processing for the Technological Process of Control and Monitoring*  
Ing. Oldřich **Kovář**, PhD.
32. *Empirical Methods of Decision Making in Management*  
Ing. Jana **Magdolenová**
33. *Research of the Influence Results of Selected Taxes for Business Firms after Acceptation Slovak Republic into EU*  
Ing. Beata **Holková**

### **Scientific Board:**

**Chairman:** Prof. Ing. Karol **Matiško**, PhD.

**Members:** Prof. Ing. Mikuláš **Alexík**, PhD.  
Prof. Ing. Milan **Dado**, PhD.  
Assoc. Prof. Ing. Vladimír **Jamrich**, PhD.  
Assoc. Prof. Zdeněk **Havlice**, PhD.  
Prof. RNDr. Jaroslav **Janáček**, PhD.  
Prof. Ing. Martin **Klimo**, PhD.  
Prof. Ing. Dušan **Marček**, PhD.  
Assoc. Prof. Ing. Juraj **Miček**, PhD.  
Assoc. Prof. RNDr. Stanislav **Palúch**, PhD.  
Assoc. Prof. Ing. Jiří **Slavík**, PhD.  
Coll. Prof. Ing. Ladislav **Šimák**, PhD.  
Prof. Ing. Petr **Cenek**, Ph.D.  
Prof. Ing. Ivan **Hanuliak**, PhD.  
Prof. Ing. Štefan **Hittmár**, PhD.  
Assoc. Prof. Mgr. Valent **Klima**, PhD.  
Prof. Ing. Milan **Kolesár**, PhD.  
Assoc. Prof. Ing. Vladimír **Mlynarovič**, PhD.  
Prof. RNDr. Beloslav **Riečan**, DrSc.  
Assoc. Prof. Ing. Jozef **Strišš**, PhD.  
Prof. Ing. Karel **Šotek**, PhD.1.

Scientific Board of the Faculty, after successful defence of Doctoral thesis, has appointed in 2009 with title **PhD.** following graduates of PhD.-Programme:

1. Ing. Emese **Tokarčíková**
2. Ing. Iveta **Nedeljaková**

3. Ing. Jana M a g d o l e n o v á
4. Ing. Marián H r u b i z n a
5. Ing. Viliam L e n d e l
6. Ing. Ján B o h á č i k
7. Ing. Peter T a r á b e k
8. Ing. Zuzana M e č i a r o v á
9. Ing. Peter Č á k y
10. Ing. Radovan M l a d š í k
11. Ing. Jana V i t v a r o v á
12. Ing. Matúš J u r e č k a

### **Academic Senate:**

**Chairman:** RNDr. Štefan K o v a l í k

**Secretary:** Assoc.Ing. Ludmila J á n o š í k o v á , PhD.

### **Chamber of Employees:**

Assoc.Prof. Martina B l a š k o v á , PhD.

RNDr. Hynek B a c h r a t ý , PhD.

RNDr. Peter V a r š a PhD.

Ing. Jozef G a j d o š í k

Ing. Juraj D u b o v e c , PhD.

Mgr.Ing. Ľubomír S a d l o ň , PhD.

RNDr. Katarína B a c h r a t á , PhD.

Ing. Jozef J u r í č e k , PhD.

Assoc.Prof. Stanislav P a l ú c h , PhD.

Ing. Emil K r š á k , PhD.

Ing. Jozef M i č i c

Ing. Ján K a p i t u l í k , PhD.

### **Chamber of Students:**

Kristína Š t r b á k o v á

Matej P u l c

Štefan B o c k o

Tomáš D u n a j s k ý

Milan V a v r o

Oliver B l e y

Martin C z i p p e l

### **Official guests from foreign institutions accepted by Deans Office in 2008**

1. XU Zheng Li, TDJ Research Centre, Harbin, CHINA
2. LU Baiquan, TDJ Research Centre, Harbin, CHINA
3. YU Jang Tiao, TDJ Research Centre, Harbin, CHINA
4. Dr. Jouni Huotari, Polytechnic Jyväskylä, (FIN)
5. Dipl.-Ing. Birgit Graf, Hochschule für Telekommunikation Leipzig, (D)

6. Prof. Ing. Volkmar Brückner, Hochschule für Telekommunikation Leipzig, (D)
7. Prof. Thomas Smmler, ENST Bretagne, (F)
8. Prof. Alison Gourve, ENST Bretagne, (F)
9. Prof. Andrea Hembise, Telecom Lille, (F)
10. Prof. Dean Hipple, Telecom Lille, (F)
11. Prof. Thomas Schneider, Hochschule für Telekommunikation Leipzig, (D)
12. Assoc. Prof. Stojan Rabov, Higher College of Telecommunications and Posts Sofia, (BG)
13. Assoc. Prof. Ignat Stanev, Higher College of Telecommunications and Posts Sofia, (BG)
14. Assoc. Prof. Ivan Prodanov, Higher College of Telecommunications and Posts Sofia, (BG)
15. Assoc. Prof. Stefan Popov, Higher College of Telecommunications and Posts Sofia, (BG)
16. Prof. Christian Margaria, Telecom SudParis Evry, (F)
17. Dr. Beverley Delsinne, Telecom SudParis Evry, (F)
18. Dr. Ing. Andreas Schwarzbacher, Dublin Institute of Technology, (IRL)
19. Prof. Aofie Moloney, Dublin Institute of Technology, (IRL)
20. Prof. Andras Fehér, Szécheny István University Győr, (H)
21. Prof. Tibor Kolos, Szécheny István University Győr, (H)
22. Prof. Boris Chernov, State University of Telecommunications, St. Petersburg (RUS)
23. Prof. Daniel Ranc, Telecom Sudparis Evry, (F)
24. Prof. Salvador Sales, Univesidad Politecnica de Valencia, (E)
25. Dr. Márta Mészáros, Szécheny István University Győr, (H)
26. Ing. Julien Prilepsky, Higher College of Telecommunications and Posts Sofia, (BG)
27. Ing. Anna Otsetova, Higher College of Telecommunications and Posts Sofia, (BG)
28. Prof. Christophe Seguinot, Telecom Lille, (F)
29. Prof. Kamal Lminouni, Telecom Lille, (F)
30. Dr. Wulf Bauerfeld, Hochschule für Telekommunikation Leipzig, (D)
31. Assoc. Prof. Szilvia Nagy, Szécheny István University Győr, (H)
32. Prof. Esa Salmikangas, Polytechnic Jyväskylä (FIN)
33. Dr. Michael Beithe, EURIAS Dresden (D)

**Abroad stays of the Faculty staff and PhD-Students  
In the 1<sup>st</sup> Quarter 2008**

	<i>Name</i>	<i>Institute - Country</i>	<i>from</i>	<i>to</i>
1.	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI, Shopia – Antipolis (F)	8.1.2008	12.1.2008
2.	Assoc.Prof. Ing. M. Klimo, PhD.	European Commission ISTC (B)	16.1.2008	17.1.2008
3.	Ing. Zuzana Bizoňová	INT Evry (F)	7.1.2008	2.2.2008
4.	Assoc.Prof. Ing. T. Kováčiková, PhD.	EK, DG INFSOC, Net.Media (F)	21.1.2008	22.1.2008
5.	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI, Shopia – Antipolis (F)	27.1.2008	2.2.2008
6.	Assoc.Prof. Ing. V. Levashenko, PhD.	Belarus State Economic Univ.	31.1.2008	4.2.2008
7.	Assoc.Prof. Ing. M. Drozdová, CSc.	Mykolas Romeris University (LT)	13.2.2008	17.2.2008
8.	Prof. Dr. V. Kompiš, CSc.	ECCM (A)	18.2.2008	20.2.2008
9.	Assoc.Prof. Ing. T. Kováčiková, PhD.	Federal Network Agency (D)	27.2.2008	1.3.2008
10.	Ing. Emil Kršák, PhD.	Siemens PSE (A)	2.3.2008	2.3.2008
11.	Assoc.Prof. Ing. T. Kováčiková, PhD.	EK, DG INFSOC, Tuture Inter.(B)	3.3.2008	7.3.2008
12.	Assoc.Prof. Ing. V. Levashenko, PhD.	Belarus State Economic Univ.	6.3.2008	10.3.2008
13.	Prof. Ing. M. Klimo, PhD.	European Commission ISTC (B)	12.3.2008	12.3.2008
14.	Ing. Peter Márton, PhD.	TU Dresden (D)	20.2.2008	23.2.2008
15.	Ing. Peter Márton, PhD.	TDJ Research Center Harbin (CN)	29.2.2008	12.3.2008
16.	Ing. Peter Jankovič	TDJ Research Center Harbin (CN)	29.2.2008	12.3.2008
17.	Ing. Zuzana Bizoňová	IATED (E)	1.3.2008	6.3.2008
18.	Prof. Ing. M. Alexík, PhD.	Cambridge University (GB)	30.3.2008	6.4.2008
19.	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI - European Telecommun.(F)	25.3.2008	5.4.2008
20.	Prof. Ing. V. Kompiš, CSc.	Katholieke Univ. Leuven (B)	29.3.2008	4.4.2008
21.	Ing. Emil Kršák, PhD.	Intertraffic 2008 (NL)	30.3.2008	5.4.2008
22.	Ing. Patrik Hrkút	Intertraffic 2008 (NL)	30.3.2008	5.4.2008

**In the 2<sup>nd</sup> Quarter 2008**

	<i>Name</i>	<i>Institute - Country</i>	<i>from</i>	<i>to</i>
1.	Assoc.Prof. Ing. V. Levashenko, PhD.	SUI Minsk (BELARUS)	3.4.2008	6.4.2008
2.	Ing. Michal Žarnay	TU Breinschweig (D)	6.3.2008	26.4.2008
3.	Prof. Ing. M. Klimo, PhD.	European Comm. ISTC (B)	9.4.2008	9.4.2008
4.	Prof. RNDr. J. Janáček, CSc.	College of Molde (N)	9.4.2008	11.4.2008
5.	Assoc.Prof. Ing. J. Slovák, CSc.	Telecom Lille (F)	9.4.2008	12.4.2008
6.	Ing. M. Koháni, PhD.	College of Molde (N)	11.4.2008	19.4.2008
7.	Assoc.Prof. Ing. E. Zaitseva, PhD.	Belarusian State University	20.4.2008	25.4.2008
8.	Prof. Ing. K. Matiaško, PhD.	Politechnica.Valencia (E)	27.4.2008	1.5.2008
9.	Ing. M. Faktor	Belarusian State University	21.4.2008	24.4.2008
10.	Assoc.Prof. Ing. T. Kováčiková, PhD.	EK, Notworked Media Sys. (B)	21.4.2008	22.4.2008
11.	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI (F)	27.4.2008	10.5.2008
12.	Ing. M. Žarnay, PhD.	TU Breinschweig (D)	5.5.2008	7.6.2008
13.	Ing. P. Márton, PhD.	HTW Dresden (D)	18.5.2008	24.5.2008
14.	Prof. Ing. L. Skýva, DrSc.	HTW Dresden (D)	18.5.2008	24.5.2008
15.	Assoc.Prof. Ing. V. Levashenko, PhD.	SUI Minsk (BELARUS)	19.5.2008	23.5.2008
16.	Assoc.Prof. Ing. E. Zaitseva, PhD.	SUI Minsk (BELARUS)	24.5.2008	27.5.2008
17.	Prof. Ing. D. Marček, CSc.	University of Rio (Brazilia)	30.5.2008	8.6.2008
18.	Ing. J. Boháčik	University of Tampere (FIN)	5.8.2007	31.5.2008
19.	Assoc.Prof. Ing. E. Zaitseva, PhD.	Surgical Research Unit (BG)	1.6.2008	4.6.2008
20.	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI (F)	1.6.2008	9.6.2008
21.	Assoc.Prof. Ing. E. Zaitseva, PhD.	Air Force Institute of Tech. (PL)	4.6.2008	7.6.2008
22.	RNDr. M. Iliáš, PhD.	University of Southem Den.(DK)	6.6.2008	23.6.2008

23.	Mgr. K. Pilátová	Ohrid (MK)	13.6.2008	22.6.2008
24.	Ing. Z. Bizoňová	Ohrid (MK)	13.6.2008	22.6.2008
25.	Ing. M. Žarnay, PhD.	TU Breinschweig (D)	16.6.2008	31.7.2008
26.	Assoc.Prof. Ing. T. Kováčiková, PhD	Slovenian Research Agency (SL)	17.6.2008	18.6.2008
27.	Ing. J. Jacková	Universidad Politécnica (E)	26.6.2008	4.7.2008
28.	Assoc.Prof. Ing. E. Zaitseva, PhD.	Wroclaw University of Tech.	25.6.2008	29.6.2008
29.	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI (F)	29.6.2008	4.7.2008
30.	Ing. P. Márton, PhD.	Institute of Theoret. Comp.(CH)	30.6.2008	2.7.2008

### In the 3<sup>rd</sup> Quarter 2008

	<i>Name</i>	<i>Institute - Country</i>	<i>from</i>	<i>to</i>
1.	Assoc.Prof. Ing. V. Levashenko, PhD.	SUI Minsk, (BELARUS)	12.7.2008	19.7.2008
2.	Prof. Ing. M. Klimo, PhD.	European Commission (B)	16.7.2008	17.7.2008
3.	Prof. Ing. P. Cenek, CSc.	WSE (GR)	20.7.2008	25.7.2008
4.	Assoc.Prof. Ing. E. Zaitseva, PhD.	Surgical Research Unit OP (D)	20.7.2008	23.7.2008
5.	Assoc.Prof. Ing. J. Strišš, CSc.	OSŽD (PL)	23.7.2008	26.7.2008
6.	Prof. Ing. Š. Hittmár, PhD.	OSŽD (PL)	23.7.2008	26.7.2008
7.	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI (F)	2.8.2008	13.8.2008
8.	Assoc.Prof. Ing. E. Zaitseva, PhD.	BSUIR, (BELARUS)	9.8.2008	14.8.2008
9.	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI aE)	29.8.2008	5.9.2008
10.	Prof. Ing. M. Alexík, PhD.	International Ass. of Sc. (E)	30.8.2008	7.9.2008
11.	Ing. Matuš Chochlík	Polytech. Jyväskylä (FIN)	3.9.2008	7.9.2008
12.	Ing. M. Záborský, PhD.	Polytech. Jyväskylä (FIN)	3.9.2008	7.9.2008
13.	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI (F)	7.9.2008	19.9.2008
14.	Prof. RNDr. J. Janáček, CSc.	US Uni, Jerevan (ARM)	10.9.2008	18.9.2008
15.	Ing. Matis Peter, PhD.	US Uni, Jerevan (ARM)	10.9.2008	18.9.2008
16.	Ing. Ján Ružbarský	HTW Dresden (D)	15.9.2008	19.9.2008
17.	Assoc.Prof. Penka Martincová, PhD.	TU Sofia (BG)	18.9.2008	21.9.2008
18.	Prof. Ing. Martin Klimo, PhD.	European Commission (B)	24.9.2008	24.9.2008
19.	Assoc.Prof. Ing. Zelem Ján, CSc.	Univerzita Maribor (SL)	24.9.2008	27.9.2008
20.	Assoc.Prof. Ing. Fabián Peter, CSc.	Univerzita Maribor (SL)	24.9.2008	27.9.2008
21.	Assoc.Prof. Ing. T. Kováčiková, PhD.	France Telecom (F)	24.9.2008	26.9.2008
22.	Ing. P. Márton, PhD.	Messe Berlin, Trade Fair (D)	25.9.2008	26.9.2008
23.	Assoc.Prof. Ing. E. Zaitseva, PhD.	SUI Minsk, (BELARUS)	29.9.2008	5.10.2008

### In the 4<sup>th</sup> Quarter 2008

	<i>Name</i>	<i>Institute - Country</i>	<i>from</i>	<i>to</i>
1	Prof. Ing. Š. Hittmár, PhD.	Deutsche Bahn (D)	1.10.2008	3.10.2008
2	Assoc.Prof. Ing. J. Strišš, CSc.	Deutsche Bahn (D)	1.10.2008	3.10.2008
3	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI (F)	5.10.2008	17.10.2008
4	RNDr. Varša Peter, PhD.	Direction RJS Lille (F)	12.10.2008	19.10.2008
5	Assoc.Prof. Ing. M. Blašková, PhD.	Vilnius Univ. (LT)	12.10.2008	20.10.2008
6	Ing. M. Žarnay, PhD.	University of Technology. (H)	8.10.2008	10.10.2008
7	RNDr. Rudolf Blaško, PhD	Vilnius Univ. (LT)	12.10.2008	20.10.2008
8	Assoc.Prof. Ing. J. Slovák, CSc.	Kolež po Telekom. i Pošti (BG)	15.10.2008	18.10.2008
9	Ing. M. Žarnay, PhD.	Univerzita v Aarhus (DK)	18.10.2008	23.10.2008
10	Prof. Ing. M. Klimo, PhD.	European Commission (B)	22.10.2008	22.10.2008
11	Ing. Adamko Norbert, PhD.	Eurosis, ETI (F)	26.10.2008	31.10.2008
12	Assoc.Prof. Ing. T. Kováčiková, PhD.	ETSI(F)	2.11.2008	16.11.2008
13	Prof. RNDr. J. Janáček, CSc.	Silesian University (PL)	5.11.2008	8.11.2008
14	Ing. Zuzana Bizoňová	Telecom SudParis, Evry (F)	3.11.2008	6.11.2008
15	Assoc.Prof. Ing. Fabián Peter, CSc.	GISIG (I)	5.11.2008	9.11.2008

16	Assoc.Prof. Ing. Fabián Peter, CSc.	Hochschule fur Telekomun.(D)	9.11.2008	11.11.2008
17	Assoc.Prof. Ing. J. Slovák, CSc.	Hochschule fur Telekomun.(D)	9.11.2008	12.11.2008
18	Prof. Ing. M. Klimo, PhD.	Hochschule fur Telekomun. (D)	9.11.2008	12.11.2008
19	Assoc.Prof.Ing.T.Kováčiková, PhD.	ETSI (F)	23.11.2008	07.12.208
20	Prof.Ing. M. Klimo, PhD.	Lyon Convention Centre (F)	24.11.2008	28.11.2008
21	Assoc.Prof.Ing.T.Kováčiková, PhD.	European Commission (B)	10.12.2008	12.12.2008

### ***Human resource management***

As far as the required qualification structure of the pedagogical staff at the FMSI is concerned, the situation seen within the University's context is shown in following table. It shows current number of employees at the Faculty and its development in according to categories within the period 2004-2008.

<b>CATEGORY/YEAR</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Professors	10	10	10	9	11
Guest Professors		1	1	2	1
Assoc. Prof.	8	9	11	15	12
Senior Lecturers PhD.	25	24	27	35	45
Senior Lecturers	53	46	42	26	16
Assistants	1	1	2	1	1
Lectors		1	7	6	6
Research staff	17	13	13	9	9
Tech. Admin. Staff	53	52	49	49	52
<b>Total</b>	<b>167</b>	<b>157</b>	<b>162</b>	<b>152</b>	<b>153</b>



## Programmes of Study:

Bachelor's Degree Programme: **INFORMATICS**

### 1<sup>st</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	<b>COMPULSORY</b>				
	5BF01	Algebra	2-2-0	6	DMM
	5BF15	Mathematics for Informatics	2-2-0	8	DMM
	5BL33	Introduction to studies	2-0-2	3	DIN
	5BE01	Basics of Economic Theory	2-2-0	5	DMME
	5BI01	Informatics 1	2-2-2	8	DI
	<b>OPTIONAL</b>				
	5BF09	Practice of Mathematics	0-2-0	1	DMM
	5BI11	Practice of Programming 1	0-0-2	1	DI
	5BL15	Foreign Language	0-2-0	3	FSc_DL
5BL09	Physical Education	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	<b>COMPULSORY</b>				
	5BA26	Algorithmic Graphs Theory	2-2-0	6	DMM
	5BN10	Communication Technologies	2-0-2	6	DIN
	5BA24	Discrete Probability	2-2-1	6	DTN
	5BE02	Microeconomics	2-2-0	5	DMME
5BI38	Informatics 2	2-2-2	7	DI	
2	<b>OPTIONAL</b>				
	5BI36	Practice of Programming 2	0-0-2	1	DI
	5BL16	Foreign Language	0-2-0	3	FSc_DL
5BL10	Physical Education	0-0-2	1	IPE	

**Recommended number of credits in the 1<sup>st</sup> year of study: 60**

### 2<sup>nd</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	<b>COMPULSORY</b>				
	5BI39	Informatics 3	2-1-2	5	DI
	5BH01	Logical Systems	2-0-2	6	DTC
	5BI25	Assemblers	2-0-2	4	DTN
	5BF11	Mathematical Analysis 1	2-2-1	6	DMM
	<b>OPTIONAL</b>				
	5BI33	Spreadsheets	2-0-2	3	DI
	5BI35	Techniques of Programming 1	0-0-2	4	DI
	5BI45	Graphics in Computers Applications	1-0-3	4	DIN
	5BL17	Foreign Language	0-2-0	3	FSc_DL
5BL11	Physical Education 3	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	<b>COMPULSORY</b>				
	5BH18	Digital Computers	3-0-1	6	DTC
	5BA22	Discrete Optimisation	2-0-2	6	DTN
	5BI06	Basics of Database Systems	2-0-2	6	DI
	5UI24	Data Structures 1	2-0-2	6	DTN
	<b>OPTIONAL</b>				
	5BI28	Unified Modelling Language	2-1-1	4	DST
	5BE14	Small and Medium Entrepreneurship	2-2-0	6	DMME
	5BA30	Probability and Statistics	2-2-0	6	DTN
	5BA08	Numerical Methods	2-0-2	3	DMM
	5BI40	Computers Graphic and Animation	1-0-3	4	DIN
	5BL18	Foreign Language 4	0-2-0	3	FSc_DL
	5BL12	Physical Education 4	0-0-2	1	IPE

Recommended number of credits in the 2<sup>nd</sup> year of study: 120

3<sup>rd</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
5	<b>COMPULSORY</b>				
	5BS01	Operational Systems	2-0-2	6	DI
	5UA13	Modelling and Simulation	2-0-2	6	DTN
	5US03	Software Engineering	2-0-4	6	DI
	<b>OPTIONAL</b>				
	5US05	GIS Application in the Management	2-0-2	6	DTN
	5BI31	Database System - Access	2-0-2	4	DI
	5BF19	Mathematical Analysis 3	2-1-1	6	DMM
	5BS05	Identification of Systems	2-0-2	6	DTC
	5BH23	Microprocessors	2-0-2	6	DTC
	5BS07	Multimedia Information Systems	2-0-2	6	DTN
	5BL03	Law 1	2-2-0	4	DMME
	5BL35	Sociology	1-2-0	4	G
5	5BH21	Technical Equipment of PC	0-0-2	3	DTC
	5BI29	Basics of Programming in WINDOWS	2-0-2	4	DST
	5UA03	Game Theory	2-2-0	6	DMM
	5UA05	Petri Nets	2-0-2	6	DTN
	5UM23	Communication Management	2-2-0	5	DMT
	5BL13	Physical Education 5	0-0-2	1	IPE

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
6	<b>COMPULSORY</b>				
	5BZ01	Bachelors Project	0-0-8	12	G
	5BL40	English Language	0-0-0	3	FSc_DL
	<b>OPTIONAL</b>				
	5IUE04	Taxes and Budget	2-1-0	4	DMME
	5BS12	Implementation of UNIX-LINUX	2-0-2	6	DMM
	5BS04	Information and Control Systems in Transport	2-0-1	3	DST
	5BI32	Compilers	2-0-2	6	DI
	5BS02	Management of Information Systems	2-0-2	6	DMT
	5BA20	Modern Approximate Methods	2-0-2	4	DMM
	5BI26	Object Programming in WINDOWS	1-0-1	2	DST
	5UI14	Computers Graphics	2-0-2	6	DTN
	5UI02	Reliability Theory	2-0-2	5	DI

	5BL04	Law 2	2-2-0	4	DMME
	5BL06	Psychology	2-1-0	4	G
	5BI22	Open Source Software	1-0-3	4	DMM
	5BL14	Physical Education 6	0-0-2	1	IPE

### Compulsory Optional Courses

Groups of Compulsory Optional Courses include further themes from kernel of knowledge for study field. From the group of Compulsory optional courses student is to choose these groups of courses, which corresponds to his future professional orientation (**Systems of Support for Decision-Making, Business Informatics, Applied Informatics, Information-Communication Networks, Distributed and Parallel Systems**). These groups of Compulsory optional course are connected with the Programmes of study in **MSc. Degree** level due to professional orientation.

#### *Systems for Support of Decision-Making, Business Informatics*

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5BE07	Finance of Enterprise	2-0-2	6	DMME
	5BI43	Software Modelling	2-0-2	6	DI
Spring	<b>COMPULSORY OPTIONAL</b>				
	5BA06	Modelling and Optimisation	2-0-2	6	DTN

#### *Applied Informatics*

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5BI41	JAVA – Language and Development Applications	2-0-2	6	DI
	5BI43	Software Modelling	2-0-2	6	DI
Spring	<b>COMPULSORY OPTIONAL</b>				
	5BA06	Modelling and Optimisation	2-0-2	6	DTN
	5US10	Internet Application Development	2-0-2	4	DI

#### *Information-Communication Networks*

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5BN03	Computer Networks 1	2-0-4	6	DIN
	5BN11	Computer Networks 3	2-0-2	6	DIN
Spring	<b>COMPULSORY OPTIONAL</b>				
	5BN04	Computer Networks 2	2-0-4	6	DIN
	5US04	Analysis of Processes	2-0-2	6	DIN

### Optional Courses

Following courses are recommended for the students intending to study in Masters Degree Programme

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>OPTIONAL</b>				
	5BF19	Mathematical Analysis 3	2-2-1	6	DMM
Spring	<b>COMPULSORY OPTIONAL</b>				
	5BA30	Probability and Statistics	2-2-0	6	DTN

Minimum number of credits to conclude the Bachelors Programme of study: 180

### Bachelor's Degree Programme: COMPUTER ENGINEERING

#### 1<sup>st</sup> year

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	<b>COMPULSORY</b>				
	5BF01	Algebra	2-2-0	6	DMM
	5BF17	Mathematical Analysis 1	2-2-1	6	DMM
	5BF05	Basics of Physics	3-1-1	6	FEE
	5BE01	Basics of Economic Theory	2-2-0	5	DMME
	5BI37	Informatics 1	2-2-2	8	DI
	<b>OPTIONAL</b>				
	5BF09	Practice of Mathematics	0-2-0	1	DMM
	5BI11	Practice of Programming 1	0-0-2	1	DI
	5BL15	Foreign Language 1	0-2-0	3	FSc-DL
5BL09	Physical Education	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	<b>COMPULSORY</b>				
	5BF04	Electrical Circuits	2-2-0	5	DTC
	5BN10	Communication Technologies	2-0-2	6	DIN
	5BF14	Mathematical Analysis 2	2-2-1	6	DMM
	5BH08	Theory of Automatic Control 1	2-1-1	5	DTC
	5BI38	Informatics 2	2-2-2	7	DI
	<b>OPTIONAL</b>				
	5BI36	Practice of Programming 2	0-0-2	1	DI
	5BL15	Foreign Language 2	0-2-0	3	FSc-DL
	5BL09	Physical Education 2	0-0-2	1	IPE

Recommended number of credits in the 1<sup>st</sup> year of study: 60

#### 2<sup>nd</sup> year

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	<b>COMPULSORY</b>				
	5BI39	Informatics 3	2-1-2	5	DI
	5BH01	Logical Systems	2-0-2	6	DTC
	5BF07	Electronics	2-0-2	6	DTC
	<b>COMPULSORY OPTIONAL</b>				
	5BF19	Mathematical Analysis 3	2-2-1	6	DMM
	5BN03	Computer Networks 1	2-0-4	6	DIN

	5BH09	Theory of Automatic Control 2	2-0-3	6	DTC
	5BS11	UNIX – Development Environment	1-0-3	4	DMM
<b>OPTIONAL</b>					
	5BI25	Assemblers	2-0-2	5	DTN
	5BI45	Graphics in Computers Applications	1-0-3	4	DIN
	5BL17	Foreign Language 3	0-2-0	3	FSc-DL
	5BL11	Physical Education 3	0-0-2	1	IPE

From the group of Compulsory optional courses student has to choose min one course

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department	
<b>COMPULSORY</b>						
<b>4</b>	5BH18	Digital Computers	3-0-1	6	DTC	
	5BH04	Digital Systems	2-0-2	6	DTC	
	5BA24	Discrete Probability	2-2-1	6	DTN	
	5BH02	Measurements	2-0-2	6	DTC	
	5BL32	Legal and Ethic Aspects of Information Technologies	2-0-0	3	DMT	
	<b>COMPULSORY OPTIONAL</b>					
	5BI06	Basics of Database Systems	2-0-2	6	DI	
	5BH22	Elements of Automatic Systems	2-0-2	6	DTC	
	5BN04	Computer Networks 2	2-0-4	6	DIN	
	<b>OPTIONAL</b>					
	5BA08	Numerical Methods	2-0-2	3	DMM	
	5UE04	Basics of Electronic Business	2-0-2	6	DIN	
	5BF10	Complex Variable and Integral Transformation	2-1-1	4	DMM	
	5BI40	Computers Graphic and Animation	1.0.3	4	DIN	
5BL18	Foreign Language 4	0-2-0	3	FSc-DL		
5BL12	Physical Education 4	0-0-2	1	IPE		

3<sup>rd</sup> year

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department	
<b>COMPULSORY</b>						
<b>5</b>	5BH05	Electronic Systems	2-0-2	6	DTC	
	5BH19	Construction and Technology of Electronic System Production	1-0-3	4	DTC	
	5BS01	Operational Systems	2-0-2	6	DI	
	<b>COMPULSORY OPTIONAL</b>					
<b>5</b>	5BH13	Microcomputers and their Applications	1-0-3	6	DTC	
	5BH23	Microprocessors	2-0-2	6	DTC	
	5BI41	JAVA – Language and Development Applications	2-0-2	6	DI	
	5BI23	Object Programming	2-0-2	5	DST	
	5BI29	Basic Programming in Windows	2-0-2	4	DST	
	<b>OPTIONAL</b>					
	5BI07	Algorithms and Computational Complexity	2-0-0	3	DI	
	5BI31	Database Systems – MS Access	2-0-2	4	DI	
	5BN11	Computers Networks 3	2-0-2	6	DIN	
	5BS05	Identification of Systems	2-0-2	6	DTC	
	5UM23	Communication Management	2-2-0	6	DMT	
	5UA05	Petri Nets	2-0-2	6	DTN	
5BS15	Implementation of UNIX - LINUX	2-0-2	6	DMM		
5US07	Multimedia Information Systems	2-0-2	6	DTN		

	5BL03	Law 1	2-2-0	4	DMME
	5BL35	Sociology	1-2-0	4	G
	5BH21	Technical Equipments of PC	0-0-2	3	DTC
	5BL13	Physical Education 5	0-0-2	1	IPE

From the group of Compulsory optional courses student has to choose min one course

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
6	<b>COMPULSORY</b>				
	5BH20	Computer Engineering	2-0-4	6	DTC
	5BZ01	Bachelors Project	0-0-8	12	G
	5BL40	English Language	0-0-0	3	FSc-DL
	<b>COMPULSORY OPTIONAL</b>				
	5BH14	Computer Process Control	2-0-3	7	DTC
	<b>OPTIONAL</b>				
	5BS04	Information and Control Systems in Transport	2-0-1	3	DST
	5BI32	Compilers	2-0-2	6	DI
	5BI26	Object Programming in WINDOWS	1-0-1	2	DST
	5UI02	Reliability Theory	2-0-2	5	DI
	5BL04	Law 2	2-2-0	4	DMME
	5BL06	Psychology	2-1-0	4	G
	5BA10	Scheduling Theory	2-2-0	6	DMM
	5US10	Development of Applications for Internet and Intranet	2-0-2	4	DST
	5BE14	Small and Medium Entrepreneurships	2-2-0	6	DMT
5BL14	Physical Education 6	0-0-2	1	IPE	

From the group of Compulsory optional courses student has to choose min one course

Minimum number of credits to conclude the Bachelors Programme of study: 180

*Bachelor's Degree Programme: MANAGEMENT*

**1<sup>st</sup> year of study**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	<b>COMPULSORY</b>				
	5BF01	Algebra	2-2-0	6	DMM
	5BF17	Mathematical Analysis 1	2-2-1	6	DMM
	5BL03	Law 1	2-2-0	4	DMME
	5BE01	Basics of Economic Theory	2-2-0	6	DMME
	5BL43	Informatics for Management 1	2-1-1	6	DI
	<b>OPTIONAL</b>				
	5BF09	Practice of Mathematics	0-2-0	1	DMM
	5BI11	Practice of Programming 1	0-0-2	1	DI
	5BL15	Foreign Language 1	0-2-0	3	FSc-DL
	5BL09	Physical Education	0-0-2	1	IPE

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	<b>COMPULSORY</b>				
	5BM10	Management	2-2-0	6	DMT
	5BE02	Microeconomics	2-2-0	6	DMME
	5BE16	Business Economy	3-2-0	6	DMT
	5BE14	Small and Medium Entrepreneurship	2-2-0	6	DMT
	5BI40	Informatics For Management 2	2-1-1	6	DI
	<b>OPTIONAL</b>				
	5BI36	Practice of Programming 2	0-0-2	1	DI
	5BL15	Foreign Language 2	0-2-0	3	FSc-DL
5BL09	Physical Education 2	0-0-2	1	IPE	

Recommended number of credits in the 1<sup>st</sup> year of study: 60

2<sup>nd</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	<b>COMPULSORY</b>				
	5BA15	Economical Statistics	2-1-1	6	DTN
	5BE05	Financial Accounting	2-2-0	6	DMME
	5BS13	Information Systems of Enterprise	2-0-2	6	DMT
	5UM11	Project Management	2-1-1	6	DMT
	<b>OPTIONAL</b>				
	5BI33	Spreadsheets	2-0-2	3	DI
	5BI45	Graphics in Computers Applications	1-0-3	4	DIN
	5BL17	Foreign Language 3	0-2-0	3	FSc-DL
5BL11	Physical Education 3	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	<b>COMPULSORY</b>				
	5BE18	Marketing	2-2-0	6	DMT
	5BM14	Human Resource Management	2-2-0	6	DMT
	5BM16	Operational Management	3-1-0	6	DMT
	<b>OPTIONAL</b>				
	5BA08	Numerical Methods	2-0-2	3	DMM
	5BI40	Computers Graphic and Animation	1.0.3	4	DIN
	5BL18	Foreign Language 4	0-2-0	3	FSc-DL
	5BL12	Physical Education 4	0-0-2	1	IPE

Recommended number of credits in the 2<sup>nd</sup> year of study: 120

3<sup>rd</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
5	<b>COMPULSORY</b>				
	5BE07	Finance of Enterprise	2-2-0	6	DMME
	5BM13	Quality Management	2-2-0	6	DMT
	<b>OPTIONAL</b>				
	5US05	GIS Application in the Management	2-0-2	6	DTN
	5BI31	Database Systems – MS Access	2-0-2	4	DI
	5BS07	Multimedia Information Systems	2-0-2	6	DTN
	5BH21	Technical Equipments of PC	0-0-2	3	DTC
	5UA03	Game Theory	2-2-0	6	DST
5BL13	Physical Education 5	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
6	<b>COMPULSORY</b>				
	5BZ01	Bachelors Project	0-0-8	12	G
	5BL02	Foreign Language	0-0-0	3	FSc-DL
	<b>OPTIONAL</b>				
	5IE04	Taxes and Budget	2-1-0	4	DMME
	5BS04	Information and Control Systems in Transport	2-0-1	3	DST
	5BP04	Management of Enterprise - Project	0-2-2	6	DMT
	5II14	Computers Graphics	2-0-2	6	DTN
	5BL04	Law 2	2-2-0	4	DMME
5BL14	Physical Education 6	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5BL35	Sociology	1-2-0	6	G
	5BA13	Modelling and Simulation	2-0-2	6	DTN
	5UE13	Controlling	2-1-0	4	DMME
	5BM15	Supply Management	2-1-0	4	DMT
Spring	<b>COMPULSORY OPTIONAL</b>				
	5BL38	Politology	2-2-0	4	DMT
	5BL36	Business Ethics	2-1-0	4	DMT
	5UE04	Taxes and Budget	2-0-1	5	DMME
	5BE20	Financial Analysis	2-1-1	4	DMME
	5BL06	Psychology	1-2-0	4	G
	5BF14	Mathematical Analysis 2	2-2-1	6	DMM
	5BM06	Marketing Communication	2-1-0	4	DMT
Spring	5BM18	Quality in Services	2-1-0	4	DM
	5BL04	Law 2	2-2-0	5	DMME



Master's Degree Programme: **INFORMATION SYSTEMS**

Compensatory year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
<b>COMPULSORY</b>					
<b>Autumn</b>	5US03	Software Engineering	2-0-4	6	DST
	5BS01	Operation Systems	2-0-2	6	DI
	5UA13	Modelling and Simulation	2-0-2	6	DTN
	5BI25	Assemblers	2-0-2	5	DTN
<b>COMPULSORY</b>					
<b>Spring</b>	5BI06	Basics of Database Systems	2-2-0	6	DI
	5UI24	Data Structures 1	2-0-2	6	DTN
	5BA30	Probability and Statistics	2-2-0	6	DTN

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department	Professional Orientation
<b>COMPULSORY OPTIONAL (due to Professional Orientation)</b>						
<b>Autumn</b>	5BN03	Computer Networks	2-0-4	6	DIN	ICN
	5BI41	JAVA – Language and Application Development	2-0-2	6	DI	DPS, AI, SSD
	5BE01	Basics of Economy Theory	2-2-0	6	DMME	BI
	5BE07	Finance of Enterprise	2-2-0	6	DMME	BI
	<b>COMPULSORY OPTIONAL (due to Professional Orientation)</b>					
<b>Spring</b>	5BA06	Modelling and Optimisation	2-0-2	6	DTN	DPS, AI, SSD, BI
	5BI40	Software Modelling	2-0-2	6	DST	DPS, AI, SSD, BI
	5BE02	Microeconomics	2-2-0	6	DMME	BI
<b>Spring</b>	5US10	Internet and Intranet Application Development	2-0-2	4	DST	DPS, AI, SSD, BI
	5BN04	Computer Networks 2	2-0-4	6	DIN	ICN
	5US04	Analysis of Processes	2-0-2	5	DIN	ICN

**Abbreviations:**

- SSD** - compulsory for Professional orientation **Systems of Support for Decision-Making**  
**AI** - compulsory for Professional orientation **Applied Informatics**  
**ICN** - compulsory for Professional orientation **Information-Communication Networks**  
**BI** - compulsory for Professional orientation **Business Informatics**  
**DPS** - compulsory for Professional orientation **Distributed and Parallel Systems**

**1<sup>st</sup> year of study**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	<b>COMPULSORY</b>				
	5II15	Data Structures 2	2-0-2	5	DTN
	5II07	Database Systems 2	2-0-2	5	DI
	5IN09	Optimisation of Networks	2-0-2	5	DTN
	5IN17	Architecture of Networks	2-0-2	5	DIN
	<b>COMPULSORY (due to Professional Orientation)</b>				
	5IP01	Project 1	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	<b>COMPULSORY</b>				
	5II08	Discrete Simulation	2-0-2	5	DTN
	5IA02	Theory of Information	2-0-2	5	DMM
	5IS08	Architectures of Information systems	2-0-2	5	DIN
	<b>COMPULSORY (due to Professional Orientation)</b>				
	5IP02	Project 2	0-2-4	6	G

**Recommended number of credits in the 1<sup>st</sup> year of study: 60**

**2<sup>nd</sup> year of study**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	<b>COMPULSORY</b>				
	5II17	Cryptography and Safety	2-0-2	5	DMM
	5IP05	Internship	0-0-0	0	G
	<b>COMPULSORY (due to Professional Orientation)</b>				
	5IP03	Project 3	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	<b>COMPULSORY</b>				
	5IZ01	Diploma Thesis	0-0-20	30	G
	5IL04	English Language	0-0-0	3	DL

**Minimum number of credits to conclude the form of study: 120**

**Groups of Compulsory Optional courses from the kernel of the Programme of Study**

**Systems of Support for Decision-Making**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
<b>COMPULSORY OPTIONAL</b>					
Autumn	5IE01	Theory of Enterprise	2-2-0	5	DMME
	5II01	Fuzzy Sets and Neural Networks	2-0-2	5	DTN

Semester	<b>COMPULSORY OPTIONAL</b>				
Spring	5IN08	Communication Systems	2-0-2	5	DTN
	5IA06	Mathematical Programming	2-0-2	5	DTN

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
<b>OPTIONAL</b>					
Autumn	5IS09	Expert Systems	2-0-2	6	DTN
	5IS07	Distributed Systems	2-0-2	5	DTC
	5II03	Database Languages	2-0-2	5	DI
	5IN17	Architecture of Networks	2-0-2	5	DIN

Semester	<b>OPTIONAL</b>				
Spring	5US04	Analysis of Processes	2-0-2	5	DIN
	5IE12	Prognostics	2-0-2	6	DMME
	5IS02	Real Time Systems Programming	2-0-2	5	DI

**Applied Informatics**

Semester	<b>COMPULSORY OPTIONAL</b>				
Autumn	5II13	Advanced Object Technologies	2-0-2	5	DI
	5II03	Database Languages	2-0-2	5	DI
	5IE01	Theory of Enterprise	2-0-2	5	DMME

Semester	<b>COMPULSORY OPTIONAL</b>				
Spring	5II12	Data Mining	2-0-2	5	DI
	5IS06	Geographic Information Systems	2-0-2	5	DTN

Semester	<b>OPTIONAL</b>				
Autumn	5IS09	Expert Systems	2-0-2	6	DTN
	5IS11	HPC and Grid computing	2-0-2	5	DTC
	5IN05	Architecture of Networks	2-0-2	5	DIN

Semester	<b>OPTIONAL</b>				
Spring	5IM14	Quality Management – Access and TQM Methods	2-1-0	5	DMT
	5US04	Analysis of Processes	2-0-2	5	DIN
	5IE12	Prognostics	2-0-2	6	DMME
	5IS02	Real Time Systems Programming	2-0-2	5	DI
	5IS06	Geographical Information Systems	2-0-2	5	DTN

**Information Communication Networks**

Semester	COMPULSORY OPTIONAL				
Autumn	5IP07	Design of Networks	2-0-2	5	G-FEE
	5IN07	Signal Transmissions	2-0-2	5	G-FEE
	5IN03	Integration of Networks	2-0-2	5	DIN

Semester	COMPULSORY OPTIONAL				
Spring	5IN10	Theory of Networks	2-0-2	5	DIN

Semester	OPTIONAL				
Autumn	5IS09	Expert Systems	2-0-2	6	DTN
	5IS11	HPC and Grid computing	2-0-2	5	DTC
	5IS13	Parallel Developing Standards Open MP and MPI	2-0-2	5	DTC

Semester	OPTIONAL				
Spring	5IE12	Prognostics	2-0-2	6	DMME
	5IS06	Geographical Information Systems	2-0-2	5	DTN
	5IS02	Real Time Systems Programming	2-0-2	5	DI

**Business Informatics**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	COMPULSORY OPTIONAL				
	5IE15	Finance	2-2-0	5	DMME
	5IE17	Econometrics	2-0-2	5	DMME
	5II01	Fuzzy Sets and Neural Networks	2-0-2	5	DTN

Semester	COMPULSORY OPTIONAL				
Spring	5IE10	Accounting and Analysis	3-2-0	5	DMME
	5II24	Artificial Neural Networks and Soft Computing	2-0-2	5	DMME

Semester	OPTIONAL				
	5II13	Advanced Object Oriented Technologies	2-0-2	5	DI
	5II23	Artificial Intelligence	2-0-2	5	DTN
	5II03	Database Languages	2-0-2	5	DI
	5IE05	Management Accounting	2-2-0	6	DMME
	5IN17	Architecture of Networks	2-0-2	5	DIN

Semester	COMPULSORY OPTIONAL				
Spring	5IE12	Prognostics	2-0-2	6	DMME

**Distributed and Parallel Systems**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
<b>COMPULSORY OPTIONAL</b>					
Autumn	5IS13	Parallel Developing Standards Open MP and MPI	2-0-2	5	DTC
	5IS11	HPC and Grid computing	2-0-2	5	DTC
	5IS07	Distributed Systems	2-0-2	5	DTC

Semester	<b>COMPULSORY OPTIONAL</b>				
Spring	5IA06	Mathematical Programming	2-0-2	5	DTN
	5II26	Complexity of Distributed and Parallel Algorithms	2-0-2	5	DTC

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>OPTIONAL</b>				
	5IS09	Expert Systems	2-0-2	6	DTN
	5IN17	Architecture of Networks	2-0-2	5	DIN

Semester	<b>OPTIONAL</b>				
Spring	5IS06	Geographical Information Systems	2-0-2	5	DTN
	5US04	Analysis of Processes	2-0-2	5	DIN
	5IS02	Real Time Systems Programming	2-0-2	5	DI
	5IE12	Prognostics	2-0-2	6	DMME
	5IM14	Quality Management – Access and TQM Methods	2-1-0	5	DMT

inimum number of credits to conclude the form of study: 120

**Masters Degree Programme: COMPUTER ENGINEERING**

**Compensatory year of study**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY</b>				
	5BF07	Electronics	2-0-2	6	DTC
	5BI03	C-Language	2-0-2	6	DI
	5BH05	Electronic Systems	2-0-2	6	DTC
Spring	<b>COMPULSORY</b>				
	5BH04	Digital Systems	2-0-2	6	DTC
	5BH02	Measurement	2-0-2	6	DTC
	5BN10	Communication Technologies	2-0-2	5	DIN
	5BH08	Theory of Automatic Control 1	2-1-1	6	DMT

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5BH19	Construction and Technology of Production of Electronic Equipments	1-0-3	4	DTC
	5BH23	Microprocessors	2-0-2	6	DTC
	5BH13	Microcomputers and their Applications	1-0-3	6	DTC
	5BI41	JAVA Language and Development Applications	2-0-2	6	DMT
	5BN03	Computer Networks 1	2-0-4	6	DIN
Spring	<b>COMPULSORY OPTIONAL</b>				
	5BA24	Discrete Probability	2-2-1	6	DTN
	5BH14	Computer Process Control	2-0-3	7	DTC
	5BN04	Computer Networks 2	2-0-4	6	DIN

1<sup>st</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	<b>COMPULSORY</b>				
	5IH13	Technical Means of Control and Information Systems	2-0-2	5	DTCE
	5IH09	Digital Signal Processing 1	2-0-2	5	DTC
	5IH11	Introduction to the Theory of Discrete Systems	2-2-0	6	DMT
	5IPP1	Project 1	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	<b>COMPULSORY</b>				
	5IH06	Digital Data Transmission	2-0-2	5	DTC
	5IH02	Design of the Customer Integrated Circuits	2-0-2	5	DTC
	5IPP2	Project 2	0-2-4	6	G

Recommended number of credits in the 1<sup>st</sup> year of study: 60

2<sup>nd</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	<b>COMPULSORY</b>				
	5IN05	Networks Architecture	2-0-2	5	DIN
	5IP05	Internship	0-0-0	6	DMT
	5IPP3	Project 3	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	<b>COMPULSORY</b>				
	5IZ01	Diploma Thesis	0-0-20	30	G
	5IL04	English Language	0-0-0	3	DL

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5IH07	Adaptive Systems of Automatic Control	2-0-2	5	DTC
	5IS07	Distributed Systems	2-0-2	5	DTCT
	5II17	Cryptography and Safety	2-0-2	5	DMM
	5II13	Advanced Object Oriented Technologies	2-0-2	5	DI
	5II21	Basics of Programming in the Kernel of an Operational System	2-0-2	5	DI

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Spring	<b>COMPULSORY OPTIONAL</b>				
	5IH08	Digital Signal Processing 2	2-0-2	5	DTC
	5IA02	Theory of Information	2-2-0	5	DMM
	5II12	Data Mining	2-0-2	5	DI

From the group of Compulsory Optional Courses student must choose courses to fulfil minimum number of credits **15**

**Minimum number of credits to conclude the form of study: 120**

*Masters Degree Programme: MANAGEMENT*

**Compensatory year of study**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY</b>				
	5BE07	Finances of Enterprise	2-2-0	6	DMME
	5UM11	Project Management	2-1-1	6	DMT
	5BA15	Economical Statistics	2-1-1	6	DTN
Spring	<b>COMPULSORY</b>				
	5BE16	Business Economics	2-2-0	6	DMT
	5BM10	Management	2-2-0	6	DMT
	5BE18	Marketing	2-2-0	6	DMT
	5BE14	Small and Medium Entrepreneurship	2-2-0	6	DMT
5BM14	Human Resource Management	2-2-0	6	DMT	
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5BM13	Quality Management	2-2-0	6	DMT
	5BE01	Basics of Economic Theory	2-2-0	6	DMT
	5BE05	Financial Accounting	2-2-0	6	DMME
	5BE19	Financial-Economical Analysis	2-1-1	4	DMT
	5BS13	Information Systems of Enterprise	2-0-2	6	DTN
Spring	<b>COMPULSORY OPTIONAL</b>				
	5BE02	Microeconomics	2-2-0	6	DMME
	5BM16	Operational Management	3-1-0	6	DMT
	5BF14	Mathematical Analysis 2	2-2-1	6	DMT

1<sup>st</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	<b>COMPULSORY</b>				
	5IE05	Management Accounting	2-2-0	6	DMME
	5US03	Software Engineering	2-0-4	6	DI
	5IM21	Marketing Control	2-2-0	6	DMT
	5IE17	Econometrics	2-0-2	5	DMT
	5PM1	Project 1	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	<b>COMPULSORY</b>				
	5IM26	International Management and Marketing	2-2-0	6	DMT
	5IM22	Systems for Support of Decision-Making	2-0-2	6	DMT
	5IPM2	Project 2	0-2-4	6	G

Recommended number of credits in the 1<sup>st</sup> year of study: 60

2<sup>nd</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	<b>COMPULSORY</b>				
	5IM09	Strategic Management	2-0-2	6	DMT
	5IM27	Logistics	3-1-0	6	DMT
	5IM17	Organizational Behaviour	2-2-0	6	DMT
	5IP09	Design of Management Systems	0-4-1	6	DMT
	5IPM3	Project 3	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	<b>COMPULSORY</b>				
	5IP05	Internship	0-0-0	0	G
	5IL06	English Language	0-0-0	3	DL
	5IZ01	Diploma Thesis	0-0-20	30	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5UM23	Managerial Communication	2-2-0	5	DMT
	5IM25	Marketing Tools and Applications	2-0-2	5	DMT
	5IM11	Management Games and Simulations	1-0-2	5	DMT

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Spring	<b>COMPULSORY OPTIONAL</b>				
	5IM14	Complex Quality Management- TQM Methods	2-1-0	5	DMT
	5IM24	Marketing of Services	2-2-0	5	DMT
	5IE12	Prognostic	2-2-0	6	DMME
	5IM16	Marketing Research	2-1-0	3	DMT



From the group of Compulsory Optional Courses student must choose courses to fulfil minimum number of credits 15

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>OPTIONAL</b>				
	5IE15	Finance	2-2-0	5	DMME
	5IS09	Expert Systems	2-0-2	4	DTN

Semester	<b>OPTIONAL</b>				
Spring	5IE06	Capital and Investment Theories	2-2-0	6	DMME
	5IS08	Architecture of Information Systems	2-0-2	5	DIN
	5UE04	Basics of Electronic Business	2-0-2	5	DIN
	5IS06	Geographical Information Systems	2-0-2	6	DTN
	5US10	Internet and Intranet Application Development	2-0-2	4	DST

Minimum number of credits to conclude the form of study: 120

*Masters Degree Programme:* **CONTROL OF TRANSPORTATION AND LOGISTIC SYSTEMS**

**Compensatory year of study**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY</b>				
	5BI37	Informatics 1	2-2-2	8	DI
	5BE01	Basics of Economy Theory	2-2-0	6	DMME
Spring	5BI38	Informatics 2	2-2-2	7	DI
	5BA30	Probability and Statistics	2-2-0	6	DTN
	5BA06	Modelling and Optimisation	2-0-2	6	DTN
	5BA26	Algorithmic Graph Theory	2-2-0	6	DMM
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5US03	Software Engineering	2-0-2	6	DI
	<b>COMPULSORY OPTIONAL</b>				
Spring	5BI06	Basics of Database Systems	2-0-2	6	DTN

**1<sup>st</sup> year of study**

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	<b>COMPULSORY</b>				
	5IE01	Theory of Enterprise	2-2-0	5	DMME
	5IN09	Optimisation of Networks	2-0-2	5	DTN
	5PL1	Project 1	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	<b>COMPULSORY</b>				
	5IN08	Communication Systems	2-0-2	5	DTN
	5ID02	Logistics of Transport and Distribution	2-0-2	5	DTN
	5UE04	Basics of Electronic Business	2-0-2	5	DIN
	5IPL2	Project 2	0-2-4	6	G

Recommended number of credits in the 1<sup>st</sup> year of study: 60

2<sup>nd</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	<b>COMPULSORY</b>				
	5II01	Fuzzy Sets and Neural Networks	2-0-2	5	DTN
	5ID01	Supply Chain Management	2-0-2	5	DMT
	5UA13	Modelling and Simulation	2-0-2	6	DTN
	5PL3	Project 3	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	<b>COMPULSORY OPTIONAL</b>				
	5IZ01	Diploma Thesis	0-0-2	30	G
	5IL06	English Language	0-0-0	3	FSc-DL

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>COMPULSORY OPTIONAL</b>				
	5IM09	Strategic Management	2-2-0	6	DMT
Spring	5IM12	Quantitative Methods in Logistics	2-0-2	5	DMM
	5IE12	Prognostics	2-2-0	6	DMME
	5ID04	Supply Chain Design	2-2-0	5	DMT

From the group of Compulsory Optional Courses student must choose courses to fulfil minimum number of credits 15

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	<b>OPTIONAL</b>				
	5BM11	Project Management	2-2-0	5	DMT
	5IS09	Expert Systems	2-0-2	5	DTN
	5II23	Artificial Intelligence	2-0-2	5	DTN
	5II03	Database Languages	2-0-2	5	DI
	5IE17	Econometrics	2-0-2	5	DMME
	5UA17	Queuing Theory	2-0-2	5	DMM
5IE05	Management Accounting	2-0-2	6	DMME	

Semester	OPTIONAL				
Spring	5IS04	Analysis of Processes	2-0-2	5	DIN
	5IA06	Mathematical Programming	2-0-2	5	DTN
	5IM18	Process Management	2-2-0	4	DST
	5UI24	Data Structures 1	2-0-2	6	DI
	5IS08	Architecture of Information Systems	2-0-2	5	DIN
	5IS02	Real Time Systems Programming	2-0-2	5	DI
	5IS06	Geographical Information Systems	2-0-2	5	DTN

Minimum number of credits to conclude the form of study: 120

Masters Degree Programme: **INFORMATION-COMMUNICATION TECHNOLOGIES**

Compensatory year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department	
Autumn	<b>COMPULSORY</b>					
	5BF19	Mathematical Analysis 3	2-2-1	6	DMM	
	5BI39	Informatics 3	2-1-2	5	DI	
	5BN03	Computer Networks 1	2-0-4	6	DIN	
Spring	<b>COMPULSORY</b>					
	5BH18	Digital Computers	3-0-1	6	DTC	
	5BA30	Probability and Statistics	2-2-0	6	DMM	
Autumn	<b>COMPULSORY OPTIONAL</b>					
	5UA13	Modelling and Simulation	2-0-2	6	DTN	
	5BS01	Operational Systems	2-0-2	6	DI	
	5BN11	Computer Networks 3	2-0-2	6	DIN	
	Spring	<b>COMPULSORY OPTIONAL</b>				
		5BN04	Computer Networks 2	2-0-4	6	DIN
		5BS14	Analysis of Processes	2-0-2	6	DIN

1<sup>st</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	<b>COMPULSORY</b>				
	5IN17	Architecture of Networks	2-0-2	6	DIN
	5IN13	WAN Implementation	2-0-6	6	DIN
	5IN19	Communication Theory	2-2-0	6	DIN
	5IN21	Signal Processing	2-0-2	6	FEE
	5PT1	Project 1	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	<b>COMPULSORY</b>				
	5II14	Networks Integration	2-0-2	6	DIN
	5IA10	Theory of Networks	2-0-2	6	DIN
	5IS08	Architecture of Information Systems	2-0-2	6	DIN
	5IN12	Communication Nodes	2-0-2	6	DIN
	5IPT2	Project 2	0-2-4	6	G

Recommended number of credits in the 1<sup>st</sup> year of study: 60

2<sup>nd</sup> year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	<b>COMPULSORY</b>				
	5IN11	Optimisation of Converged Networks	2-0-6	6	DIN
	5IP07	Design of Networks	2-0-2	6	DIN
	5IS03	Architecture of Information Systems	2-0-2	6	DTN
	5IN23	Transmission Systems	2-0-2	6	FEE
	5IN15	Distributed Systems	2-0-2	6	DIN
	5IPT3	Project 3	0-2-4	6	G
	5IP05	Internship	0-0-0	0	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	<b>COMPULSORY OPTIONAL</b>				
	5IZ01	Diploma Thesis	0-0-2	30	G
	5IL04	English Language	0-0-0	3	FSc-DL

Minimum number of credits to conclude the form of study: 120

Abbreviations:

- DMM - Department of Mathematical Methods
- DI - Department of Informatics
- DTC - Department of Technical
- DIN - Department of Information Networks
- DTN - Department of Transportation Networks
- DMT - Department of Management Theories
- DMME - Department of Macro- and Microeconomics
- DST - Department of Software Technology
- FEE - Faculty of Electrical Engineering
- FSc-DL - Faculty of Science - Department of Language
- G - Guarantee for Programme of Study

[www.fri.uniza.sk](http://www.fri.uniza.sk) link: Study - Masters (Engineering)

### ***Programme ERASMUS and other international activities of the Faculty***

There are following bilateral agreements signed in 2009 for the exchange of students and pedagogical staffs in the frame of the programme ERASMUS with the following institutes and schools:

- Technische Universität Dresden, (D)
- Technische Universität Braunschweig, (D)
- Hochschule für Telekommunikation Leipzig (D)
- Hochschule Darmstadt (FH), (D)
- Hochschule für Technik und Wirtschaft, Dresden, (D)
- Telecom SudParis, Evry, (F)
- Université de Poitiers, (F)
- University of Science and Technology, Telecom Lille, (F)
- Linköping University, (S)
- University of Vaasa, (FIN)
- Polytechnic Jyväskylä, School of Information Technology, (FIN)
- Seinäjoki University of Applied Sciences, (FIN)
- University College of Molde, (N)
- Universidad Politecnica de Valencia, Facultat d'Informatica, (E)
- Universidad Politecnica de Valencia, Escuela Technica Superior deTelecomunicacion, (E)
- Széchenyi István University, Győr, (H)
- Technical University of Sofia, (BG)
- College of Telecommunications and Posts, Sofia, (BG)
- University of Porto (P)

In the year 2008 took part on the study stay at the Faculty one student from FRANCE, two students from BULGARIA and two from PORTUGAL.

From the Faculty **11** students followed the programme of study at the partner's universities and Institutions in the frame of programmes ERASMUS.

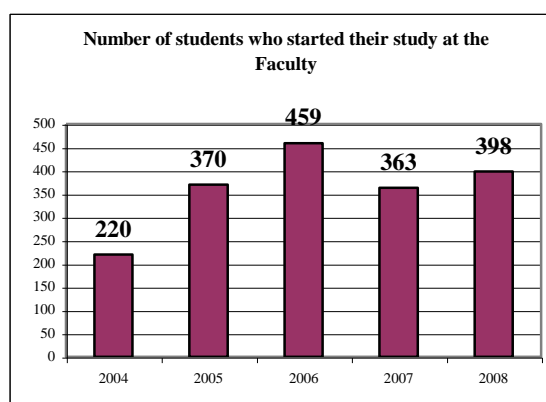
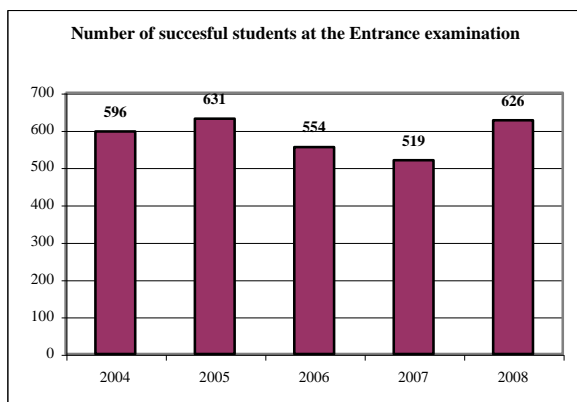
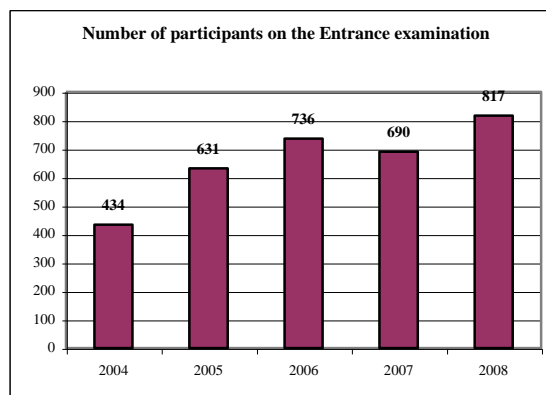
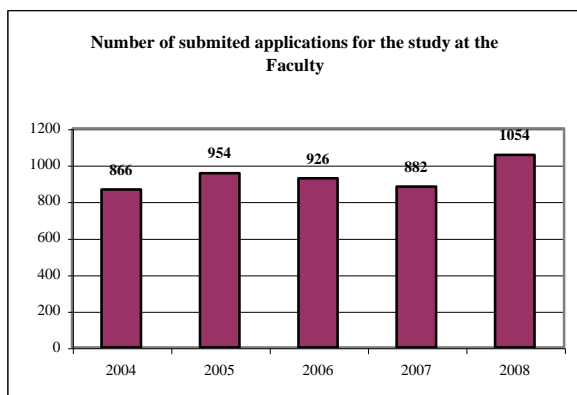
In the frame of Student Training Agreement with Telecom SudParis Evry **four** students took part on two months internship at the Faculty.

On the base of Bilateral Agreement with Chinese Southwest Jiaotong University in Chengdu four students are following the full-time Bachelors programme of Informatics at the Faculty

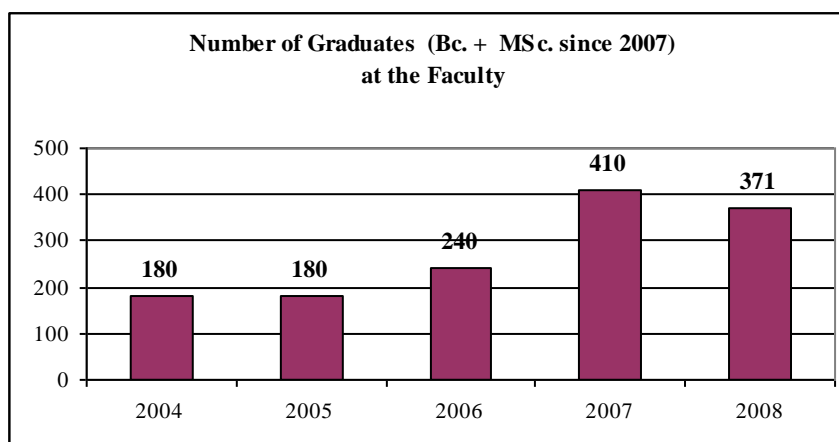
## Students

In November 2008, there were **961** students for bachelors degree programme, **402** students for masters degree programme and **60** PhD - students at the Faculty. An overview of the candidates for the study, students and graduates at the Faculty in the last five years is illustrated in following graphs:

In June 2008 the admission exams for **817** candidates in the Faculty took place. From this number **626** were successful and **398** students were enrolled. They started in September 2008 their programmes of study at the Faculty



The number of graduates (Bc. + MSc.) at the Faculty of Management Science and Informatics in 2008 was **371**. The survey of graduates from the last five years is on the following graph:



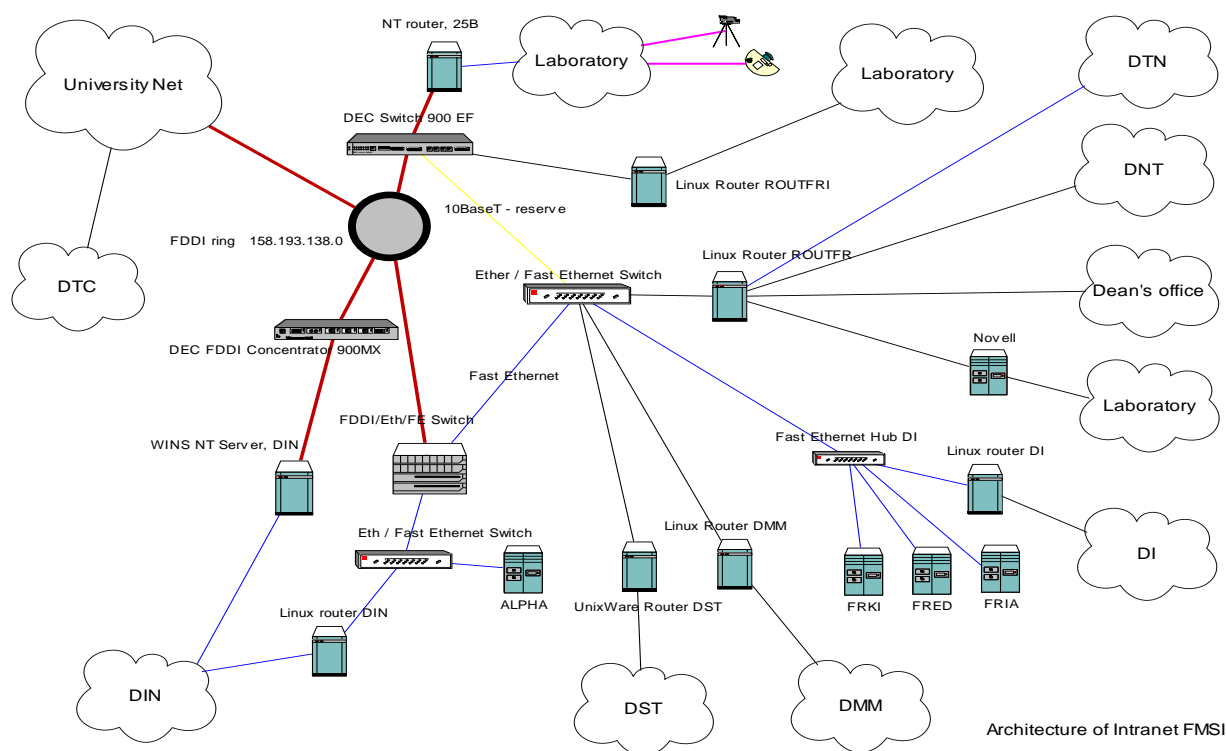
## 16. Intranet of Faculty

It was in 1992 when the Intranet of FMSI was created and in the meantime was continuously improving. It came into existence from the needs to process and to make accessible lot of information to students and to pedagogical staff, as well. The intranet of FMSI is a part of University Intranet, which allows access to SANET (Slovak Academic Network).

Conception of Intranet FMSI is based on the fact, that every Department is in possession of the own network, which is connected through ETHERNET (10BaseT, 100BaseT or Gigabit Ethernet) to the faculty network. Apart from there are a special segments of this network - research laboratories for multimedia, parallel distributed systems, clusters, database systems, operating systems, e-business, e-learning etc.

There are following information systems at the Intranet of FMSI in service: **Information about study at the Faculty, news, messages, events, economics, personal data, research data and information, e-learning and distant learning subsystems, study results and assessments...**

### Architecture of INTRANET:



### Abbreviations of Departments:

Department of Mathematical Methods	-	DMM
Department of Informatics	-	DI
Department of Macro and Micro economy	-	DMME
Department of Technical Cybernetics	-	DTC
Department of Info Communication Networks	-	DIN
Department of Transportation Networks	-	DTN
Department of Management Theories	-	DMT
Department of Software Technologies	-	DST

**Department of Mathematical Methods**

**Head of Department:** Assoc.Prof. RNDr. Stanislav Palúch, PhD.

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e-mail: [stanislav.paluch@fri.uniza.sk](mailto:stanislav.paluch@fri.uniza.sk)

**Teaching Staff:** RNDr. Rudolf Blaško, PhD.  
Mgr. Peter Czimmermann, PhD  
Mgr. Lýdia Gábrišová, PhD  
Mgr. Michal Kaukič, PhD.  
RNDr. Alžbeta Klaudivyová  
Prof. RNDr. Rudolf Kodnár, DrSc.  
Prof. Dr. Ing. Vladimír Kompiš, PhD.  
RNDr. Aleš Kozubík  
Ing. Tomáš Majer  
Mgr. Emilia Mravíková  
Assoc.Prof. RNDr. Stanislav Palúch, PhD.  
Assoc.Prof. RNDr. Štefan Peško, PhD.  
RNDr. Ida Stankovianska, PhD.

**PhD students** Ing. Tomáš Ladovský  
Ing. Michal Murín

**Administrative Department:** Bc. Ľubica Micháľková

Tel.:+421-41-513 42 51

## **II. EQUIPMENT**

Computer Laboratory of UNIX, Cryptography, Computer Security and Open Source Software Solutions.

### **III. PhD.-Programme**

<b>Theme</b>	<b>Student</b>	<b>Supervisor</b>
1. Mathematical Models of the Crisis Situation	A. Kozubík	L. Novák
2. Railway Transport Graficon Optimisation	M. Novák	S. Palúch
3. Optimum Route Problems in Large Transportation Networks	T. Majer	S. Palúch
4. Timetable Optimization in Position – Time Scheduling	M. Murín	Š. Peško
5. Uniform Scheduling in Case of Uncertainty	T. Ladovský	Š. Peško



#### **IV. RESEARCH PROJECTS**

PEŠKO, Š.: VEGA 1/0135/08 *Optimisation Problems in Logistic and Transportation Systems*

#### **V. COOPERATION**

##### **V.1 Cooperation with Institutes and Enterprises in Slovakia**

1. Institute of Transportation Research Žilina.
2. University of Economics, Bratislava.
3. Technical University of Košice.
4. Jesenius Faculty of Medicine, Comenius University, Martin
5. Faculty of Mathematics and Physics, Comenius University, Bratislava

##### **V.2 Cooperation with Foreign Institutes and Enterprises**

1. University of Economics - Prague, CZ
2. University of Pardubice, CZ

##### **V.2.1 Foreign Visitors to the Department**

1. Prof. RNDr. Jan Černý, Dr.Sc, Dr.hc., University of Economics - Prague, CZ
2. Ing. Anna Černá, PhD., University of Economics - Prague, CZ

##### **V.2.2 Visits of Staff Members to Foreign Institutions**

1. Assoc. prof. RNDr. Stanislav Palúch, PhD., Assoc. prof. RNDr. Štefan Peško, PhD., Ing. Tomáš Majer – Faculty of Management, Jindřichuv Hradec, University of Economics - Prague, CZ

##### **V.3 Membership in Slovak Organizations and Societies**

- PEŠKO, Š.: Association of Slovak Mathematics and Physicists
- PEŠKO, Š.: Slovak Society for Operation Research
- PALÚCH, S.: Slovak Society for Operation Research
- PALÚCH, S.: Slovak Information Society
- REBO, J.: Association of Slovak Mathematics and Physicists
- REBO, J.: Slovak Society for Operation Research
- KOZUBÍK, A. : Slovak Society of Actuaries
- KOZUBÍK, A. : Slovak Statistic and Demographic Society
- KOMPIŠ, V.: Central European Association for Computational Mechanics

##### **V.5 Contracts with Slovak and Foreign Institutions**

## **VI. MASTERS THESIS (D) and BACHELORS THESIS (B)**

No.	C.	Theme	Student	Supervisor
1.	B	Extension of Linear Programming Modeller PuLP	J. Blaho	M. Kaukič
2.	D	Identifying State of Machine Using Image Analysis	J. Ďurček	T. Majer
3.	B	Development of Software Support for Gathering Data from Meteorological Station	J. Šebošik	M. Kaukič
4.	B	Exact Geometric Computations and their Applications	K. Matiščíková	M. Kaukič
5.	D	Ant Colony Optimisation in Petri Nets	L. Hanzlík	Š. Peško
6.	D.	GPS Software for Linux	M. Jurík	M. Kaukič
7.	B	Development of GUI Framework and its Application for Presentation of Weather	M. Kubinčánek	M. Kaukič
8.	B	Heuristics for the Travelling Salesman Problem	M. Rusín	S. Palúch
9.	B	Dynamic Web Company Pages	P. Kusý	T. Majer
10.	B	Files and Directories Synchronization	P. Korček	T. Majer
11.	B	Isomorphism of Trees	P. Dodek	P. Czimermann
12.	B	Facility Location in Transportation Network	S. Kavecký	S. Palúch
13.	D	Problem of Regularity of the Triangular Fuzzy Matrix with Permuted Column	T. Ladovský	Š. Peško
14.	B	Interactive Communication in TCP / IP Network	T. Hřčka	T. Majer
15.	D	Creation of the Information System for Capturing and Handling of IT Users	Š. Onofrej	J. Oros

**Dean's award** for outstanding **Masters thesis** and **Bachelors thesis** was conferred to:

1. Jozef **Blaho**: *Extension of Linear Programming Modeller PuLP* B
2. Katarína **Matiščíková**: *Exact Geometric Computations and their Applications* B
3. Marián **Jurík**: *GPS Software for Linux* D
4. Miroslav **Rusín**: *Heuristics for the Travelling Salesman Problem* B

## **VII. OTHER ACTIVITIES**

### **Mr. Palúch S.:**

- Member of Academic Board of Faculty of Management Science and Informatics
- Member of Academic Board of Faculty of Management, Jindřichuv Hradec, University of Economics, Prague
- Member of Editorial Staff "Tatramountains" (Mathematical Journal)
- Member of Editorial Staff "Horizonty dopravy" ( Journal of Transportation)
- Member of Editorial Staff "Studies of the University of Žilina, Mathematical Series"

## **VIII. PUBLICATIONS**

### **AFC014 A. KOZUBÍK: Catastrophe models and insurance**

In: IV. International Conference 2008, Kunovice, CZ, ISBN 897-80-7314-133-2. - P. 217-221.

### **AFC020 G. HORÁKOVÁ, A. KOZUBÍK: Delaport's distribution in non-life insurance**

In: IV. International Conference 2008, Kunovice, CZ, Proceedings - ISBN 897-80-7314-133-2. p. 223-229.

### **AFC085 A. KOZUBÍK: Strategy in Selected Shops/.**

In: IV. International Conference 2008, Kunovice, CZ, Proceedings - ISBN 897-80-7314-133-2. p. 123-127.

### **AFC088 G. HORÁKOVÁ, A. KOZUBÍK :The use of collective risk model in cross-border business telecommunication operator**

In: International Conference 2008, Luhačovice, CZ, Proceedings, ISBN 978-80-7314-145-5. p. 191-197

### **AFD017 Š. PEŠKO: Flexible bus scheduling with overlapping trips**

In: Quantitative Methods in Economics (Multiple Criteria Decision Making XIV) : Proceedings of the International Scientific Conference: June 5 - 7, 2008 High Tatras, Slovakia. - Bratislava: Iura Edition, 2008. - ISBN 978-80-8078-217-7. - p. 225-230.

### **AFD031 T. MAJER: Course of cryptography using open source software /.**

In: Aplimat: 7th international conference : February 5-8, 2008, Bratislava, Slovak Republic. Part IV: Open source software in research and education. - Bratislava: Slovak University of Technology, 2008. - ISBN 978-80-89313-04-4. - p. 55-62..

### **AFD033 R. BLAŠKO: LaTeX and unusual fixed point computations**

February 5-8, 2008, Bratislava, Slovak Republic. Part IV: Open source software in research and education. - Bratislava: Slovak University of Technology, 2008. ISBN 978-80-89313-04-4.p. 9-18.

### **AFD057 M. KAUKIČ: Python as a first programming language for universities /.**

In: Aplimat: 7th international conference : February 5-8, 2008, Bratislava, Slovak Republic. Part IV: Open source software in research and education. - Bratislava: Slovak University of Technology, 2008. - ISBN 978-80-89313-04-4. - p. 27-33.

### **AFD067 Š. PEŠKO: Sudoku - game or location problem?**

In: Aplimat: 7th international conference : February 5-8, 2008, Bratislava, Slovak Republic. Part IV: Open source software in research and education. - Bratislava: Slovak University of Technology, 2008. - ISBN 978-80-89313-04-4. - p. 41-51.

### **AFD078 S. PALÚCH: Two approaches to vehicle and crew scheduling in urban and regional bus transport**

In: Quantitative Methods in Economics (Multiple Criteria Decision Making XIV) : Proceedings of the International Scientific Conference: June 5 - 7, 2008 High Tatras, Slovakia. - Bratislava: Iura Edition, 2008. - ISBN 978-80-8078-217-7. - p. 212-218.

**AED005 E. POLOHOVÁ: Linearization method in the same mathematical models**

In: Journal Science 2006: Proceedings of Scientific Contributions, University of Žilina, Faculty of Management Science and Informatics, ISBN 978-80-8070-663-0. - p. 316-324

**AFD018 A. KOZUBÍK: Kopula function and their use in the reconstruction combined division/**

In: 6<sup>th</sup> scientific seminar : 7<sup>th</sup> December 2007, Bratislava: EKONÓM, 2007. - ISBN 978-80-225-2443-8. – p. 6

## Department of Informatics

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Ing. Zuzana Bizoňová, PhD.  
Ing. Miroslav Faktor  
Ing. Matúš Chochlík, PhD.  
Ing. Karol Grondžák, PhD.  
Ing. Erika Grondžáková  
Ing. Miroslav Iliáš, PhD.  
Ing. Jana Jacková  
Mgr. Ing. Alžbeta Kanáliková, PhD.  
Ing. Josef Kopecký  
RNDr. Štefan Kovalík, PhD.  
Assoc. Prof. Ing. Vitaly Levašenko, PhD.  
Prof. Ing. Karol Matiaško, PhD.  
Ing. Iveta Nedeljaková  
Ing. Bohuslav Sedliak  
Ing. Monika Václavková  
Ing. Monika Vajsová  
RNDr. Peter Varša, PhD.  
Assoc. Prof. Ing. Michal Zábovský, PhD.

**Researchers:** Assoc. Prof. Ing. Elena Zaitseva, PhD.

### PhD students

Ing. Ján Boháčik  
Ing. Eva Valentíková  
Ing. Jan Janech  
Ing. Stanislav Piecka - external PhD - student

**Administrative Department:** Anna Ilovská

Tel.: +421-41-513 41 51

Fax: +421-41-513 40 55

## II. EQUIPMENT

### Laboratories:

Laboratory	Capacity	HW
FRA 201	20 places	21 OPSYS Celeron 2.8 GHz, HDD 80GB
Server	Purpose	
frdb1	Linux – teaching	
frdb2	Linux – databases, teaching	
fra208d	Linux - databases, teaching	
frios	Linux – operating systems, teaching	
fra203a	WIN2000 server	
e-learning	Linux – e-learning applications	
elearn	Linux – e-learning applications	

## III. PhD.-Programme

Theme	Student	Supervisor
1. Query processing optimisation	M. Vajsová	K. Matiaško
2. Information searching on the basis of semantic data sources	M. Benedikovič	V. Levashenko
3. Fuzzy rules for database data mining	J. Boháčik	V. Levashenko
4. Analytical Databases Replication	E. Valentíková	K. Matiaško
5. Generalization of Patterns in Identification of Process with polynomial Neural Networks	L. Zjavka	P. Fábian
6. Data mining information technologies and Methods	B. Sedliak	D. Marček
7. Using of Expert Systems for Risk Management	M. Václavková	J. Reitšpis
8. Algorithmic Solving of Selected Management Processes	I. Nedeljaková	Š. Hittmár
9. Process Control in Distributed Databases	J. Janech	K. Matiaško
10. Database Object and Temporal Transformation	P. Hrkút - KST	K. Matiaško
11. Knowledge Searching in Semantic Defined Environment	M. Taváč - KST	K. Matiaško
12. Parallel Methods for Supply Problem Solving Using Ant Colony	S. Piecka – ext.	M. Lucká

#### **IV. RESEARCH PROJECTS**

##### **State Grant projects:**

- Adaptable Replication System for Mobile Devices - MVTS (**K. Matiaško**)
- Reliability Research of Complex Structured Systems – VEGA (**E. Zaitseva**)
- Reliability System Research Using Decision Tree - MVTS (**E. Zaitseva**)
- Design of Decision Systems Using Fuzzy Values – MVTS (**V. Levashenko**)
- Large Database Processing - VEGA (**K. Matiaško**)

#### **V. COOPERATION**

##### **V.1. Cooperation with Institutes and Enterprises in Slovakia**

- Slovak Technical University, Faculty of Electrical Engineering and Informatics, Bratislava
- Technical University, Faculty of Electrical Engineering and Informatics, Košice
- Slovak Gas Enterprise (SPP)
- Slovak Telecom
- Slovak Railways
- Ipesoft Žilina
- Elanor Žilina
- KROS Žilina
- Váhostav Žilina
- MASM Žilina
- Datalock Žilina
- VARIAS Žilina
- Softip, Banská Bystrica

##### **V.2. Cooperation with Foreign Institutes and Enterprises**

- State Economic University, Minsk, Belarus
- Groupe ESC Bordeaux, F
- Technical University, Faculty of Electrical Engineering and Informatics, Ostrava, CZ
- University of Pardubice, Faculty of Transport, Pardubice, CZ
- University of Ostrava, Faculty of Natural Sciences, Ostrava, CZ
- Rutherford Appleton Laboratory, Oxford, Didcot, UK
- Scheidt und Bachman, D
- Siemens Österreich, A
- Alcatel, A
- ITD Genova, I
- M3L, Hengelo, NL
- College of Telecommunications and Posts, BG
- United Institute of Informatics Problems of the National Academy of Sciences of Belarus  
Minsk, Belarus

### **V.2.1. Foreign Visitors to the Department**

- Jouni Houtari, [University of Jyväskylä](#), Finland
- Mária Lucká, University of Wien, A
- Katja Dudin, Ivan Ivanov, College of Telecommunications and Posts, Bulgaria

### **V.2.2. Visits of Staff Members to Foreign Institutions**

- College of Telecommunications and Posts, Bulgaria – P. Martincová, K. Matiaško, M. Vajsová
- University of Jyväskylä, Finland - M. Záborský, M. Chochlík
- United Institute of Informatics Problems of the National Academy of Sciences of Belarus Minsk, Belarus – E.Zaitseva, V.Levashenko
- Belarussian Economic University, Minsk, Belarus – E.Zaitseva, V.Levashenko
- Belarussian State University Informatics and Radioelectronics, Minsk, Belarus – E.Zaitseva, V.Levashenko

### **V.3. Membership in Slovak Organizations and Societies**

- Assoc.Prof. Ing. Karol Matiaško, PhD.
  - Slovak Society for System Integration (SSSI) - President
  - Academic Board of Faculty of Management science and Informatics of University of Zilina - President
  - Academic Board of University of Zilina
  - Academic Board of Faculty of Electrical Engineering and Informatics of University of Ostrava,
  - Slovak Informatics Society
  - Advice Council of Ministry of Transport and Communications Advice Council of Ministry of Education for Informatics
  - Advice Council of Ministry of Transport and Communications for Informatics
  - Slovak Informatics Society (ACM) - Chairman of University Zilina group
  - Advice Council of Mayor of Prievidza
  - Group for Informatics in Accreditation Board of Government

### **V.4 Membership in International Organizations and Societies**

- Assoc. Prof. Ing. Karol Matiaško, PhD. – European science foundation – PESC - Member of steering committee
- Assoc. Prof. Ing. Elena Zaitseva, PhD. - Member of International Association for Pattern recognition (IAPR)
- Assoc. Prof. Ing. Vitaly Levashenko, PhD. - Member of International Association for Pattern recognition (IAPR), membership no. 4\_95



**VI. MASTERS THESIS (D) and BACHELORS THESIS (B)**

No.	C.	Theme	Student	Supervisor
1.	D	Parallel Algorithm Design Using Mobile Agents	L.Doša	P.Martincová
2.	D	Application for Management, Processing and Archive Multimedia Message in the Mobile 5	L. Hanajík	M. Hanajík
3.	D	Files and Database Backup System	M. Divinský	M. Zábovský
4.	D	Asynchronous Web Architecture	M. Lučka	M. Zábovský
5.	D	Graphic Tool for Reports Writer on the Base XML and XSLT	M. Šebeň	K. Matiaško
6.	D.	Java Technologies for Distributed Applications Design	E. Vrťo	P. Martincová
7.	D	Web Application for Company with on-line Support	R. Laučík	I. Nedeljaková
8.	D	Automatic Update Module for PLT Platform	B. Kovář	R. Koraus
9.	D	Index Sequence File management	B. Žáčik	K. Matiaško
10.	B.	Support Web Page of School	D. Daniška	A. Kanáliková
11.	B	Creation Dynamic Web Page for Special Internet	D. Beke	M. Václavková
12.	B	Control Testing System in Education	E. Petráš	J. Jacková
13.	D	Implementation of Analytical Services in Large Database	E.Valentíková	M. Zábovský
14.	B	Time Complexity of some parallel Sorting Application	E. Huťková	P. Varša
15.	B	Multiple Files Detection Software	F. Bolek	P. Varša
16.	B	Web Discussion Portal	J. Čunderlík	M. Benedikovič
17.	B	Appraisalment Machine Products	J. Klačko	B. Sedliak
18.	B	Design of Information System for Regions of Slovak Republic	J. Zelenay	M. Faktor
19.	B	Interface for Printer STAR MICRONICS	J. Piecka	L. Meško
20.	B	Software Assistance of Financial Consulting	J. Čiljak	I. Nedeljaková
21.	B	E-Business and Information System for Advertising Company	J. Cút	B. Sedliak
22.	B	Personal Data Information System	J. Raška	K. Matiaško
23.	B	Warehouse Database with Graphic User Interface in Delphi	J. Tinák	P. Varša
24.	D	Wireless Network Monitoring and Automated Administration	J. Stančok	M. Zábovský
25.	B	Software System for Support of Exercises in Informatics (in C++ Language)	K. Staníková	Š. Kovalík
26.	B	Electronic Teaching Aids Education in Secondary School	L. Polívka	A. Kanáliková
27.	D.	Parameterisation of the Power of Database System	L. Ovsák	M. Vajsová
28.	B	Software for Book of Driving	L. Paverová	P. Varša
29.	B	CMS for Web Album	L. Sedlaň	J. Kopecký
30.	D	Transformation of Personal and Salary Administration Software to Euro Currency	M. Puškár	Š. Kovalík

No.	C.	Theme	Student	Supervisor
31.	D	Information System for Restaurants	M. Jančo	P. Martincová
32.	D	Subtractive VST Synthesizer	M. Boďa	M. Benedikovič
33.	D	Software System for Support of Exercises from IT	M. Bajtoš	Š. Kovalík
34.	B	3D Model of Building	M. Beňo	M. Benedikovič
35.	B	Design and realization of Information System for Region of Slovak Republic	M. Mudrík	M. Faktor
36.	B	Information System for Accommodation	M. Podolák	M. Benedikovič
37.	D	Evaluation Model	M. Kádia	M. Matúška
38.	D.	Object Relational Mapping Tools and their Use	M. Murín	P. Kubof
39.	D	Programme Monitor for POCSAG Messages	M. Cuninga	A. Vergún
40.	B	Accounting Cost and Effort of Transportation Company	M. Lopejský	B. Sedliak
41.	D	CORONIS Client Interface	M. Veščičík	B. Gáboriková
42.	D	Multi-Module Platform	M. Kopáč	P. Adamko
43.	B	Web Application for Creating Electronic Assignment	M. Martiniak	V. Kocián
44.	B	Portal for Graduates	M. Chudoba.	J. Kopecký
45.	B	Optimisation of Information System for Region of Slovak Republic	M. Trško	M. Faktor
46.	B	Comparison of Time Complexity of Selected Sorting Algorithms	M. Tatranský	P. Varša
47.	D	Visualisation of Sorting Methods	O. Šulc	M. Benedikovič
48.	B	Time Complexity of Selected Sorting Algorithms	P. Bobčíková	P. Varša
49.	D	PRINT-OMLINE – Photography Management System	P. Madeja	P. Martincová
50.	B	Implementation of Community Web 2.0 Online-Dating System	P. Senko	Ľ. Jambrich
51.	B	RFID Storage System - Front-end	P. Martiniak	M. Zábovský
52.	D	Implementation of e-Commerce Application for Selling Products Online	P. Roob	Ľ. Jambrich
53.	B	Web Portal for Support of Programming	P. Staško	J. Kopecký
54.	D	Implementation of Personal Shopping Cards	P. Lübeck	Š. Kovalík
55.	D.	Intelligent Parking System	P. Ondráš	K. Matiaško
56.	B	Problems Analysis of United Worldwide Chip Identification of People	P. Hudec	M. Faktor
57.	B	Registration created production	M. Turčáni	P. Martincová
58.	D	Compiler to JAVA Byte Code - backend	P. Hanula	M. Benedikovič
59.	B	Web Page of Tennis Club	P. Gulač	M. Benedikovič
60.	D	Design and Implementation of Controller's Chip Card Reader on C++ Language for Bus Transport Comp.	R. Rubeš	T. Brúna
61.	D	System for Support of Electronic Document Flow	R. Mičko	J. Vojtáš
62.	D	Diagnostic and Testing of JNI Interface Implementation for IPTV Settopboxes	R. Hložka	J. Dojčinoivič

No.	C.	Theme	Student	Supervisor
63.	D	Software for Management of Development Team	P. Garbár	V. Kocián
64.	B	Complexity of Sorting Algorithms	R. Person	M. Benedikovič
65.	D	Prototype of Information System Based on Client-Server Architecture with Using of Programming	R.Komorovský	D. Smutný
66.	B	Multi-Module Platform	T. Chrastina	P. Adamko
67.	B	Information System for Storage Economy	T. Šabík	L. Zjavka
68.	B	EAN Based Registering System	Z. Hrinová	M. Zábovský
69.	D	Fuzzy SQL	Ľ. Pecháč	K.Matiaško
70.	B	Comparison of Algorithms for Fuzzy Decision Trees Induction	D. Halušková	V. Levašenko
71.	D	Warehouse Management System for the BodyShop. KIA Motors Slovakia	L. Gombálik	A. Murárik
72.	D	Interactive Graphical Interpreter of MTP Signalling Network SS7 for EWSD family of Siemens switches	P. Obertlík	O. Straka

**Dean's award** for outstanding Masters thesis and Bachelors thesis was conferred to:

1. Eva **Valentíková**: *Implementation of Analytical Services in Large Database*
2. Eva **Huťková**: *Time Complexity of some Parallel Sorting Application*
3. Julius **Stančok**: *Wireless Network Monitoring and Automated Administration*

**Rector's Award**, as a highest appreciation for the Master's thesis, was awarded to:

Michal **Murín**: *Object Relational Mapping Tools and their Use*

## **VII. OTHER ACTIVITIES**

- MATIAŠKO K.: Program committee member of conference DATAKON 2008, Brno
- KOVALÍK Š.: Program committee member of conference DATAKON 2008, Brno
- MARTINCOVÁ P.: Editor in chef of Journal of Information, Control and Management Systems, published by Faculty of Management and Informatics.
- ZAITSEVA E.: Program committee member of the Int. Conf. on Risk, Quality and Reliability (RQR 2008)
- ZAITSEVA E.: Program committee member of the 7<sup>th</sup> Int. Conf. on Reliability, Maintainability, and Safety (ICRMS'2008)

## VIII. PUBLICATIONS

**AAB001** K. MATIAŠKO: **Database Systems: Fundamentals of database systems**,  
2<sup>nd</sup> edition, University of Žilina 2008 , pp. 351 ISBN 978-80-8070-820-7 [**Corporate authors:**  
Vajsová, Monika ; Zábovský, Michal ; Chochlík, Matúš]

**AAB002** K. MATIAŠKO: **Database of Technologies and Applications**.  
2<sup>nd</sup> edition, University of Žilina 2008 , pp. 518, ISBN 978-80-8070-821-4 [**Corporate authors:**  
Vajsová, Monika ; Zábovský, Michal ; Chochlík, Matúš]

**AAB004** P. MARTINCOVÁ, K. GRONDŽÁK, M. ZÁBOVSKÝ: **Linux Programming in the heart of the Linux operating system**,  
1<sup>st</sup> edition, University of Žilina 2008, pp. 233. - ISBN 978-80-8070-828-3

**ADE001** V.G. LEVAŠENKO, I.K. KOZLOVA, S.A. POTTOSINA: **Sensitivity analysis of structural features more value in the logic of decision support systems**  
In: BGUIR - ISSN 1729-7648. - No. 1(31) 2008, p. 115-122.

**ADE004** E. ZAITSEVA, V. LEVASHENKO, K. MATIAŠKO: **Decomposition and estimation of multi-state systems by dynamic reliability indices**  
In: Journal of KONBiN : Safety and reliability systems. - ISSN 1895-8281. - Vol. 1, No. 1(4) 2008, p. 354-361.

**ADF001** K. MATIAŠKO, M. ZÁBOVSKÝ: **Data replication for mobile environment**  
In: Journal of Electrical Engineering - ISSN 1335-3632. - Vol. 59, No. 5 (2008), p. 277-280.

**ADF002** K. MATIAŠKO, M. ZÁBOVSKÝ: **Adaptive replication algorithm for mobile computers**,  
In: Acta Electrotechnica et Informatica. - ISSN 1335-8243. - Vol. 8, No. 2 (2008), p. 18-21.

**ADF014** J. BOHÁČIK, M. JUHOLA: **Fuzzy rule induction and classification applied to otoneurological data**  
In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 6, No. 1 (2008), p. 9-19.

**ADF025** M. ZÁBOVSKÝ, M. CHOCHLÍK: **Mobile database replication** .  
In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 6, No. 1 (2008), p. 139-144.

**ADF031** M. CHOCHLÍK: **Performance of a policy-based reference counter**.  
In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 6, No. 1 (2008), p. 45-55.

**ADF034** M. CHOCHLÍK: **Presentation of physical quantities in a relational database system**  
In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 6, No. 1 (2008), p. 57-66

**AFC003 K. MATIAŠKO, M. ZÁBOVSKÝ: Adaptive replication algorithm for mobile computers**

In: International Conference, Proceedings, Minsk: Paradoks, 2008. - ISBN 978-985-451-206-8. – p. 275-277.

**AFC019 E. ZAITSEVA, V. LEVASHENKO Decision diagrams for reliability analysis of multi-state system**

In: DepCoS-RELCOMEX 2008 = Third International Conference on Dependability of Computer Systems : Szklarska Poręba, Poland, 26 - 28 June, 2008 : proceedings. - Piscataway: Institute of Electrical and Electronics Engineers, 2008. - ISBN 978-0-7695-3179-3. - p. 55-62.

**AFC022 E. ZAITSEVA, V. LEVASHENKO: Dependence of Reliability on Different Levels of System**

In: 2008 Conference on Human System Interaction: May 25-27, 2008, Krakow, Poland : Conference proceedings. - New York: IEEE, 2008. - ISBN 1-4244-1543-8.

**AFC039 V. LEVASHENKO, Š. KOVALÍK Information-theoretic approach to data reparation**

In: International Conference, Proceedings - Minsk: Paradoks, 2008. - ISBN 978-985-451-206-8. p. 160-163.

**AFC043 E. ZAJCEVA, V. LEVAŠENKO: Research of reliability in information systems with several levels of work skills.**

In: International Conference, Proceedings - Minsk: Paradoks, 2008. - ISBN 978-985-451-206-8. p. 166-169.

**AFD003 J. ŠTEINIGEROVÁ, M. NESLUŠAN, M. FAKTOR: Analysis of surface roughness after hard turning**

In: International Conference 2008. – University of Žilina- ISBN 978-80-8070-860-3.

**AFD016 S. POTTOSINA, Y. POTTOSIN, B. SEDLIAK: Finding maximal complete bipartite subgraphs in a graph**

In: Aplimat 2008, 7th international conference : February 5-8, 2008, Bratislava, Slovak Republic. Slovak University of Technology, 2008. - ISBN 978-80-89313-03-7. - P. 127-132.

**AFD019 M. FAKTOR: Geometry algebra is missing on the Technical universities**

In: Aplimat 2008, 7th international conference : February 5-8, 2008, Bratislava, Slovak Republic. - Bratislava: Slovak University of Technology, 2008. - ISBN 978-80-89313-03-7. - p. 929-934.

**AFD043 M. FAKTOR: Possibilities of use Open Source software Free Pascal for teaching and research at universities /.**

In: Aplimat 2008, 7th international conference : February 5-8, 2008, Bratislava, Slovak Republic. - Bratislava: Slovak University of Technology, 2008. - ISBN 978-80-89313-03-7. - p. 19-26..

**AFD063 E. ZAITSEVA, V. LEVASHENKO, Š. KOVALÍK: Some mathematical model in reliability analysis of multi-state system.**

In: Aplimat 2008, 7th international conference : February 5-8, 2008, Bratislava, Slovak Republic. - Bratislava: Slovak University of Technology, 2008. - ISBN 978-80-89313-03-7. - p. 897-903. .

**AFD065 M. FAKTOR: Spin modelling of electron in atom**

In: MOSMIC' Proceedings of the international workshop. - University of Žilina, 2008. - ISBN 978-80-8070-807-8. - S. 97-106.

**PhD. Thesis**

- **MATÚŠ CHOCHLÍK: Distributed Data Processing in Heterogeneous Environment ;**  
Supervisor: Prof.Ing.Karol Matiaško, PhD. - University of Žilina, Faculty of Management Science and Informatics, Department of Informatics; 2008. In research section 9.2.9 - Applied Informatics. - Žilina, September 2008.
- **ZUZANA BIZOŇOVÁ: Model Driven E-learning Platform Integration.**  
Supervisor: Assoc.prof.Ing. Matilda Drozdová, PhD.. - University of Žilina, Faculty of Management Science and Informatics, Department of Information networks; 2008. - In research section 9.2.9 - Applied Informatics. - Žilina, 2008.
- **ŠTEFAN KOVALÍK: Database Data Mining and Data Preparing,**  
Supervisor: Assoc.Prof.Ing.Vitaly Levashenko, PhD. - University of Žilina, Faculty of Management Science and Informatics, Department of Informatics; 2008. In research section 9.2.9 - Applied Informatics. - Žilina, November 2008.
- **ALŽBETA KANALÍKOVÁ: Value Analysys and Value Engineering in Design of Information-Communication Services.**  
Supervisor: Prof.Ing.Karol Matiaško, PhD.. - University of Žilina, Faculty of Management Science and Informatics, Department of Information networks; November 2008. In research section 9.2.9 - Applied Informatics. - Žilina, 2008.

## Department of Macro and Microeconomics

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Ing. Mária Ďurišová, PhD.  
Ing. Juraj Dubovec, PhD.  
Assoc.Prof.Ing. Alžbeta Kucharčíková, PhD.  
Prof.Ing. Dušan Marček, PhD.  
Ing. Lucia Pančíková, PhD.  
Ing. Anna Jacková, PhD.  
Ing. Cyril Srnka  
Ing. Zuzana Staníková  
Ing. Katarína Zábovská, PhD.

**Researchers:** Ing. Zuzana Kozubíková, PhD.

**Administrative Department:** Eva Maťková

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Fax: +421- 41- 513 40 55

### III. PhD.-Programme

Theme	Student	Supervisor
Recurrent Neural Networks for Delayed Economic Processes	M. Srnka	D. Marček
Cloud Methods and Granular modelling in Management Prediction Systems	Z. Mečiarová	D. Marček
The Entropy Reduction in Management decision systems using the Prediction Algorithms	M. Fraňo	D. Marček
Employee Appraisal Model as Tool of the Management Decision	L. Nižník	A. Kucharčíková
Time Series Modelling: Comparison of ANNs Methodology with ARCH-GARCH one	J. Bábel	D. Marček
Flexible working forms as a tool for effective management of the enterprise.	L. Tulejová	A. Kucharčíková

## IV. RESEARCH PROJECTS

### State Grant Projects – VEGA

- *Computational intelligence in modelling and forecasting economic time series and their exploitation in management prediction systems (VEGA/0024/08)*

Prof. Ing. Dušan Marček, PhD.

- *The Proposal of the New Approaches and Methods for Evaluation of the Effective Inputs Utilizing and their Optimal Combination With Application of the Macroeconomic and Microeconomic Aspect and With Orientation to the Human Capital*

Assoc.Prof.Ing. Alžbeta Kucharčíková, PhD.

### Faculty Grant Projects

- ĎURIŠOVÁ, M.: *Diagnostic process of enterprise efficiency*
- KOZUBÍKOVÁ, Z.: *Risks and risk factors in the transport*
- KUCHARČÍKOVÁ, A.: *Education as form on investment to human capital in Slovak enterprises*

## V. COOPERATION

### V.1 Co-operation with Institutes and Enterprises in Slovakia

- Faculty of Economy UMB, Banská Bystrica,
- Economical University of Bratislava
- Adviser of Entrepreneur, Žilina
- Slovak Chamber of Commerce, Žilina
- Information Centre of Entrepreneurs, Žilina
- Slovak Statistic Office
- Institute of Transport Research Žilina,
- SAEF - Slovak American Enterprise Fund

### V.2 Co-operation with Foreign Institutes and Enterprises

- VŠB-TU Ostrava, Institute of Computer Science Opava, CZ
- VŠE Praha, CZ
- Institute of Computer Science Opava, CZ
- ČVUT Praha, CZ
- Academy of Sciences, CZ
- European Polytechnic Institute, Kunovice, CZ
- OPF, SLU Karviná, CZ
- Silesian University in Opava, School of Business Administration in Karviná, CZ

#### V.2.2 Visits of Staff Members to Foreign Institutions

- Dušan Marček: York University, INFOBRIGHT, Inc., Toronto, Canada, May 14-16, 2007



### V.3 Membership in Slovak Organisations and Societies

- Prof. Ing. Dušan **Marček**, PhD.: Studies of FMSaI University of Zilina, editorial board member
- Prof. Ing. Dušan **Marček**, PhD.: University Library in Zilina, member of the information board
- Prof. Ing. Dušan **Marček**, PhD.: University of Žilina, Faculty of MSaI, member of the Faculty board for Grant projects evaluating
- Assoc.Prof. Ing. Alžbeta **Kucharčíková**, PhD.: member of The Management Trainers Association
- Ing. Katarína **Zábovská**: Slovak Association for System Integration

### V.4 Membership in International Organisations and Societies

- Prof. Ing. Dušan **Marček**, PhD.: Member of EUSFLAT- European Society for Fuzzy Logic and Technology
- Prof. Ing. Dušan **Marček**, PhD.: Managing and modelling of financial risks – member of Conference Committee.  
Prof. Ing. Dušan **Marček**, PhD.: MDAI 2004 – Chair of the Section Clustering

### V.5 Contracts with Slovak and Foreign Institutions

- Softip SEVER a.s., Žilina
- Slovak Railways Bratislava
- DOOS s.r.o. Žilina
- Crystal a.s. Lednické Rovne
- Varias a.s. Žilina
- ELAS s.r.o., Prievidza
- BIC s.r.o., Prievidza

## VI. MASTERS THESIS (D) and BACHELORS THESIS (B)

No.	C.	Theme	Student	Supervisor
1.	D	Econometric Modelling of Selected Income Indicators in Future Statement	A. Kotillová	L. Pančíková
2.	B	Marketing of the Information System Distributing	A. Šupicová	Z. Kozubíková
3.	B	Project of Integrated Communication in the Region	A. Solár	Z. Kozubíková
4.	D	Algorithms for Forecasting of Economic Quantities Based on Economic Methods	A. Vorčák	M. Marček
5.	B	Analysis of Toll Systems	D. Kršáková	K. Zábovská
6.	B	Enterprise Opportunities on the Foreign market	D. Tchur	Z. Kozubíková
7.	B	Development of Requirements for NGN services	I. Kurilová	Z. Staníková
8.	D	Comparison of Slovak and English Systems of Establishment	E. Hudáková	M. Ďurišová
9.	B	Prediction of Finance Development of Company "Považská cementáreň"	J. Váňová	A. Jacková
10.	B	Marketing Approach to the New Product Introducing on the Market	J. Virdzek	Z. Kozubíková
11.	D	Valuation Invested Strategy in Social Network	J. Cvik	J. Dubovec
12.	D	Seasonal Influence in Modelling of Short Time Services	J. Kahaník	M. Marček
13.	D	Modern Forecasting Methods in High-Frequency Data Modelling	J. Bábel	M. Marček

14.	D	Use of Telework in Employment of Women in Žilina Region	L. Tulejová	A. Kucharčíková
15.	D	Implementation Methods of Monitoring Costs and Returns in Enterprise	L. Bátorová	M. Ďurišová
16.	D	Financial and Economic Analysis of an Enterprise	M. Kačmár	A. Jacková
17.	D.	Influence Competitive Publicity on Decision	M. Lenický	J. Dubovec
18.	D	Financing of Corporate Investments by Government Funds	M. Velacka	A. Jacková
19.	D	Application of Modern Econometric Methods in Modelling of output of Products	M. Matej	L. Pančíková
20.	D	Algorithms for Forecasting of Economic Quantities Based on Econometric Methods	M. Marko	M. Marček
21.	B	Information of Public Governance and Analysis of Impacts in Selected Towns	M. Podhorský	K. Zábovská
22.	B	Process Oriented Information System vs. Hierarchically Managed Organizations	M. Imrich	K. Zábovská
23.	B	Definition of Opportunities and Risks in Slovak Telekom for Tarification in NGN	M. Pápežová	Z. Staníková
24.	D	Speculation on Decision-Making of the Economical Participants	M. Kelčík	J. Dubovec
25.	D	Modelling and Forecasting of Selected Quantities for Enterprise by Statistics	M. Milec	M. Marček
26.	D	Analysis of Economic Efficiency of Žilina Region	M. Sládek	A.Kucharčíková
27.	D.	Proposal of a System for Evaluation of Performance and Results of MID-L	M. Chovančík	J. Dubovec
28.	D	Implementation methods of Measuring Performance in Enterprise	M. Hauer	M. Ďurišová
29.	B	Evaluation of Recourses and Results of Management of Enterprise	M. Adamica	J. Dicová
30.	B	Web Portal for Supermarket Customers	M. Červeň	K. Zábovská
31.	B	Marketing Plan of the Firm	M. Šefffer	Z. Kozubíková
32.	B	Comparison Between Investment and Expenditure Model of Financing Academic Study	M. Jarkovský	J. Dubovec
33.	B	Satisfaction of Customers with Communication Contact Persons in Public Transport	M. Šebeňová	Z. Staníková
34.	D.	Use of Theory of Games for Modelling of Social Network	P. Chobot	J. Dubovec
35.	B	Utilisation of Information Technologies in Processing of Selected Statistic Methods	P. Ondrúšek	L. Pančíková
36.	D	Modelling of Decision-Making Situation between Principal - Agent	S. Kupský	J. Dubovec
37.	D	Conditions and Prerequisites for According Loans to the Subject of SME	T. Charvát	A. Jacková
38.	D.	Utilisation of Forecasting Methods in Process of Quality Management in Enterprise	V. Šamaj	L. Pančíková
39.	D	Financial Support of Activities of Municipalities after Fiscal Decentralisation	V. Olík	B. Holková
40.	B	Analysis of Selected Payment Systems for Transportation Systems	Ľ. Michalková	K. Zábovská

**Dean's award** for outstanding Masters thesis and Bachelors thesis was conferred to

1. Alexandra **Kotillová**: Econometric Modelling of Selected Income Indicators in Future Statement
2. Alžbeta **Šupicová**: Marketing of the Information System Distributing
3. Lucia **Tulejová**: Use of Telework in Employment of Women in Žilina Region
4. Lucia **Bát'ová**: Implementation Methods of Monitoring Costs and Returns in Enterprise
5. Miroslav **Šeffler**: Marketing Plan of the Enterprise

## **VII. OTHER ACTIVITIES OF DEPARTMENT**

- MARČEK D.: Member of Scientific Board of Faculty of Management Sciences and Informatics, University of Žilina, Žilina
- DUBOVEC J.: Member of Academic Senate of Faculty of Management Sciences and Informatics, University of Žilina, Žilina

## **VIII. PUBLICATIONS**

**ADC001** M. MARČEK, D. MARČEK: **Granular RBF neural network implementation of fuzzy systems: Application to time series modelling /**

In: Journal of Multiple-Valued Logic and Soft Computing. - ISSN 1542-3980. - Vol. 14, No. 3-5 (2008), p. 401-414.

**ADE005** J. JACKOVÁ, U. FULLER: **Developing a computer science-specific learning taxonomy**

In: ACM SIGCSE Bulletin. - ISSN 0097-8418. - Vol. 39, no. 4 (2007), p. 152-170.

**ADF004** K. ZÁBOVSKÁ: **Analysing driver scheduling solution .**

In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 6, No. 1 (2008), p. 133-137.

**AFC009** M. MARČEK, D. MARČEK: **Approximation and prediction of wages based on granular neural network.**

In: Rough sets and knowledge technology = RSKT 2008 : Third International Conference : Chengdu, China, May 2008 : proceedings. - Heidelberg: Springer-Verlag Berlin, 2008. – ISBN 978-3-540-79720-3. - P. 556-563

**AFC010** D. MARČEK : **ARMA models versus an SVM model applied to wages time series modelling**

In: Third International Conference. – Stavropol',RUSS, SevKavGTU, 2008. - S. 34-42.

**AFC011** Z. KOZUBÍKOVÁ: **Aspects of cross-border business, after switching to the euro in Slovakia.**

In: IV. International Conference 2008 : 16. 05. 2008, Luhačovice, CZ: ISBN 978-80-7314-145-5. p. 223-227.

**AFC015 M. MARČEK, D. MARČEK: Comparison of statistical models against an SVM model for wages time series modelling and forecasting**

In: International Conference on Engineering Optimisation : Rio de Janeiro, Brazil, June 1-5, 2008. - ISBN978857650156-5

**AFC017 M. ĎURIŠOVÁ: Time value of money - determinant of decision-making in the enterprise.**

In: IV. International Conference 2008 : Luhačovice,CZ: ISBN 978-80-7314-145-5. pp. 173-177

**AFC021 J. DUBOVEC, T. HLAČINA: The demographic challenge for the new models of teaching on the Universities**

In: IV. International Conference 2008, Kunovice., CZ, ISBN 897-80-7314-133-2. - p. 153-159.

**AFC023 M. ĎURIŠOVÁ: Derivatives accounting businesses**

In: IV. International Conference 2008, Kunovice, CZ, ISBN 978-80-7314-144-8. - p. 79-82.

**AFC031 A. JACKOVÁ: General conditions and suppositions of giving credits to the subjects of small and model enterprising**

In: IV. International Conference 2008, Kunovice, CZ ISBN 978-80-7314-144-8. pp. 125-127

**AFC037 A. JACKOVÁ: Information literacy in the information society.**

In: IV. International Conference 2008, Kunovice, CZ,ISBN 897-80-7314-133-2. - pp. 49-51.

**AFC048 A. JACKOVÁ: International trade and its importance for the Slovak economy.**

In: IV. International Conference 2008, Luhačovice, CZ, Proceedings, ISBN 978-80-7314-145-5. p. 205-208.

**AFC052 Z. MEČIAROVÁ: Modelling export price indexes of Czech Republic by ARIMA methodology** In: ICSC 2008 : 6<sup>th</sup> international conference on soft computing applied in computer and economic environments : January 25, Kunovice, Czech Republic , Proceedings. - Kunovice: European Polytechnical Institute, 2008. - ISBN 978-80-7314-134-9. - p. 25-29

**AFC062 J. DUBOVEC, T. HLAČINA: Regional cooperation - theoretical approaches.**

In: IV. International Conference 2008, Luhačovice, CZ: Proceedings, ISBN 978-80-7314-145-5. – p. 167-171.

**AFC079 A. KUCHARČÍKOVÁ: The application of the identification and analysis of training needs in human resource development of public administration.**

In: IV. International Conference 2008, Luhačovice, CZ, Proceedings, ISBN 978-80-7314-145-5. – p. 71-76.

**AFC087 J. DUBOVEC, T. HLAČINA, P. MICHÁLEK: Research on the impact of taxation in Slovakia and the Czech Republic on the economy of small and medium-sized firms in 2007**

In: 6<sup>th</sup> international conference on soft computing applied in computer and economic environments 15<sup>th</sup>, April 2008:, Kunovice, Czech Republic , Proceedings ISBN 978-80-7314-144-8. - p. 73-77

**AFC090 J. DUBOVEC, T. HLAČINA, P. MICHÁLEK: Research on the impact of the reform of public finances in the Czech Republic on the economy of small and medium companies for tax reform**

In: International Conference 2008, Luhačovice, CZ, Proceedings,ISBN 978-80-7314-145-5. –

**AFC094 D. MARČEK: Wages forecasting using time series models versus SVM .**

In: ICSC 2008 : 6<sup>th</sup> international conference on soft computing applied in computer and economic environments : January 25, Kunovice, Czech Republic : Proceedings. - Kunovice: European Polytechnic Institute, 2008. - ISBN 978-80-7314-134-9. - p. 97-103.

**AFC095 Z. KOZUBÍKOVÁ, J. SLEPECKÝ: Weather derivatives as the risk transfer tool**

In: IV. International Conference 2008, Kunovice, CZ ISBN 897-80-7314-133-2. – p. 129-133.

**AFD012 M. BEHÁŇOVÁ: Intellectual property in a globalises world/.**

In: International Conference 2008, Rajecské Teplice, SK ISBN 979-80-969745-1-0. - p. 24-29.

**AFD044 A. KUCHARČÍKOVÁ: The possibilities of increasing the quality of education at university.**

In: Internation. Conference 2008, University of Trenčín. - ISBN 978-80-8075-302-3. - p. 77-82

**AFD068 J. JACKOVÁ: The system of acquiring perfect curricula in teaching programming**

In: DIDINFO International Conference 2008: Banská Bystrica, ISBN 978-80-8083-556-9.

**AED001 A. KUCHARČÍKOVÁ: Deflation - a macroeconomic phenomenon, or a problem?**

In: Tape IV : Proceedings of Scientific Contributions. - Bratislava: EKONÓM, 2007. - ISBN 978-80-225-2472-8. - p. 222-228.

**AED002 M. ĎURIŠOVÁ: Diagnosis of business - corporate management discipline/**

In: Science 2006. - Proceedings of Scientific Contributions, University of Žilina, Faculty of Management Science and Informatics 2007. - ISBN 978-80-8070-663-0. - p. 3-8.

**AED009 E. TOKARČÍKOVÁ: Use of diagnosis for the introduction of new 3G mobile services market.**

In: Science 2006. - Proceedings of Scientific Contributions, University of Žilina, Faculty of Management Science and Informatics 2007, - ISBN 978-80-8070-663-0. - p. 18-21

**AED010 A. KUCHARČÍKOVÁ, E. TOKARČÍKOVÁ: Importance of the motivation to increasing of the human capital value in enterprises**

In: Acta oeconomica No 21: " - Banská Bystrica: University of Matej Bel, 2007. - ISBN 978-80-8883-407-4. – p.6

**AFD054 Z. MEČIAROVÁ: Time series prediction based on cloud models and time granularity**

In: Proceedings of seminar- Bratislava: EKONÓM, 2007. - ISBN 978-80-225-2409-4. – p. 6

**AFD081 J. JACKOVÁ: Educational Aims of Technical faculties focused on information science subject field**

In: Schola 2007: 8<sup>th</sup> International scientific 29.-30. Novembra 2007. - Trnava: AlumniPress, 2007. – ISBN 978-80-8096-038-4. – p. 7

**BDF004 A. KUCHARČÍKOVÁ, J. VODÁK: Effective training in enterprises.**

In: Personal Journal. - ISSN 1213-8878. -Vol 13, No. 12 (2007), p. 16-18.

**BDF020 A. JACKOVÁ: Setting prices firm .**

In: Management in Theory and Praxis - ISSN 1336-7137. -Vol. 3, No. 1-2 (2007), p. 61-64

## **Department of Technical Cybernetics**

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Ing. Lukáš Čechovič  
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Prof. Ing. Ivan Hanuliak, PhD.  
Assoc. Prof. Ing. Vladimír Jamrich, PhD.  
Ing. Adam Jaroš, PhD.  
Ing. Jozef Juríček, PhD.  
Ing. Matúš Jurečka, PhD.  
Ing. Ján Kapitulík, PhD.  
Ing. Oldřich Kovář, PhD.  
Assoc. Prof. Ing. Juraj Miček, PhD.  
Ing. Julius Mlich  
Ing. Ján Repka  
Assoc. Prof. Ing. Juraj Slovák, PhD.  
Ing. Peter Ševčík, PhD.

**Researcher:** Ivana Hodasová

**PhD Students:** Ing. Štefan Bocko  
Ing. Andrej Holúbek  
Ing. Peter Goga  
Ing. Michal Hodoň  
Mgr. Dan Slováček  
Ing. Filip Janovič  
Ing. Lukáš Čechovič  
Ing. Pavol Lajčiak

## **II. EQUIPMENT**

### **II.1 Teaching and Research Laboratories.**

- Laboratory of Digital Control.
- Laboratory of Digital Signal Processing

- Laboratory of Automatic Control ( in the Sub campus Prievidza)
- Laboratory of Electronics (in the Sub campus Prievidza)
- Laboratory of Electronics
- Laboratory of Design of the Customers Integrated Circuits (XILINX)
- Laboratory of Digital Computer
- Laboratory of Automatic Control
- Laboratory of HPC and Grid computing
- Laboratory of Communication systems
- Laboratory of Technical equipments of automatic control

## II.2 Special Measuring Instruments and Computers.

Analogy models for real time simulation experiments of digital control algorithms.

- Models SISO (Single input and single output).

second and third - order systems with variable damping ratio , proportional or integrate performance.

- Models MIMO (Multiple input, multiple output- 2 input and output)

There is 6 SISO models: second order system with variable damping ratio

second order system with variable time constant

first order system with variable time constant

first order system.

The model It can by use as a MIMO plant or SISO plant first to sixth - order. The gain of the plants (step response) it can be continuously or step change (0.1, 1, 2, 5).

There is also possibility to change magnitude of disturbance and step switch of output disturbance.

- Models SISO with non-linear gain, transport delay and no minimal phase.

The same model as in the point a), with possibility to switch non-linear gain or transport delay.

or step response with no minimal phase.

- Analogy model of heat exchanger station.
- Analogy model of Helicopter

All models could be connected with PC's (8x) with Ad and DA converters or with some PLC (Bernecker&Reiner, Octagon etc.)

8x workstation on the base of the PC, A/D and D/A converters, starter kit TMS 320x54, evolution kit MSP 430xxx, 8x evolution development kit ATMEL AVR

10x evolution kit ARM7+DI

5x workstation on the base of the PC (K6-233 Mhz)

1x workstation on the base PC (1,3 GHz, 19" monitor)

Foundation ISE 7.1. fy XILINX, System Generator for Simulink, Model Sim ISE EMBEDDED DEVELOPMENT KIT

Programming board for circuits GAL 16V8, GAL20V8, CPLD 9500, FPGA 4000

Programming board 2S100 fy INSIGHT (FPGA SPARTAN II)

Programming board DIGILAB XLA5 fy DIGILENT (FPGA SPARTAN II)

Programming board V2LC1000 fy INSIGHT (FPGA VIRTEX II)

Programming board ANADIGM (FPAA)

Programming board FPGA SPARTAN 3

ML YO3 VIRTEX-4 FX Evaluation Platform

7x Measurement System (Digital Oscilloscope, Logical Analyst, Waveform Generator)

### **III. PhD.-Programme**

<b>Theme</b>	<b>Student</b>	<b>Supervisor</b>
1. Low lost Algorithms for speech synthesis	P. Lajčiak	J. Miček
2. Adaptive and learning Algorithms for Automatic Control	Š. Bocko	M. Alexík
3. Methods and Algorithms of Processing of Multidimensional and Multichannel signals	L. Čechovič	J. Miček
4 Modelling and optimization of parallel factorization algorithms	A. Holúbek	I. Hanuliak

### **IV. RESEARCH PROJECTS**

VEGA 1/0808/08: „*Selftunningd and learning Algorithms for Automatic Control.*“ Principal investigator: Prof. Ing. Mikuláš Alexík, PhD.

### **V. COOPERATION**

#### **V.1. Cooperation with Institutes and Enterprises in Slovakia**

- Slovak Technical University, Bratislava - Fac.of Electr. Eng. & Informatics, Fac. of Mechanical Eng., Faculty of Chemical Engineering
- Dopravné systémy Scheidt & Bachmann s.r.o. Žilina.
- SAE Control s.r.o. Žilina, URAP Automatizacia Žilina.
- HMH s.r.o. Bratislava
- ETC. s.r.o. Žilina, VUVT Eng., a.s. Žilina,
- ENO. a.s. Zemianské Kostol'any
- FPT TUAD Púchov
- ZS-VTS Bratislava
- Ekonomická univerzita Bratislava
- UMB Banská Bystrica
- UPJŠ Košice
- TU Košice
- ABB a.s., pobočka Žilina
- VS SAV Bratislava
- UI SAV Bratislava

#### **V.2. Cooperation with Foreign Institutes and Enterprises.**

- UTIA -Institute of Information Theory and Automation, Academy of Sciences of the Czech Rep.
- Universities-Plzen, Liberec, Praha, Brno, CZECH REP
- ARGE Simulation , Vienna University of Technology, AUSTRIA
- Dutch Benelux Simulation Society, Technische Universiteit Delft, NEDERLAND  
(Cooperation in preparing EUROSIM Congres and in the EUROSIM Society)



SCS Europe (Society for computer Simulation), University of Ghent, BELGIUM.

(Preparing an European Simulation Multiconference).

- Chinese Association for System Simulation, Beijing, CHINA,
- Asian Simulation Conference, Shanghai, CHINA
- EPCC ( Edinburgh Parallel Computing Centre ), UK
- University of Balamund,– BioMedSim , Conference LEBANON
- TU – VŠB, Faculty of mechanical Engineering strojní, Ostrava, CZ, project 72/114
- CINECA, Bologne, ITALY
- VÚT Brno, Institute of Computing Engineering and Informatics , CZECH REP.
- EUROSIM Federation of European Simulation Societes
- IFAC International Federation of Automatic Control
- Thomas Bata University in Zlin, Fakulty of Applied Informatics
- Elsevier

### V.2.1 Foreign Visitors to the Department

### V.2.2. Visits of Staff Members to Foreign Institutions

### V.3 Membership in Slovak Organizations and Societies

- **M. Alexík:** SSAKI- Slovak Society for Applied Cybernetics and Informatics, vicechairman
- **M. Alexík:** IFAC National Committee, member
- **M. Alexík:** SAKI – Slovak Society for Cybernetics and Informatics, Slovak Academy of Sciences, board member
- **M. Alexík:** AT&P Journal, HMM s.r.o. Tavariková osada 39, 841 02 Bratislava 42. ISSN 1335-2237., editorial board member
- **M. Alexík:** Journal of Information, Control and Management Systems, ISSN 1336-1716, Edis, University Publishing House, Žilina, SR, editoerial board member
- **M. Alexík:** EDIS – Žilina University Publisher, board member
- **M. Alexík:** Cybernetics and Informatics. Journal of SAKI, editorial board member.
- **M. Alexík:** SOK 38-01-9 Automatization and Control. Common committee for PhD study, Slovak Republic
- **M. Alexík:** Committee for PhD study Automatization, Slovak University of Technology, Bratislava, member.
- **M. Alexík:** State examinations committee chairman (Automatization), FEI – Slovak University of Technology, Bratislava
- **M. Alexík:** State examinations committee chairman (Automatization), FE – University of Technology, Košice
- **M. Alexík:** State examinations committee chairman (Informatics), FE – University of Technology, Košice
- **M. Alexík:** Faculty of Management Science and Informatics, University of Žilina, academic board member

- **I. Hanuliak:** Member of GCCCP (Grid computing of complex problems)
- **I. Hanuliak:** Member of Scientific Board “Transcom”
- **I. Hanuliak:** Member of Scientific Committee “Slovak Grid”
- **I. Hanuliak:** Member of Scientific Board “HPC and Grid computing”
- **A. Jaroš:** Czech & Slovak Simulation Societe – member
- **A. Jaroš:** Slovak Society for cybernetics and Informatics by Slovak Academy of Science, Bratislava
- **A. Jaroš:** The Slovak Society for Aplied cybernetics and Informatics by ZSVTS Bratislava – member
- **Š. Bocko:** Czech & Slovak Simulation Society – member
- **Š. Bocko:** The Slovak Society for Aplied cybernetics and Informatics by ZSVTS Bratislava – member
- **Š. Bocko:** Slovak Society for cybernetics and Informatics by Slovak Academy of Science, Bratislava

#### V.4 Membership in International Organizations and Societies

- **M. Alexík:** EUROSIM president EUROSIM, the Federation of European Simulation Societies.
- **M. Alexík:** Simulation Modelling Practise and Theory (SIMPRO) – Editorial Board - area editor. SIMPRO -International Journal of the Federation of European Simulation Societies SCI – Journal, Publisher: Elsevier. ISSN: 1569-190X
- **M. Alexík:** Simulation News Europe (SNE) – editorial board member. SNE is the also the official membership journal of EUROSIM and SCS Europe. Publisher: ARGESIM/ASIM, TU Vienna. ISSN 1015-8685 (0929-2268)
- **M. Alexík:** Cybernetics Letters, editorial board. ISSN 1802-3525, Brno, ČR.
- **M. Alexík:** IFAC Technical Committee - member “Systems and Signals – Modelling, Identification and Signal processing”.
- **M. Alexík:** ECCAI –European Coordination Committee for Artificial Intelligence, national board member.
- **M. Alexík:** CSSS - Czech and Slovak Simulation Society, vice chairman
- **M. Alexík:** Tomas Bata University in Zlin, Czech Republic, Faculty of Applied Informatics, Academic board member.
- **M. Alexík:** Brno University of Technology, faculty of Electrical Engineering and Communication. Member of committee for PhD. Study.
- **I. Hanuliak:** Editorial board member, The Open cybernetics and Systemic Journal, United Kingdom

#### V.5 Contracts with Slovak and Foreign Institutions

#### V.6 Membership in International Program Committee

- **M. Alexík:** EUROSIM/UKSIM 2008. 10th International Conference on Computer Modelling and Simulation Emmanuel College, Cambridge, England, 1-3 April, 2008 (IEEE Paper) Member of International Programme Committee, reviewer
- **M. Alexík:** MOSIS’08 Modelling and Simulation of Systems. 42<sup>th</sup> Spring International Conference, Rožnov pod Radhoštěm, Czech Republic. April 24-26, 2008, Program Committee member, referee.

**VI. MASTERS THESIS (D) and BACHELORS THESIS (B)**

No.	C.	Theme	Student	Supervisor
1.	D	Current Technologies for Internet Connection	M. Debnár	J. Mlich
2.	B	Universal Control System for Stepping Motors	B. Chudý	O. Karpiš
3.	B	Control Unit of the DC Motor	I. Mellen	J. Miček
4.	B	Control Unit of Mobile Robot	J. Labaj	J. Miček
5.	B	Digitally Controlled Pointing System	J. Puchyová	P. Gubiš
6.	D.	Analysis of Bill-Data	J. Kvasničák	L. Skýva
7.	B	Face Location in Camera Picture and Camera Navigation	J. Žigmund	O. Karpiš
8.	D	Communication Design and Realization	J. Haruštiak	D. Šindler
9.	B	HDD for PC	J. Slimák	J. Mlich
10.	B	Design of the Control Module for PYXOS Net	J. Jakubovie	B. Šimon
11.	B	Control of Mobile Robot in Category "Path follower"	J. Mravec	J. Miček
12.	B	Mobile Robot in Category « Micro mouse »	M. Abrahámek	J. Miček
13.	B	Mobile Robot in Category « Path follower»	M. Hanzel	J. Miček
14.	B	Administration Tool for Web User Interface NMS	J. Máhrik	J. Miček
15.	D	Laboratory Model of Controlled Processes based on ATMEL Programme Realization	M. Hazda	M. Alexík
16.	B	Remote Control 230 V Switch	M. Beduš	O. Karpiš
17.	B	Construction Differences between Mobile and Table PC	M. Jurčo	J. Mlich
18.	B	Mini-Class Sumo Robot	M. Bullo	J. Miček
19.	B	Japanese-Class Sumo Robot	M. Czipel	J. Miček
20.	B	Over locking of Processors, RAM Memories and Graphic Cards	M. Majerský	J. Mlich
21.	B	Picture System for PC	M. Pánis	J. Mlich
22.	D	Integration of Smart Card Reader / Writer Device for Manual Encoding of Mifare	M. Salaj	L. Skýva
23.	B	Programmable Irrigation System	M. Húdík	O. Kovář
24.	B	Mobile Robot with RF Communication Unit	M. Ambrózi	J. Miček
25.	B	Minitoring Unit	M. Kassa	O. Kovář
26.	B	Communication via ETHERNET between PC and AT91SAM7X-EK	M. Urcikán	J. Kapitulík
27.	D.	Application of Learning Algorithm for Sub optimal Control of Position Servo-mechanism	M. Král	M. Alexík
28.	B	Student Information Portal – "Computer Engineering"	M. Šlosár	J. Kapitulík

No.	C.	Theme	Student	Supervisor
29.	B	Identifier of the Optical Mouse Location	M. Jagoš	O. Kovář
30.	B	Remote Control	M. Ľupták	J. Miček
31.	B	Sports Electronic Watch for the Outside Conditions	P. Šnajdár	O. Kovář
32.	B	Universal Communication Unit for Digital Computer Training Kit	P. Burdiak	P. Gubiš
33.	B	Monitor Equipment of the Gel Batteries	R. Janák	O. Kovář
34.	B	Micro Mouse Contest Robot	R. Briš	J. Miček
35.	B	Communication Device	S. Gašpírik	J. Miček
36.	B	HW for Multimedia PC	T. Kőrmendy	J. Mlich
37.	B	Parallel Programmer for NCU ATMEL AVR	T. Bohuš	J. Miček
38.	B	Digital Pencil „DIGIPEN“	T. Vančo	J. Miček
39.	D	Conception and Realization of a Schematic User Interface	T. Sága	L. Skýva
40.	B	Programme for Synchronous Sequential Systems Behaviour Description	V. Knajbel	O. Karpiš
41.	D	Real Time Control of Helicopter Model as MIMO System	V. Belušík	M. Alexík
42.	B	Simulator of Logical Circuits	Š. Toth	O. Karpiš
43.	B	Development Motherboard PC and their Interface	Š. Vojtašák	J. Mlich
44.	D	Battery charger	J. Vaľovský	J. Miček

**Dean's award** for outstanding **Masters thesis** and **Bachelors thesis** was conferred to:

1. Martin **Czippel**: Japanese-Class Sumo Robot
2. Martin **Ambrózi**: Mobile Robot with RF Communication Unit
3. Tomáš **Bohuš**: Parallel Programmer for NCU ATMEL AVR
4. Štefan **Toth**: Simulator of Logical Circuits
5. Miroslav **Jaagoš**: Identifier of the Optical Mouse Location

## VIII. PUBLICATIONS

**AFC007 L ČECHOVIČ., Š BOCKO.: Applicability of 32-bit microcontrollers in control**

In: Process control 2008: the 8th International scientific - technical conference : June 9-12, 2008, Kouty nad Desnou : proceedings. - Pardubice: University of Pardubice, 2008. - ISBN 978-80-7395-077-4. –  
p. C164a-1 - C164a-5.

**AFC053 B. DOBRUCKY, M. ALEXIK, R. HOLCEK: Modelling and simulation of human operator dynamics by human/vehicle interaction using neural network.**

In: Artificial intelligence & soft computing : Proceedings of the Twelfth IASTED International Conference : September 1-3, 2008, Palma de Mallorca, Spain. - Anaheim: ACTA Press, 2008. ISBN 978-0-88986-756-7.

**AFC060 M. ALEXÍK: Real time simulation experiments use on verification of self tuning control algorithm**

In: MOSIS '08 = Modelling and Simulation of Systems : proceedings of the conference : April 22-24, 2008 Hradec nad Moravicí., Czech Republic. - Ostrava: MARQ, 2008. - ISBN 978-80-86840-40-6.  
p. 51-60

**AFC061 M. ALEXÍK :Real time simulation experiments with self tuning control algorithm**

In: EUROSIM 2007 Proceedings of the 6th EUROSIM Congress on Modelling and Simulation, Vol.2: Full papers : 9-13 September, 2007, Ljubljana, Slovenia. - Vienna: ARGESIM - ARGE Simulation News, 2007. - ISBN 978-3-901608-32-2. - 8 p.

**AFC068 M. ALEXÍK: Simulation experiments use on verification of self tuning PSD algorithm**

In: International scientific - technical conference : June 9-12, 2008, Kouty nad Desnou : proceedings. - Pardubice: University of Pardubice, CZ. - ISBN 978-80-7395-077-4. - p. C163 - 1 - C163 - 16.

**AFC069 M. ALEXÍK: Simulation experiments with self tuning PSD control algorithm.**

In: Computer Modeling and Simulation, 2008. UKSIM 2008: Tenth International Conference : 1-3 April 2008, Cambridge, UK. - [Cambridge]: IEEE Computer Society, 2008. - ISBN 0-7695-3114-8. - p. 34-39.

**AFC080 Š. BOCKO Use of operating system extensions for real-time control and simulations**

. In: MOSIS '08 = Modelling and Simulation of Systems : proceedings of the conference : April 22-24, 2008 Hradec nad Moravicí., Czech Republic. - Ostrava: MARQ, 2008. – ISBN 978-80-86840-40-6.  
p. 128-133.

**AFC081 M. ALEXÍK :Verification of learning strategies for servomechanism time suboptimal control**

In: Artificial intelligence & soft computing: Proceedings of the Twelfth IASTED International Conference : September 1-3, 2008, Palma de Mallorca, Spain. - Anaheim: ACTA Press, 2008. - ISBN 978-0-88986-756-7. - p. 179-184

- AFC082 A JAROŠ: Verification of the extended RLS algorithm in MATLAB ..**  
In: Process control 2008: the 8th International scientific - technical conference : June 9-12, 2008, Kouty nad Desnou : proceedings. - Pardubice: University of Pardubice, 2008. - ISBN 978-80-7395-077-4. - p. C171a 1 - C171a -6.
- AFD002 M. ALEXÍK: Analogy is a model for intelligent systems**  
In: Proceedings of the international workshop 2008. - ISBN 978-80-8070-807-8. - p. 121-130.
- AFD023 ADAM JAROŠ: Implementation of adaptive extended RLS algorithm.**  
IN. Proceedings of the international workshop 2008. - ISBN 978-80-8070-807-8. - p. 79-84.
- AFD042 Š. BOCKO: Models of switching curve for time-optimal servomechanism.**  
In: Proceedings of the international workshop. - University of Žilina, 2008.  
ISBN 978-80-8070-807-8. - p. 59-64.
- AFD074 P. ŠEVČÍK: The state machine for the convolution computing in the FPGA.**  
In: Proceedings of the international workshop. - University of Žilina, 2008- ISBN 978-80-8070-807-8. p. 107-112.
- BDE002 J. MIČEK: .Communication between cars - the current situation and prospects /**  
In: Journal Sdělovací technika : telekomunikace-elektronika-multimédia. - ISSN 0036-9942.
- BDE003 JURAJ MIČEK: The communication system to improve the safety and efficiency of road transport.**  
In: Journal Automatizace ISSN 0005-125X.
- AFB001 M. ALEXÍK: Models of intelligent systems and energy formalism in the dynamics**  
In: EQUILIBRIA, 2007. - ISBN 978-80-8073-862-4. - p. 22-28.

## Department of Info Communication Networks

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Assoc.Prof.Ing. Tatiana Kováčiková, PhD.  
Ing. Ľudovít Mikuš  
Ing. Peter Palúch, PhD.  
Ing. Pavol Segeč, PhD.  
Mgr. Juraj Smieško, PhD.  
Ing. Ondrej Škvarek  
Mgr. Jana Uramová, PhD

**Researchers:** Ing. Mária Čerňanská

**PhD students** Ing. Juraj Boroň  
Ing Michal Bruncko  
Mgr. Jakub Daubner  
Ing. Martin Kardoš  
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## II. EQUIPMENT

### **II.1 Teaching and Research Laboratories.**

- B 03 Laboratory of Communication Technology
- B301 Laboratory of Networking
- B302 Laboratory of Applications Development
- B303 Cisco Networking Academy Laboratory

### III. PhD.-Programme

Theme	Student	Supervisor
1. Selected issues of speech synthesis	J. Boroň	M. Klimo
2. Methodology of test specification design for functionality of IMS kernel	M. Bruncko	T. Kováčiková
3. QoS Guarantee Mechanisms Modelling by Effective Bandwidth	J. Daubner	M. Klimo
4. CIM to PIN Transformation in Model Driven Architecture	M. Kardoš	M. Drozdová
5. Configuration of QoS Mechanisms for Multimedia Networks	D. Nemček	M. Klimo
6. E-learning object design and evaluation for content creation	K. Pilátová	M. Drozdová

### RESEARCH AND EDUCATION PROJECTS

- *Error model for High-Speed Digital Networks*, 1/4061/07, VEGA, IVANIGA PETR, Ing.,PhD.
- *Digital Library of e-learning metadata objects and its management*, 3/5205/07, KEGA, DROZDOVÁ MATILDA, Assoc.Prof.Ing.PhD
- *.Voice Output for www*, 001ŽU-3/2008 KLIMO MARTIN, Prof.Ing., PhD.
- *ESF TOPeL Design of Contents for e-Learning* SOP LZ 2005/3-154 Code11230100314, DROZDOVÁ MATILDA, Assoc.Prof.Ing.PhD
- *Controlled Outplacement ROUT* 11230100047, DROZDOVÁ MATILDA, Assoc.Prof.Ing.PhD
- *Customer in the Loop (Using Networked Devices enabled Intelligence for Proactive Customers Integration as Drivers of the Integrated Enterprise)* STF LoE S36/02, KOVÁČIKOVÁ TATIANA Assoc.Prof.Ing. PhD
- *ETSI STF 331 on ICT GRID Technologies Interoperability and Standardization* STF LoE 331/05, 331/10, KOVÁČIKOVÁ TATIANA Assoc.Prof.Ing. PhD
- *ETSI STF 342 on Personalization and User Profile Management Standardization (i2010 - e-Inclusion)* STF LoE 342/05, KOVÁČIKOVÁ TATIANA Assoc.Prof.Ing. PhD.
- *ETSI STF 311: (ETSI/OCGECN&S) on The consequences on the standardization activities on NGN from the EU ECN&S regulatory view point* STF 311, KOVÁČIKOVÁ TATIANA Assoc.Prof.Ing. PhD.
- *Modelling of IP Working* 0120070640, KLIMO MARTIN, Prof.Ing., PhD.
- *CISCO Training in Frame of Accreditation Activity of the FMSI* O-06-105/0002-02, SEGEČ PAVOL, Ing., PhD.



- *e-Courses*  
O-06-105/0007-00, MIKUŠ EUDOVÍT, Ing., PhD.
- *Multimedia Course*  
P-105-0004/06, MIKUŠ EUDOVÍT, Ing., PhD.
- *ECDL*  
O-07-105/0001-00, MIKUŠ EUDOVÍT, Ing., PhD.

## **V. COOPERATION**

### **V.1 Cooperation with Institutes and Enterprises in Slovakia**

- Cisco Slovakia
- Siemens Programs and Systems Engineering
- Slovak Telecom

### **V.2 Cooperation with Foreign Institutes and Enterprises**

- INT Evry, FRANCE
- ENST Paris, FRANCE
- University of Technology Dresden, GERMANY
- University of Poitiers, FRANCE
- ETSI Sophia Antipolis, FRANCE
- Université de Nice – Sophia Antipolis, FRANCE

### **V.4 Membership in International Organizations and Societies**

Martin **Klím** – IEEE, ACM, ETSI STQ

Tatiana **Kováčiková** – ETSI TISPAN, EC – FP7 IST projects reviewer

## **VI. MASTERS THESIS (D) and BACHELORS THESIS (B)**

<b>No.</b>	<b>C.</b>	<b>Theme</b>	<b>Student</b>	<b>Supervisor</b>
1.	D	Using of “Re-Usable Learning Object Principles” by the E-Study material Design	P. Porubän	M. Drozdová
2.	B	GMP-Tips and Tricks - Multimedia User Guide	A. Bardinka	Ľ. Mikuš
3.	B	CISCO Network Topology simulator with Web Interface - BECKEND Component	D. Kopera	P. Palúch
4.	B	Paint.Net - Multimedia User Guide	E. Baradlai	Ľ. Mikuš
5.	B	Inscape - Multimedia Guide	I. Jambrichová	Ľ. Mikuš
6.	B	E-Learning Guide for Advanced Problems Solving in EXCEL	J. Jekkel	J. Uramová
7.	B	Abstract CMS for Web Application Development	J. Vodička	M. Vrábek
8.	D	Create WBT Multimedia Course „Computer Configuration Networks“	J: Škarba	P. Ivaniga
9.	B	Internet Online Strategic Game	J. Bartančok	M. Drozdová
10.	B	E-Learning: Markovov Models of Telecommunication Systems	J. Šamík	J. Smieško

No.	C.	Theme	Student	Supervisor
11.	D	Simulation Model of Metro Ethernet Network	J. Jančo	J. Uramová
12.	D	Create WBT Multimedia Course „Routing in IP Nets”	J. Hornák	P. Ivaniga
13.	B	Strengths and Weaknesses of the Simulation Tool OMNeT++	L. Kejmar	J. Uramová
14.	B	E-Study M- $\rightarrow$ V Random Processes in IP Networks	M. Šubjak	J. Uramová
15.	B	Spanning Tree Protocol	M. Kunštár	P. Segeč
16.	D	Performance Methodology of SIP VoIP Server Testing	M. Turčín	P. Segeč
17.	D.	Design and Implementation of MEGACO Driver for VoIP Networks	M. Sága	P. Palúch
18.	B	E-Learning: Network Calculus	M. Frnka	J. Smieško
19.	D	Internet Online Strategic Game	M. Plica	M. Drozdová
20.	D	Animation with SVG	M. Sagan	Ľ. Mikuš
21.	B	IPSec in Practical Applications	L. Kukuča	P. Palúch
22.	B	Sound Recording Volume Contour Elimination	M. Hyben	M. Čerňanská
23.	B	Computer Networks Security and Attack Detection	M. Surman	P. Segeč
24.	B	Wireless LAN 902.11 - WBI Course	M. Šanko	P. Ivaniga
25.	B	Software for Evidence of Illnesses and Used Pills	M. Ďaďo	K. Bachratá
26.	B	Sound Recording Tempo Variability Elimination	M. Turčaník	M.Čerňanská
27.	B	Joomla! Based Web Portal of the Department of Information Networks	M.Michniak	P. Segeč
28.	D	Selected Book Voice Record Processing to Implement Text-to-Speech Synthesis	M. Štefánik	M. Čerňanská
29.	B	NISTnet Learning Guide	M. Gábriš	J. Uramová
30.	B	E-Beam - Multimedia User Guide	M. Harezník	Ľ. Mikuš
31.	D	IP Multimedia Subsystem (IMS) Interoperability with VoIP SIP Solutions	M. Jašica	P. Segeč
32.	D	Lemmatisation of Slovak Language	M. Maršala	V. Jandák
33.	B	System for Archivation of Cisco Net Acad Certification	M. Galis	P. Palúch
34.	B	Impact of Packet Delay and Loss for Different Traffic Types	M. Kobida	J. Uramová
35.	B	Wink - Multimedia User Guide	M. Janoťák	Ľ. Mikuš
36.	B	Comparison of Usage of PHP and Python in E-Commerce Application	M. Čiernik	M. Vrábel
37.	B	E-Business System fore the M- $\wedge$ SovaM- $\wedge$ T Book-Shop and its Premises	M. Miko	M. Drozdová
38.	B	Application of NIST Net Emulation Tool	M. Januška	J. Uramov8
39.	B	Synfig Studio - Multimedia User Guide	M.Gancarčík	Ľ. Mikuš
40.	B	Interactive E-Study for the Subject Communication Technologies	N. Kováčová	J. Uramová
41.	D	Speech Decomposition into Optimal Base	O. Medvěš	K. Bachratá
42.	D	System of Management of Requests for Cisco NetAcad Certifications	P. Šulavík	P. Palúch
43.	B	LDAP Server Administration	P. Václavík	M. Bruncko
44.	B	Hardware PC - Animation 2	P. Dírer	Ľ. Mikuš

No.	C.	Theme	Student	Supervisor
45.	B	Audacity - Multimedia Guide	P. Sýkora	Ľ. Mikuš
46.	B	Intelligent Template System for Web Content Generation	P. Daniška	M. Vrábek
47.	B	Musical Instrument (Guitar) Tuning Using Personal Computer	P. Hanzel	O. Škvarek
48.	B	QoS Architectures for Advanced Problems Solving in EXCEL	P. Považanec	J. Uramová
49.	B	Sound Recordings Melody Contour Elimination	P. Pacalaj	M. Čerňanská
50.	B	GIMP - Multimedia Guide	R. Szabo	Ľ. Mikuš
51.	B	Automated Splitting of Speech Recordings into Individual Sentences	S. Šmelko	M. Čerňanská
52.	D	Alarm Correlation in UMLA Framework	T. Dobrotka	J. Bellan
53.	D	TTS Client Software	T. Šulhin	M. Klimo
54.	B	Blender - Multimedia User Guide	T. Stoličný	Ľ. Mikuš
55.	B	Adobe Photoshop - Multimedia User Guide	T. Staško	Ľ. Mikuš
56.	B	Adobe Photoshop - Tips and Tricks Multimedia User Guide	T. Mišeje	Ľ. Mikuš
57.	B	Wireless metropolitan Area Networks IEEE802.16	V. Šalgo	P. Ivaniga
58.	B	Software Application for Slovak Computers Company E-Shop	V. Isteník	M. Drozdová
59.	D	Error Performance Measurements of GigE	Ľ. Stručka	P. Ivaniga
60.	D	LaTeX formula's reading in Text-to-speech system	A. Novák	K. Bachratá

**Dean's award** for outstanding **Bachelors thesis** was conferred to:

Miloš Čiernik: *Comparison of Usage of PHP and Python in E-Commerce Application*

## **VIII. PUBLICATIONS**

**ADE012** M.DROZDOVÁ: **New business model of educational institutions**

In: Economics and management, Academic economics magazine – ISSN 1212-3609. – Vol. 11, No. 1 (2008), p. 60-67.

**AFD026** Z. BIZOŇOVÁ, K. PILÁTOVÁ, M. DROZDOVÁ: **IMS learning design - individual approach to e-learning for each student /.**

In: e-Learn 2008 :Proceedings: University of Žilina - ISBN 978-80-8070-838-2. - p. 177-182.

**AFD077** M. DROZDOVÁ, K. PILÁTOVÁ: **Creating content for e-learning**

In: e-Learn 2008 :Proceedings: University of Žilina - ISBN 978-80-8070-838-2. - p. 149-154.

**BDF028** Ľ.MIKUŠ, P. IVANIGA: **Education through the LMS and LCMS**

In: World of Communication ISSN 1336-2380. - 15.01.2008, p. 2

**AAB003** P. IVANIGA: **The evaluation of errors in high speed digital networks**

1<sup>st</sup> edition, University of Žilina , pp. 87, - ISBN 978-80-8070-771-2

**ADF011 M. DROZDOVÁ, Ľ. MIKUŠ: Electronic content for modern education**

In: IT lib : Information Technology and Librari- ISSN 1336-0779. -Vol. 11, No. 3, p. 5

**ADF021 M.VRÁBEL P. PALÚCH, M. KLIMO, O.ŠKVAREK: IP phone testing**

In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Volume 5, No. 2/2 (2007), p. 403-409

**ADF030 P. IVANIGA, Ľ. MIKUŠ: Performance measurements of gigabit ethernet /.**

In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Volume 5, No. 2/1, p. 195-200

**AEC002 M. KLIMO, I. MIHÁLIK: Extending annotational SSML into structural content for speech synthesizer**

In: Scientific Papers of the University of Pardubice : 12 Series B - The Jan Perner Transport Faculty - ISBN 978-80-7194-985-5. - p. 193-199

**AEC005 R. KALOČ, M. KLIMO: Methods for proposal of QoS parameters in data networks**

In: Scientific Papers of the University of Pardubice : 12 Series B - The Jan Perner Transport Faculty ISBN 978-80-7194-985-5. - p. 163-174

**AEC006 M. KLIMO, J. URAMOVÁ: Modelling of transport process by unary code**

In: Scientific Papers of the University of Pardubice : 12 Series B - The Jan Perner Transport Faculty -ISBN 978-80-7194-985-5. - p. 181-192.

**AEC007 K. BACHRATÁ, J. BOROŇ, B.ROSIVAL: New methods proposal for VoIP transmission**

In: Scientific Papers of the University of Pardubice : 12 Series B - The Jan Perner Transport Faculty. - ISBN 978-80-7194-985-5. - p. 201-210

**AED003 M. KLIMO :Voice communication networks in the future generations**

In: Journal Science 2006: Proceedings of Scientific Contributions, University of Žilina, Faculty of Management Science and Informatics, ISBN 978-80-8070-663-0. - p. 106-110

**AED004 J. SMIEŠKO: Markov models control speech packets in the IP telephony**

In: Journal Science 2006: Proceedings of Scientific Contributions, University of Žilina, Faculty of Management Science and Informatics, ISBN 978-80-8070-663-0. - p. 111-117

**AFC033 P. POČTA, P. KORTIŠ, P. PALÚCH, M.VACULÍK: Impact of the background traffic on speech quality in VoIP**

In: Measurement of speech, audio and video quality in networks : international conference and on-line workshop, Prague, 2007 : proceedings. - Praha: CVUT, 2007. - ISBN 978-80-01-03734-8. - p. 45-52.

**AFC035 T. KOVACIKOVA: Incorporation of the Universal Communications Identifier (UCI) to NGN**

In: ICSNC 2007: Third International Conference on Services and Network Communications : Cap Esterel, France, 25-31 August 2007. - Los Alamitos: IEEE Computer Society, 2007. - ISBN 0-7695-2938-0. - p.8

**AFC038 J. URAMOVÁ, M. KLIMO, K. BACHRATÁ: Information model of network throughput with the application of unary code**

In: NEMICS 2007 : Third Doctoral Workshop on Mathematical and Engineering Methods in Computer Science : Znojmo, Czech Republic, October 26-28, 2007 : proceedings.  
ISBN 978-80-7355-077-6. - p. 241-248.

**AFC040 Z. BIZOŇOVÁ, D. RANC: Integration of Learning Management System using MDA.**

In: Technology for e-learning 2007 :Proceedings, - Prague: ČVUT. - ISBN 978-80-01-03756-0. – p. 55-59

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## Department of Transportation Networks

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Ing. Ľuboš Buzna, PhD.  
Prof.Ing. Petr Cenek, PhD.  
Assoc.Prof.Ing. Peter Fabián, PhD.  
Prof.RNDr. Jaroslav Janáček, PhD.  
Ing. Peter Jankovič  
Assoc.Prof.Ing Ľudmila Jánošíková, PhD.  
Assoc.Prof. Mgr.Valent Klima, PhD.  
Ing. Michal Lekýr, PhD.  
Ing. Peter Márton, PhD.  
Ing. Peter Matis, PhD  
RNDr. Alžbeta Szendreyová, PhD.  
Ing. Michal Žarnay, PhD  
Ing. Michal Koháni, PhD.

**PhD students** Ing. Miroslav Holúbek  
Ing. Peter Kostúr  
Ing. Peter Tarábek

**Administrative Department:** Elena Rohrböcková

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### II. EQUIPMENT

- Laboratory of GIS
- Laboratory of Discrete Simulation Methods
- Laboratory of Multimedia Information Systems

### III. PhD. - Programme

Theme	Student	Supervisor
Simulation of Manipulation and Transportation Processes in Logistic Chains	Miroslav Holúbek	Valent Klima
Microscopic Modelling of Mobile Objects Behaviour	Peter Kostúr	Valent Klima
Recognition and Processing of Graphical Information on Transport Infrastructure	Peter Tarábek	Petr Cenek

## **RESEARCH PROJECTS**

### ***State and International Grant Projects:***

KLIMA, V.: *Agent Oriented Architecture of Simulation Models of Service Systems* VEGA-07-026-00

JANÁČEK, J.: *Decision supporting tools ...* VEGA –06-088-00

JANÁČEK, J.: *Design Methods for Optimal Structure of Public Service Systems* T-07-010-00 MVTŠ

JANÁČEK, J.: *6RP project* Z-06-105/004-08

ADAMKO, N.: *Using Simulation Techniques in Optimisation of Transport Processes in Industrial Plants.* T-07-006-00 MVTŠ

MÁRTON, P.: *Optimal Scheme for Cargo Trains Sorting* T-05-004-00

KLIMA, V.: *Simulation Models of Terminals of Multimode Transport* T-07-009-00 MVTŠ

FABIÁN, P.: *Socrates-Minerva Projects* Z-06-105/0002-05 and Z-06-105/0003-05

FABIÁN, P.: *LEONARDO Project* Z-05-105/0008-08 5RP

FABIÁN, P.: *TEMPUS CD project* Z-07-105/0002-02

## **COOPERATION**

### **V.1 Cooperation with Institutions and Enterprises in Slovakia**

Slovak Telecom

Technical University Košice

Slovak Technical University Bratislava

University of Matej Bel, Banská Bystrica

ŽSR, Bratislava (Slovak Railway)

Volkswagen Bratislava

VUD -Research Institute in Transport, Žilina

Slovak Environmental Agency, Banská Bystrica

Slovak Association for Geographical Information, Bratislava

Slovenska Posta, a.s. (Slovak Posts and Telecommunications)

CORAGEO, s.r.o.

### **V.2 Cooperation with Foreign Institutions and Enterprises**

SibSUTIS Novosibirsk, Russian Federation

SPbSUT Sankt Peterburg, Russian Federation

ENIC Lille, France

UPV Valencia, Spain

HfT Leipzig, Germany

Telecom Bretagne, France

GISIG, Genova, Italy

Universita Pardubice, Czech Republic

VSB-TU Ostrava, Czech Republic

TDJ Research Centre, Harbin, People's Republic of China

University of Tennessee, Knoxville, U.S.A.

Florida International University, dpt. of Logistics

BASF Ludwigshaffen, Germany

TU Dresden, Germany,

#### **V.2.1 Foreign Visitors to the Department**

- **Prof. Schnieder**, TU Braunschweig, 10.9.2008, Seminary on Petri Nets, lecturer

## V.2.2 Visits of Staff Members to the Foreign Institutions

- ŽARNAY, M.: research mobility ,March 3. – July 31. University of Braunschweig, Institute for Transport Safety and Automation
- FABIÁN,P.: PROJECTS seminars:
  - Riga, Latvia, 18.6.-22.6.2008 project COMENIUS ECOMEDIA
  - Lisbon, Portugal, 8.5.-10.5.2008, project Star Net
  - Cologne, Germany, 26.10.-29.10.2008, project Star Net
  - Bruxelles, Belgium, 5.2.-8.2.2008, NCP Meeting, 7.RP
  - Genova, Italy, project EU ETNA, 6.11.-8.11.2008
  - Madrid, Spain, project EURO-TRANS DAYS, 7.3.-10.3.2008
- MÁRTON,P., JANKOVIČ,P...: 29.2.-11.3.2008, TDJ Research Center, Harbin, People's Republic of China
- JANÁČEK,J., KOHÁNI,M.: 11.4.-19.4.2008 Molde University, Norway

## V.3 Membership in Slovak Organizations and Societies

### Prof. RNDr. Jaroslav JANÁČEK, PhD:

- Member of SOK for PhD study in „Transport and Communication Technologies“.
- Member of SOK for PhD study in „Applied Mathematics“
- Member of OK for PhD study in „Control of Transportation Systems“.
- Member of committee SSOV (Slovak Society for Operations Research
- Member of Board for Doctoral Study for Transport technique and technology, VSB-TU Ostrava
- Member of Scientific Board of Zilina University

### Assoc.Prof. Ing. Ľudmila JÁNOŠÍKOVÁ, PhD.

- Member of SAGI ( Slovak Association for Geoinformatics)
- Member of Editorial Board, Journal of Information, Management and Control Systems, FRI, University of Zilina
- 

### Assoc. Prof. Ing. Peter FABIÁN, CSc

- Member of Scientific Board of FPV, University of Zilina
- Member of Board of Advisors, Virtual University Conference, STU Bratislava

## V.5 Membership in International Organizations and Societies

- JANÁČEK, J.: Reviewer of Zentralblatt für Mathematik
- FABIÁN, P : Member of Executive Committee of GISIG (Geographic Info Systems International Group)
- CENEK, P.: Member of the Transportation Research Board, by National Research Council, USA, Washington (representative of the University of Žilina)
- CENEK, P.: Alliance of Universities for Democracy (AUDEM)
- MATIS, P.: Member of People to People organization
- JÁNOŠÍKOVÁ, Ľ.: Member of Scientific Board, FEI, University of Pardubice

ADAMKO,N.: Member of European Simulation Society

MÁRTON,P.: Member of International Association of Railway Operations Research

KOSTÚR, P.: Coach of International Collegiate Programming Contest



**VI. MASTERS THESES (D) and BACHELORS WORKS (B)**

No.	C.	Theme	Student	Supervisor
1.	D	Generator of Examples fro Statistic Teaching Course	V.Falát	J. Slavík
2.	D	Algorithmic Approach to Plane Detection in Large Set	E. Schwarz	J. Janáček
3.	D	Simulation of Road Traffic	S. Belan	P. Cenek
4.	B	Simulation of Chosen Service System in Arena Tool	A. Škodová	P. Márton
5.	D	Application for Searching of Connections in Timetables	D. Malárik	M. Koháni
6.	D	System for the Photogallery Administration	J. Škriputa	M. Lekýr
7.	D	Development of Recourses Schedules	J. Macák	P. Márton
8.	B	Processing of Audio Component in the Multimedia Systems	J. Pacek	P. Fabián
9.	D	Simulation Model of Emergency Medical Service	J. Ondřík	Ľ.Jánošiková
10.	B	Processing of the Animation Component in the Multimedia	K. Lašáková	P. Fabián
11.	D	Deadlock Avoidance in AGV System	L. Jančík	M. Žarnay
12.	D	Using of the Approximation Method for Solving Fixed Charge Transportation	L. Martinka	P. Lošonský
13.	B	Simulation of Chosen Service System in Arena Tool	L.Važanová	P. Márton
14.	B	Website of CAN-FRI Programming Contest	M. Šajna	P. Košťúr
15.	D	Fixed Charge Transportation Problem	M. Dura	P. Lošonský
16.	D	Genetic Algorithm for Solving of the « Many-to-Many » Distribution Design Systems	M. Dacho	M. Koháni
17.	D	Using Tabu Search Metaheuristics for the Multicommodity Distribution Systems	M. Kukuča	M. Koháni
18.	B	Web-Application for the Optics Industry	M. Privitzer	M. Lekýr
19.	D	Tutorial of the Britney Suite	M.Moravec	M. Žarnay
20.	D	Model and Simulation of a Production System	P.Martiniak	P. Cenek
21.	B	Webpage - Chat	P. Haluš	M. Lekýr
22.	D	Comparison of Simulation Approaches	P. Smolka	M. Žarnay
23.	B	Design of Application for Input Data Collection	P.Matejíčka	P. Márton
24.	B	Design of Application for Input Data Collection of Railway	P. Kadaši	P, Márton
25.	D	Using Simulated Annealing for the Multi-Commodity Distribution Systems	P. Silacký	M. Koháni
26.	B	Computer Simulation of Chosen Service System	R. Kleman	P. Jankovič
27.	D	Tools for Graphical Support of Personal Timetable Planner	R. Dusík	M. Koháni
28.	B	Computer Simulation of Chosen Service System	T. So.lík	P. Jankovič
29.	B	E-Commerce with the Web Interface Support	V. Spevák	M. Lekýr
30.	D	Verifying Throughput of the Rail Line by Means of Computer	V. Mravec	M. Žarnay
31.	D	Improving of the Tabu Search Method for Solving Fixed Charge Transshipment Task	Ľ. Mikula	P. Lošonský
32.	D	3D objects animation support for simulation of service systems	M. Štetina	N. Adamko
33.	D	Monitoring and Evaluation of Costs and Incomes in Passenger Transports	P. Cibul'a	M. Pištek
34.	D	Structure design and implementation of the ABAKernel simulation support	J. Papco	M. Lekýr

**Dean's award** for outstanding **Masters thesis** and **Bachelors thesis** was conferred to:

1. Marek **Šajna**: Website of CAN-FRI Programming Contest B
2. Pavol **Martiniak**: Model and Simulation of a Production System D

## OTHER ACTIVITIES

- **Cenek,P., Klima,V., Janáček,J., Slavík,J.:** Members of Scientific Board of FRI, ZU
- **Kostúr,P., Tarábek,P.:** organization of CTU Open Contest and FRI ACM Contest 2008 in programming
- **Žarnay,M.:** Organization of Seminary on Petri nets, 10.9.2008
- **Cenek,P., Márton,P., Fabián,P.:** members of Program and Organization Committees of EURNEX-ŽEL 2008 International Conference in Zilina, Jún 4.-5.,2008
- **Márton,P.:** member of Program Committee of International Conference: Eisenbahn betrieb: Chancen und Herausforderungen fuer Wissenschaft und Praxis, Dresden University, Germany, and of 6-th Conference of European Students of Traffic and Transportation Science, May 2008, Zilina
- **Fabián,P.:** Member of Organization Committee of Workshop of Project Socrates/Minerva BlendXL
- **Janáček, J.:** Member of Organization Committees of conferences Problems of Discrete Optimization in Transport, Hrubá Skala-Pardubice, 9. –13. 5. 2008 and 13. –14. 11. 2008

## PUBLICATIONS

**ADC003** I. SIMONSEN, L. BUZNA, K. PETERS, S. BORNHOLDT, D. HELBING: **Transient dynamics increasing network vulnerability to cascading failures ...** [et al.].

In: Physical review letters. - ISSN 0031-9007. - Vol. 100, no. 21 (2008), p. 218701-12187014.

**ADE002** J. JANÁČEK: **Approximate covering models of location problems**

In: Lecture Notes in Management Science. - ISSN 2008-0050. - Vol. 1, September 2008, pp. 53-61.

**ADE003** P. MATIS: **Decision support system for solving the street routing problem**

In: Transport : Journal Vilnius Gediminas Technical University and Lithuanian Academy of Sciences. - ISSN 1648-4142. - Vol. 23, No. 3 (2008), p. 230-235.

**ADE006** P. MARTON: **Cargo shipments in the carriages - the current situation in Europe.**

In: EI - Der Eisenbahningenieur : Internationale Fachzeitschrift für Schienenverkehr & Technik. - ISSN 0013-2810. -Vol. 59, August (2008),pp. 43-47.

**ADE008** P. MATIS: **Heuristics and support for the solution of street routing problem**

In: Lecture Notes in Management Science. - ISSN 2008-0050. - Vol. 1, September 2008, pp. 32-40.

**ADF006** J. JANACEK – E. JÁNOŠIKOVÁ: **Computability of the emergency service system design problem**

In: Communications : Scientific Letters of the University of Žilina. - ISSN 1335-4205. - Vol. 10, No. 2 (2008), pp. 5-9.

**ADF027** J. JANACEK: **Designing service systems with limited demand distance**

In: Transport & logistics: International journal. - ISSN 1451-107X. - p.4

**ADF037 J. SLAVÍK: Road accidents investigation model**

In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 5, No. 2/2, p. 337-344.

**ADF046 N. ADAMKO – P. MARTON: Villon - a tool for simulation of operation of transportation terminals**

In: Communications : Scientific Letters of the University of Žilina. - ISSN 1335-4205. - Vol. 10, No. 2 (2008), p. 10-14.

**AEC001 J. JANACEK: Allocation and roofer draft models of public service system**

In: Proceedings, University of Pardubice, 2008 - ISBN 978-80-7395-076-7. - p. 13-25.

**AEC008 M.KOHÁNI: Optimization of the distribution system "from many to many"/.**

In: Proceedings, University of Pardubice, 2008- ISBN 978-80-7395-076-7. - p. 39-49.

**AEC011 Ľ. JÁNOŠIKOVÁ: More criteria location roles in Public health**

In: Proceedings, University of Pardubice, 2008- ISBN 978-80-7395-076-7. - p. 26-37.

**AFA001 P. CENEK, P.MÁRTON: Rationalization scale infrastructure of railway stations..**

In: Information Systems 2008 : 9-11 April, Algarve, Portugal : proceedings of IADIS International Conference. - IADIS Press, 2008. - ISBN 978-972-8924-57-7. - p. 175-184

**AFC012 P. FABIAN, W. VEEN, A. MUEHREN: Blended learning with extra large student groups**

In: "Strategies, media and technologies in European education systems" : International conference : [Riga, Latvia, June 18-21, 2008] : Proceedings. Part 1. - Riga: 2008. – ISBN 978-9984-18-078-6. - p. 22-28.

**AFC044 E.R. CADOTTE, M. FAKTOR, P. MATIS: Learning assurance from business simulation /**

In: Proceedings - Minsk: Paradoks, 2008. - ISBN 978-985-451-206-8. - p. 150-155.

**AFC056 P. CENEK: Object-oriented model of a transportation system**

In: New aspects of computers : Proceedings of 12th WSEAS International Conference on COMPUTERS : Heraklion, Greece, July 23-25, 2008. Part: III. - 2008. - ISBN 978-860-6766-85-5. - p. 1060-1065.

**AFC059 P. FABIAN S. SCHROEDER, E. SJOER, E. MCQUADE, J.-C. NASCIMENTO: Preserving the expert's knowledge for the new learners' generation: a web-based Knowledge Map**

In: "Strategies, media and technologies in European education systems" : International conference : [Riga, Latvia, June 18-21, 2008] : proceedings. Part 1. - Riga: 2008. – ISBN 978-9984-18-078-6. - p. 15-21.

**AFC065 P. JANKOVIČ, V. KLIMA: Robust plans of processes in the railway transport .**

In: The present and future of modern transport: May 12-13, 2008, Prague, Czech Republic : proceedings of the conference. - Prague: Czech Technical University, 2008. ISBN 978-80-01-04056-0. - p. 87-90.

**AFD007 J. JANÁČEK: Approximate covering models for emergency system design**

In: Quantitative Methods in Economics (Multiple Criteria Decision Making XIV) : Proceedings of the International Scientific Conference: June 5 - 7, 2008 High Tatras, Slovakia. - Bratislava: Iura Edition, 2008. - ISBN 978-80-8078-217-7. - p. 109-115.

**AFD013 P. FABIAN, W. VEEN, A. MUEHREN: Experience gained from the EU Socrates/Minerva project "Finding a balance in blended learning with extra large student groups"**

In: e-Learn 2008 : Proceedings – University of Žilina - ISBN 978-80-8070-838-2. - p. 1701-176.

**AFD021 M. KOHÁNI: Heuristic methods for "many-to-many" distribution system design problem**

In: Quantitative Methods in Economics (Multiple Criteria Decision Making XIV) : Proceedings of the International Scientific Conference: June 5 - 7, 2008 High Tatras, Slovakia. - Bratislava: Iura Edition, 2008. - ISBN 978-80-8078-217-7. - p. 134-140.

**AFD025 M. KOHÁNI: Improving of the upper bound for "many-to-many" distribution system design**

In: Mathematical methods in economics and industry : 15th international scientific conference, June 3-7, 2007, Herľany, Slovakia : proceedings. - Košice: TypoPress, 2007]. – ISBN 978-80-89089-57-4. - p. 114-119.

**AFD061 P. LOŠONSKÝ Sensitivity of results to structural parameters for FCNFP problem**

In: Quantitative Methods in Economics (Multiple Criteria Decision Making XIV) : Proceedings of the International Scientific Conference: June 5 - 7, 2008 High Tatras, Slovakia. - Bratislava: Iura Edition, 2008. - ISBN 978-80-8078-217-7. - p. 162-169.

**AFD062 P. MÁRTON: Simulation support of railway station infrastructure design.**

In: 6th Conference of European Students of Traffic and Transportation Sciences : "Transport modal split as economic indicator" : International scientific conference, June, 11th - 14th 2008 Žilina, Slovakia. - Žilina University, 2008. - ISBN 978-80-8070-869-6. - p. 68-74.

**AFD064 M. JANÁČKOVÁ, A. SZENDREYOVÁ: Specific properties of location.**

In: Quantitative Methods in Economics (Multiple Criteria Decision Making XIV) : Proceedings of the International Scientific Conference: June 5 - 7, 2008 High Tatras, Slovakia. 105-107. - Bratislava: Iura Edition, 2008. - ISBN 978-80-8078-217-7. - . 105-107.

**AFD073 Ľ. JÁNOŠIKOVÁ: The minimal network of hospitals as a bicriterion location problem**

In: Quantitative Methods in Economics (Multiple Criteria Decision Making XIV) : Proceedings of the International Scientific Conference: June 5 - 7, 2008 High Tatras, Slovakia. - Bratislava: Iura Edition, 2008. - ISBN 978-80-8078-217-7. - p. 116-123.

**AFC055 J. RIKO P. MÁRTON, J. MAUE, M. NUNKESSER: Multistage methods for freight train classification**

In: ATMOS 2007, 7th Workshop on Algorithmic methods and models for optimisation of railways : November 15-16, 2007, Sevilla, Spain

**AFD041 Ľ. JÁNOŠIKOVÁ: Modelling and Simulation of emergency medical services**

In: MOSMIC'2007 - Modelling and simulation in management, informatics and control : Žilina, October 15-16, 2007 : proceedings of the international workshop. – University of Žilina, 2008. ISBN 978-80-8070-807-8. - p. 35-42.

**BDF021 P. MÁRTON The current state of the organization of transport of individual cars in Germany.**

In: Journal Železničná doprava a logistika - ISSN 1336-7943. –Vol.. 3, No. 3 p. 11-14.

## ***Department of Management Theories***

**Head of Department:** Assoc. Prof. Ing. Jozef Strišš, PhD.

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**Teaching Staff:** Assoc. Prof. Ing. Martina Blašková, PhD.  
RNDr. Mária Brezániová, PhD.  
Ing. Jana Dicová, PhD.  
Ing. Jozef Gajdošík  
Prof. Ing. Štefan Hittmár, PhD.  
Ing. Radoslav Jankal, PhD.  
Assoc. Prof. Ing. Jaroslav Král, PhD.  
Ing. Milan Kubina, PhD.  
Mgr. Jakub Soviar, PhD.  
Assoc. Prof. Ing. Jozef Strišš, PhD.  
Assoc. Prof. Ing. Josef Vodák, PhD.

**Researchers:** Ing. Jana Magdolenová

### **PhD Students:**

Ing. Marián Hrubizna  
Ing. Monika Kormancová (from 10/2008)  
Ing. Viliam Lendel  
Ing. Radka Majerová  
Ing. Mgr. Zdenka Sidónia Natšínová (from 10/2008)  
Ing. Jaroslava Štaffenová  
Ing. Michal Varmus (from 10/2008)

**Administrative Department:** Oľga Doricová

Tel.:+421-41-513 44 51

## **II. EQUIPMENT**

Management laboratory

## **III. PhD.-Program**

- GAJDOŠÍK Jozef: *Innovation of CRM in the relation with the government development*
- HRUBIZNA Marián: *Strategic decision making in management*
- KORMANCOVÁ Monika: *The possibilities of utilise talent management in company as a performance management tool*
- LENDEL Viliam: *Customer relationship management in the company*
- MAJEROVÁ Radka: *Model of planning in management on the base of human resource effectiveness*

- MAGDOLENOVÁ Jana: *Decision making of management about the entry of the firm on the international market*
- NATŠINOVÁ Zdenka Sidónia: *Opportunities to utilize talent management as a tool to increase excellence of organizations*
- NEDELJAKOVÁ Iveta: *Algorithmization of selected processes of management*
- ŠTAFENOVÁ Jaroslava: *Organizational Models Of Learning Organization*
- VARMUS Michal: *New forms of marketing management in enterprise services*

#### **IV. RESEARCH PROJECTS**

##### **State Grant Projects – VEGA**

- BLAŠKOVÁ, M.: *Dynamical Model of Motivation of Human Potential*
- HITTMÁR, Š.: *Management in Communication Systems II.*
- STRIŠŠ, J.: *Modelling of Management and Marketing Communication in Sector of Services*

##### **State Grant Projects – KEGA**

- HITTMÁR, Š.: *Methods for Management Decision-Making Support*

##### **International Research - MVTS**

- STRIŠŠ, J.: *The up to date Trends of Marketing and Management in Theory and Practice*
- KUBINA, M.: *The forms proposal of marketing communication for supporting of installation of the new multimedia products in practice*

#### **V. COOPERATION**

##### **V.1 Cooperation with Institutes and Enterprises in Slovakia**

- The Railways of the Slovak Republic (ZSR)
- Slovak Rail (ZSSK)
- Slovak Rail CARGO
- Technical university Zvolen
- University of Matej Bell Banská Bystrica
- Tento, Žilina
- VW Slovakia, Bratislava.
- MASM, Žilina
- Würth Holding, Bratislava
- Luger&Maklér, Trenčín

##### **V.2 Cooperation with Foreign Institutes and Enterprises**

- University of Pardubice, CZECH REPUBLIC
- OSŹD Warsaw, POLAND
- L'Institut Supérieur Logistique Industrielle Groupe ESC Bordeaux, FRANCE
- INT-EVRY, FRANCE
- European Polytechnical Institute, LLC., Kunovice, CZECH REPUBLIC
- Politechnika Warszawa, POLAND
- Silesian University of Technology, Katowice, POLAND
- Elanor, CZECH REPUBLIC
- Hexpert, CZECH REPUBLIC
- University of Vienna, AUSTRIA
- Central Connecticut State University, New Britain, USA

- Faculty of Public Administration of Mykolas Romeris University, LITHUANIA
- Czestochowa University of Technology, POLAND
- Ecole Nationale des Techniciens de l'Equipement Valenciennes, FRANCE
- Politecnico di Milano, ITALY
- RWTH Aachen, GERMANY
- TU Delft, NETHERLANDS
- University of Limerick, IRELAND
- University of Minho, Guimaraes, PORTUGAL
- Bradford, West Yorkshire Innovative Technology Institutes, UNITED KINGDOM
- Aalborg University, DENMARK
- University of technology, Espoo, FINLAND
- Estonian Agricultural University, Tartu, ESTONIA
- Masaryk University Brno, CZECH REPUBLIC
- University of Ljubljana, SLOVENIA
- University of West Hungary, Székesfehérvár, HUNGARY

### V.2.1. Foreign Visitors to the Department

- Mr. Stanisław Borkowski, Mrs. Joanna Rosak - Czestochowa University of Technology, POLAND
- Mr. Milan Slavík - BOC Unternehmensberatung GmbH, Wien, AUSTRIA

### V.2.2. Visits of Staff Members to Foreign Institutions

- Mrs. Martina BLAŠKOVÁ - Mykolas Romeris University, LITHUANIA
- Ms. Jana DICOVÁ - European Polytechnical Institute, Kunovice, CZECH REPUBLIC
- Mr. Štefan HITTMÁR - Central Connecticut State University, New Britain, USA

## V.3 Membership in Slovak Organizations and Societies

Assoc. Prof. Ing. **Jozef STRIŠŠ**, PhD.

- Slovak Marketing Society
- Czech and Slovak Society of University Marketing Teachers

Prof. Ing. **Štefan HITTMÁR**, PhD.

- Slovak Economical Club at Economical University of Bratislava
- Slovak Association for System Integration
- The Management Trainers' Association
- Slovak Science-technical Society

Ing. **Jozef GAJDOŠÍK**

- Slovak Association for System Integration

Assoc. Prof. Ing. **Jaroslav KRÁL**, PhD.

- APICS Association for Operations Management (global organization for academics and professionals)
- EDEN European Distance and E-learning Network (EU network of academics and professionals)

Assoc. Prof. Ing. **Josef VODÁK**, PhD.

- The Management Trainers' Association.
- Slovak Marketing Society.
- Slovak Science-technical Association.



- Supply Chain Council

RNDr. **Mária BREZÁNIOVÁ**, PhD.

- Slovak Marketing Society.

## **VI. MASTERS THESIS (D) and BACHELORS THESIS (B)**

No.	C.	Theme	Student	Supervisor
1.	D	Possibilities for Using Programmes for Support of SME in View of Small Enterprise	P. Peniak	J. Magdolenová
2.	D	Possibilities how to Obtain New Market Via E--Communication	P. Cesnek	M. Kubina
3.	B	Decision-Making of Manager in Management of Enterprise	A. Milo	J. Dicová
4.	B	Marketing Plan of Business Organization	A. Kičura	J. Soviar
5.	B	Communication Plan of Service Establishment	A. Závodská	J. Strišš
6.	B	Relevance of Franchising and its Applications in the Slovak Republic	B. Nováková	R. Jankal
7.	D	Using Possibilities of Benchmarking Method in Management of Enterprise	B. Súkeník	J. Dicová
8.	D	Inventory Planning and Control in the Selected Logistic Segment by Approach	B. Stajník	J. Král
9.	D	marketing Activities Pentatech, Ltd.	B. Mojto	J. Strišš
10.	B	Projecting of Selected Managerial Functions in Enterprise	D. Hunčáková	J. Dicová
11.	D	Information Providing of Selected Processes of Firm	D. Likavčanová	Š. Hittmár
12.	B	Increasing of Efficiency of Motivation Approaches	D. Klačko	M. Blašková
13.	D	Examination of Call Centre and Suggestion of marketing Activities to Improve Activity	D. Ruman	J. Strišš
14.	D	Selected Problems of the Supply Chain Management in the Chosen Company	D. Kapusňák	M. Brezániová
15.	B	Marketing Research Implemented for Profit Organization	F. Kováč	V. Lendel
16.	B	Methods of for Products Quality Assurance	I. Tonhajzerová	R. Jankal
17.	B	Model Solution of Communication in management of Enterprise	J. Sičová	J. Dicová
18.	B	Motivation and Motivating of Employees and Managers in Enterprise	J. Chovancová	M. Blkašková
19.	D	Purchasing and Supply Management in Chosen Company	J. Mrázik	M. Brezániová
20.	D	Using of Individual Differences of Personality at Creation of Motivation enterprise	J. Slížová	M. Blašková
21.	D.	Rationalization of Selected Production Processes of Firm	J. Šišo	Š. Hittmár
22.	B	Possibilities E-Communication by Communication with Customers	J. Mrva	M. Kubina
23.	D	Marketing Activities of Museum in the Area of Marketing Communication	J. Herčko	J. Strišš
24.	B	Proposal of EU Funds Utilization for Satisfaction of Needs for Regional Area	J. Ševčík	J. Gajdošík

25.	D	Possibilities of Development Internet Shop in Slovakia at B2C Environment	J. Zubáň	J. Strišš
26.	B	Project of Integrated Communication in Region	J. Leško	J. Strišš
27.	B	Marketing Plan of Nonprofit Organization	K. Pekancová	J. Soviar
28.	B	Analysis of Purchasing and Suppliers of chosen Firm	K. Štrbáková	M. Brezániová
29.	D	Possibilities of Theory of Constrains Utilization in Real Conditions of Organization	L. Nemečková	J. Vodák
30.	D	Inventory Planning and Control of Selected Logistic Segments in the Business	L. Ferianček	J. Král
31.	B	Implementation of Decision-Making Selected Methods in Management of Enterprise	L. Bavoľár	J. Dicová
32.	B	Methods for Customer Requirements and Satisfaction Determination	L. Hepner	J. Dicová
33.	D	Multicriterial Evaluation of Providing Services in the Conditions of Selected Enterprise	L. Chabada	R. Jankal
34.	D.	Possibilities of Using marketing Tools in E-Business of Firm	M. Stančík	J. Strišš
35.	D	Evaluation of Complex Job Performance at the Enterprise	M. Martincová	M. Blašková
36.	D	Possibilities of QFD Utilization in Creation of Marketing Strategy	M. Petruť	J. Vodák
37.	B	Marketing Plan of Business Organization	M. Masný	J. Soviar
38.	B	Communication Project of Chosen Sport-Cultural Event	M. Michalov	J. Strišš
39.	B	Measurement of Customer Satisfaction	M. Pešková	V. Lendel
40.	D	Application for Performance Management Methodology on Company Teams	M. Hudec	J. Vodák
41.	D	Concept, Plan, Realization and Assessment of the Internet Communication Campaign	M. Zafka	Ľ. Jambrich
42.	D	Application of Lean Principles in Work-in-Process Planning and Control	M. Rybár	J. Král
43.	B	Application of Marketing Tools in a Chosen Firm	M. Jánošík	M. Brezániová
44.	D	Increase of Effectiveness of Operation in E-Commerce	M. Klučiar	M. Kubina
45.	B	Proposal of Information Safety in the Hospital	M. Peťo	J. Gajdošík
46.	B	Marketing Plan of Business Organization	M. Kanička	J. Soviar
47.	D	Information Providing of Selected Processes of Firm	M. Boďová	Š. Hittmár
48.	D	Proposal of Strategy of Business at the Area of Tourism	O. Bley	M. Blašková
49.	D	Application of Performance Management Methodology on Strategic Level in Company	O. Gaššo	J. Vodák
50.	D	Information Providing of Selected Processes of Firm	P. Vida	Š. Hittmár
51.	D.	Application of Quality Management Methods in the Manufacturing Company	P. Beluš	J. Král
52.	D	Possibilities of Bank Loans for SME and Preparing of Business Plan	P. Geisbacher	J. Magdolenová
53.	B	Proposal of Information Safety for Municipality of Žilina	P. Brezáni	J. Gajdošík
54.	B	Proposal of EU Funds Utilization for Satisfaction of	P. Galček	J. Gajdošík

		Needs for Municipality of Žilina		
55.	B	Marketing Plan of Nonprofit Organization	P. Gavenčiak	J. Soviar
56.	B	Communication Plan of the Travel Agency	T. Uličný	J. Strišš
57	B	Marketing Plan of Product Enterprise	T. Kapusta	M. Kubina
58	B	Arbitration Implements of marketing Mix for the Concrete Firm	T. Nosák	J. Strišš
59	B	Managerial Project of Chosen Firm	T. Kršiak	M. Brežániová
60	B	Marketing Plan of Nonprofit Organization	V. Šramová	J. Soviar
61	B	Proposal of Information Safety in the Company Bucina, Ltd., Zvolen	Z. Hobzová	J. Gajdošík
62	D	Proposal of Motivation Programme of Employees and managers at the Aqua park	Z. Bubniaková	M. Blašková
63	B	Marketing Communication Assessment in the Nonprofits Sector	L. Novák	J. Strišš
64	B	Project of Integrated Communication in Tourist Region	L. Glassnák	J. Strišš
65	B	Marketing Communication of Specified Bank	I. Červená	J. Strišš
66	B	Marketing Activities in Regional Marketing	V. Černeková	J. Strišš
67	B	Marketing Plan of Non Profit Organization	T. Šimo	J. Soviar
68	B	Analyse of user needs and requirements of selected services on the electronic communication market in the Slovak republic	T. Skladaný	R. Jankal

**Dean's award** for outstanding **Masters thesis** and **Bachelors thesis** was conferred to

1. Anna **Závodská**: Communication Plan of Service Establishment
2. Daniela **Likavčinová**: Information Providing of Selected Processes of Firm
3. Lukáš **Hepner**: Methods for Customer Requirements and Satisfaction Determination
4. Lukáš **Chabada**: Multicriterial Evaluation of Providing Services in the Conditions of Selected Enterprise
5. Zuzana **Hobzová**: Proposal of Information Safety in the Company Bucina, Ltd., Zvolen
6. Ľudovít **Glasniak** Project of Integrated Communication in Tourist Region

## **VII. OTHER ACTIVITIES OF DEPARTMENT**

Assoc. Prof. Ing. **Martina BLAŠKOVÁ**, PhD.

- Editor-in-chief of the Scientific Journal Human Resource Management & Ergonomics
- Co-founder of the Scientific Journal - Human Resource Management & Ergonomics
- Member of Scientific Committee of the Scientific Journal - Human Resource Management & Ergonomics
- Scientific guarantee of International Scientific Conference (Management of the Human Potential 2008)
- Member of Academic Senate Faculty of Management Sciences and Informatics
- Member of the Council of Higher Education Institutions of the Slovak Republic

**Ing. Jozef GAJDOŠÍK**

- Member of Academic Senate Faculty of Management Sciences and Informatics
- General Editor SSSI magazine „System Integration”.
- Member of Committees for Preparing Conferences (System Integration 2008)

**Prof. Ing. Štefan HITTMÁR, PhD.**

- Member of Scientific Council of Faculty of Management Sciences and Informatics, University of Žilina
- Member of Scientific Council of Faculty of Special Engineering, University of Žilina, Žilina
- Member of Editorial Board EDIS ŽU
- Member of Committee No 14 Ministry of Education SR for VEGA projects
- Member of Committees for Preparing Conferences (EU - opportunities for development of transport)

**Assoc. Prof. Ing. Jozef STRIŠŠ, PhD.**

- Member of Science Council of Faculty of Management Science and Informatics, University of Žilina
- Member of Draft Committee of Faculty Journal “Journal of Information, Controls and Management Systems”, University of Žilina
- Member of Committees for Preparing Conferences (EU - opportunities for development of transport)

**Ing. Viliam LENDEL**

- Member of Academic Senate University of Žilina, the student chamber of Faculty of Management Sciences and Informatics

**VIII. PUBLICATIONS**

**ADE015 M. JANKALOVÁ, R. JANKAL: Examination of economic convergence of the Slovak Republic**

In: Business: theory and practice. - ISSN 1648-0627. - Vol. 9, no. 1 (2008), p.45-50

**ADF009 J. DICOVÁ: Creativity as a tool of development in management**

In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 6, No. 1 (2008), p. 21-27.

**ADF010 M. BLAŠKOVÁ: Dynamical and motivational model of extending of spectrum of subjects and objects of human potential management and development**

In: HRM&E : human resources management and ergonomics. - ISSN 1337-0871. - No. 1 (2008), p. 6-18.

**ADF016 V. LENDEL, M. KUBINA: Guerrilla Marketing and its successful implementation**

In: Marketing inspirations: ISSN 1336-796X. -Vol. 3, No. 1 (2008), p.3-6.

**ADF017 M. KUBINA: Human dimension of CRM.**

In: HRM&E : Human resources management and ergonomics. - ISSN 1337-0871. - No. 1 (2008), p. 68-75.

**ADF023 M. KUBINA, V. LENDEL: Coaching - the modern way of leadership and development workers.**

In: Economics and Management Spectrum: – Academic Magazine of Faculty of Management and Informatics Science University of Žilina ISSN 1337-0839. -Vol. 2, No. 1 (2008), p. 52-56.

**ADF024 Š. HITTMÁR: Management of public administration - theory, practice and development .**

ISSN 1337-2955. -Vol. 4, No. 1 (2008), p. 9-17.

**ADF039 V. LENDEL: Decision making about the selection of CRM information system.**

In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 6, No. 1 (2008), p. 85-94.

**ADF041 Š. HITTMAR: Model of Slovak Railway strategy**

In: Communications : Scientific Letters of the University of Žilina. - ISSN 1335-4205. - Vol. 10, No. 1 (2008), pp. 71-74.

**ADF042 V. LENDEL, M. KUBINA: Process of preparation and implementation of CRM in the company.**

In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 6, No. 1 (2008), pp. 95-104.

**AEC009 M. BLAŠKOVÁ The quality of relations between motivation and motivating of human potential.**

In: Quality and Production Management in Practice : monograph. - Saint-Petersburg: Publishing and Press Association of Universities of Russia, 2008. – ISBN 978-5-91155-011-0. -. pp.69-74

**AFC016 V. LENDEL: CRM - the base of successful business**

ISBN 978-80-7314-145-5. - S. 87-93.

**AFC025 R. MAJEROVÁ: Effectiveness evaluating of human resources as dynamic process model**

In: Minsk, Belaruss: Paradoks, 2008. - ISBN 978-985-451-206-8. - p. 268-271

**AFC029 V. LENDEL, M. KUBINA: Forms of telework and their use.**

In: IV. International conference 2008, Luhačovice, CZ Proceedings .- ISBN 978-80-7314-145-5. p. 229-235.

**AFC045 J. ŠTAFFENOVÁ: Learning Organization.**

In: International conference 2008 – Minsk, Belaruss: Paradoks - ISBN 978-985-451-206-8. p. 288-292.

**AFC050 V. LENDEL, M. KUBINA: CRM model and process of its implementation in the enterprise. .**

In: IV. International conference 2008 Kunovice, CZ - ISBN 897-80-7314-133-2. - p. 117-121.

**AFC058 Š. HITTMÁR: Knowledge as a resource in the management of enterprise.**

In: IV. International conference 2008 Kunovice, CZ - ISBN 897-80-7314-133-2. - p. 161-165.

**AFC066 V. LENDEL, M. KUBINA: Decision-Making about selection of CRM information system and its implementation in company.**

In: International conference 2008 Brno, CZ, ISBN 978-80-7392-022-7. - p. 201-210.

**AFC071 V. LENDEL: Customer satisfaction with services. .**

In: International conference 2008, Kunovice, CZ- ISBN 978-80-7314-144-8. - p. 151-156.

**AFC072 V. LENDEL, M. KUBINA: Cooperation companies and universities in the cluster.**

In: International conference, Proceedings Liberec, CZ, 2008. – ISBN 978-80-7372-333-0.  
p. 39-46.

**AFC077 V. LENDEL: Creation of CRM strategy**

In: IV. International conference, 2008, Kunovice, CZ - ISBN 897-80-7314-133-2. - p. 231-238.

**AFC089 V. LENDEL, M. KUBINA: Use of Project Management in CRM**

In: Project management – Theory and experience. International conference 2008, University of Thomas Bata Zlín, CZ - ISBN 978-80-7318-695-1. – p.8

**AFC091 K. RIPLOVÁ, M. HRUBIZNA Significant element operating in the development of the region - regional management .**

In: IV. International conference 2008 Kunovice, CZ. - ISBN 897-80-7314-133-2. - p. 61-65

**AFD005 R. MAJEROVÁ Analysis of the impact of internal and external factors affecting the effectiveness of human resources with links to management processes.**

In: 5<sup>th</sup> International conference, Zvolen, 2008, University of Technology, ISBN 978-80-228-1871-1.  
p. 161-165.

**AFD011 V. LENDEL, M. KUBINA: Diagnosis CRM processes in the enterprise**

In: IV. International conference, 2008, University of Žilina, ISBN 978-80-8070-819-1, p. 147-155

**AFD020 V. LENDEL: Guerrilla marketing unconventional way of sales promotion**

In: International conference, Trnava, SK, University of St. Cyril and Method, 2008  
ISBN978-80-8105-006-0. - p. 218-225

**AFD038 V. LENDEL, M. KUBINA: Marketing communication and its status in regional marketing**

In: International conference, Trnava, SK, University of St. Cyril and Method, 2008  
ISBN 978-80-8105-006-0. - p. 226-230.

**AFD040 V. LENDEL: Model of CRM as a tool for the prevention of corporate crises**

In: International conference, 2008, University of Žilina, - ISBN 978-80-8070-847-4. - p. 469-474.

**AFD056 V. LENDEL: Procedural portal with the support of CRM solutions for rail transport.**

In: EURNEX - Žel 2008, International conference, University of Žilina, SK  
ISBN 978-80-8070-853-5. - p. 185-192.

**AFD066 V. LENDEL, M. KUBINA: Customer care in services from the perspective of CRM/.**

In: International conference 2008, Rajecké Teplice, SK - ISBN 979-80-969745-1-0. - p. 327-332.

**AFD070 Š. HITTMÁR: Four approaches to decision making in the management of specific situations**

In: International conference 2008, University of Žilina, ISBN 978-80-8070-846-7p. 221-225

**BDF026 V. LENDEL, M. KUBINA: Use of the Internet in marketing research**

In: Post, Telecommunications and E-Business Journal - ISSN 1336-8281.

**ADF019 M. KUBINA, V. LENDEL: Influence of customer on general management functions, marketing and CRM**

In: Research papers Faculty of Chemical and Food Technology Slovak University of Technology in Bratislava, Department of Management. - ISSN 1336-815X. -Vol 3, No. 02 (06) (2007), p. 136-144.

**ACD002 M. BLAŠKOVÁ: Strategic management and development of human potential**

In: Development of Human Potential I.- Zvolen: Technical University, 2007. - ISBN 978-80-228-1830-8. - p. 10-36

**AEC010 S. BORKOWSKI, J. ROSAK, M. BLAŠKOVÁ :Utilizing human resources for the specification of importance the company problems**

In: Improvement of quality regarding processes and materials 2007. - Warszawa: Wydawnictwo Menedzerskie PTM, 2007. - ISBN 978-83-924215-3-5. - p. 115-122.

**AEC012 J. STRIŠŠ, M. KUBINA: Impact of competitive environment on the new forms of marketing communication**

In: Marketing communication and competition - Zlín: University of Thomas Bata, 2007. – ISBN 978-80-7318-634-0. - p. 29-39

**AFC032 M. KUBINA, V. LENDEL: Finding synergies between management and marketing in the enterprise**

In: The knowledge economy - trends of development of education, science and practice, International Scientific Conference, Zlín: University of Thomas Bata, 2007. – ISBN 978-80-7318-646-3. – p.8

**AFC049 M. KUBINA, P. SEGEČ: Mobile business systems as a new form of communication in enterprises.**

In: Management, economics and business development in the new European conditions International scientific conference - Brno: CERM, 2007. - ISBN 978-80-7204-532-7. – p. 4

**AFC067 K. VÁCLAVÍK, J. JACKOVÁ: Sakai – Interesting alternative Moodle Sakai**

In: Technology for e-Learning 2007, Proceedings- Prague ČVUT, 2007- ISBN 978-80-01-03756-0. p. 61-68

**AFC098 J. VODÁK: Reconciliation of the critical factors of success and Balanced Scorecard.**

In: Festive scientific conference on the occasion of 15th anniversary of the establishment of Faculty of Business and Management, University of Technology, Brno, , Czech Republic , Conference proceedings. - 2007. - ISBN 978-80-214-3482-0. – p.6

**AFD008 V. LENDEL: Building a successful CRM in the enterprise**

In: MERKÚR, Proceedings of International Conference, Economical University, Bratislava, 2007 ISBN 978-80-225-229-08. - p. 379-384

**AFD010 P. MAKYŠ, Z. BIZOŇOVÁ, J. VITTEK: Creation and re-use of resources for e-learning courses on electric drives**

In: Electrical drives and power electronics EDPE 2007 : 16th International conference : 3rd Joint Slovak-Croatian Conference : 24-26 September 2007, The High Tatras, Slovakia : proceedings. - TULIP, 2007. - ISBN 978-80-8073-868-6. – p. 5

**AFD030 J. DICOVÁ: Communications Manager in the team**

In: Proceedings of International Conference, Trenčín: TnUAD, 2007. - ISBN 978-80-8075-195-1. p. 58-61

**AFD037 V. LENDEL, M. KUBINA: Mapping the services within the CRM**

In: Proceedings of International Conference, University of Žilina, 2007, ISBN 978-80-8070-873-3. p. 49-57

**AFD052 K. RIPLOVÁ: Support decision-making model of investment projects in terms of risk**

In: Proceedings of International Conference, University of Žilina, 2007, ISBN 978-80-8070-873-3. p. 75-80

**AFD069 J. MAGDOLENOVÁ: The specifics of international market research. /.**

In: MERKÚR 2007, Proceedings of International Conference, Economical University, Bratislava, ISBN 978-80-225-229-08. - p. 398-403

**AFD072 V. LENDEL: The managerial view of customer management in the company**

In: Proceedings of International Conference, University of Žilina, 2007, ISBN 978-80-8070-873-3. p. 42-48

**AFD079 V. LENDEL: Successful preparation of CRM in the company**

In: Young Science, Proceedings of International Conference, Nitra 2007. Slovak Republic, ISBN 978-80-8069-970-3. - p. 694-699

**AFD083 K. RIPLOVÁ: The importance of quality in decision-making transport company**

In: Management in Railway Transport, Proceedings of International Conference, University of Žilina, 2007, ISBN 978-80-8070-780-4. - p. 85-90

**AFD084 J. STRIŠŠ: Relationship quality and marketing**

In: Management in Railway Transport, Proceedings of International Conference, University of Žilina, 2007, ISBN 978-80-8070-780-4. - p. 91-94

**AFD087 V. LENDEL: Improving the quality of services provided by the transport company through CRM**

In: - Management in Railway Transport, Proceedings of International Conference, University of Žilina, 2007, ISBN 978-80-8070-780-4. - p. 51-58.

**BEC004 V. LENDEL, M. KUBINA: Possibilities of internet use in marketing research**

In: (KO)MEDIA, Proceedings of International Conference, Zlín: University of Thomas Bata, 2007. ISBN 978-80-7318-677-7. - p. 81-84



## **Department of Software Technologies**

**Head of Department:**      **Ing. Emil Kršák, PhD.**

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**Administrative Department:** Bc. Iveta Červená

**Teaching Staff:**      Ing. Patrik Hrkút  
                                 Ing. Emil Kršák, PhD.  
                                 Ing. Ján Ružbarský, PhD.  
                                 Mgr. Ing. Ľuboš Sadloň, PhD.  
                                 Prof. Ing. Karel Šotek, PhD. - Visiting Prof.  
                                 Ing. Marek Tavač  
                                 Ing. Viliam Tavač, PhD.

**Researchers:**        RNDr. Hynek Bachratý, PhD.  
                                 Ing. Ondrej Bartl, PhD.  
                                 Ing. Miroslav Gábor  
                                 Assoc. Prof. Ing. Miroslav Hrnčiar, PhD

**PhD Students:**      Ing. Michal Abaffy  
                                 Ing. Miroslav Gábor  
                                 Ing. Ján Janech  
                                 Ing. Marek Tavač  
                                 Ing. Matej Uram

## **II. EQUIPMENT**

### **II.1 Teaching and Research Laboratories**

Laboratory of Object Technologies  
Laboratory of Control Process Developing

### **II.2 Servers:**

KST	Fedora Core
VAII	Fedora Core
TITAN	Fedora Core
JASON	MS Windows 2003 Server
PERSEUS	MS Windows 2003 Server
POSEIDON	MS Windows 2003 Server

### III. PhD-Programme

Theme	Student	Supervisor
Knowledge Search in Semantic Defined Environment	P. Hrkút	K. Matiaško
Object and temporal database transformation	M. Tavač	K. Matiaško
Database Distribution Process Control	J. Janech	K. Matiaško
Modelling and Simulation of Technological Processes	M. Abaffy	K. Šotek, L. Sadloň

### IV. RESEARCH PROJECTS

- E. KRŠÁK, P. HRKÚT - Co-ordination and stimulation of innovative ITS activities in Central and Eastern European countries (TEMPO project)

### V. COOPERATION

#### V.1 Cooperation with Institutes and Enterprises in Slovakia

- University of Matej Bel, Banská Bystrica
- Railways of Slovak Republic
- Slovak Society for Quality
- Slovak Post
- Hewlett Packard Slovakia, Ltd.
- Scheidt & Bachmann
- Transport Research Institute
- Slovak Telekom
- Ministry of Education

#### V.2 Cooperation with Foreign Institutes and Enterprises

- University of Pardubice, The Jan Perner Transport Faculty, Department of Informatics in Transport, Czech Republic
- INT - National Institute of Telecommunications, Evry, France
- TUD - University of Technology Dresden, Germany
- Czech Railways
- AŽD Prague, Czech Republic

#### V.2.1. Foreign Visitors to the Department

- BARWALD Werner, Prof., University of Technology, Dresden, Germany
- BAUMANN Stephan, Ass. Prof, University of Technology, Dresden, Germany

#### V.3 Membership in Slovak Organizations and Societies

##### O. Bartl:

- Slovak Society for Operations Research

##### M. Hrnčiar:

- Slovak Society for Quality

##### E. Kršák:

- SANET – ADMIN

**M. Gábor:**

- Intelligent Transport Systems Association Slovakia

**H. Bachratý:**

- Union of Slovak Mathematicians and Physicists

**V.4 Membership in International Organizations and Societies**

**M. Hrnčiar:**

- Austrian Society for Process Management

**V.5 Contracts with Slovak and Foreign Institutions**

- Railways of Slovak Republic
- Czech Railways
- Slovak Post
- Slovak Society for Quality
- Hewlett Packard
- AŽD Praha, s.r.o.
- Union Insurance

**V. MASTERS THESIS (D) and BACHELORS THESIS (B)**

No.	C.	Theme	Student	Supervisor
1.	D	Single Sign-on for Faculty of management Science and Informatics Using PKI	J. Naštický	E. Kršák
2.	D	Design Drawing Tool for Train Traffic Organization Model	M. Žiak	M. Gábor
3.	B	Company Attendance System	A. Vlnka	M. Konvit
4.	B	Restaurant Information Ordering System	A. Smataník	V. Tavač
5.	D	Access System	D. Kic	E. Krsák
6.	B	Design of Web 2.0 Applications Based on MVC Architecture	F. Cieker	P. Hrkút
7.	B	Music Studio – Mixer, Music Matrix, Sequences	G. Novák	V. Tavač
8.	B	Business Possibilities Analysis in a National Tourism	G. Križanová	M. Hrnčiar
9.	D	MDA Database Reverse Engineering	J. Vašek	M. Tavač
10.	D.	Information management for Human Recourses	J. Palček	M. Tavač
11.	B	Ranch Hotel Information System	J. Šinkovic	M. Gábor
12.	B	Editors of Access Privileges to Business Entities	J. Perďoch	V. Tavač
13.	B	Music Studio – User Interface. Sampler, Synthesizer	J. Staňo	V. Tavač
14.	B	Simple Budget System	J. Hlas	V. Tavač
15.	B	Vector Editor of Infrastructure	M. Kvet	E. Kršák
16.	B	Using of Methods Optimisation of Internet Applications for Searching application	M. Delinčák	P. Hrkút
17.	D.	Implementation of RF Signal Generator for Semi-Automatic Station	M. Masarovič	M. Luliak
18.	D	System for 3D Visualization of Real Environment	M. Slavkov	E. Kršák
19.	D	Methods for Creating of Ontology's for Semantic Web	M. Kardoš	P. Hrkút
20.	D	Tool Set for Web 2.0 Applications Development for Online Communities Support	M. Táborický	P. hrkút
21.	D.	Technological Model for the Bus Transport – Software Tool	M. Ulbricht	M. Gábor
22.	B	Software Re-engineering of Network Editor	M. Kováčik	Ľ. Sadloň
23.	D	Process mapping in a Organizational Unit of the University	M. Blažek	M. Hrnčiar
24.	D	Chip Card Information Management	O. Beňadik	T. Bruna
25.	D	System for Automated DBF Data Model Migration	P. Smrž	J. Šidlo
26.	B	System for Automatic Lab Installation	P. Kardoš	P. Hrkút
27.	D.	Advanced Graphical User Interface for ASP.NET Platform	P. Rossa	P. Hrkút
28.	D	Information Search in a Heterogeneous Environment	P. Šmotlák	P. Hrkút

No.	C.	Theme	Student	Supervisor
29.	B	Object-Oriented and Relational Database Systems Comparison	P. Turza	M. Tavač
30.	B	Team Roles Testing	P. Pajta	Ľ. Sadloň
31.	B	Information System for Fairground – Accommodation	P. Senci	V. Tavač
32.	D	Implementation of Spectral Analyser for Semi-Automatic Stations of RF Service	P. Žiak	V. Pšenák
33.	B	Graphical Interface for Applications	P. Eliáš	J. Ružbarský
34.	D.	Quality Management System in a Public Sector	R. Bahurinský	M. Hrnčiar
35.	D	Agile Programming of Internet Applications Using Ruby on Rails Framework	R. Gregor	J. Ružbarský
36.	D	Comparison of Effectiveness and Flexibility of Internet Application Design	R. Porubän	P. Hrkút
37.	B	Information System for Carrier Association	R. Bušfy	M. Tavač
38.	B	Small Business Orders Information System	S. Kompan	M. Tavač
39.	B	Airway Information and Management System	T. Szabó	J. Ružbarský
40.	D	Printers Management	T. Šlapka	J. Ružbarský
41.	B	Rubik's Cube	T. Moskál	M. Tavač
42.	D	Design of Information System Using Aspect Oriented Programming	V. Doboš	J. Janech
43.	B	Railway Track Builder	V. Púpava	J. Ružbarský
44.	B	Painted Crosswords	Ľ. Toman	M. Tavač
45.	B	Software for Generating, Solving and Playing SUDOKU	Ľ. Takač	Ľ. Sadloň
46.	D	Work Register - Job and Working Time Evidence	V. Petruš	R. Naništa
47.	D	Calculation of Routes for the Navigation System	A. Poživinec	M. Tavač

**Dean's award** for outstanding **Masters thesis** and **Bachelors thesis** was conferred to:

1. Marek **Kvet**: Vector Editor of Infrastructure B
2. Peter **Turza**: Object-Oriented and Relational Database Systems Comparison B
3. Peter **Pajta**: Team Roles Testing B
4. Ľubomír **Toman**: Painted Crosswords B
5. Michal **Kováčik**: Software Re-engineering of Network Editor B

## **VI. OTHER ACTIVITIES:**

### **M. Hrnčiar:**

- President of Slovak Society for Quality
- Member of the Editorial Board of the revue “Kvalita”
- Member of the Slovak Technical Committee K22 - Quality

### **E. Kršák:**

- Administrator of Certificate Authority FRI-ZU
- Registrar of internet domains TLD sk

### **H. Bachratý:**

- Governor of foundation “Ingenium”
- Member of the regional committee of Union of Slovak Mathematicians and Physicists
- Activities in mathematical talents education

### **J. Ružbarský:**

- Coordinator of Partnership among *University of Applied Sciences Dresden, Germany* and FRI ŽU Žilina

### **K. Šotek:**

- Member of editors board of journal Transport
- Member of committee for science and research on Ministry of Transport CR

## **VII. PUBLICATIONS**

**AFC013** J. JANECH, L. SADLOŇ: Case UML

In: Objekty 2007 : 12. ročník konference, Ostrava, 8.-9. listopadu, 2007 : sborník příspěvků. - Ostrava: VŠB - Technická univerzita, 2007. - ISBN 978-80-248-1635-7. - S. 206-210.

**AFC047** MDA transformácia relačnej databázy na objektovú. **MDA transformation for object-relational database.** / Marek Tavač, Viliam Tavač.

In: Objekty 2007 : 12. ročník konference, Ostrava, 8.-9. listopadu, 2007 : sborník příspěvků. - Ostrava: VŠB - Technická univerzita, 2007. - ISBN 978-80-248-1635-7. - S. 96-106.

**AFC078** Tvorba simulačních modelů jako součást řešení výzkumného záměru Teorie dopravních systémů. **Creation of simulation models as part of the research project Theory of transport systems/** Karel Šotek, Hynek Bachratý.

In: ASIS 2007 = Advanced Simulation of Systems : Proceedings of the XXIXth International Autumn Colloquium : September 18-20, 2007, Hostýn, Czech Republic. - Ostrava: MARQ, 2007. - ISBN 978-80-86840-34-5. - S. 69-74.

**AFD001** A queueing theory application to the design of a communication system for data transmission in urban mass transportation [Použitie teórie hromadnej obsluhy na návrh komunikačného systému na prenos dát v mestskej hromadnej doprave] / Ondrej Bartl.

In: Quantitative Methods in Economics (Multiple Criteria Decision Making XIV) : proceedings of the International Scientific Conference: June 5-7, 2008 High Tatras, Slovakia. - Bratislava: Iura Edition, 2008. - ISBN 978-80-8078-217-7. - P. 7-18.

**AFD049** Nové trendy v tvorbe cestovného poriadku na železnici **New trends in the development timetable for the rail** / Karel Šotek, Hynek Bachratý.

In: EURNEX - Žel 2008 : 16. medzinárodné sympóziu : cesty k zvyšovaniu konkurenceschopnosti európskeho železničného systému : zborník prednášok 4.-5. jún 2008 Žilina, Slovenská republika, EÚ. (2. diel). - Žilina: Žilinská univerzita, 2008. - ISBN 978-80-8070-853-5. - S. 75-85.

**BEC006** Operatívne riadenie a navigácia zásahových vozidiel hasičského zboru pomocou informačného systému s distribuovanou architektúrou **Operational management and navigation response vehicles firemen using the information system with distributed architecture** / Patrik Hrkút, Emil Kršák.

In: GIS Ostrava 2008 [elektronický zdroj] : sborník sympozia : 27.-30.1.2008, Nová aula VŠB-TU Ostrava, Česká Republika, EU. - [Ostrava]: TANGER, 2008. - ISBN 978-80-254-1340-1. - [14] s. - Popis urobený: 10.7.2008. - Požiadavky na systém: Windows 95 a vyššie, CD-ROM mechanika.

**BED002** Matematika a politika (Čistá matematika v nečistej oblasti) **Mathematics and politics Pure Mathematics in impure areas**/ Hynek Bachratý.

In: PYTAGORAS 2007 : letná škola z teórie vyučovania matematiky : Hronec, 30.6.-7.7.2007 : zborník príspevkov. - Bratislava: P-MAT, 2008. - ISBN 978-80-89370-00-9. - S. 50-63.

**BFA001** Informatika na FRI ŽU v Žiline = Informatics at FMSI at University of Žilina / Lubomír Sadloň, Ján Janech.

In: INFORMATIKA XXI/2008 : sborník abstraktů z mezinárodní odborné pedagogicky zaměřené konference : Luhačovice, 21.-23.1.2008. - Brno: KONVOJ, 2008. - ISBN 978-80-7302-151-1. - S. 89.



Faculty of Management Science and Informatics - general view



Entrance in the Faculty



Information Centre



Courses



Laboratory works





Laboratory of Dep. of Informatics



Seminars Rooms of University



Lecturer and Conference Halls of University



Refectory



Dining room



Fitness Centre of University



Fitness Centre



Library of University



Students Hostels

**Foreign students at the Faculty in 2008**

