

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

ANNUAL REPORT 2011

UNIVERSITY OF ŽILINA



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

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FACULTY OF MANAGEMENT SCIENCE AND INFORMATICS



Foreword

The Faculty of Management Science and Informatics, established in 1990, is one of seven Faculties of the University of Žilina.

The Faculty of Management Science and Informatics comprises around 120 academics and research fellows who form human resources in Computer Science and Management Science. Its complement of people directly involved in education is close to 100. The Faculty educates students on the base of its science and research activities.

Faculty of Management Science and Informatics offers the study in all three levels programmes of study (**Bachelor, Master and Doctoral**). All programmes are officially approved by the Accreditation Commission of the Slovak Republic. The programmes are interdisciplinary; they were conceived and created based on many years of the Faculty's successful research and educational tradition. Detailed descriptions of these programmes is performed in following text

Education at each of these three levels has a theme of active and cooperative participation of lecturers, students, research workers and doctoral students. Students are involved in projects, for their bachelors or masters theses, which are part of the scientific work of research groups in the Faculty, in the wider University or in external cooperating organisations.

The Faculty primarily specialises in control and management 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. There are the problems of control and optimization for transport of subjects (information, goods and passengers), transfer of information, processing of information and design of integrated interactive information systems for support of decision-making, including economic considerations and technical security. 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

During its existence, the Faculty of Management Science and Informatics, as a scientific-pedagogical institution, became a worthy equal partner to similar faculties not just in Slovakia, but abroad as well. The creation of this reputation and identity was a strenuous process but now the scientific and academic staff of the Faculty, as well as their graduates, have achieved a well-deserved position in the world-wide academic (informatics and management) community.

In conclusion I would like to stress that the main task of the technical-oriented faculties is to conduct continual education and research so that the knowledge obtained permits the graduates to contribute to society. I believe that our Faculty's activities are helping our present and future students to be fully valuable individuals, capable of using their knowledge, skills and experiences in the conditions of the new millennium.

Prof. Ing. Karol M a t i a š k o , PhD.
Dean

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
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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
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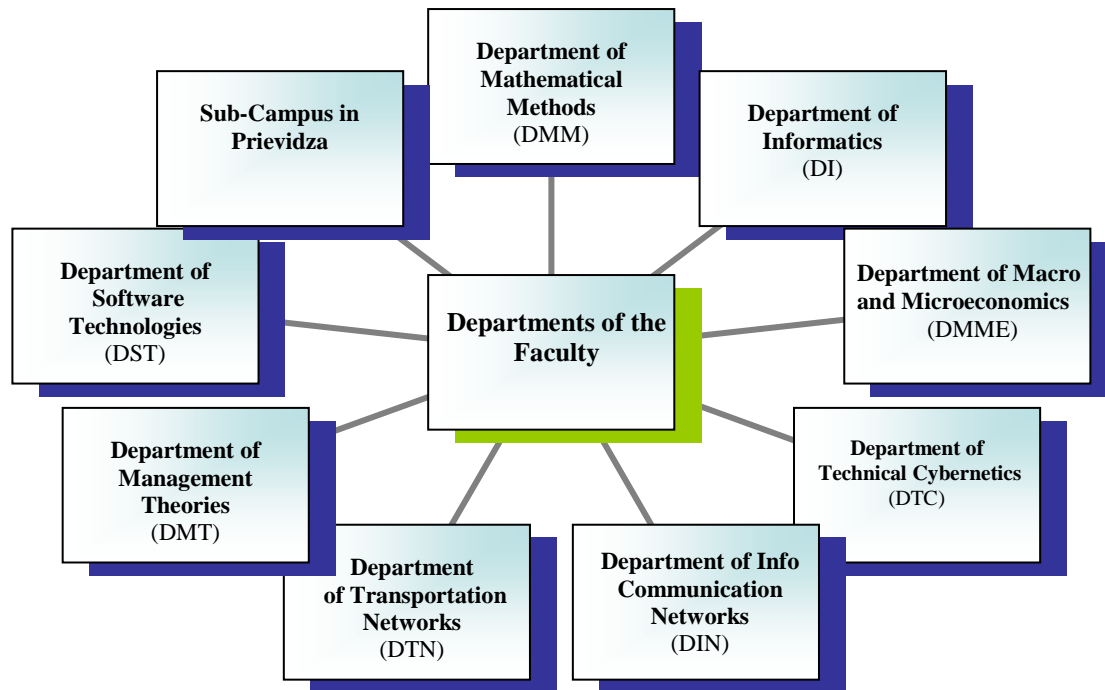
Prof. Ing. Matilda **D r o z d o v á**, PhD.
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Vice-Dean for International Affairs
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Faculty Registrar: Ing. Beata **H o l k o v á**, PhD.
Tel.: +421-41-513 40 75
e-mail: beata.holkova@fri.uniza sk

Departments of the Faculty:

The Faculty of management Science and Informatics involves eight Departments and one Sub-Campus. They are:



Educational Activities

Educational 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 methods
- Data transmission and data processing
- Issues concerning multimedia information systems, graphic systems and simulation of components for communication networks, systems and mathematical modelling
- Management, marketing, logistics, entrepreneurial skills, creation of transport and communication systems

At the present Faculty provides educational programmes 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 1st degree.

Target of the **Bachelors level** consists in preparation of experts for application of acquired knowledge in their professional life and at the same time to be able for study in the higher levels (MSc., PhD).

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

- **Information Systems**
- **Computer Engineering**
- **Informatics Tools for Decision Support Systems ***
- **Network engineering ***
- **Management**

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

- **Data Processing**
- **Decision Support Systems**
- **Information-Communication Networks**
- **Business Informatics**
- **Distributed and Parallel Systems**

Targets of the **Masters level** consist in preparation of experts for commanding places in the area of application of acquired knowledge in the praxis, in the research and science and at the same time to be able for study in the doctoral level

Doctoral Programme

The Doctoral Programme at the Faculty involves the following scientific disciplines:

- **Applied Informatics**
- **Informatics Tools for Decision Support Systems***
- **Management**

Doctoral Programme is the highest level of higher education. The aim of the Doctoral 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) or five years (part time). The Doctoral Programme requires 3 semesters of advanced study, satisfactory completion of a comprehensive examination, then, after 3rd semesters, submission of a written dissertation, based on independent original research that must be a significant contribution to the field of study. Oral examination consists of 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.

* Study will be provided from the Academic year 2012

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:

Projects supported by European Union Funds:

International Science and Technology Cooperation

1. STF LoE S36/02 *Customer in the Loop (Using Networked Devices enabled Intelligence for Proactive Customers Integration as Drivers of the Integrated Enterprise)*
Assoc.Prof.Ing. Tatiana **Kováčiková**, PhD.
2. STF LoE 331/05 *Technologies Interoperability and Standardization*
Assoc.Prof.Ing. Tatiana **Kováčiková**, PhD.
3. ECP-2007-GEO_317007 *NATURE-SDIplus*
Assoc.Prof.Ing. Peter **Fabián**, PhD.
4. 2008-2458/001-001 MUN-MUNATT *EMA-4-MOODLE*
Assoc.Prof.Ing. Peter **Fabián**, PhD.
5. 265610 7.FP *VEL-Wagon*
Assoc.Prof.Ing. Peter **Fabián**, PhD., Ing. Peter **Márton**, PhD.
6. 265841 7.FP *MARKET UP*
Assoc.Prof.Ing. Peter **Fabián**, PhD.

Centres of Excellence

1. 26220120028 *Centres of Excellence for Systems and Services of Intelligent Traffic IDS1*
Faculty is a University Coordinator
Leader of project: Prof.Ing. Karol **Matiaško**, PhD.

2. 26220120050 **Centres of Excellence for Systems and Services of Intelligent Traffic IDS2**
Faculty is a University Coordinator
Leader of project: Prof.Ing. Karol **Matiaško**, PhD.
3. 26220220022 **Design of New Diagnostic Algorithm in Selected Tumour Illnesses**
Faculty is a Partner of Comenius University, Medical Faculty, Bratislava
4. 26220220021 **Centre of Translation Medicine**
Faculty is a Partner of Comenius University, Medical Faculty, Bratislava
5. 26220120007 **CaKS – Centre of Excellence in Informatics Sciences and Knowledge Systems**
Faculty is a Partner of University “Pavol Jozef Šafarik” Košice and
University “Matej Bell” Banská Bystrica

Science and Education Grant Agency – Ministry of Education in Slovak Republic

1. 1/1116/11 **Adaptive Data Distribution in Mobile Ad-hoc Networks**
Prof.Ing. Karol **Matiaško**, PhD.
2. 1/0361/10 **Optimal Design of Public Operating Systems in Undetermined Conditions**
Prof.Ing. Jaroslav **Janáček**, PhD.
3. 1/0667/10 **Soft Technique in Modelling and Prediction of Economical and Financial Time Ranges**
Ing. Lucia **Pančíková**, PhD.
4. 1/0598/10 **Using of Visualization Techniques by Investigation of Wide-Ranging Databases**
Assoc.Prof.Ing. Michal **Zábovský**, PhD
5. 1/0374/11 **Modelling and Mobility Optimization and Infrastructure in Logistic Networks**
Assoc.Prof.RNDr. Stanislav **Palúch**, PhD.
6. 1/0888/11 **Knowledge Management – Models and Applications**
Prof.Ing. Štefan **Hittmár**, PhD.
7. 1/0495/08 **Dynamic and Decision-Making Content of Processes in Human Potential Motivation**
Assoc.Prof.Ing. Martina **Blašková**, PhD.
8. 1/1099/11 **Modelling and Simulation of Dynamic Interaction in environment driver/automobile/traffic situation**
Prof.Ing. Mikuláš **Alexík**, PhD.
9. 1/1099/11 **Cooperation Management – Effective Approach for Profit of Competitive Advantage**
Assoc.prof.Ing. Jozef **Strišš**, PhD.

Cultural and Education Grant Agency - Ministry of Education in Slovak Republic

1. 421-032ŽU-4/2010 *Repeatedly Applicable Education Objects for Digital Library*
Prof.Ing. Matilda **Drozdová**, PhD.

Scientific Board:

Chairman: Prof.Ing **Karol M a t i a š k o**, PhD.

Members: Assoc.Prof.Ing. Martina **Blašková**, PhD.

Assoc.Prof.Ing. Pavel **Čičák**, PhD.

Prof.Ing. Milan **Dado**, PhD.

Prof.Ing. Matilda **Drozdová**, PhD.

Assoc.Prof.Ing. Mária **Ďurišová**, PhD.

Assoc.Prof.Ing. Peter **Fabían**, PhD.

Assoc.Prof.RNDr. Elena **Gramatová**, PhD.

Assoc.Prof. Zdeněk **Havlice**, PhD.

Prof. Ing. Štefan **Hittmár**, PhD.

Assoc.Prof.Ing. Miroslav **Hrnčiar**, PhD.

Assoc. Prof. Ing. Vladimír **Jamrich**, PhD.

Prof. RNDr. Jaroslav **Janáček**, PhD.

Assoc.Prof.Ing. Ľudmila **Jánošíková**, PhD.

Prof. Ing. Martin **Klím**, PhD.

Prof.Ing. Milan **Kolesár** PhD.

Assoc.Prof.Ing. Tatiana **Kováčiková**, PhD.

Assoc.Prof.Ing. Emil **Kršák**, PhD.

Assoc.Prof.Ing.. Penka **Martincová**, PhD.

Assoc.Prof. Ing. Juraj **Miček**, PhD.

Assoc. Prof. Ing. Vladimír **Mlynarovič**, PhD.

Assoc. Prof. RNDr. Stanislav **Palúch**, PhD.

Prof. Ing. Ladislav **Šimák**, PhD.

Prof. Ing. Karel **Šotek**, PhD.

Prof.Dr.Ing. Róbert **Štefko**, PhD.

Prof.Ing. Liberios **Vokorokos**, PhD.

Prof.Ing. Peter **Závodný**, PhD.

In the procedure to be appointed as a **Professor** in 2011 was successful

Assoc.Prof. Ing. Juraj **Miček**, PhD.

In the procedure to be appointed as a **Associated Professor** were successful

1. Ing. Karol **Grondžák**, PhD.
2. Ing. Ján **Genčí**, PhD.
3. Ing. Mária **Ďurišová**, PhD.

Scientific Board of the Faculty, after successful defence of Dissertation Thesis, has appointed in 2010 with title **PhD.** following graduates of Doctoral Programme:

1. Mgr. Katarína **Pilátová**
2. Ing. Miloslav **Holúbek**.
3. Ing. Mgr. Zdenka Sidónia **Natšínová**
4. Ing. Michal **Varmus**
5. Ing. Dana **Stredáková**
6. Ing. Radka **Majerová**
7. Ing. Monika **Kormancová**
8. Ing. Eva **Valentíková**
9. Ing. Ján **Bábel**
10. Ing. Ladislav **Zjavka**
11. Ing. Martin **Kardoš**
12. Mgr. Jakub **Daubner**
13. Ing. Michal **Bruncko**

Publication Activities:

Members of the Faculty of Management Science and Informatics have published in the year 2011 results of research activity in **228** publications. Some of the more significant titles there are in the following list.

Scientific Monographs in Foreign Publishers

KUCHARČÍKOVÁ, A., TOKARČÍKOVÁ, E., ĎURIŠOVÁ, M., JACKOVÁ, A.,
KOZUBÍKOVÁ, Z., VODÁK, J.: *Effective Production: Make use of Production Factors and
be Ready for the Changes on the Market*

1st Edition, Brno, Computer Press, 23011, pp. 344, ISBN 978-80-251-2524-3

VODÁK, J., KUCHARČÍKOVÁ, A: *Effective Education of Employees*
Prague: Grada 2011, pp. 237, ISBN 978-80-247-3651-8

Scientific Monographs in Inland Publishers

HITTMÁR, Š., VESELÝ, J.: *Personal Management or Activities from the Point of View Former Director*

1st Edition, Žilina, University of Žilina 2011, pp. 106, ISBN 978-80-554-0336

Chapters in Scientific Monographs in Foreign Publishers

LEVASHENKO, V., ZAITSEVA, E.: *Safety of critical infrastructures: mathematical and engineering methods of analysis and ensuring*

In: Charkov: Nacional'nyj aerokosmičeskij universitet im. N.E.Žukovskogo „ChAI“, 2011. - ISBN 978-966-662-228-3. - pp. 229-282

Inland University Textbooks

MÁRTON, P., ADAMKO, N.: *Practical Introduction of Modelling and Simulation*

1st Edition, Žilina, University of Žilina 2011, pp. 264, ISBN 978-80-554-0387-8

MIKUŠ, L., FRNČO, V., PILÁTOVÁ, K., SZENDREYOVÁ, A., ŠKVAREK, O.: *Effective Work with Computer: Preparation for the Tests ECDL*

1st Edition, Žilina, University of Žilina 2011, pp. 254, ISBN 978-80-554-0312-0

Scientific Works in Foreign Prestigious Journals

MARČEK, M., PETRUCHA, J., MARČEK, D.: *Statistical and NN forecasting models of financial data: making inferences about the accuracy and risk evaluation*

In: Journal of multiple-valued logic and soft computing. - ISSN 1542-3980. - Vol. 17, No. 4 Sp. iss. (2011), pp. 321-337

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

In: Networks: International Journal. - ISSN 0028-3045. - Vol. 57, Iss. 1 Sp. iss. (2011), pp. 87-105

Scientific Works in Domestic Prestigious Journals

MARČEK, D., FRAŇO, M., MARČEK, M.: *Managerial decision-making: measuring and manifestations of risks and the possibilities of their reducing*

In: Journal of economics. - ISSN 0013-3035. -Vol. 59, No. 4 (2011), pp. 392-411

Scientific Works in Foreign Journals

MIČEK, J., JURÍČEK, J.: *Design of multimode shaper of control signals and proper choice of sampling frequency*

In: Canadian Journal on Automation, Control & Intelligent Systems. - ISSN 1923-1709. - Vol. 2, No. 3 (2011), pp. 46-50.

MIČEK, J., KAPITULÍK, J.: *An analysis of transmit power of communication terminals in a mobile vehicular environment*

In: Journal of Communication and Computer. - ISSN 1548-7709. - Vol. 8, No. 5 (2011), pp. 397-403

MIČEK, J., KAPITULÍK, J.: *Communication Platform of the Road Intelligent Transport System*

In: Perner's Contacts - ISSN 1801-674X. - 2011. -Vol. 6., No. 1. (2011), pp. 204 - 214.

MATIS, P., KOHANI, M.: *Very large street routing problem with mixed transportation mode*

In: CEJOR. Central European Journal of Operations Research. - ISSN 1435-246X. - Vol. 19, iss. 3 (September 2011), pp. 359-369

ONDRUŠ J., DICOVÁ, J.: *Transport intentions as tool of globalization trend development*

In: Logi : scientific journal on transport and logistics. - ISSN 1804-3216. - Vol. 2, No. 1 (2011), pp. 48-54

ONDRUŠ J., DICOVÁ, J.: *Cost model of the urban toll system in Žilina*

In: Archives of transport system telematics. - ISSN 1899-8208. - Vol. 4, iss. 3 (September 2011), pp. 18-23.

KUCHARČÍKOVÁ, A.: *The human capital as the production factor*

In: Scientific papers of the University of Pardubice : Faculty of economics and administration. - ISSN 1211-555X. - Vol. 16, No. 19 (1/2011), pp. 125-133

MURÍNOVÁ, L.: *The working time arrangement and the enterprise competitiveness*

In: Economics - Management – Innovation, Olomouc. (CZ) - ISSN 1804-1299. -Vol. 3, (2011), pp. 30-38

MURÍNOVÁ, L., ŠINOVSKÝ, J.: *Human reliability control - cognitive approach*

In: Economics and Management - ISSN 1802-3975. - Č. 2 (2011), pp. 18-23

GRODŽÁK, K., MARTINCOVÁ, P., ŠUCH, O.: *Accelerating vector calculations on GPU*

In: Scientific papers of the University of Pardubice : Faculty of economics and administration. ISSN 1211-555X. - Vol. 16, No. 19 (1/2011), pp. 52-61.

NEMČEK, D.: *Analytical model of QOS mechanism - Priority Queuing using Markov's chains*

In: AD ALTA : Journal of interdisciplinary research. - ISSN 1804-7890. - Vol. 1, Iss. 1 (2011), pp. 113-114.

RUSIN, M., LEVASHENKO, V., ZAITSEVA, E.: *Development of health care system in Slovakia*

In: Vrač i informacionnyje tehnologii : naučno-praktičeskij žurnal. - ISSN 1811-0193. - No. 3 (2011), pp. 68-76.

ZAITSEVA, E., KARAS, S.L.: *Analysis of medical informational system's reliability: specificity and main directions of development*

In: Vrač i informacionnyje tehnologii : naučno-praktičeskij žurnal. - ISSN 1811-0193. - No. 3 (2011), pp. 22-31

JANKAL, R., JANKALOVÁ, M.: ***Mystery shopping - the tool of employee communication skills evaluation***

In: Verslas: teorija ir praktika = Business: theory and practice. - ISSN 1648-0627. - Vol. 12, No. 1 (2011), pp. 45-49

GRONDŽAK, K., KORTIS, P.: ***Dynamic load balancing of the PIN code generation parallel algorithm***

In: International journal on information technologies and security. - ISSN 1313-8251. - Year 3, No. 1 (2011), pp. 71-78

LENDEL, V., VARMUS, M.: ***Creation and implementation of the innovation strategy in the enterprise***

In: Economist & Management = Ekonomika ir vadyba – ISSN 1822-6515, No 16 (2011), pp.819-825

MUŽÍKOVÁ, K.: ***Game-theoretic framework within the process of subcontractors' network organization***

In: Logi : scientific journal on transport and logistics. - ISSN 1804-3216. - Vol. 2, No. 2 (2011), pp. 70-80.

Scientific Works in Inland Journals

LADOVSKY, T.: ***Uncertain uniform schedules and their characteristics with regard to the choice of irregularity measure***

In: Journal of Information, Control and Management Systems. - ISSN 1336-1716. - Vol. 9, No. 1 (2011), pp. 31-40

VODÁK, J.: ***We cannot unfold the future, we can only create it actively***

In: Economical-Managerial Spectrum: Scientific Journal of the Faculty of Operation and Economic in Transport and Communication, University of Žilina - ISSN 1337-0839. – Vol.. 5, No. 1 (2011), pp. 63-70.

JACKOVÁ, A.: ***Importance of Human Resource Management in Company***

In: Economical-Managerial Spectrum Scientific Journal of the Faculty of Operation and Economic in Transport and Communication, University of Žilina - ISSN 1337-0839. -Vol. 5, No. 1 (2011), pp. 22-27.

CHODASOVÁ, Z., JACKOVÁ, A.: ***Influence of Financial Crisis to Management of Development Organizations in Slovakia***

In: Real Estates and Dwelling: Internet Journal - ISSN 1336-944X. - 2011. -Vol. 6, No. 1(2011), pp. 67-77.

KOZUBÍK, A.: ***Frequency Modelling of Traffic Accidents in Group of Drivers***

In: Crisis Management - ISSN 1336-0019. -Vol. 10, No. 1 (2011), pp. 12-16.

ONDRUŠ, J., DICOVÁ, J.: ***Basic Design Elements of Systems in Urban Toll***

In: Transport and Communications, Internet Journal- ISSN 1336-7676. - 2011. - No. 1 (2011), pp. 97-103

LEVASHENKO, V., KARAS, S., RUSIN, M., SIZOV, E.: *Some Methods for Development of Analytical Module in Telemedicine System for a Child Monitoring*

In: Communications: scientific letters of the University of Žilina. - ISSN 1335-4205. - Vol. 13, No. 1 (2011), pp. 27-31.

GABRIŠOVÁ, L.: *Fuzzy Approach to the Capacitated Facility Location Problem*

In: Acta Electrotechnica et Informatica. - ISSN 1335-8243. - Vol. 11, No. 1 (2011), pp. 54-61.

BLAŠKOVÁ, M., BLAŠKO, R.: *Decision-Making in Motivating Employees*

In: HRM&E : human resources management and ergonomics. - ISSN 1337-0871. - Vol. 5, no. 1 (2011), pp. 19-32

KRÁL, J.: *Framework for Managing Change in Organizations*

In: HRM&E: Human resources management and ergonomics. - ISSN 1337-0871. - Vol. 5, no. 1 (2011), pp. 65-77

Scientific Works in Inland Reviewed Proceedings

JANKAL, R., GUŽINIÁKOVÁ, A., JURČÍKOVÁ, S.: *Corporate Social Responsibility from the view of Customers*

In: Young Scientists Revue: University of Žilina, 2011. - ISBN 978-80-554-0400-4. - pp. 99-102.

LENDEL, V., VARMUS, M.: *Definition of lateral marketing position in marketing management*

In: Theory of Management 3 : the selected problems for the development support of management knowledge base : scientific papers. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0419-6. - pp. 117-124.

LENDEL, V., VARMUS, M.: *Identification of the main links between management and implementation of innovative strategy*

In: Theory of management 4 : the selected problems for the development support of management knowledge base : scientific papers. - Žilina: University of Žilina, 2011. - ISBN 978-80-554-0420-2. - pp. 94-99

Contributions in Prestigious Foreign Scientific Conferences

MAJER, N., WIESER, V., BRÍDA, P., URAM M.: *Modulation adaptation according to radio channel pulse response*

In: 2011 IEEE GCC conference and exhibition: Grand Hyatt hotel, Dubai, United Arab Emirates, Feb. 19-22,2011. - [S.l.]: IEEE, 2011. - ISBN 978-1-61284-117-5. – pp. 97-99.

ZAITSEVA, E., LEVASHENKO, V., RUSIN, M.: *Reliability analysis of healthcare system*

In: Proceedings of federated conference on computer science and information systems : September 18-21,2011, Szczecin, Poland. - Los Alamitos: IEEE Computer Society Press, 2011. – ISBN 978-83-60810-39-2. - pp. 169–175.

Academic Senate:

Chairman: Assoc.Prof.Ing. Karol **Grondžák**, PhD.

Senate Registrar: Ing. Michal **Žarnay**, PhD.

Chamber of Employees:

Ing. Norbert **Adamko**, PhD.
RNDr. Hynek **Bachratý**, PhD.
Assoc.Prof. Ing. Martina **Blašková**, PhD.
Ing. Juraj **Dubovec**, PhD.
Mgr. Lýdia **Gábrišová**, PhD.
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Assoc.Prof. Ing. Emil **Kršák**, PhD.
Assoc.Prof. Ing. Alžbeta **Kucharčíková**, PhD.
Ing. Peter **Márton**, PhD.
Ing. Peter **Palúch**, PhD.
Ing. Peter **Ševčík**, PhD.
Ing. Michal **Žarnay**, PhD.

Chamber of Students:

Eduard **Baraniak**
Daniela **Skovajsová**
Jakub **Kordiak**
Juraj **Kubica**
Lukáš **Lehota**
Ing. Marek **Šajna**
Jaroslav **Verníček**

Official guests from foreign institutions accepted by Deans Office in 2011:

1. Prof. Jouko **Kotkansalo**, JAMK University of Applied Sciences, Jyväskylä, (FIN)
2. Assoc.Prof.Ing. Tarja **Lappalainen-Kajan**, University of Applied Sciences, Jyväskylä
3. Assoc.Prof. Johan **Open**, Molde University College, (N)
4. Dipl.Ing. Birgit **Graf**, Hochschule für Telekommunikation, Leipzig, (D)
5. Prof. Klaus **Baderscheider**, Hochschule für Telekommunikation, Leipzig, (D)
6. Prof. Vasileos **Drakopoulos**, Hellenic Open University , Patrasd, (GR)
7. Prof. Wojciech **Korneta**, College of Computer Science and BA, Lomża, (PL)
7. Dr. inż. Ryszard. **Szebiot**, College of Computer Science and BA, Lomża, (PL)
8. Prof. Elina **Zakirovna**, Ural State University of Economics, (RUS)
9. Prof. DrSc. Vyacheslav **Kharchenko** , National Aerospace University, Kharkiv, (UE)
10. Prof. Edit **Lukacs**, Universitatea “Dunarea de Jos” din Galati, (R)
11. Prof.Dr. Hartmut **Fritsche**, HTW Dresden, (D)

**Abroad stays of the Faculty staff and Doctoral Students:
In the 1st Quarter 2011**

	<i>Name</i>	<i>Institute - Country</i>	<i>from</i>	<i>to</i>
1	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	ETSI Sofia Antipolis (F)	2.1.2011	11.1.2011
2.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	Spazio della Politica, (B)	12.1.2011	14.1.2011
3.	Matiaško Karol, Prof.Ing. PhD.	HfT Leipzig, (D)	26.1.2011	28.1.2011
4.	Klimo Martin, Prof. Ing. PhD.	HfT Leipzig, (D)	26.1.2011	28.1.2011
5.	Zábovský Michal, Assoc.Prof. Ing. PhD.	HfT Leipzig, (D)	26.1.2011	28.1.2011
6.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	ETSI Sofia Antipolis (F)	29.1.2011	7.2.2011
7.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	Telecom Italia, (F)	8.2.2011	11.2.2011
8.	Márton Peter, Ing. PhD.	Universita di Roma, EC (I)	15.2.2011	19.2.2011
9.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	EC INFOSOC Brussels (B)	27.2.2011	3.3.2011
10.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	EC INFOSOC Brussels (B)	6.3.2011	12.3.2011
11.	Varša Peter RNDr. PhD.	Federation CFDT, Paris (F)	13.2.2011	25.2.2011
12.	Zábovský Michal, Assoc.Prof. Ing. PhD.	TU Riga (LI)	17.2.2011	20.2.2011
13.	Koháni Michal Ing. PhD.	TU Riga (LI)	17.2.2011	20.2.2011
14.	Foltán Stanislav, Ing.	TSN Kiev, (UA)	20.2.2011	25.2.2011
15.	Martincová Penka, Assoc.Prof. Ing. PhD	CBiT Hanover (D)	1.3.2011	5.3.2011
16.	Hrkút Patrik Ing. PhD.	CBiT Hanover (D)	1.3.2011	5.3.2011
17.	Kršák Emil, Assoc.Prof. Ing. PhD.	CBiT Hanover (D)	1.3.2011	5.3.2011
18.	Janech Ján Ing. PhD.	CBiT Hanover (D)	1.3.2011	5.3.2011
19.	Klimo Martin, Prof. Ing. PhD.	EU Commision (B)	9.3.2011	10.3.2011
20.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	EC INFOSOC Brussels (B)	20.3.2011	23.3.2011
21.	Fabián Peter Assoc.Prof. Ing. CSc.	URSIT Sofia (BG)	15.3.2011	20.3.2011
22.	Klimo Martin, Prof. Ing. PhD.	Opatija Education Centre(HR)	22.3.2011	26.3.2011
23.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	ETSI Sofia Antipolis (F)	27.3.2011	5.4.2011
24.	Márton Peter, Ing. PhD.	VEL-WAGON Berlin (D)	30.3.2011	1.4.2011
25.	Alexík Mikuláš Prof. Ing. PhD.	Cambridge University (GB)	29.3.2011	1.4.2011

In the 2nd Quarter 2011

	<i>Name</i>	<i>Institute - Country</i>	<i>from</i>	<i>to</i>
1	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	ETSI Sofia Antipolis (F)	9.4.2011	18.4.2011
2.	Matiaško Karol, Prof.Ing. PhD.	KTZ Astana, Kazachstan	10.4.2011	13.4.2011
3.	Fabián Peter Assoc.Prof. Ing. PhD.	Telecom Brest (F)	26.4.2011	30.4.2011
4.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	DG INFOSOC1, Brussels (B)	3.5.2011	5.5.2011
5.	Bachratá Katarína, Assoc.Prof.RNDr. PhD	Oxford University (GB)	5.5.2011	9.5.2011
6.	Bachratý Hynek, RNDr., PhD.	Oxford University (GB)	5.5.2011	9.5.2011
7.	Marton Peter Ing. PhD.	Fair Transport Logistic (D)	9.5.2011	11.5.2011
8.	Klimo Martin, Prof. Ing. PhD.	EC Brussels	11.5.2011	12.5.2011
9.	Klimo Martin, Prof. Ing. PhD.	EXPO Budapest (H)	19.5.2011	20.5.2011
10.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	DG INFOSOC1, Brussels (B)	22.5.2011	24.5.2011
11.	Marton Peter Ing. PhD.	HTW Dresden (D)	22.5.2011	28.5.2011
12.	Matiaško Karol, Prof.Ing. PhD.	INTERTRAFFIC 2011 (TR)	24.5.2011	28.5.2011
13.	Zábovský Michal, Assoc.Prof. Ing. PhD.	INTERTRAFFIC 2011 (TR)	24.5.2011	28.5.2011
14.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	Stockholm University (S)	31.5.2011	2.6.2011
15.	Zábovský Michal, Assoc.Prof. Ing. PhD.	Linköping University (S)	31.5.2011	5.6.2011
16.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	ETSI Sofia Antipolis (F)	4.6.2011	11.6.2011

17.	Hittmár Štefan, Prof. Ing. PhD.	WSB Dabrowa Gornicza (PL)	13.6.2011	14.6.2011
18.	Klimo Martin, Prof. Ing. PhD.	EC Brussels	22.6.2011	22.6.2011
19.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	ETSI Sofia Antipolis (F)	26.6.2011	3.7.2011
20.	Ján Janech Ing. PhD.	Oracle Wien (A)	26.6.2011	2.7.2011
21.	Hrkút Patrik Ing. PhD.	Oracle Wien (A)	26.6.2011	2.7.2011
22.	Tóth Štefan Ing.	Oracle Wien (A)	26.6.2011	2.7.2011

In the 3rd Quarter 2011

	<i>Name</i>	<i>Institute - Country</i>	<i>from</i>	<i>to</i>
1	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	EC INFOSOC Brussels (B)	10.7.2011	13.7.2011
2.	Lieskovský Anton, Ing.	TU Beijing (CH)	13.7.2011	18.7.2011
3.	Janech Ján Ing. PhD.	TU Beijing (CH)	13.7.2011	18.7.2011
4.	Matiaško Karol, Prof.Ing. PhD.	Acad. of Business D.G.(PL)	18.7.2011	18.7.2011
5.	Zábovský Michal, Assoc.Prof. Ing. PhD.	Acad. of Business D.G.(PL)	18.7.2011	18.7.2011
6.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	ETSI Sofia Antipolis (F)	13.8.2011	28.8.2011
7.	Janáček Jaroslav, Prof. RNDr.PhD.	ETH Zurich (CH)	19.8.2011	4.9.2011
8.	Buzna Ľuboš, Assoc.Prof. Ing. PhD.	ETH Zurich (CH)	19.8.2011	4.9.2011
9.	Koháni Michal Ing. PhD.	ETH Zurich (CH)	19.8.2011	4.9.2011
10.	Bača Tomáš Ing.	ITST St. Petersburg (RUS)	22.8.2011	27.8.2011
11.	Janech Ján Ing. PhD.	ITST St. Petersburg (RUS)	22.8.2011	27.8.2011
12.	Kvet Marek, Ing.	Cadiz University (E)	11.8.2011	18.9.2011
13.	Blašková Martina, AssocProf. Ing. PhD.	Vilnius University (LT)	29.8.2011	31.8.2011
14.	Zaitseva Elena, Assoc.Prof. Ing. PhD.	UT Troyes (F)	17.8.2011	23.9.2011
15.	Hodoň Michal Ing.	TU Munich (D)	26.9.2011	30.9.2011
16.	Márton Peter Ing. PhD.	TU Berlin (D)	27.8.2011	29.9.2011
17.	Peter Goga Ing.	HTW Dresden (D)	26.9.2011	2.10.2011

In the 4th Quarter 2011

	<i>Name</i>	<i>Institute - Country</i>	<i>from</i>	<i>to</i>
1	Fabián Peter, Assoc.Prof. Ing.PhD.	ISPRA Varese (I)	2.10.2011	9.10.2011
2.	Púchyová Jana ,Ing.	TU Sofia (BG)	3.10.2011	7.10.2011
3.	Márton Peter Ing., PhD.	VDV Frankfurt (D)	4.10.2011	7.10.2011
4.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	EC Brussels (B)	9.10.2011	14.10.2011
5.	Matiaško Karol, Prof.Ing. PhD.	HfT Leipzig, (D)	10.10.2011	12.10.2011
6.	Zábovský Michal, Assoc.Prof. Ing. PhD.	HfT Leipzig, (D)	10.10.2011	12.10.2011
7.	Klimo Martin, Prof. Ing. PhD.	EC Brussels (B)	12.10.2011	12.10.2011
8.	Zábovský Michal, Assoc.Prof. Ing. PhD.	Linköping University (S)	16.10.2011	19.10.2011
9.	Klimo Martin, Prof. Ing. PhD.	EC Poznaň (PL)	25.10.2011	28.10.2011
10.	Hodoň Michal Ing.	University Munich (D)	7.11.2011	11.11.2011
11.	Zábovský Michal, Assoc.Prof. Ing. PhD.	State College Lomza (PL)	21.11.2011	2.12.2011
12.	Hodoň Michal Ing.	Polytechnic Lvov (UE)	4.11.2011	19.11.2011
13.	Márton Peter Ing., PhD.	TU Berlin (D)	30.11.2011	2.12.2011
14.	Kováčiková Tatiana, Assoc.Prof. Ing. PhD.	TNO, Helmond (NL)	15.11.2011	18.11.2011
15.	Blašková Martina, Assoc.Prof. Ing. PhD.	IPE, Zalkopane (PL)	2.12.2011	4.12.2011
16.	Levashenko Vitaly, Assoc.Prof. Ing. PhD.	State Uni. of Informatics and Radiology, Minsk (BR)	27.11.2011	5.12.2011

Turnover of staff in 2011

Within the space of year **2011** the Faculty has accepted into pedagogical and scientific staff following members:

1. Dr. Ivan **Cimrák**
2. Ing. Michal **Varmus**, PhD.
3. Ing. Andrej **Holúbek**, PhD.
4. Ing. Eva **Valentíková**, PhD.

In the same period following members left the Faculty:

1. Assoc.Prof.Ing. Vladimír **Jamrich**, PhD.
2. Ing. Michal **Bruncko**, PhD.
3. Prof.Ing. Dušan **Marček**, PhD.

Human resource management

As far as the required qualification structure of the pedagogical staff at the Faculty 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 2007-2011.

CATEGORY/YEAR	2007	2008	2009	2010	2011
Professors	9	11	10	9	9
Guest Professors	2	1	1	-	-
Assoc. Prof.	15	12	15	16	17
Senior Lecturers PhD.	35	45	58	56	52
Senior Lecturers	26	16	13	9	9
Assistants	1	1	-	-	-
Lectors	6	6	5	4	4
Research staff	9	9	6	8	6
Tech. Admin. Staff	49	52	47	44	44
Total	152	153	155	146	141

Programmes of Study:

Bachelors Degree Programme: *INFORMATICS*

1st year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	COMPULSORY				
	5BF001	Algebra	2-2-0	6	DMM
	5BI037	Informatics 1	2-2-2	8	DI
	5BF015	Mathematics for Informatics	2-2-0	8	DMM
	5BL033	Introduction to studies	2-0-2	3	DIN
	5BE001	Basics of Economic Theory	2-2-0	5	DMME
	OPTIONAL				
	5BF009	Practice of Mathematics	0-2-0	1	DMM
	5BI011	Practice of Programming 1	0-0-2	1	DI
	5BL015	Foreign Language	0-2-0	3	FHSc_DL
	5BL009	Physical Education	0-0-2	1	IPE

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	COMPULSORY				
	5BA026	Algorithmic Graphs Theory	2-2-0	6	DMM
	5BA024	Discrete Probability	2-2-1	6	DTN
	5BI038	Informatics 2	2-2-2	7	DI
	5BN010	Communication Technologies	2-0-2	5	DIN
	5BE002	Microeconomics	2-2-0	6	DMME
	OPTIONAL				
	5BI036	Practice of Programming 2	0-0-2	1	DI
	5BL016	Foreign Language	0-2-0	3	FHSc_DL
	5BL010	Physical Education	0-0-2	1	IPE

Recommended number of credits in the 1st year of study: 60

2nd year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	COMPULSORY				
	5BI039	Informatics 3	2-1-2	5	DI
	5BH001	Logical Systems	2-0-2	6	DTC
	5BF017	Mathematical Analysis 1	2-2-1	6	DMM
	5BI025	Assemblers	2-0-2	5	DTN
	OPTIONAL				
	5BE009	Economy of Enterprise	2-1-0	5	DMME
	5BI045	Graphics in Computers Applications	1-0-3	4	DIN
	5BI033	Spreadsheets	2-0-2	3	DI
	5BE021	Profession: Entrepreneur 1	1-2-0	2	DMME
	5BN013	Basics of Network Theory 1	2-0-2	6	DIN
	5BL017	Foreign Language	0-2-0	3	FHSc_DL
	5BL011	Physical Education 3	0-0-2	1	IPE

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	COMPULSORY				
	5UI024	Data Structures 1	2-0-2	6	DTN
	5BA022	Discrete Optimisation	2-0-2	6	DTN
	5BH018	Digital Computers	3-0-1	6	DTC
	5BI006	Basics of Database Systems	2-0-2	6	DI
	OPTIONAL				
	5BE008	Macroeconomics	2-2-0	5	DMME
	5BE014	Small and Medium Entrepreneurship	2-2-0	6	DMME
	5BI052	Metaprogramming	2-0-2	5	DST
	5BA008	Numerical Methods	2-0-2	3	DMM
	5BI044	Computers Graphic and Animation	1-0-3	4	DIN
	5BE022	Profession: Entrepreneur 2	1-2-0	3	DMME
	5BA030	Probability and Statistics	2-2-0	6	DTN
	5BL042	Sociology	1-2-0	5	DMT
	5BI048	Techniques of Programming 1	0-0-4	4	DI
	5BL018	Foreign Language 4	0-2-0	3	FHSc_DL
	5BL012	Physical Education 4	0-0-2	1	IPE

Recommended number of credits in the 2nd year of study: 120

3rd year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
5	COMPULSORY				
	5UA013	Modelling and Simulation	2-0-2	6	DTN
	5BS001	Operational Systems	2-0-2	6	DI
	5US003	Software Engineering	2-0-4	6	DI
	OPTIONAL				
	5US005	GIS Application in the Management	2-0-2	6	DTN
	5BI031	Database System - Access	2-0-2	4	DI
	5BS005	Identification of Systems	2-0-2	6	DTC
	5UM023	Communication Management	2-2-0	5	DMT
	5BF019	Mathematical Analysis 3	2-1-1	6	DMM
	5BH023	Microprocessors	2-0-2	6	DTC
	5US007	Multimedia Information Systems	2-0-2	6	DTN
	5UA005	Petri Nets	2-0-2	6	DTN
	5BL003	Law 1	2-2-0	6	DMME
	5BH021	Technical Equipment of PC	0-0-2	3	DTC
	5UA17	Queuing Theory	2-0-2	5	DMM
	5BI029	Basics of Programming in WINDOWS	2-0-2	4	DST
	5BN015	Basics of Network Theory 2	2-0-2	6	DIN
5BL013	Physical Education 5	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
6	COMPULSORY				
	5BZ001	Bachelors Project	0-0-8	12	G
	5BL040	English Language 1	0-0-0	3	FHSc_DL
	OPTIONAL				
	5IUE022	Taxes and Budget	2-1-0	5	DMME
	5BS012	Implementation of UNIX-LINUX	2-0-2	6	DMM
	5BS004	Information and Control Systems in Transport	2-0-1	3	DST
	5BI032	Compilers	2-0-2	6	DI
	5BS002	Management Information Systems	2-0-2	6	DMT
	5BA020	Modern Approximate Methods	2-0-2	4	DMM
	5UI014	Computers Graphics	2-0-2	6	DTN
	5BL004	Law 2	2-2-0	5	DMME
	5BL06	Psychology	2-1-0	4	G
	5BI022	Open Source Software	1-0-3	4	DMM
	5BI050	Techniques of Programming 2	0-0-4	4	DI
	5UA002	Game Theory	2-2-0	6	DMM
	5BA010	Scheduling Theory	2-2-0	6	DMM
	5UI002	Reliability Theory	2-0-2	5	DI
5BL14	Physical Education 6	0-0-2	1	IPE	

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

Compulsory Optional Courses

Groups of Compulsory Optional Courses include further themes from kernel of knowledge for study field Information Systems in the Masters Degree Programme. Student is to choose the groups of courses, which correspond to his future professional orientation (Data Processing, Decision Support Systems, Business 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.

Data Processing, Business Informatics, Distributed and Parallel Systems

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	COMPULSORY OPTIONAL				
	5US009	Internet and Intranet Application Development	2-0-2	4	DI
	COMPULSORY OPTIONAL				
Spring	5BI010	JAVA – Language and Development Applications	2-0-2	6	DI
	5BA006	Modelling and Optimisation	2-0-2	6	DTN
	5BI046	Software Modelling	2-0-2	6	DI

Decision Support Systems

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	COMPULSORY OPTIONAL				
	5BE007	Finance of Enterprise	2-0-2	6	DMME
	COMPULSORY OPTIONAL				
Spring	5BA006	Modelling and Optimisation	2-0-2	6	DTN
	5BI046	Software Modelling	2-0-2	6	DI

Information-Communication Networks

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	COMPULSORY OPTIONAL				
	5BN003	Computer Networks 1	2-0-4	6	DIN
	5BN011	Computer Networks 3	2-0-2	6	DIN
	COMPULSORY OPTIONAL				
Spring	5US004	Analysis of Processes	2-0-2	6	DIN
	5BN004	Computer Networks 2	2-0-4	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	OPTIONAL				
	5BF019	Mathematical Analysis 3	2-2-1	6	DMM
	COMPULSORY OPTIONAL				
Spring	5BA030	Probability and Statistics	2-2-0	6	DMM

Bachelors Degree Programme: *COMPUTER ENGINEERING*

1st year

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	COMPULSORY				
	5BF001	Algebra	2-2-0	6	DMM
	5BI037	Informatics 1	2-2-2	8	DI
	5BF017	Mathematical Analysis 1	2-2-1	6	DMM
	5BE001	Basics of Economic Theory	2-2-0	6	DMME
	5BF005	Basics of Physics	3-1-1	6	FEE
	OPTIONAL				
	5BF009	Practice of Mathematics	0-2-0	1	DMM
	5BL015	Foreign Language 1	0-2-0	3	FHSc-DL
	5BI011	Practice of Programming 1	0-0-2	1	DI
	5BL009	Physical Education	0-0-2	1	IPE

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	COMPULSORY				
	5BF004	Electrical Circuits	2-2-0	5	DTC
	5BI038	Informatics 2	2-2-2	7	DI
	5BN010	Communication Technologies	2-0-2	5	DIN
	5BF014	Mathematical Analysis 2	2-2-1	6	DMM
	5BH008	Theory of Automatic Control 1	2-1-1	6	DTC
	OPTIONAL				
	5BI036	Practice of Programming 2	0-0-2	1	DI
	5BL016	Foreign Language 2	0-2-0	3	FHSc-DL
	5BL010	Physical Education 2	0-0-2	1	IPE

Recommended number of credits in the 1st year of study: 60

2nd year

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	COMPULSORY				
	5BF007	Electronics	2-0-2	6	DTC
	5BI039	Informatics 3	2-1-2	5	DST
	5BH001	Logical Systems	2-0-2	6	DTC
	COMPULSORY OPTIONAL				
	5BF019	Mathematical Analysis 3	2-2-1	6	DMM
	5BN003	Computer Networks 1	2-0-4	6	DIN
	5BH009	Theory of Automatic Control 2	2-0-3	6	DTC
	5BS011	UNIX – Development Environment	1-0-3	4	DMM
	OPTIONAL				
	5BI045	Graphics in Computers Applications	1-0-3	4	DIN
	5BI025	Assemblers	2-0-2	5	DTN
	5BE021	Profession: Entrepreneur 1	1-2-0	2	DMME
	5BN013	Basics of Network Theory 1	2-0-2	6	DIN
	5BL017	Foreign Language 3	0-2-0	3	FHSc-DL
	5BL011	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
4	COMPULSORY				
	5BA024	Discrete Probability	2-2-1	6	DTN
	5BH002	Measurements	2-0-2	6	DTC
	5BL004	Law 2	2-2-0	5	DMME
	5BH018	Digital Computers	3-0-1	6	DTC
	5BH004	Digital Systems	2-0-2	6	DTC
	COMPULSORY OPTIONAL				
	5BN004	Computer Networks 2	2-0-4	6	DIN
	5BH022	Elements of Automatic Systems	2-0-2	6	DTC
	5BI006	Basics of Database Systems	2-0-2	6	DI
	OPTIONAL				
	5BF010	Complex Variable and Integral Transformation	2-1-1	4	DMM
	5BA008	Numerical Methods	2-0-2	3	DMM
	5BI044	Computers Graphic and Animation	1-0-3	4	DIN
	5BE022	Profession: Entrepreneur 2	1-2-0	3	DMME
	5UE004	Basics of Electronic Business	2-0-2	6	DIN
	5BL042	Sociology	1-2-0	5	DMT
	5BL018	Foreign Language 4	0-2-0	3	FHSc-DL
	5BL012	Physical Education 4	0-0-2	1	IPE

Recommended number of credits in the 2nd year of study: 120

3rd year

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
5	COMPULSORY				
	5BH005	Electronic Systems	2-0-2	6	DTC
	5BH019	Construction and Technology of Electronic System Production	1-0-3	4	DTC
	5BS001	Operational Systems	2-0-2	6	DI
	COMPULSORY OPTIONAL				
	5BH013	Microcomputers and their Applications	1-0-3	6	DTC
	5BH023	Microprocessors	2-0-2	6	DTC
	5BI029	Basic Programming in Windows	2-0-2	4	DST
	OPTIONAL				
	5BI007	Algorithms and Computational Complexity	2-0-0	3	DI
	5BI031	Database Systems – Access	2-0-2	4	DI
	5BS005	Identification of Systems	2-0-2	6	DTC
	5UM023	Communication Management	2-2-0	5	DMT
	5US007	Multimedia Information Systems	2-0-2	6	DTN
	5UA005	Petri Nets	2-0-2	6	DTN
	5BN011	Computers Networks 3	2-0-2	6	DIN
	5BL003	Law 1	2-2-0	6	DMME
	5BN015	Basics of Network Theory 2	2-0-2	6	DIN
	5BH021	Technical Equipments of PC	0-0-2	3	DTC
	5US009	Internet and Intranet Application Development	2-0-2	4	DST
5BL013	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	COMPULSORY				
	5BH0020	Computer Engineering	2-0-4	6	DTC
	5BZ001	Bachelors Project	0-0-8	12	G
	5BL040	English Language	0-0-0	3	FHSc-DL
	COMPULSORY OPTIONAL				
	5BI010	JAVA – Language and Development Applications	2-0-2	6	DI
	5BH014	Computer Process Control	2-0-3	7	DTC
	OPTIONAL				
	5BS012	Implementation of UNIX - LINUX	2-0-2	6	DMM
	5BS004	Information and Control Systems in Transport	2-0-1	3	DST
	5BI032	Compilers	2-0-2	6	DI
	5BE014	Small and Medium Entrepreneurships	2-2-0	6	DMT
	5BL004	Law 2	2-2-0	5	DMME
	5BL006	Psychology	2-1-0	4	G
	5BA010	Scheduling Theory	2-2-0	6	DMM
	5UI002	Reliability Theory	2-0-2	5	DI
	5BL014	Physical Education 6	0-0-2	1	IPE

From the group of Compulsory optional courses student has to choose courses, so that to obtain 15 credits in Bachelors Programme of study.

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

Bachelors Degree Programme: MANAGEMENT

1st year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	COMPULSORY				
	5BF001	Algebra	2-2-0	6	DMM
	5BI047	Informatics for Management 1	2-1-1	6	DI
	5BF017	Mathematical Analysis 1	2-2-1	6	DMM
	5BL003	Law 1	2-2-0	6	DMME
	5BE001	Basics of Economic Theory	2-2-0	6	DMME
	OPTIONAL				
	5BF009	Practice of Mathematics	0-2-0	1	DMM
	5BI011	Practice of Programming 1	0-0-2	1	DI
	5BM021	Presentation Techniques	0-2-0	3	DMT
	5BL015	Foreign Language 1	0-2-0	3	FHSc-DL
5BL009	Physical Education	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	COMPULSORY				
	5BI040	Informatics for Management 2	2-1-1	6	DI
	5BE014	Small and Medium Entrepreneurship	2-2-0	6	DMT
	5BM010	Management 1	2-2-0	6	DMT
	5BE002	Microeconomics	2-2-0	6	DMME
	5BE016	Business Economy	3-2-0	6	DMT
	OPTIONAL				
	5BI036	Practice of Programming 2	0-0-2	1	DI
	5BL016	Foreign Language 2	0-2-0	3	FHSc-DL
5BL010	Physical Education 2	0-0-2	1	IPE	

Recommended number of credits in the 1st year of study: 60

2nd year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	COMPULSORY				
	5BA015	Economical Statistics	2-1-1	6	DTN
	5BE005	Financial Accounting	2-2-0	6	DMME
	5BS013	Information Systems of Enterprise	2-0-2	6	DMT
	5UM011	Project Management	2-1-1	6	DMT
	OPTIONAL				
	5BI045	Graphics in Computers Applications	1-0-3	4	DIN
	5BI033	Spreadsheets	2-0-2	3	DI
	5BL17	Foreign Language 3	0-2-0	3	FHSc-DL
5BL11	Physical Education 3	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	COMPULSORY				
	5BE018	Marketing	2-2-0	6	DMT
	5BM016	Operational Management	3-1-0	6	DMT
	5BM014	Human Resource Management	2-2-0	6	DMT
	OPTIONAL				
	5BA008	Numerical Methods	2-0-2	3	DMM
	5BI044	Computers Graphic and Animation	1-0-3	4	DIN
	5BI046	Software Modelling	2-0-2	6	DST
	5BL018	Foreign Language 4	0-2-0	3	FHSc-DL
5BL012	Physical Education 4	0-0-2	1	IPE	

Recommended number of credits in the 2nd year of study: 120

3rd year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
5	COMPULSORY				
	5BM013	Quality Management	2-2-0	6	DST
	5BE007	Finance of Enterprise	2-2-0	6	DMME
	OPTIONAL				
	5US005	GIS Application in the Management	2-0-2	6	DTN
	5BI031	Database Systems – MS Access	2-0-2	4	DI
	5BS007	Multimedia Information Systems	2-0-2	6	DTN
	5BH021	Technical Equipments of PC	0-0-2	3	DTC
	5BN019	Basics of Research	0-2-0	3	DMT
5BL013	Physical Education 5	0-0-2	1	IPE	

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
6	COMPULSORY				
	5BZ001	Bachelors Project	0-0-8	12	G
	5BL002	Foreign Language 1	0-0-0	3	FHSc-DL
	OPTIONAL				
	5BS004	Information and Control Systems in Transport	2-0-1	3	DST
	5II014	Computers Graphics	2-0-2	6	DTN
5BL014	Physical Education 6	0-0-2	1	IPE	

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

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	COMPULSORY OPTIONAL				
	5UE013	Controlling	2-1-0	4	DMME
	5BM015	Supply Management	2-1-0	4	DMT
	5BM023	Marketing Communication	2-2-0	5	DMT
	5BA013	Modelling and Simulation	2-0-2	6	DTN

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Spring	COMPULSORY OPTIONAL				
	5UE022	Taxes and Budget	2-0-1	5	DMME
	5BL036	Business Ethics	2-1-0	4	DMT
	5BE020	Financial-Economical Analysis	2-1-1	4	DMME
	5BM018	Quality in Services	2-1-0	4	DM
	5BE008	Macroeconomics	2-2-0	5	DMME
	5BF014	Mathematical Analysis 2	2-2-1	6	DMM
	5BL038	Politology	2-2-0	4	DMT
	5BL004	Law 2	2-2-0	5	DMME
	5BL006	Psychology	1-2-0	4	G
5BL042	Sociology	1-2-0	5	DMT	

From the group of Compulsory optional courses student has to choose courses, so that to obtain 15 credits in Bachelors Programme of study.

Abbreviations: DMM - Department of Mathematical Methods
 DI - Department of Informatics
 DTC - Department of Technical Cybernetics
 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
 G - Guarantee for Programme of Study
 FEE - Faculty of Electrical Engineering
 FHSc-DL - Faculty of Human Science – Department of Languages
 IPE - Institute of Physical Education

www.fri.uniza.sk link: Study - Bachelors study

Masters Degree Programme: INFORMATION SYSTEMS

1st year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	COMPULSORY				
	5IN017	Architecture of Networks	2-0-2	5	DIN
	5II015	Data Structures 2	2-0-2	5	DTN
	5II007	Database Systems 2	2-0-2	5	DI
	5IN009	Optimisation of Networks	2-0-2	5	DTN
	COMPULSORY (due to Professional Orientation)				
	5IP001	Project 1	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	COMPULSORY				
	5IS008	Architectures of Information systems	2-0-2	5	DIN
	5II008	Discrete Simulation	2-0-2	5	DTN
	5IA002	Theory of Information	2-0-2	5	DMM
	COMPULSORY (due to Professional Orientation)				
	5IP002	Project 2	0-2-4	6	G

Recommended number of credits in the 1st year of study: 60

2nd year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	COMPULSORY				
	5II017	Cryptography and Safety	2-0-2	5	DMM
	5IP005	Internship	0-0-0	0	G
	COMPULSORY (due to Professional Orientation)				
		5IP003	Project 3	0-2-4	6

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	COMPULSORY				
	5IZ001	Diploma Thesis	0-0-20	30	G
	5IL004	English Language 2	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

Decision Support Systems

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
COMPULSORY OPTIONAL					
Autumn	5II001	Fuzzy Sets and Neural Networks	2-0-2	5	DTN
	5IE001	Theory of Enterprise	2-2-0	5	DMME

Semester	COMPULSORY OPTIONAL				
Spring	5US005	GIS Application in the Management	2-0-2	5	DTN
	5IN008	Communication Systems	2-0-2	5	DTN
	5IA006	Mathematical Programming	2-0-2	5	DTN

Data Processing

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
COMPULSORY OPTIONAL					
Autumn	5II013	Advanced Object Technologies	2-0-2	5	DTS
	5IE001	Theory of Enterprise	2-0-2	5	DMME

Semester	COMPULSORY OPTIONAL				
Spring	5II028	Database Languages	2-0-2	5	DI
	5II012	Data Mining	2-0-2	5	DI
	5IS006	Geographic Information Systems	2-0-2	5	DTN

Information-Communication Networks

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
COMPULSORY OPTIONAL					
Autumn	5IN007	Signal Transmissions	2-0-2	5	G-FEE
	5IP007	Design of Networks	2-0-2	5	G-FEE

Semester	COMPULSORY OPTIONAL				
Spring	5IN003	Integration of Networks	2-0-2	5	DIN
	5IN010	Theory of Information Networks	2-0-2	5	DIN

Business Informatics

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
COMPULSORY OPTIONAL					
Autumn	5IE017	Econometrics	2-0-2	5	DMME
	5IE015	Finance	2-2-0	5	DMME
	5II001	Fuzzy Sets and Neural Networks	2-0-2	5	DTN

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Semester	COMPULSORY OPTIONAL				
Spring	5IE010	Accounting and Analysis	3-2-0	5	DMME
	5II024	Artificial Neural Networks and Soft Computing	2-0-2	5	DMME

Distributed and Parallel Systems

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
	COMPULSORY OPTIONAL				
Autumn	5IS007	Distributed Systems	2-0-2	5	DTC
	5IS011	HPC and Grid computing	2-0-2	5	DTC
	5IS013	Developing Standards Open MP and MPI	2-0-2	5	DTC

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
	COMPULSORY OPTIONAL				
Spring	5IA006	Mathematical Programming	2-0-2	5	DTN
	5II026	Complexity of Distributed and Parallel Algorithms	2-0-2	5	DTC

From the group of Compulsory optional courses student has to choose courses, so that to obtain min 15 credits.

Groups of Optional courses

Decision Support Systems

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
	OPTIONAL				
Autumn	5IS007	Distributed Systems	2-0-2	5	DTC
	5IS009	Expert Systems	2-0-2	6	DTN
	5II032	Design Patterns	2-0-2	5	DI
	5IN005	Architecture of Networks	2-0-2	5	DIN

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
	OPTIONAL				
Spring	5US04	Analysis of Processes	2-0-2	5	DIN
	5II028	Database Languages	2-0-2	5	DI
	5IA010	Implementation of Optimization Algorithms	2-0-2	5	DTN
	5IM012	Quantitative Methods in Logistics	2-0-2	5	DMM
	5IA008	Metaheuristics	2-0-2	5	DTN
	5IE012	Prognostics	2-0-2	6	DMME
	5IS002	Real Time Systems Programming	2-0-2	5	DI
	5UA002	Game Theory	2-2-0	6	DMM
	5BA010	Scheduling Theory	2-2-0	6	DMM
	5UI002	Reliability Theory	2-0-2	5	DI

Data Processing

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Semester	OPTIONAL				
Autumn	5IS009	Expert Systems	2-0-2	6	DTN
	5IS011	HPC and Grid computing	2-0-2	5	DTC
	5IA009	Mathematical Aspects of High Performance Computing	2-0-2	5	DTC
	5II032	Design Patterns	2-0-2	5	DI
	5IN005	Architecture of Networks	2-0-2	5	DIN

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Semester	OPTIONAL				
Spring	5US004	Analysis of Processes	2-0-2	5	DIN
	5IA010	Implementation of Optimization Algorithms	2-0-2	5	DTN
	5IM014	Quality Management – Access and TQM Methods	2-1-0	5	DMT
	5IA008	Metaheuristics	2-0-2	5	DTN
	5IE012	Prognostics	2-0-2	6	DMME
	5IS010	Real Time Systems Programming	2-0-2	5	DI
	5II030	Techniques of Programming 3	0-0-4	4	DI
	5UA02	Game Theory	2-2-0	6	DMM
	5BA010	Scheduling Theory	2-2-0	6	DMM
5UI002	Reliability Theory	2-0-2	5	DI	

Information Communication Networks

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Semester	OPTIONAL				
Autumn	5IS009	Expert Systems	2-0-2	6	DTN
	5IS011	HPC and Grid computing	2-0-2	5	DTC
	5II032	Design Patterns	2-0-2	5	DI
	5IS013	Developing Standards Open MP and MPI	2-0-2	5	DTC

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Semester	OPTIONAL				
Spring	5IS006	Geographical Information Systems	2-0-2	5	DTN
	5IE012	Prognostics	2-0-2	6	DMME
	5IA010	Implementation of Optimization Algorithms	2-0-2	5	DTN
	5IA008	Metaheuristics	2-0-2	5	DTN
	5IE012	Prognostics	2-0-2	6	DMME
	5IS002	Real Time Systems Programming	2-0-2	5	DI
	5BA010	Scheduling Theory	2-2-0	6	DMM
	5UI002	Reliability Theory	2-0-2	5	DI

Business Informatics

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Semester	OPTIONAL				
Autumn	5IE005	Management Accounting	2-2-0	6	DMME
	5II032	Design Patterns	2-0-2	5	DI
	5II013	Advanced Object Oriented Technologies	2-0-2	5	DI
	5IN005	Architecture of Networks	2-0-2	5	DIN
	5II023	Artificial Intelligence	2-0-2	5	DTN

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Semester	OPTIONAL				
Spring	5II003	Database Languages	2-0-2	5	DI
	5IA010	Implementation of Optimization Algorithms	2-0-2	5	DTN
	5IM012	Quantitative Methods of Logistics	2-0-2	5	DMM
	5IA008	Metaheuristics	2-0-2	5	DTN
	5IE012	Prognostics	2-0-2	6	DMME
	5BA010	Scheduling Theory	2-2-0	6	DMM

Distributed and Parallel Systems

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	OPTIONAL				
	5IS009	Expert Systems	2-0-2	6	DTN
	5II032	Design Patterns	2-0-2	5	DI
	5IN005	Architecture of Networks	2-0-2	5	DIN

Semester	OPTIONAL				
Spring	5US004	Analysis of Processes	2-0-2	5	DIN
	5IS006	Geographical Information Systems	2-0-2	5	DTN
	5IM014	Quality Management – Access and TQM Methods	2-1-0	5	DMT
	5IE012	Prognostics	2-0-2	6	DMME
	5IS010	Real Time Systems Programming	2-0-2	5	DI
	5BA010	Scheduling Theory	2-2-0	6	DMM
	5UI002	Reliability Theory	2-0-2	5	DI

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

Masters Degree Programme: COMPUTER ENGINEERING

1st year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	COMPULSORY				
	5IPOP1	Project 1	0-2-4	6	G
	5IH009	Digital Signal Processing 1	2-0-2	5	DTC
	5IH013	Technical Means of Control and Information Systems	2-0-2	5	DTC
	5IH011	Introduction to the Theory of Discrete Systems	2-2-0	6	DTC

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	COMPULSORY				
	5IH002	Design of the Customer Integrated Circuits	2-0-2	5	DTC
	5IH006	Digital Data Transmission	2-0-2	5	DTC
	5IPOP2	Project 2	0-2-4	6	G

Recommended number of credits in the 1st year of study: 60

2nd year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	COMPULSORY				
	5IN005	Networks Architecture	2-0-2	5	DIN
	5IPO05	Internship	0-0-0	0	DMT
	5IPOP3	Project 3	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	COMPULSORY				
	5IZ001	Diploma Thesis	0-0-20	30	G
	5IL004	English Language 2	0-0-0	3	DL

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	COMPULSORY OPTIONAL				
	5IH007	Adaptive Systems of Automatic Control	2-0-2	5	DTC
	5IS007	Distributed Systems	2-0-2	5	DTCT
	5II017	Cryptography and Safety	2-0-2	5	DMM
	5II013	Advanced Object Oriented Technologies	2-0-2	5	DI
	5II021	Basics of Programming in the Kernel of an Operational System	2-0-2	5	DI

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Spring	COMPULSORY OPTIONAL				
	5II012	Data Mining	2-0-2	5	DI
	5IH008	Digital Signal Processing 2	2-0-2	5	DTC
	5IA002	Theory of Information	2-2-0	5	DMM

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	OPTIONAL				
	5IH015	Applications of the microprocessors implemented into the FPGA devices	2-0-2	6	DTC
	5II019	Computer Speech Recognition	2-0-2	6	DTC

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Spring	OPTIONAL				
	5BA010	Scheduling Theory	2-2-0	6	DMM
	5IH010	Selected Methods of Signal Compression	2-0-2	6	DTC

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

Abbreviations: DMM - Department of Mathematical Methods
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 IPE - Institute of Physical Education

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Master Degree Programme: MANAGEMENT

1st year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
1	COMPULSORY				
	5IE017	Econometrics	2-0-2	6	DMT
	5IE005	Management Accounting	2-2-0	6	DMME
	5IM021	Marketing Control	2-2-0	6	DMT
	5US003	Software Engineering	2-0-4	6	DI
	5IP0M1	Project 1	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
2	COMPULSORY				
	5IM026	International Management and Marketing	2-2-0	6	DMT
	5IM022	Systems for Support of Decision-Making	2-0-2	6	DMT
	5IP0M2	Project 2	0-2-4	6	G

Recommended number of credits in the 1st year of study: 60

2nd year of study

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
3	COMPULSORY				
	5IM027	Logistics	3-1-0	6	DMT
	5IM017	Organizational Behaviour	2-2-0	6	DMT
	5IP009	Design of Management Systems	0-4-1	6	DMT
	5IM009	Strategic Management	2-0-2	6	DMT
	5IP005	Internship	0-0-0	0	G
	5IP0M3	Project 3	0-2-4	6	G

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
4	COMPULSORY				
	5IZ001	Diploma Thesis	0-0-20	30	G
	5IL006	Foreign Language 2	0-0-0	3	DL
	OPTIONAL				
	5IM018	Process Management	2-2-0	4	DST

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Autumn	COMPULSORY OPTIONAL				
	5UM023	Managerial Communication	2-2-0	5	DMT
	5IM011	Management Games and Simulations	1-0-2	5	DMT
	5IM025	Marketing Tools and Applications	2-0-2	5	DMT
	5IM029	Research in Management	2-1-1	5	DMT

Semester	Code	COURSE	HOURS PER WEEK	ECTS	Department
Spring	COMPULSORY OPTIONAL				
	5IM014	Complex Quality Management- TQM Methods	2-1-0	5	DMT
	5IM024	Marketing of Services	2-2-0	5	DMT
	5IE012	Prognostic	2-2-0	6	DMME

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	OPTIONAL				
	5IS009	Expert Systems	2-0-2	4	DTN
	5IE015	Finance	2-2-0	5	DMME
	5US009	Internet and Intranet Application Development	2-0-2	4	DST
Spring	OPTIONAL				
	5IS008	Architecture of Information Systems	2-0-2	5	DIN
	5IS006	Geographical Information Systems	2-0-2	5	DTN
	5IE006	Capital and Investment Theories	2-2-0	6	DMME
	5IM012	Quantitative Methods of Logistics	2-0-2	5	DMM
	5UE004	Basics of Electronic Business	2-0-2	6	DIN

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 Cybernetics
 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
 G - Guarantee for Programme of Study
 FEE - Faculty of Electrical Engineering
 FHSc-DL - Faculty of Human Science – Department of Languages
 IPE - Institute of Physical Education

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Students with excellent results:

Excellent Masters Thesis:

Student Name	Thesis Title	Supervisor
Michal Kocifaj	Container terminal module for agent based simulation model of logistic systems	Ing. Norbert Adamko , PhD.
Lukáš Falát	Time series modelling and forecasting with statistical and hybrid NNW models I	Prof. Ing. Dušan Marček , PhD.
Matej Kurpel	Mobile phone acting as a cryptographic token	Assoc. Prof. Ing. Emil Kršák , PhD.
Jana Orieščiková	General methodology for selection of appropriate Self-Assessment model	Assoc. Prof. Ing. Miroslav Hrnčiar , PhD.
Michal Bízik	Prediction ex ante financial situation of enterprise in the Slovak Republic.	Assoc. Prof. Ing. Mária Ďurišová , PhD.
Barbora Klepáčová	Proposal of effective biological waste disposal management	Mgr. Jakub Soviar , PhD.
Peter Juriček	Quality management systems, their application in selected enterprise	Ing. Radoslav Jankal , PhD.
Alžbeta Karpišová	Proposal of company financial management which is based on comparative analysis of measurement of the enterprises financial situation in Slovak Republic and Germany	Assoc. Prof. Ing. Mária Ďurišová , PhD.
Miroslav Bendík	Using NNW to detection of human face in pictures	Prof. Ing. Dušan Marček , PhD.
Ján Kolčák	Optical Character Recognition using NNW	Prof. Ing. Dušan Marček , PhD.
Peter Siman	Speech recognition	Ing. Matúš Jurečka , PhD

Excellent Bachelors Thesis:

Student Name	Thesis Title	Supervisor
Juraj Branický	Application for selling travel tickets via mobile phone	Ing. Marek Tavač
Alžbeta Jánošíková	Comparison of algorithms „Variable Neighbourhood Search“ with a simple exchange heuristic for the p-median problem.	Ing. Michal Koháni , PhD.
Jozef Štyrák	Comparison of „Particle Swarm Optimisation“ and „Cuckoo search“ on a selected problem	Ing. Ľuboš Buzna , PhD.
Maroš Vaňo	Creation of user interface for industrial robot control in real-time mode	Assoc. Prof. Ing. Juraj Miček , PhD.
Miroslava Vrabcová	Applying Software to Solving Mathematical Problems and Data Analysis in Economics	Assoc. Prof. RNDr. Katarína Bachratá , PhD.
Katarína Kojtalová	Online Marketing and its Application for Portal LIPTOV.sk	Ing. Viliam Lendel , PhD.
Monika Bačíková	Increasing Competitiveness of the Company by Blue Ocean Strategy Methodology.	Assoc. Prof. Ing. Jozef Vodák , PhD.

Alžbeta Pallová	Monitoring of internal and external enterprise environment	Ing. Jana Dicová , PhD.
Marcel Kocifaj	Measurement of customer satisfaction of “Pension pri Trojičke” Ltd.	Ing. Michal Varmus , PhD.
Róbert Ďurec	Marketing plan of the MGM Reality agency	Ing. Zuzana Kozubíková , PhD.
Katarína Kontrošová	Search engine marketing and its application in practical projects	Ing. Viliam Lendel , PhD.
Vladimír Smataník	Extension of Geogebra software capabilities by tools for support of the probability and statistics education	RNDr. Aleš Kozubík , PhD.

Students participation at the Professional Competitions:

Student Competition IAB Slovakia:

Katarína **Kojtalová** - 1st. place

Katarína **Kontrošová** - 4th place

International Competition in Programming “Central European Regional Contest ‘11”, Wroclaw:

1. Martin **Berzák**
2. Filip **Franc**
3. Michal **Vrtiak**
4. Miloš **Korenčiak**
5. Miroslav **Kvaššay**
6. Jozef **Štaffen**

International Competition “Central European Regional Contest ‘2011”, Prague:

1. Jakub **Berthóty**
2. Miloš **Korenčiak**
3. Miroslav **Kvaššay**
4. Martin **Bulík**
5. Stanislav **Gálfy**
6. Matúš **Hovanec**

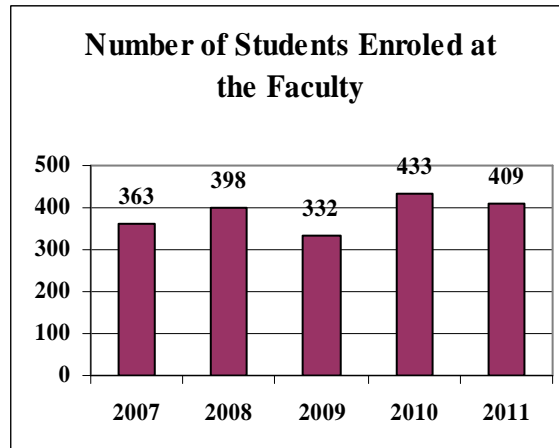
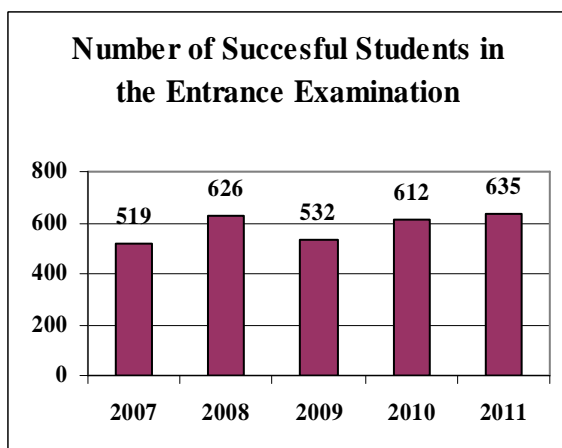
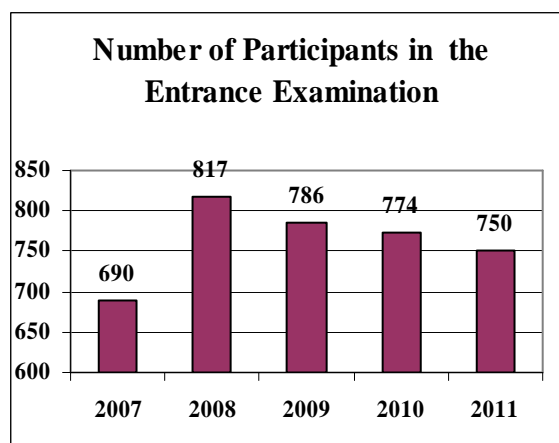
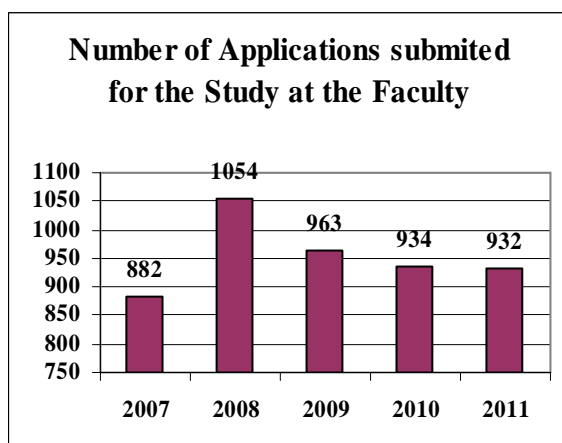
Students:

In November 2011, there were at the Faculty **996** students for Bachelors degree programme, **351** students for Masters Degree programme and **44** doctoral full-time students and **22** doctoral part-time students. An overview of number of students within last five years is on the following tablet:

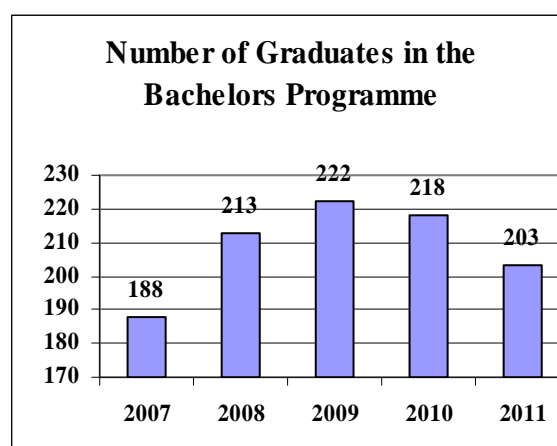
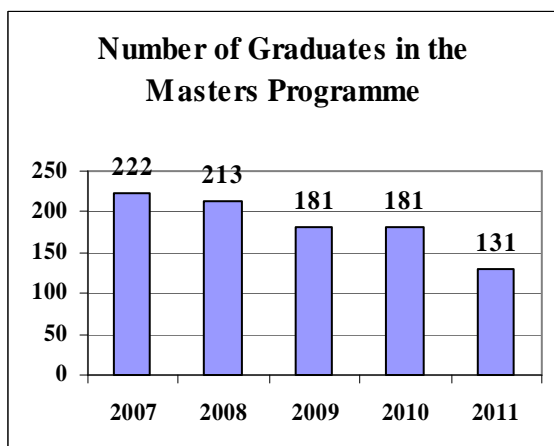
	2007	2008	2009	2010	2011
Bc.		961	890	872	996
MSc.	1401	402	392	363	351
PhD.	64	60	66	67	66
Total	1465	1423	1348	1235	1347

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 2011 participated in the Entrance exams **750** candidates for the study at the Faculty. From this number **635** were successful and **409** students were enrolled. They started in September 2011 their Programmes of study at the Faculty



The survey of graduates from the last 5 years is on the following graphs:



Programme ERASMUS and other international activities of the Faculty

There are following bilateral agreements in 2011 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 für Technik und Wirtschaft, Dresden, (D)
- Telecom SudParis, Evry, (F)
- Telecom and Management SudParis, Evry, (F)
- Université de Poitiers, (F)
- University of Science and Technology, Telecom Lille, (F)
- Utrecht University (NL)
- Linköping University, (S)
- University of Vaasa, (FIN)
- JAMK University of Applied Sciences Jyväskylä, School of Information Technology, (FIN)
- Seinäjoki University of Applied Sciences, (FIN)
- University College of Molde, (N)
- Universidad Politecnica de Valencia, Facultad d´Informatica, (E)
- Universidad Politecnica de Valencia, Escuela Technica Superior deTelecomunicacion, (E)
- University of Porto (P)
- Mikolas Romeris University, Vilnius (LT)
- Széchenyi István University, Győr, (H)
- Technical University of Sofia, (BG)
- College of Telecommunications and Posts, Sofia, (BG)
- University of Pardubice (CZ)
- College of Computer Science and Business Administration, Lomža (PL)
- Technical University, Radom (PL)
- Kielce University of Technology (PL)

In the academic year **2011** followed or will follow (in the Spring semester) **16** students in the frame of the programmes ERASMUS the programme of study at the partner's universities and Institutions from the Faculty.

Foreigner Students at the Faculty in 2011

In the frame of Student Training Agreement with Telecom SudParis Evry, FRANCE, 3 students took part in 2011 two months internship at the Faculty and 2 students from University of Porto in the frame of the programmes ERASMUS.

Information Centre

At the Faculty of Management Science and Informatics was created **Information Centre**, which provides service for the study and acquiring of information. Centre is furnished with professional literature and with few efficient computers connected on the Internet.

Information Centre provides:

- counselling service for students in composition of Programmes of study
- coordination of students mobility and counselling service about possibility of study on the other universities abroad
- presentation and propagation of the Faculty in its various activities
- library service and coordination of editorial activity
- registration of in tray and out tray (letters, journals, package of books and parcels , ...

Intranet of the Faculty

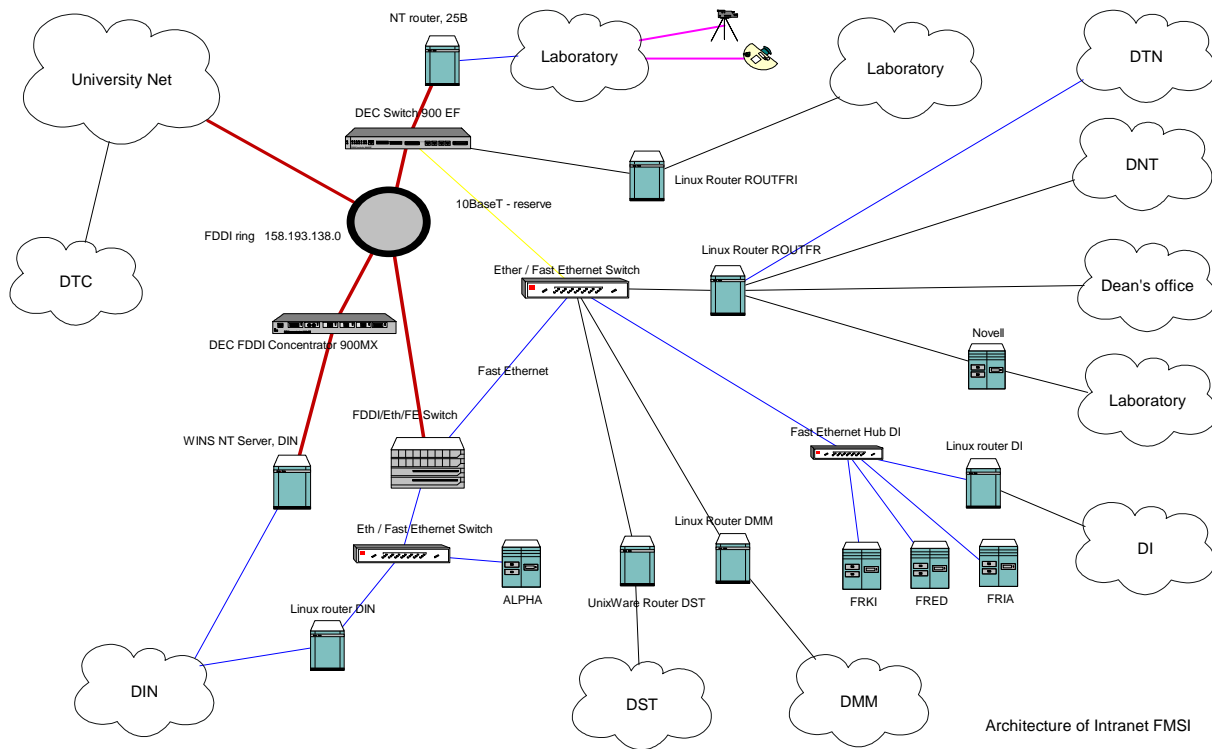
It was in 1992 when the Intranet of Faculty was created and in the meantime was continuously improving. It came into existence from the needs to process and to make accessible lot of information to students and to pedagogical staff, as well. The intranet of Faculty is a part of University Intranet, which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

Conception of Intranet Faculty is based on the fact, that every Department is in possession of the own network, which is connected through ETERNET (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**

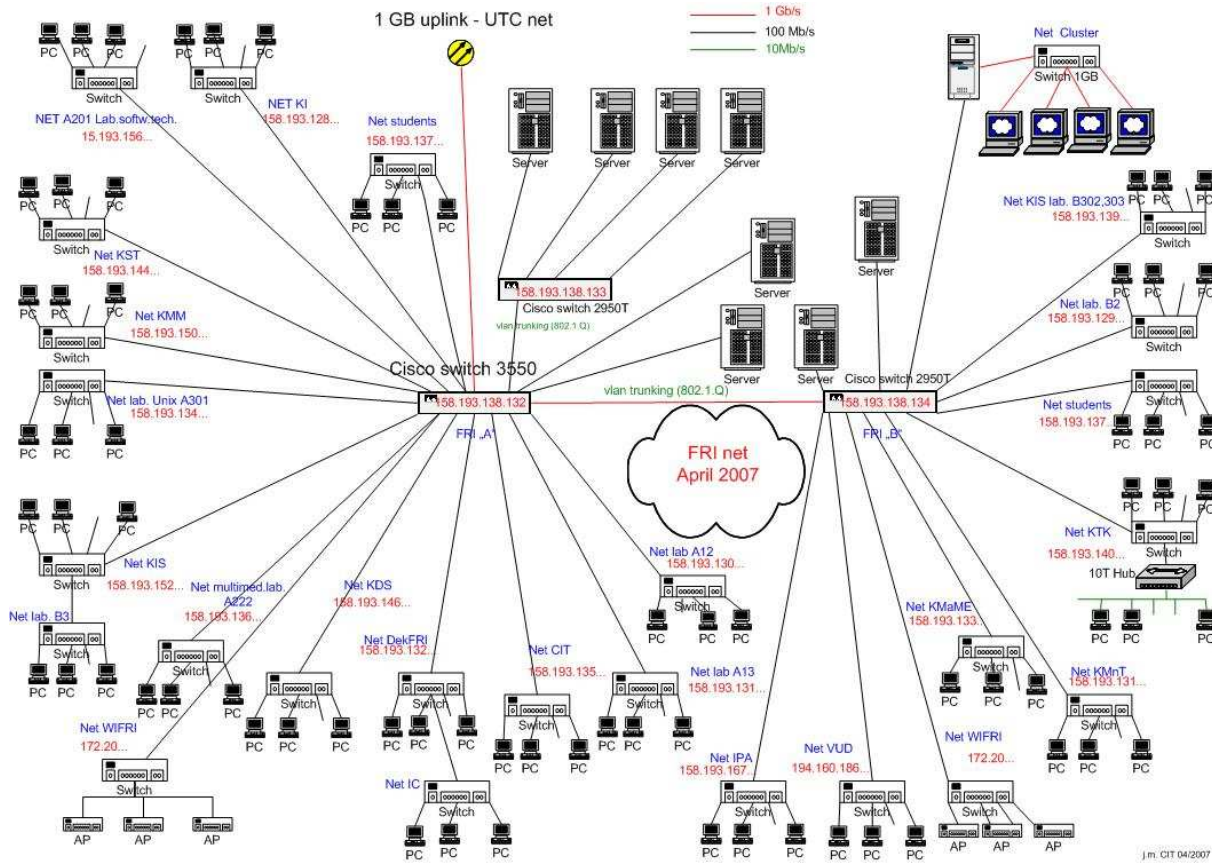
Architecture of INTRANET:



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

Schema of the Faculty Computers network and its connection to the University Network is on the following picture:



Department of Mathematical Methods

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

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e-mail: stanislav.paluch@fri.uniza.sk

Teaching Staff: Assoc.Prof. RNDr. Štefan **Peško**, PhD.

RNDr. Ida **Stankovianska**, PhD.

RNDr. Rudolf **Blaško**, PhD.

Mgr. Peter **Czimmermann**, PhD.

Mgr. Lýdia **Gábrišová**, PhD.

Mgr. Michal **Kaukič**, PhD.

RNDr. Alžbeta **Klaudinyová**

RNDr. Aleš **Kozubík**, PhD.

Ing. Tomáš **Majer**

Mgr. Eduard **Omasta**

RNDr. Július **Rebo**, PhD.

Administrative Department: Ing. Ľubica Micháľková

Tel.:+421-41-513 4251

PhD students Ing. Michal Murín
Mgr. Marian Kováč
Ing. Tomasz Kanik

PhD.-Programme

Theme	Student	Supervisor
1. Optimum Route Problems in Large Transportation Networks	Ing. T. Majer	Assoc.Prof.RNDr. S. Palúch, PhD.
2. Timetable Optimization in Position – Time Scheduling	Ing. M. Murín	Assoc.Prof.RNDr. Š. Peško, PhD.
3. Possibilities of Parallel Calculations in Solving Discreet Optimization Problems	Mgr. M. Kováč	Assoc.Prof.RNDr. S. Palúch, PhD.
4. Decision-Making Models in Diagnose Determination in Veterinary Medicine	Ing. T. Kanik	Assoc.Prof.RNDr. Š. Peško, PhD.

EQUIPMENT

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



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

Cooperation with Foreign Institutes and Enterprises

1. University of Economics - Prague, CZ
2. University of Pardubice, CZ
3. University of Economics, Prague, CZ, Faculty of Management, Jindřichuv Hradec, CZ
4. Mykolas Romeris University, Vilnius, Faculty of Public Administration, LITHUANIA
5. Czestochowa University of Technology, Faculty of Management, PL

BACHELORS THESIS

No.	Theme	Student	Supervisor
1.	Numerical Computations using GPU	J. Prociavňák	Mgr. M. Kaukič, PhD.
2.	Teaching aid for mathematics analysis	A. Hlaváč	Mgr. L. Gábrišová, PhD.
3.	Route Planner for Heavy Transport	D. Miškár	Assoc.Prof.RNDr. S. Palúch, PhD..
4.	Integer factorization	L. Veselovský	Mgr. P. Czimmermann, PhD
5.	Camera calibration fundamentals and Open Source software.	M. Filip	Mgr. M. Kaukič, PhD.
6.	Heuristics for p-median on graphs	M. Džúr	RNDr. R. Blaško, PhD.
7.	Format conversion from HTML to LATEX	P. Čanecký	RNDr. A. Kozubík, PhD
8.	YubiKey authentication and Open Source software	P. Červienka	Mgr. M. Kaukič, PhD
9.	Voting software for local communities	P. Margetiak	Mgr. M. Kaukič, PhD.
10.	Extension of Geogebra software capabilities by tools for support of the probability and statistics education	V. Smataník	RNDr. A. Kozubík, PhD.

MASTERS THESIS

No.	Theme	Student	Supervisor
1.	Shortest Paths in FIFO Time-Dependent Networks	A. Majer	Assoc.Prof.RNDr. Š. Peško, PhD..
2.	Minimum-weight perfect matching in huge graphs	I. Beňová	Assoc.Prof.RNDr. Š. Peško, PhD.
3.	Transport demand analysis in municipal passenger transport	M.Kubinčánek	Ing. T. Majer
4.	Electronic signature of documents	O. Šulc	Ing. T. Majer
5.	Model of transportation network used in municipal passenger transport	Š. Koncz	Ing. T. Majer

OTHER ACTIVITIES

Assoc.Prof.RNDr. Stanislav Palúch, PhD.:

- Member of Scientific Board of Faculty of Management Science and Informatics, University of Žilina
- Member of Scientific 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"

Assoc.Prof.RNDr. Štefan Peško, PhD.

- Founder members of the Society for Open Source Information Technologies (SLOVAKIA)
- Transaction on Transportation Sciences (CZECH REPUBLIC)

RNDr. Rudolf Blaško, PhD.:

- Member of Editorial Staff "Studies of the University of Žilina, Mathematical Series"

Mgr. Michal Kaukič PhD.:

- Founder members of the Society for Open Source Information Technologies (SLOVAKIA)

Department of Informatics

Head of Department: Assoc. Prof. Ing. Penka **M a r t i n c o v á**, PhD.

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Assoc. Prof. Ing. Vitaly **Levašenko**, PhD.

Assoc. Prof. Ing. Karol **Grondžák**, PhD.

RNDr. Peter **Varša**, PhD.

RNDr. Miroslav **Benedikovič**

RNDr. Štefan **Kovalík**, PhD.

Ing. Ján **Boháčik**, PhD.

Ing. Zuzana **Kurillová**, PhD.

Ing. Matúš **Chochlík**, PhD.

Ing. Iveta **Nedeljaková**, PhD

Ing. Eva **Valentíková**, PhD

Ing. Miroslav **Faktor**

Ing. Monika **Václavková**

Ing. Josef **Kopecký**

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

Administrative Department: Anna Ilovská

Doctoral full-time students:

Ing. Jan Janech

Ing. Tomáš Bača

Ing. Anton Lieskovský

Ing. Michal Ulbricht

Ing. Marek Šajna

Ing. Ľuboš Takáč

Ing. Miroslav Rusín

Ing. Michal Varga

Ing. Slavomír Kavecký

Ing. Jozef Kostolný

Doctoral part-time students:

Ing. Stanislav Piecka

Ing. Marek Tavač

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



PhD.-Programme

Theme	Student	Supervisor
1. Query processing optimisation	Ing.T. Bača	Prof.Ing. K. Matiaško, PhD.
2. Replication of Databases in Ad-Hoc Networks	Ing. A. Lieskovský	Prof.Ing. K. Matiaško, PhD.
3. Multi-criteria Grid Scheduling	Ing. M. Ulbricht	Assoc.Prof.Ing. P. Martincová, PhD.
4. Process Control in Distributed Databases	Ing. J. Janech	Prof.Ing. K. Matiaško, PhD.
5. Object Database Transformation	Ing. M. Tavač	Prof.Ing. K. Matiaško, PhD.
6. Distribution of Information Using Web-Applications in Communication with Person or Computer	Ing.M. Šajna	Prof.Ing. K. Matiaško, PhD.
7. Parallel Methods for Supply Problem Solving Using Ant Colony	Ing. S. Piecka	Assoc.Prof.RNDr. M. Lucká, PhD.
8. Data Processing in Extensive Databases	Ing. Ľ. Takáč	Assoc.Prof.Ing. M. Záborský, PhD.
9. Evaluation of Risk and Reliability in Medical Support Decision-making Systems	Ing. M. Rusín	Assoc.Prof.Ing. E. Zaitseva, PhD.
10. Modelling of Data Mining and Using by Intelligent Decision-Making in Agent Oriented Simulation Models	Ing. M. Varga	Prof.Ing. K. Matiaško, PhD.
11. Management of Grids Resources	Ing. S. Kavecký	Assoc.Prof.Ing. P. Martincová, PhD.
12. Analysis of Systems Reliability	Ing. J. Kostolný	Assoc.Prof.Ing. E. Zaitseva, PhD.

COOPERATION

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 Telecom
- Slovak Railways
- Ipesoft Žilina
- Elanor Žilina
- KROS Žilina
- S&T Žilina
- Softip, Banská Bystrica
- University Matej Bell, Banská Bystrica
- Technical University, Košice

Cooperation with Foreign Institutes and Enterprises

- State Economic University, Minsk, Belarus
- University of Pardubice, Faculty of Transport, Pardubice, CZ
- University of Ostrava, Faculty of Natural Sciences, Ostrava, CZ
- Scheidt und Bachman, D
- Siemens Österreich, A
- Technical University of Sofia, BG
- United Institute of Informatics Problems of the National Academy of Sciences of Belarus Minsk, Belarus

Membership in Slovak Organizations and Societies

Prof. Ing. Karol Matiaško, PhD.

- Slovak Society for System Integration (SSSI)
- Academic Board of the Faculty of Management science and Informatics of University of Žilina - President
- Scientific Board of the University of Žilina
- Scientific Board of the Faculty of Electrical Engineering and Informatics of University of Ostrava
- Scientific Board of the Faculty of Natural Sciences, University Matej Bell, Banská Bystrica
- Slovak Informatics Society
- Advice Council of Ministry of Transport and Communications Advice Council of Ministry of Education for Informatics
- Council of Ministry of Transport and Communications for Informatics
- Slovak Informatics Society (ACM) - Chairman of University Žilina group
- Advice Council of Mayor of Prievidza
- Group for Informatics in Accreditation Board of Government

Assoc.Prof.Ing. Michal Záborský, PhD.

- Slovak Information Society – Member of steering committee

Membership in International Organizations and Societies

- Prof. Ing. Karol **Matiaško**, PhD. - National Evaluation and Foresight Agency, SPAIN
- Prof. Ing. Karol **Matiaško**, PhD. – Czech Society for System Integration
- 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),
- Assoc.Prof.Ing. Penka **Martincová**, PhD - Member of Editorial board in Journal Information Technologies and Security. BULGARIA
- Assoc.Prof.Ing. Penka **Martincová**, PhD - Member of steering committee of International conference InfoTech, Bulgaria
- Assoc.Prof.Ing. Michal **Záborský**, PhD. - Czech Society for System Integration

BACHELORS THESIS

No.	Theme	Student	Supervisor
1.	The comparison of some binary trees balancing methods	L. Babečka	RNDr. P. Varša, PhD
2.	Software Implementation of Support Education for Primary School	J. Majstrík	Assoc.Prof.Ing. V. Levashenko, PhD.
3.	Software application to test knowledge of students in primary schools	A. Putera	Ing. I.Nedeljaková,PhD.
4.	New Generation Internet Applications	A. Badin	Assoc.Prof. Ing. M. Záborský, PhD.
5.	LMS Moodle module for attendance recording	B. Brtáň	Assoc.Prof.Ing. K. Grondžák, PhD.
6.	Elaboration of Draft Version of Attractive Virtual Portal	D. Dragula	Assoc.Prof.Ing. V. Levashenko, PhD.
7.	Data evidence application used for object vulnerability analysis.	F. Feja	Ing. M. Václavková
8.	WEBDESIGN - principles, methods and structure and its implementation to real project	E. Milota	Ing. I.Nedeljaková,PhD.
9.	Editor for decision trees	J. Kalina	Ing. M. Rusin
10.	Design and implementation of wrapping graphics library applicable for selected embedded device	J. Šipikal	RNDr. Š. Kovalík, PhD
11.	Software application to support the teaching of selected algorithms from the theory of graphs	J. Letavaj	Ing. I. Nedeljaková, PhD.
12.	Appointment management system	J. Nemeč	Assoc.Prof.Ing. K. Grondžák, PhD.
13.	LMS Moodle module for registering students for projects	J. Kalafut	Assoc.Prof.Ing. K. Grondžák, PhD.
14.	Software application to support the teaching of mathematics in primary schools	L. Zvalo	Ing. I. Nedeljaková, PhD.
15.	Creation of modules – mini-applications for learning	L. Šálková	Assoc.Prof. Ing. P. Martincová, PhD.
16.	Create an application for Java course purpose	L. Jancek	RNDr. P. Varša, PhD.
17.	Video manual for Graphic editor GIMP	L. Vážan	Ing. J. Kopecký
18.	Analysis and implementation of a personalized learning information system	L. Vaško	Assoc.Prof. Ing. P. Martincová, PhD.
19.	Appointment management system - client application and administration module	M. Fridrich	Assoc.Prof.Ing. K. Grondžák, PhD.
20.	Distributed system for Internet access registration	M. Galovič	Assoc.Prof.Ing. K. Grondžák, PhD.
21.	Tool for import / export database schema	M. Bruchánik	Ing. Ľ. Takáč
22.	The comparison of binary trees balancing methods	M. Mikula	RNDr. P. Varša, PhD.

No.	Theme	Student	Supervisor
23.	Electronic product and service catalogue of the small company	M. Kollarčík	RNDr. P. Varša, PhD.
24.	Application Development for Mobile Device	M. Šorman	Assoc.Prof. Ing. M. Záborský, PhD.
25.	Featured examples for exercises of „Data structures“ courses	O. Balák	RNDr. P. Varša, PhD
26.	Database replication for Windows Mobile devices.	O. Kriška	Ing. A. Lieskovský
27.	Tool for risk estimation of oncological disease	P. Rau	Assoc.Prof.Ing. E. Zaitseva, PhD.
28.	Website of Department of transportation networks	P. Repáň	Ing. M. Šajna
29.	Web application for business support	P. Volf	Assoc.Prof.Ing. V. Levashenko, PhD
30.	Staff management information system	R. Rajčok	Ing. M. Chochlík, PhD.
31.	Attendance system – web application	R. Piška	RNDr. Š. Kovalík, PhD.
32.	Database replication in Ad-Hoc Network	V. Ďurech	Ing. A. Lieskovský

MASTERS THESIS

No.	Theme	Student	Supervisor
10.	Parking systems - Alternative way of navigation in closed spaces	M. Rak	Prof.Ing. K. Matiaško, PhD.
11.	Web-page Content Management System	M. Boďa	RNDr. Š. Kovalík, PhD
12.	E-Health system - Object relational data model for the Ambulance services mode	M. Polc	Prof.Ing. K. Matiaško, PhD.
13.	E-Health system - Presentation level for the Ambulance services module	M. Vladár	Prof.Ing. K. Matiaško, PhD.
14.	Intelligent Parking - Reservation system	O. Kredatus	Prof.Ing. K. Matiaško, PhD.
15.	Information system for management of sport clubs and sportsmen	P. Hudec	Prof.Ing. K. Matiaško, PhD.
16.	E-Health system - User Interfaces	P. Píř	Prof.Ing. K. Matiaško, PhD.
17.	Analysis of prognosis sensitivity based on CART algorithm	P. Solenský	Assoc.Prof.Ing. V. Levashenko, PhD
18.	Contac Deposit System: Web portal for files transfer support	T. Chabada	RNDr. Š. Kovalík, PhD.
19.	Intelligent Parking – Parking portal	T. Motyčák	Prof.Ing. K. Matiaško, PhD.
	Web based application module for a construction cost prediction - tender management for a contractors of goods and services		RNDr. Š. Kovalík, PhD
20.	Theme	Student	Supervisor
21.	Visualization Bibliography Intelligent Parking – Camera system	V. Vrábel M. Jurečka	Assoc.Prof. Ing. Prof.Ing. M. Zábovský, PhD. K. Matiaško, PhD.
2.	Software implementation for Application in Education Support	R. Person	Assoc.Prof.Ing. V. Levashenko, PhD
3.	System to support creation and management of electronic commerce for the economic system Omega	J. Minarovský	RNDr. Š. Kovalík, PhD.
4.	Hospital Information System - Administration and modularity of the system	A. Palovič	Prof.Ing. K. Matiaško, PhD.
5.	Analysis of decision support based on crisp decision trees	A. Šulhin	Assoc.Prof.Ing. V. Levashenko, PhD
6.	Web based application module for a construction cost prediction - application security and input-output management	J. Kostolný	RNDr. Š. Kovalík, PhD.
7.	Location Services for Multimedia	J. Vodička	Assoc.Prof. Ing. M. Zábovský, PhD.
8.	System for the analysis of schedules due to the flow of passengers	M. Wagner	Ing. J. Kopecký
9.	Web based application module for a construction cost prediction - construction calculations management	M. Lacko	RNDr. Š. Kovalík, PhD.



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Ing. Beata **Holková**, PhD.
Ing. Anna **Jacková**, PhD.
Ing. Zuzana **Kozubíková**, PhD.
Ing. Lucia **Pančíková**, PhD.
Ing. Zuzana **Staníková**, PhD.
Ing. Emese **Tokarčíková**, PhD.
Ing. Katarína **Zábovská**, PhD.
PhD.JUDr. Margita **Beháňová**

Administrative Department: Eva Maťková

PhD Students Ing. Lucia Murínová
Ing. Alexander Ferianc
Ing. Alexandra Kotillová
Ing. Ladislav Nižník
Ing. Marek Horváth
Ing. Lukáš Falát

EQUIPMENT



PhD.-Programme

Theme	Student	Supervisor
Modelling of Economic Processes with Legislative Approach with Econometric Methods and Methods of AI	Ing. A. Kotillová	Prof. Ing. D. Marček, PhD.
Economic Policies as Determinant of Management Decision-Making	Ing. A. Ferianc	Assoc. Prof. Ing. A.Kucharčíková PhD.
Flexible Working Forms as a Tool for Effective Management of the Enterprise.	Ing. L. Murínová	Assoc. Prof. Ing. A.Kucharčíková PhD.
Employee Appraisal Model as Tool of the Management Decision	Ing. L. Nižník	Assoc. Prof. Ing. A.Kucharčíková PhD.
Statistics and UNS Prediction Models for Economic Data: Hybrid Systems	Ing. M. Horváth	Prof. Ing. D. Marček, PhD.
Data of Temporal Series : Search of Dependences and Prediction by Means of UNS and Progressive Statistical Methods	Ing. L. Falát	Prof. Ing. D. Marček, PhD.

COOPERATION

Co-operation with Institutes and Enterprises in Slovakia

- Faculty of Economy UMB, Banská Bystrica,
- University of Economics, Bratislava
- Slovak University of Technology, Bratislava
- Office of Industrial Property, Banská Bystrica
- 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
- Science and Technology Park Žilina

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
- University of Pardubice
- Ural State Economic University in Jekaterinburg, RSFR
- HTW Dresden

BACHELORS THESIS

No.	Theme	Student	Supervisor
1.	New forms of marketing communication in business relation B2B	J. Rautner	Ing. Z. Staníková, PhD.
2.	Status of Woman in the Labour Market	Ž. Kuzmická	Ing. E. Tokarčíková, PhD.
3.	Firm investment financing by European funds.	M. Cíba	Ing. Z. Kozubíková, PhD.
4.	Utilization of web technology as a tool of marketing communication.	M. Tomašovský	Ing. Z. Staníková, PhD.
5.	Ways to decrease expenses in a specific enterprise	V. Jančeková	Ing. A. Jacková, PhD.
6.	Protection and exploitation of company brand	I. Dutková	JUDr. M. Beháňová
7.	Liquidity supply of an enterprise by means of its claim control	B. Mikulová	Ing. A. Jacková, PhD.
8.	The Labour Migration and its Impact on the Labour Market	G. Kuzníková	Ing. E. Tokarčíková, PhD.
9.	Communication activities of the firm aimed at internet.	B. Grobarčík	Ing. Z. Kozubíková, PhD.
10.	Analysis and utilization of MS Office 2010 for management	J. Hlôšková	Ing. K. Záborská, PhD.
11.	Application of genetic algorithms on selected type of neural network	I. Mäsiar	Ing. A. Kotillová
12.	Analysis of the pension system	L. Kováčová	Assoc.Prof.Ing. A. Kucharčíková, PhD.
13.	Development of Unemployment in Selected EU Countries	L. Turčanová	Ing. E. Tokarčíková, PhD.
14.	Financial and Economic Analysis of an Enterprise	M. Sklenár	Ing. A. Jacková, PhD.
15.	Creating of economic models using RBF networks	M. Hovanec	Ing. A. Kotillová
16.	Choosing the optimal external resource in financial investments of an enterprise	M. Kamenistá	Ing. A. Jacková, PhD.
17.	New forms of marketing communication in business relation B2C	P. Ševčíková	Ing. Z. Staníková, PhD.
18.	Marketing plan of the MGM Reality agency	R. Ďurec	Ing. Z. Kozubíková, PhD.
19.	Application of the minimum wage in Slovakia and abroad	V. Dolinajcová	Assoc.Prof.Ing. A. Kucharčíková, PhD.
20.	Employment of Disabled and Disadvantaged People	V. Luhový	Ing. E. Tokarčíková, PhD.
21.	Marketing plan in industrial establishment	Z. Grmanová	Ing. Z. Kozubíková, PhD.

MASTERS THESIS

No.	Theme	Student	Supervisor
1.	Proposal of company financial management which is based on comparative analysis of measurement of the enterprises financial situation in Slovak Republic and Germany	A.Karpišová	Assoc.Prof.Ing. M. Ďurišová, PhD.
2.	The trading strategy on the present markets.	A Baláková	Ing. Z. Kozubíková, PhD.
3.	Efficiency of the selected marketing activities evaluation	D. Mikuška	Ing. Z. Kozubíková, PhD.
4.	Increasing the regional performance	Š. Sekáč	Assoc.Prof.Ing. A. Kucharčíková, PhD.
5.	Impact of the costs and revenues on company's profits	F. Švec	Ing. A. Jacková, PhD.
6.	Decision-making model for selection of external source of financing business assets	J. Okapalová	Assoc.Prof.Ing. M. Ďurišová, PhD.
7.	Optical Character Recognition using NNW	J. Kolčák	Prof.Ing. D. Marček, PhD.
8.	Influence of random events on decision-making of economic actors	K. Lašáková	Ing. J. Dubovec, PhD.
9.	Time series modelling and forecasting with statistical and hybrid NNW models I	L. Falát	Prof.Ing. D. Marček, PhD.
10.	Decision making on the present markets.	M. Bullová	Ing. Z. Kozubíková, PhD.
11.	Management model of fixed business assets	M. Šeliga	Ing. A. Jacková, PhD.
12.	Prediction ex ante financial situation of enterprise in the Slovak Republic.	M. Bízík	Assoc.Prof.Ing. M. Ďurišová, PhD.
13.	Increasing the value of human capital in selected enterprise	M. Švábik	Assoc.Prof.Ing. A. Kucharčíková, PhD.
14.	Using NNW to detection of human face in pictures	M. Bendík	Prof.Ing. D. Marček, PhD.
15.	Time series modelling and forecasting with statistical and NNWs models II	P. Tkáč	Prof.Ing. D. Marček, PhD.
16.	Efficient use of the human capital	S. Časo	Assoc.Prof.Ing. A. Kucharčíková, PhD
17.	Experimentation with statistical and SC models	T. Laštík	Prof.Ing. D. Marček, PhD.
18.	Management model of current business assets	T. Králik	Ing. A. Jacková, PhD.

Membership in Slovak Organisations and Societies

- Assoc. Prof. Ing. Alžbeta **Kucharčíková**, PhD.: Member of The Management Trainers Association
- Ing. Katarína **Zábovská**, PhD.: Slovak Association for System Integration

Other Activities

Videoconference with Members of Department of Financial Management from Ural State University of Economics, 18. 5. 2011



Requested Presentations

Elina Rafikovna Yakirova, Associate Professor of Financial Management from Ural State University of Economics: *Liquidity Problems*, 30. 3. 2011

Ščerbinin Sergej Petrovič, Associate Professor at Department of Financial Management from Ural State University of Economics: *Practical Examples of Business Evaluation*, 30. 3. 2011

Philipp **Bagus**, Professor of Economics, University of King Juan Carlos in Madrid: *Tragedy of Euro*, 14. 6. 2011

Vladimír **Medňanský**: Financial Indicators: *Data and Information Affecting the Decisions of Relationship Credit Manager in Bank*, 10. 11. 2011

Peter **Gonda**, Economist of the Conservative Institute: *Collapse of Central Money Control and Dream of Euro*, 11. 11. 2011

Requested Presentation of our Department Members

Mária **Ďurišová**: Issues of Management Accounting, “*Week of theory and practice in the economy*“, Faculty of Economics and Administration, University of Pardubice, 31.10. - 4.11.2011

Alžbeta **Kucharčíková**: Specific Issues of Human Resource Management in the Public Sector, “*Week of theory and practice in the economy*“, Faculty of Economics and Administration, University of Pardubice, 31.10. - 4.11.2011

Scholarships

Alexandra **Kotillová**: The scholarship at Faculty of Engineering and Information Technologies, School of Information Technologies, The University of Sydney, Australia, from March 29 to September 18, 2011

Lucia **Murínová**: The scholarship at the University of Zagreb, Faculty of Organization and Informatics

Department of Technical Cybernetics

Head of department: Assoc Prof. Ing. Juraj M i č e k, PhD.

Tel.: +421- 41-513 43 50
Fax: +421-41- 565 52 80
e-mail: Juraj.Micek@fri.uniza.sk

Teaching Staff: Prof. Ing. Ivan **Hanuliak**, PhD.
Assoc. Prof. Ing. Peter **Gubiš**, PhD.
Ing. Adam **Jaroš**, PhD.
Ing. Jozef **Juríček**, PhD.
Ing. Matúš **Jurečka**, PhD.
Ing. Ján **Kapitulík**, PhD.
Ing. Ondrej **Karpiš**, PhD.
Ing. Oldřich **Kovář**, PhD.
Ing. Peter **Ševčík**, PhD.
Andrej **Holúbek**, PhD.
Ing. Julius **Mlich**
Ing. Ján **Repka**

Researcher: Ivana **Hodasová**

Administrative Department: Bc. Viera Černeková

PhD Students: Ing. Peter Goga
Ing. Michal Hodoň
Mgr. Dan Slováček
Ing. Filip Janovič
Ing. Pavol Lajčiak
Ing. Jana Púchyová
Ing. Martin Húdik
Ing. Martin Hyben
Ing. Lukáš Čechovič

PhD.-Programme

Theme	Student	Supervisor
1. Low Cost Algorithms for Speech Synthesis	Ing. P. Lajčiak	Assoc Prof.Ing. J. Miček, PhD.
2. Voice Recognition Systems	Ing. M. Hyben	Assoc.Prof.Ing. J. Miček, PhD.
3. Methods and Algorithms of Processing of Multidimensional and Multi- channel Signals	Ing. L. Čechovič	Assoc Prof.Ing. J. Miček, PhD.
4. Methods of Routing in VANET Networks	Ing. P. Goga.	Assoc Prof.Ing. J. Miček, PhD.
5. Onboard Location Technologies for Vehicle Position	Ing.M. Hodoň	Prof.Dr.Ing. E. Schnieder
6. Performance Modelling Optimization of Parallel Computers	Ing. D. Slováček	Prof.Ing. I. Hanuliak, PhD.
7. Performance Modelling Optimization of Parallel Algorithms	Ing. F. Janovič	Prof.Ing. I. Hanuliak, PhD.
8.Behaviour of Multi-Agent Systems with Defined Aim	Ing. J. Púchyová	Assoc Prof.Ing. J. Miček, PhD.
9. Efficiency Modelling of Parallel Algorithms	Ing. M. Húdik	Prof.Ing. I. Hanuliak, PhD.

EQUIPMENT

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

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 can be use as a MIMO plant or SISO plant first to sixth - order. The gain of the plants (step response) can be continuously or by 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.

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 ARM7TDI

10x evolution kit STM32F2

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

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

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

Programming board 2S100 fy INSIGHT (FPGA SPARTAN II)

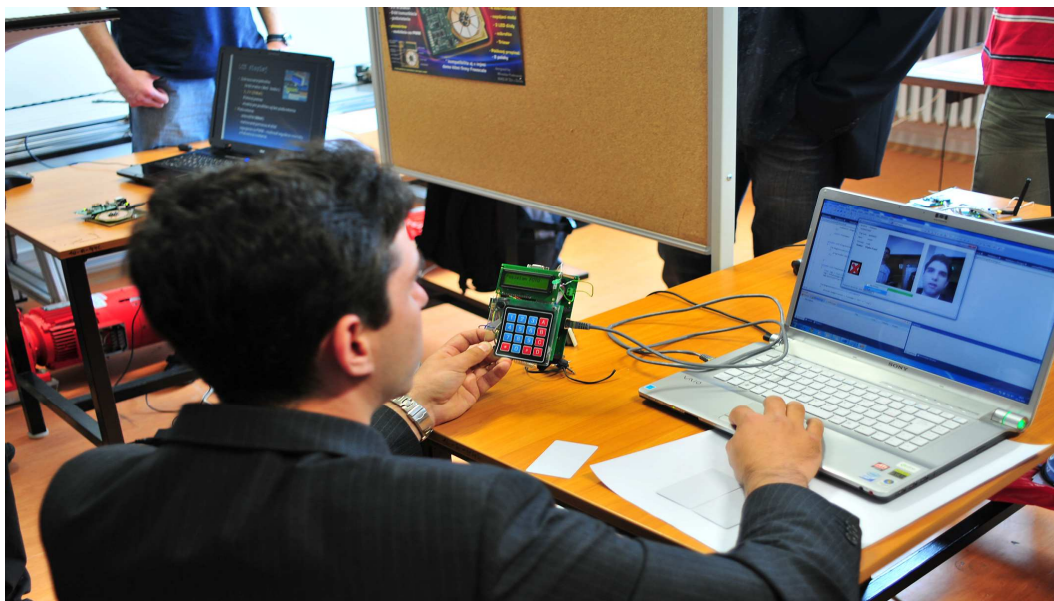
Programming board DIGILAB XLA5 fy DIGILENT (FPGA SPARTAN II)

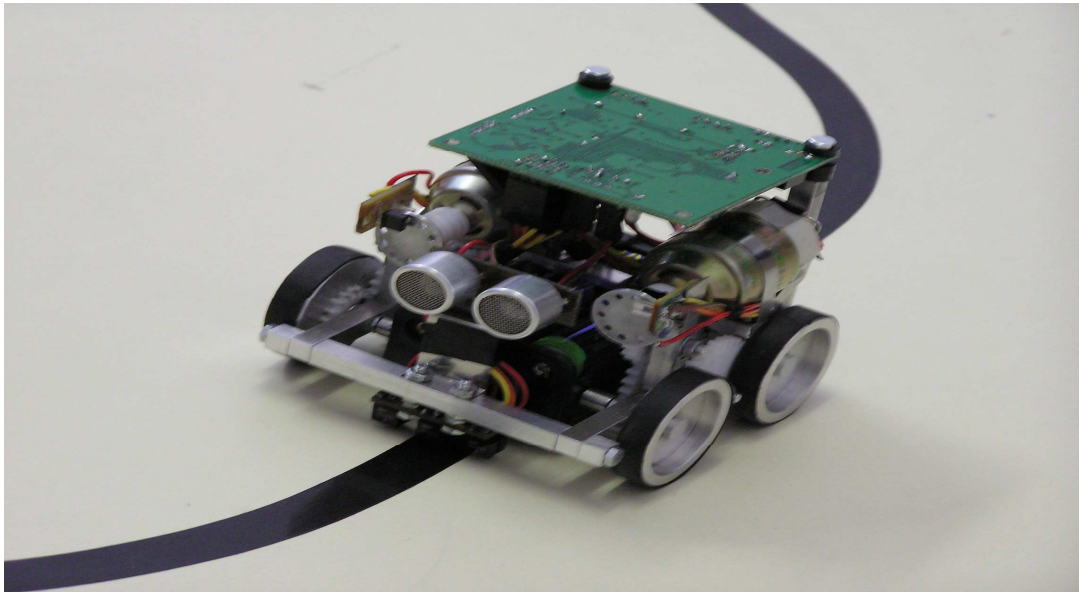
Programming board V2LC1000 fy INSIGHT (FPGA VIRTEX II)

Programming board ANADIGM (FPAA)

Programming board FPGA SPARTAN 3

ML YO3 VIRTEX-4 FX Evaluation Platform





Cooperation with Institutes and Enterprises in Slovakia

- Slovak Technical University, Bratislava - Faculty of Electrical Eng. & Informatics, Faculty of Mechanical Engineering, Faculty of Material-Technological Engineering
- Transportation Systems Scheidt & Bachmann Ltd., Žilina.
- SAE Control, Joint –Stock-Comp. Žilina, URAP Automation Žilina.
- HMH Ltd. Bratislava
- ETC.Ltd. Žilina, VUVT Eng., Joint –Stock-Comp. Žilina,
- ZS-VTS Bratislava
- Economic University Bratislava
- University Matej Bell Banská Bystrica
- University “Pavol Jozef Šafárik”, Košice
- Technical University Košice
- ABB Joint –Stock-Comp., Žilina
- EMTEST Joint –Stock-Comp., Žilina
- VÚD (Transport Research Institution) Žilina
- AŽD (Automation of Railway Transport) Žilina

Cooperation with Foreign Institutes and Enterprises.

- UTIA -Institute of Information Theory and Automation, Academy of Sciences of the CZECH REPUBLIC
- Universities-Plzen, Liberec, Praha, Brno, CZECH REP
- ARGE Simulation , Vienna University of Technology, AUSTRIA
- Dutch Benelux Simulation Society, Technische Universiteit Delft, NEDERLAND
- EPCC (Edinburgh Parallel Computing Centre), UK
- TU – VŠB, Faculty of mechanical Engineering, Ostrava, Project 72/114, CZECH REP.

- VÚT Brno, Institute of Computing Engineering and Informatics, CZECH REP.
- EUROSIM Federation of European Simulation Societies
- IFAC International Federation of Automatic Control
- Thomas Bata University in Zlin, Faculty of Applied Informatics, CZECH REP.
- UK Sim – United Kingdom Simulation Society
- Scheidt&Bachmann, Mönchengladbach, GERMANY
- Freescale, Rožnov p. Radh., CZECH REP.

Membership in Slovak Organizations and Societies

- Assoc.Prof.Ing. Juraj **Miček**, PhD.: Member of Scientific Board of the Faculty of Management Science and Informatics, University of Žilina
- Prof.Ing. Ivan **Hanuliak**, PhD.: Member of GCCCP (Grid computing of complex problems)
- Prof.Ing. Ivan **Hanuliak**, PhD.: Member of Scientific Board “Transcom”
- Prof.Ing. Ivan **Hanuliak**, PhD.: Member of Scientific Committee “Slovak Grid”
- Prof.Ing. Ivan **Hanuliak**, PhD.: Member of Scientific Board “HPC and Grid computing”
- Ing. Adam **Jaroš**, PhD.: Czech & Slovak Simulation Society – member
- Ing. Adam **Jaroš**, PhD.: Slovak Society for Cybernetics and Informatics by Slovak Academy of Science, Bratislava
- Ing. Adam **Jaroš**, PhD.: The Slovak Society for Applied cybernetics and Informatics by ZSVTS Bratislava

BACHELORS THESIS

No.	Theme	Student	Supervisor
1.	Formant Based Speech Synthesis.	M. Chudoba	Ing. M. Jurečka, PhD.
2.	Remote Control of House Appliances	J. Šlosiar	Ing. P. Ševčík, PhD.
3.	Speech Synthesis Based on Linear Predictive Coefficients	A. Jeleník	Ing. M. Jurečka, PhD.
4.	5-channel Audio System	B. Chudý	Ing. O. Karpiš, PhD.
5.	Cryptographic Module for ARM7	I. Mellen	Assoc.Prof.Ing. J. Miček, PhD.
6.	Pen Movement Reconstruction	J. Cút	Ing. O. Karpiš, PhD.
7.	Electrocardiograph - software	J. Janáčik	Assoc.Prof.Ing. J. Miček, PhD.
8.	Device for Surroundings Mapping	L. Biľ	Assoc.Prof.Ing. J. Miček, PhD.
9.	Electronic Glove - subsystem of data processing and visualization	L. Slovík	Assoc.Prof.Ing. J. Miček, PhD.
10.	Face Recognition Software	M. Abrahámek	Ing. J. Kapitulík, PhD.
11.	Vibration Analysis Tools for Energy Harvesting	M. Cingel	Assoc.Prof.Ing. P. Gubiš, PhD.
12.	Energy Measurement	M. Bielik	Assoc.Prof.Ing. J. Miček, PhD.
13.	Pulse Oxi Meter - Measurement Subsystem	M. Kojtal	Assoc.Prof.Ing. J. Miček, PhD.
14.	Moving vehicle vibration emulator	M. Švec	Assoc.Prof.Ing. P. Gubiš, PhD.
15.	Energy Meter for Energy Harvesting Research	M. Marguš	Assoc.Prof.Ing. P. Gubiš, PhD.
16.	Digital synthesis of speech signal	M. Frátrik	Ing. O. Kovář, PhD.
17.	Design of software for prototype module with audio codec WM8510.	M. Bros	Ing. O. Kovář, PhD.
18.	Device for testing operating lifetime of vacuum tubes - software	M. Chrastina	Assoc.Prof.Ing. J. Miček, PhD.
19.	Electrocardiograph - hardware	M. Kelemen	Assoc.Prof.Ing. J. Miček, PhD.
20.	Propulsion subsystem of mobile robot	M. Kanderka	Assoc.Prof.Ing. J. Miček, PhD.
21.	Control system of displaying for the LCD TFT module Bolymin BT 5.7 ADNHW	P. Dírer	Ing. O. Kovář, PhD.
22.	Device for measuring traffic parameters	T. Lašo	Assoc.Prof.Ing. J. Miček, PhD.

No.	Theme	Student	Supervisor
23.	Electronic glove - subsystem of scanning and data pre-processing	P. Lendel	Assoc.Prof.Ing. J. Miček, PhD.
24.	Pulse oximeter - transmission and data processing subsystem	P. Novák	Assoc.Prof.Ing. J. Miček, PhD.
25.	Speech recognition	P. Šiman	Ing. M. Jurečka, PhD
26	Analysis and selection appropriate solutions for control of interference transmitting signal in electronic travel system esprit.	R. Majerčík	Assoc.Prof.Ing. J. Miček, PhD.
27.	Power line modem	Ľ. Minarik	Assoc.Prof.Ing. J. Miček, PhD.
28.	Digital camera based on digital CCD C3188A module	V. Pažický	Ing. P. Ševčík, PhD.
29.	Device for testing operating lifetime of vacuum tubes - hardware	J. Ďuríček	Assoc.Prof.Ing. J. Miček, PhD.

MASTERS THESIS

No.	Theme	Student	Supervisor
1.	Electronic compass	J. Špánik	Assoc.Prof.Ing. J. Miček, PhD.
2.	Autonomous robot for competition in the category path follower	J. Lališ	Assoc.Prof.Ing. J. Miček, PhD.
3.	Monitoring equipment of electrical switchboards	A. Kilvády	Assoc.Prof.Ing. J. Miček, PhD.
4.	Independent vehicle heating	A. Jurech	Ing. L. Čechovič
5.	Autonomous mobile robot	J. Múčka	Assoc.Prof.Ing. J. Miček, PhD.
6.	Controller of aquarium mode lighting	J. Habovštiak	Ing. O. Kovář, PhD.
7.	Information colour LCD display	D. Juščák	Ing. O. Kovář, PhD.
8.	Nuances in the design classical PCs and supercomputers	L. Leško	Ing. J. Mlich
9.	USB audio player	J. Spuchľák	Ing. O. Kovář, PhD.
10.	Printers and multifunction devices	L. Sekelský	Ing. J. Mlich
11.	Touch control in the PC world	L. Ecker	Ing. J. Mlich
12.	Creation of user interface for industrial robot control in real-time mode	M. Vaňo	Assoc.Prof.Ing. J. Miček, PhD.
13.	Determining the position using the accelerometer	M. Hatňančík	Ing. L. Čechovič
14.	Tester - charger of the AA, AAA rechargeable mono cells	M. Švančárek	Ing. O. Kovář, PhD
15.	Parallel programmer for microcontrollers	M. Vrbjar	Assoc.Prof.Ing. J. Miček, PhD.
16.	Digital player of the acoustic signal	M. Chovanec	Ing. O. Kovář, PhD.
17.	Positional identifier of light source	M. Hříň	Ing. O. Kovář, PhD.
18.	Optic Fibre Transmission	M. Papučík	Ing. J. Mlich
19.	Data backup to external storage mediums	M. Kvak	Ing. J. Mlich
20.	Wireless communications among external PC devices	P. Gula	Ing. J. Mlich
21.	Competitive autonomous robot in category path follower	S. Bartoš	Assoc.Prof.Ing. J. Miček, PhD.
22.	Mini sumo robot	T. Šabík	Assoc.Prof.Ing. J. Miček, PhD.
23.	Additional technical resources for input devices in personal computers	T. Selyem	Ing. J. Mlich
24.	Sound recorder	T. Motlo	Assoc.Prof.Ing. J. Miček, PhD.
25.	Analysis of vehicle driving.	Ľ.Rychnavský	Assoc.Prof.Ing. J. Miček, PhD.
26.	Monitoring software for IP camera Vivotek PZ6124 in Linux	V. Beseda	Ing. O. Karpiš, PhD.

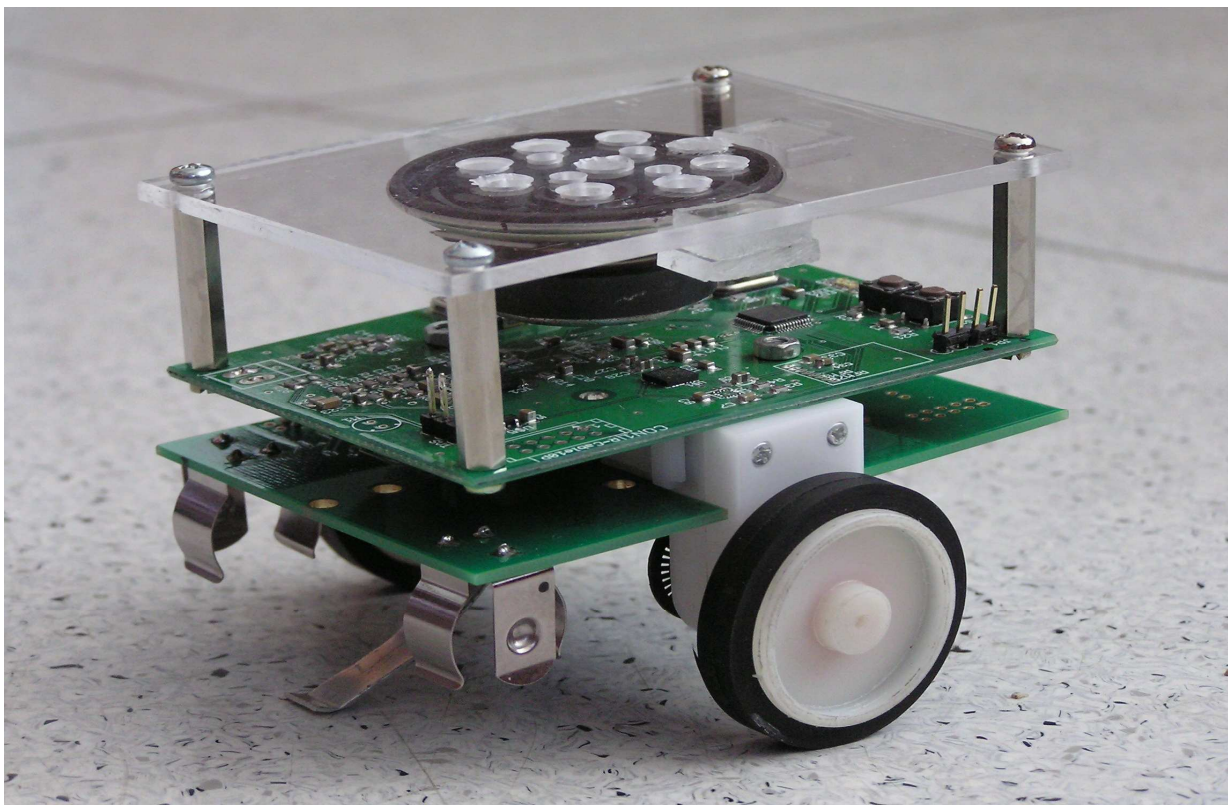
Students participation on the Professional Competitions:

International Competition „Robotchallenge 2011“ Viena. March 26th and 27th, 2011

1. Michal **Brezáni** – robot E.D.O, Category SUMO
2. Daniel **Pastorek** – robot xxx, Category FOLLOWER
3. Mário **Korčák** – robot The Guardian, Category FOLLOWER
4. Tomáš **Jančoška** – robot The Guardian, Category FOLLOWER
5. Stanislav **Bartoš** – robot Wild One, Category FOLLOWER
6. Jozef **Papán** – technical support of competitive robots
7. Tomáš **Pretenhofer** - technical support of competitive robots

International Competition „Istrobot 2011“ Bratislava, April 8th and 9th, 2011

1. Michal **Brezáni** – robot E.D.O, Category MINI SUMO
2. Mário **Korčák** - robot The Guardian, Category FOLLOWER
3. Daniel **Pastorek** – robot Zraz, Category FOLLOWER
4. Marcel **Jokel** – robot Aurum Category LABYRINTH
5. Milan **Brádňanský** – robot The Guardian Category FOLLOWER





Department of Transportation Networks

Head of Department: Assoc.Prof.Ing **Ľudmila J á n o š í k o v á , PhD.**

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Teaching Staff: Prof.RNDr. Jaroslav **Janáček**, PhD.
Assoc.Prof.Ing. Ľuboš **Buzna**, PhD.
Assoc.Prof.Ing. Peter **Fabián**, PhD.
Ing. Norbert **Adamko**, PhD.
RNDr. Alžbeta **Szendreyová**, PhD.
Ing. Michal **Lekýr**, PhD.
Ing. Peter **Márton**, PhD.
Ing. Michal **Žarnay**, PhD
Ing. Michal **Koháni**, PhD.
Ing. Peter **Tarábek**, PhD
PhD.Ing. Peter **Jankovič**

Administrative Department: Elena Rohrböcková

PhD students Mgr. Ellen Molitorisová,
Ing. Karolína Mužíková
Ing. Ľubomír Toman
Ing. Marek Kvet
Ing. Michal Kocifaj
Ing. Anna Kormanová
Ing. Miroslav Mintál

PhD. - Programme

Theme	Student	Supervisor
1. Retrieval and Storage of Relevant Information in Knowledge Management Systems	Ing. E. Molitorisová	Assoc.Prof.Ing. P. Fabián, PhD.
2. Sophisticated Decision Support Systems for Design of Public Service Systems of Evacuation Type in Conditions of Uncertainty	Ing. Ľ. Toman	Prof.RNDr. J. Janáček, PhD.
3. Exact and Approximate Solving Large Covering Problems	Ing. M. Kvet	Prof.RNDr. J.. Janáček, PhD.
4. Using Game Theory in Managerial Decision-Making	Ing. K. Mužíková	Assoc.Prof.Ing. P.Fabián, PhD.
5. Modelling Movement of Autonomous Mobile Equipment in the Complex Stochastic Environment of Transport Terminals	Ing. M. Kocifaj	Assoc.Prof.Mgr. V. Klima, PhD.
6. Hybrid Simulation Models of Pedestrians' Behaviour with Non-homogeneous Granularity	Ing. A. Kormanová	Assoc.Prof.Mgr. V. Klima, PhD.
7. Platform for Support the Use of Computing Power of Graphic Cards in Multi-agent Simulation Models	Ing. M. Mintál	Assoc.Prof.Ing. Ľ. Jánošíková, PhD.

EQUIPMENT

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



COOPERATION

Cooperation with Institutions and Enterprises in Slovakia

Technical University Košice

Slovak Technical University Bratislava

ŽSR, Bratislava (Slovak Railway)

VUD -Research Institute in Transport, Žilina

Slovak Association for Geographical Information, Bratislava

Slovenská Pošta, a.s. (Slovak Posts and Telecommunications)

Tatravagonka Poprad, Ltd.

ZSSK CARGO

Cooperation with Foreign Institutions and Enterprises

SibSUTIS Novosibirsk, Russian Federation

SPbSUT Sankt Peterburg, Russian Federation

ENIC Lille, France

UPV Valencia, Spain

HfT Leipzig, Germany

GISIG, Genova, Italy

TU Zürich, Switzerland

University of Pardubice, Czech Republic

ETH Zürich, Switzerland

TU Dresden, Germany,

Membership in Slovak Organizations and Societies

Prof. RNDr. Jaroslav JANÁČEK, PhD:

- 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
- Member of Scientific Board of the Faculty of Management Science and Informatics, ŽU
- Member of Board for Doctoral Study for Applied Informatics at the Faculty

Assoc.Prof. Ing. Ľudmila JÁNOŠÍKOVÁ, PhD.

- Member of Editorial Board, Journal of Information, Management and Control Systems, FMIS, University of Zilina
- Member of Scientific Board of Faculty

Assoc. Prof. Ing. Peter FABIÁN, PhD.

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

Membership in International Organizations and Societies

- **JANÁČEK, J.:** Reviewer of Zentralblatt für Mathematik, D
- **FABIÁN, P.:** Member of Executive Committee of GISIG, Genoa, I
- **JÁNOŠÍKOVÁ, Ľ.:** Member of Scientific Board, FEI, University of Pardubice, CZ
- **ADAMKO, N.:** Member of European Simulation Society
- **MÁRTON, P.:** Member of International Association of Railway Operation Research

BACHELOR THESIS

No.	Theme	Student	Supervisor
1.	Solving the multiple set covering problem using IP solver	J. Štencek	Assoc.Prof.Ing. Ľ. Buzna, PhD.
2.	Use of the dynamic Web pages for presentation of multimedia information contents	M. Kerpner	Assoc.Prof.Ing. P. Fabián, PhD.
3.	Comparison of searching strategies in 2D	A. Bella	Assoc.Prof.Ing. Ľ. Buzna, PhD.
4.	Comparison of algorithms „Variable Neighbourhood Search“ with a simple exchange heuristic for the p-median problem.	A. Jánošíková	Ing. M. Koháni, PhD.
5.	Model of operative train management in a passenger railway station	M. Kuchčák	Assoc.Prof.Ing. Ľ. Jánošíková, PhD.
6.	Modelling of warehouse operations and warehouse operation using Arena simulation tool	D. Smieška	Ing. P. Márton, PhD.
7.	Comparison of genetic algorithm with the algorithm „Harmony search“ for the selected problem	I. Urbaničová	Ing. M. Koháni, PhD.
8.	Location of service centres in transportation networks using IP solver	J. Bendík	Ing. M. Kvet
9.	Dynamic web application for a village.	K. Čavojcová	Ing. M. Lekýr, PhD.
10.	Comparison of „Particle Swarm Optimisation“ and „Cuckoo search“ on a selected problem	J. Štyrák	Assoc.Prof.Ing. Ľ. Buzna, PhD.
11.	Google Chrome Web Browser - multimedia guide	L. Buno	RNDr. A.Szendreyová, PhD.
12.	Artificial Intelligence in Real-Time Strategy Games	M. Jurčo	Ing. P. Tarábek, PhD.
13.	Teaching aid for Discrete Optimization	M. Bulík	RNDr. A.Szendreyová, PhD.
14.	Comparison of genetic algorithm with the „Cultural Algorithm“ on the selected problem	P. Bergmann	Ing. M. Koháni, PhD.
15.	Comparison of data structures supporting two dimensional interval searching	R. Ševčík	Ing. P. Jankovič
17.	Comparison of exact and heuristic methods to solve selected optimization problem	T. Hrebeň	Ing. M. Kvet
18.	Generic simulation model of storage system in a logistic centre	T. Skřivánek	Ing. N. Adamko, PhD.
19.	Teaching aid for Discrete Optimization	Ľ. Šimun	RNDr. A.Szendreyová, PhD.
20.	Co-authorship networks analysis	A. Langa	Assoc.Prof.Ing. Ľ. Buzna, PhD.

MASTERS THESIS

No.	Theme	Student	Supervisor
1.	Optimization of Study Schedule Emphasizing the Teaching Effectiveness	J. Tinák	Ing. M. Žarnay, PhD.
2	General environment for network optimisation problems	J. Lisko	Prof.Ing. P. Cenek, PhD.
3.	Container terminal module for agent based simulation model of logistic systems	M. Kocifaj	Ing. N Adamko, PhD.
4.	Simulation of Waterway Operation	M. Pavlu	Ing. M. Žarnay, PhD.
5.	2D and 3D interior design studio	A. Škodová	Ing. M. Lekýr, PhD.
6.	Microscopic simulation of pedestrians' behaviour with utilization of social forces	A. Kormanová	Ing. N. Adamko, PhD.
7.	Decision support tool for solving p-centre problem in public system with limited number of centres	D. Kobilka	Ing. M. Koháni, PhD.
8.	Comparison of Versions of Banker's Algorithm	J. Marek	Ing. M. Žarnay, PhD.
9.	Recognition of freight wagon type using wheel sensors	M. Luhový	Ing. P. Márton, PhD.
10.	Using Scatter Search algorithm for the multi-commodity distribution system design problem	M. Beňo	Ing. M. Koháni, PhD.
11.	Simulation tool for modelling of pedestrians' behaviour	M. Varga	Ing. N. Adamko, PhD.
12.	Infrastructure editor and animation support for simulation model of pedestrians' behaviour	M. Mintál	Ing. N. Adamko, PhD.
13.	Segmentation and classification of moving objects in scenes with a fixed camera	O. Šňahničan	Ing. P. Tarábek, PhD.
14.	Software for construction of marshalling yard work schedule	P. M.ička	Ing. P. Márton, PhD.

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Ing. Ľudovít **Mikuš**, PhD.
Ing. Petr. **Ivaniga**, PhD.
Ing. Peter **Palúch**, PhD.
Ing. Pavol **Segeč**, PhD.
Mgr. Juraj **Smieško**, PhD.
Ing. Ondrej **Škvarek**, PhD
Mgr. Jana **Uramová**, PhD

Administrative Department: Mária Liskayová

Technical Staff: Vladimír Frnčo

PhD students Ing. Štefan Baďura
Ing. Dušan Nemček
Ing. Michal Mokryš
Ing. Stanislav Foltán
Ing. Milan Frátrik
Ing. Michal Srnec

PhD.-Programme

Theme	Student	Supervisor
1. Configuration of QoS Mechanisms for Multimedia Networks	Ing. D. Nemček	Assoc.Prof.Ing. K.Bachratá, PhD.
2. Video Recognition Using Networks of Fuzzy Flip Circuits Flop	Ing. Š. Baďura	Prof.Ing. M. Klimo, PhD.
3. Interdependency Modelling between Socio-Economics and Information Systems	Ing.M. Mokryš	Prof.Ing. M. Drozdová, PhD
4. Speech Recognition Using Networks of Fuzzy Flip Circuits Flop	Ing. S. Foltán	Prof.Ing. M. Klimo, PhD.
5. Design and Implementation of Algorithm for Context Aware Routing in Hybrid Networks for Support QoS End-End	Ing. M. Srnec	Assoc.Prof.Ing. T. Kováčiková, PhD.
6. Optimal Implementation of System in Text-to-Speech	Ing. M. Frátrik	Prof.Ing. M. Klimo, PhD.

EQUIPMENT

Teaching and Research Laboratories.

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

B301 Laboratory of Networking



COOPERATION

Cooperation with Institutes and Enterprises in Slovakia

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

Cooperation with Foreign Institutes and Enterprises

- Telecom SudParis Evry, FRANCE
- ENST Paris, FRANCE
- University of Technology Dresden, GERMANY
- University of Poitiers, FRANCE
- ETSI Sophia Antipolis, FRANCE
- Université de Nice – Sophia Antipolis, FRANCE
- University of Zagreb, CROATIA

BACHELORS THESIS

No.	Theme	Student	Supervisor
1.	Web application for sport competition	F. Glemba	Assoc.Prof.RNDr. K. Bachratá, PhD.
2.	Creation 3D graphics	M. Klačko	Ing. Ľ. Mikuš, PhD.
3.	OS Mandriva - Security and Basic Working	M. Siman	Ing. Ľ. Mikuš, PhD.
4.	The Multiple Spanning Tree Protocol	A. Hodas	Ing. P. Palúch, PhD.
5.	E-shop solutions built over CMS Joomla	B. Bučko	Ing. P. Segeč, PhD.
6.	Visualization of neuron dendrite structure growth	D. Molko	Ing. Š. Baďura
7.	Quality of Service in WiFi Networks	F. Mandúch	Ing. P. Palúch, PhD.
8.	E-learning: probabilistic distribution a basic problem in telecommunication	I. Dzurek	Mgr. J. Smieško, PhD.
9.	Web page editing by Aptana Studio	I. Šišovský	Ing. Ľ. Mikuš, PhD.
10.	Characteristics of mobile phones, applications overview and programming	D. Vnenk	Ing. O. Škvarek, PhD.
11.	Multimedia SIP solutions	J. Hrnko	Ing. P. Segeč, PhD.
12.	Website of business concern aimed at ornamental plants	J. Kuchárik	Ing. M. Čerňanská, PhD.
13.	Nftables - new network packet filter engine for GNU/Linux	J. Gabčík	Ing.M. Bruncko, PhD.
14.	Data-Link Layer Security Aspects	L. Kadlec	Ing. P. Palúch, PhD.
15.	Alcatel OmniPCX Office Telephone System	M. Hrbček	Ing. P. Palúch, PhD.

No.	Theme	Student	Supervisor
16.	Instant Messaging and Presence Services in SIP Systems	L. Ševčík	Ing. P. Palúch, PhD.
17.	Practical Example of Packet Queuing in Cisco routers	M. Kejmar	Mgr. J. Uramová, PhD.
18.	Finding and elimination of shadows	M. Jakubis	Ing. Š. Baďura
19.	Current Trends in Network Management Protocols	M. Šušal	Ing. P. Palúch, PhD.
20.	Modern communication platforms based on SIP protocol.	M. Pohančenič	Ing. P. Segeč, PhD.
21.	Congestion Avoidance QoS Tools	M. Jančo	Mgr. J. Uramová, PhD.
22.	Storage Area Networks	M. Klotton	Ing. P. Palúch, PhD.
23.	Fast Convergence in IP Networks	M. Kormoš	Ing. P. Palúch, PhD.
24.	Design and Implementation of a Communication Network	M. Paulík	Ing. P. Palúch, PhD.
25.	The VoIP exchange with control of an electronic lock	M. Cibul'a	Ing. P. Segeč, PhD
26.	Web application for ecological shop Živica	M. Mačura	Assoc.Prof.RNDr. K. Bachratá, PhD.
27.	Applying Software to Solving Mathematical Problems and Data Analysis in Economics	M. Vrabcová	Assoc.Prof.RNDr. K. Bachratá, PhD
28.	Open source network backup solutions	P. Bernat'ák	Ing. M. Bruncko
29.	Solutions for high SIP services and architecture availability	P. Hruška	Ing. P. Segeč, PhD.
30.	OS Mandriva - Installation and Basic Functions	R. Franko	Ing. Ľ. Mikuš, PhD
31.	Current Trends in VPN Solutions	T. Behúň	Ing. P. Palúch, PhD.
32.	E-shop solutions built over CMS Joomla!	Ľ. Beňuš	Ing. P. Segeč, PhD.
33.	Photographs editing by Photos cape	V. Ružička	Ing. Ľ. Mikuš, PhD.
34.	Interactive guide to Discrete Probability	V. Plaček	Mgr. J. Smieško, PhD.
35.	Simulation of Aloha, Ethernet and Jackson network in OPNET Modeller	V. Póčík	Mgr. J. Uramová, PhD.
36.	Data-link layer attacks	V. Hanušniak	Ing. P. Segeč, PhD.
37.	Performance methodology of SIP VoIP server testing	M. Javorka	Ing. P. Segeč, PhD.

MASTERS THESIS

No.	Theme	Student	Supervisor
1.	Quality of Service in switched networks.	J. Šufliarský	Ing. P. Segeč, PhD.
2.	Analysis, design and implementation of the VoDP solution for a grammar school.	A. Matys	Assoc.Prof.Ing. T. Kováčiková, PhD.
3.	The Multiple Spanning Tree Protocol	A. Hodas	Ing. P. Palúch, PhD.
4.	E-shop solutions built over CMS Joomla	B. Bučko	Ing. P. Segeč, PhD.
5.	Load Generator of Control Plane Protocols	J. Brezianský	Ing. P. Palúch, PhD.
6.	OPNET - simulation FRI Network	L. Kejmar	Ing. Ľ. Mikuš, PhD.
7.	Simulator configuration networks	M. Biel	Ing. P. Ivaniga, PhD.
8.	Comprehensive Network Monitoring System	M. Kunštár	Ing. P. Palúch, PhD.
9.	SVG - description and creation	M. Kubinčánek	Ing. Ľ. Mikuš, PhD.
10.	Recognition of voice commands using DTW method	M. Bašista	Ing. O. Škvarek, PhD.
11.	Editor for electronics guide	M. Dubec	Ing. Ľ. Mikuš, PhD.
12.	Design and implementation of the VoIP communication security	M. Srnec	Ing. P. Segeč, PhD.
13.	Access network simulation in OPNET Modeler	M. Janoťák	Mgr. J. Uramová, PhD.
14.	Simulator configuration INFONET	M. Šides	Ing. P. Ivaniga, CSc.
15.	Leaky Token Bucket simulation	P. Kardoš	Mgr. J. Smieško, PhD.
16.	Mobicents application server - the platform for real-time services.	P. Meliš	Ing. P. Segeč, PhD.
17.	Gaussian Mixture Methods in clustering of networks of fuzzy flip-flops	S. Braško	Assoc.Prof.RNDr. K. Bachratá, PhD.
18.	Shape recognition in picture	T. Bakita	Prof.Ing. M. Klimo, PhD.
19.	Random early detection	Ľ Križan	Mgr. J. Smieško, PhD.
20.	IP Multicast in Large Networks	M. Hrobák	Ing. P. Palúch, PhD.

Membership in International Organizations and Societies

Prof.Ing. Martin **Klimo** – IEEE, ACM,

Prof.Ing. Martin **Klimo** – ICTC European Commission

Assoc.Prof.Ing Tatiana **Kováčiková** – ETSI, EC – FP7 IST projects reviewer

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Ing. Radoslav **Jankal**, PhD.

Ing. Jana **Dicová**, PhD.

Ing. Milan **Kubina**, PhD.

Ing. Viliam **Lendel**, PhD.

Ing. Jana **Magdolenová**, PhD.

Mgr. Jakub **Soviar**, PhD.

Ing. Michal **Varmus**, PhD.

Ing. Jozef **Gajdošík**

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Ing. Veronika Šramová

Ing. Miroslav Peťo

Ing. Michal Bízik

Ing. Jozef Šarlay

Mgr. Anna Havranová

Ing. Andrea Pohanková

Ing. Jozef Gajdošík

Ing. Michal Salaj

Ing. Monika Kerestešová

Ing. Katarína Púčková

Ing. Lenka Kocifajová

PhD.-Program

Theme	Student	Supervisor
	Ing. K. Púčková	
	Ing. L. Kocifajová	
3. Knowledge in Strategic Marketing	Ing. A. Závodská	Assoc. Prof. Ing. J. Vodák, PhD.
4. Using of Scenario in Enterprise Planning	Ing. V. Šramová	Prof. Ing. Š. Hittmár, PhD.
5. Information-Communication Perspectives of Logistics Operations and their Implication for Decision-Making in Business Process Management	Ing. M. Peťo	Assoc. Prof. Ing. J. Král, PhD.
6. Elements Applying of Knowledge Management in Strategic Management	Ing. M. Bízík	Prof. Ing. Š. Hittmár, PhD.
7. Using of Scenario in Enterprise Planning	Ing. J. Šarlay	Prof. Ing. Š. Hittmár, PhD.
8. Use of BSC Approach in Efficiency Management	Mgr. A. Havranová	Assoc. Prof. Ing. J. Vodák, PhD.
9. Model of Managerial Decision-Making and Motivating	Ing. A. Pohanková	Assoc. Prof. Ing. M. Blašková, PhD.
10. Innovation of CRM in the Relation with the Government Development	Ing. J. Gajdošík	Prof. Ing. Š. Hittmár, PhD.
11. Application of Strategic Tools 6-Sigma in Management of Lean Logistic Operations	Ing. M. Salaj	Assoc. Prof. Ing. J. Král, PhD.
12. Model of Planning and Motivating Human Potential in Organization	Ing. M. Kerestešová	Assoc. Prof. Ing. M. Blašková, PhD.

COOPERATION

Cooperation with Institutes and Enterprises in Slovakia

- The Railways of the Slovak Republic (ZSR)
- Slovak Rail (ZSSK)
- Slovak Rail CARGO
- Tento, Zilina
- MASM, Zilina
- Technical University in Zvolen
- University of Matej Bell in Banska Bystrica
- University of Economics in Bratislava
- Slovak University of Technology in Bratislava
- University of Presov in Presov

Cooperation with Foreign Institutes and Enterprises

- University of Pardubice, CZECH REPUBLIC
- OSŹD Warszawa, POLAND
- European Polytechnic Institute, LLC., Kunovice, CZECH REPUBLIC
- BOC Unternehmensberatung GmbH, Wien, AUSTRIA
- Faculty of Public Administration of Mykolas Romeris University, LITHUANIA
- Częstochowa University of Technology, POLAND
- Higher Hanseatic School of Management in Slupsk, POLAND
- Aalborg University, DENMARK
- University of Salford, Manchester, UNITED KINGDOM
- University of technology, Espoo, FINLAND
- Estonian Agricultural University, Tartu, ESTONIA
- Masaryk University Brno, CZECH REPUBLIC
- VŠB - TU Ostrava, CZECH REPUBLIC
- European Polytechnic Institute, CZECH REPUBLIC

Membership in Slovak Organizations and Societies

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

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

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

Ing. **Jozef GAJDOŠÍK**

- Slovak Association for System Integration

Other activities of department

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

- Co-founder, the first vice-president and coordinator for Slovak Republic of International Academic Network HPD CEEUS – Human Potential Development in Central and Eastern EU States
- Co-founder, Editor-in-chief and Member of Scientific Committee of the Scientific Journal Human Resource Management & Ergonomics
- Member of Editorial Board of Scientific Journal “Journal of Information, Controls and Management Systems”, University of Zilina
- Scientific guarantee of International Scientific Conference Human Potential Management in a Company (held in Czestochowa, Poland, 19th-20th May)
- Member of Scientific Committee of the International Scientific Conference Toyotarity in European Condition (held in Poronin, Poland, 2nd-4th December)
- Member of Academic Senate Faculty of Management Sciences and Informatics
- Member of Scientific Council of Faculty of Management Sciences and Informatics

Prof. Ing. Štefan HITTMÁR, PhD.

- Member of Scientific Board of Faculty of Management Sciences and Informatics, University of Zilina
- Member of Scientific Board of Faculty of Special Engineering, University of Zilina, Zilina
- Member of Scientific Board of University of Trencin AD, Trencin
- Member of Editorial Board EDIS University of Zilina
- Member of Committee No 13 Ministry of Education SR for VEGA projects
- Member of Committees for Preparing Conferences (EU - opportunities for develop.of transport)
- Member of work unit No 8 of Accreditation Committee

Assoc. Prof. Ing. Jaroslav KRÁL, PhD.

- Member of EDEN - European Distance and E-learning Network (EU network of academics and professionals)
- Member of CEDEFOP - European Centre for the Development of Vocational Training
- Member of Aberdeen Group Research Associates

BACHELOR THESIS

No.	Theme	Student	Supervisor
1.	Quality in a Manufacturing Business	A. Al-Hussein	Assoc.Prof.Ing. J. Král, PhD.
2.	Marketing communication for company Z+M service, Ltd.	M. Bednáriková	Ing. V. Lendel, PhD.
3.	Motivating, appraisal and rewarding of employees and managers at GGB Slovakia	M. Belošová	Assoc.Prof.Ing. M. Blašková, PhD.
4.	The improvement marketing communication for business Dairy Svrčinovec	J. Blažej	Ing. M. Varmus, PhD.
5.	The arrangements on improvement functionality and security of computer networks.	Š. Čavoš	Ing. M. Kubina, PhD.
6.	Creative leadership, training and development of employees in a selected company subjected to organizational changes	P. Dubajová	Ing. K. Mužíková
7.	Proposal of marketing strategy with application of knowledge management elements in Sauer-Danfoss Company	L Galko	Ing. A. Závodská
8.	Marketing communication of event Salamander days	P. Herčko	Mgr. J. Soviar, PhD.
9.	Using possibilities of telemarketing of call centre	K. Holbičková	Ing. V. Lendel, PhD.
10.	The Quality Policy as a Tool for the Goal and Objectives Achievements	L. Husár	Assoc.Prof.Ing. J. Král, PhD.
11.	Customer satisfaction measuring	V. Kanisová	Mgr. J. Soviar, PhD.
12.	Marketing communication plan of production company	P. Kelčíková	Ing. M. Bízík
13.	Measuring of customer satisfaction in KINEKUS, ltd.	Z. Kistanová	Mgr. J. Soviar, PhD.
14.	Application Performance Management approaches the focus on the development and employee evaluation in selected enterprise	Z. Kmecíková	Assoc.Prof.Ing. J. Vodák, PhD.
15.	Marketing communication for institute Spojená škola Kysucké Nové Mesto	G. Koman	Ing. V. Lendel, PhD.

No.	Theme	Student	Supervisor
16.	Improvement of Waste Management at the Kysucky Lieskovec Municipality	N. Králik	Assoc.Prof.Ing. J. Král, PhD.
17.	Marketing plan of BALJAK company	J. Kubás	Ing. R. Jankal, PhD.
18.	Marketing communication of ODEVA company	A. Lipovská	Ing. R. Jankal, PhD.
19.	Customer satisfaction measurement of selected firm	P. Lúčanová	Ing. R. Jankal, PhD.
20.	The improvement marketing communication for a selected business	M. Lučivjanský	Ing. M. Varmus, PhD.
21.	Proposal of the strategy of product Aixam GTO introduction	V. Mackovčák	Ing. M. Varmus, PhD.
22.	The design and the implementation of computer network for DCM Maják organization	K. Majer	Ing. M. Kubina, PhD.
23.	Application Balanced Scorecard methodology with the focus on customer perspective in selected enterprise	K. Matejčeková	Assoc.Prof.Ing. J. Vodák, PhD.
24.	Information system for company AIO tech, Ltd.	M. Mihalčinová	Ing. V. Lendel, PhD.
25.	Evaluating efficiency on investment in employee development in the selected company	Z. Nemergutová	Assoc.Prof.Ing. J. Vodák, PhD.
26.	Warehouse Management and Warehouse Management System in a Wholesaler Business	A. Obertová	Assoc.Prof.Ing. J. Král, PhD.
27.	Marketing communication plan of the civic association	L. Olšiak	Ing. J. Magdolenová, PhD.
28.	Process of acquisition, selection and accepting of employees in a chosen company	R. Ondáková	Ing. K. Mužíková
29.	Proposal of marketing communication system with emphasis on customer satisfaction improvement of Villa Betula hotel	T. Paukovček	Ing. A. Závodská
30.	The design of web order's system for selected business.	K. Pekárová	Ing. M. Kubina, PhD.
31.	Utilization of European Union (and state) support for solving the investment needs of the municipality Lomna	T. Plaštiak	Ing. J. Gajdošík
32.	Marketing plan of selected company	J. Poláček	Ing. V. Šramová
33.	Proposal for improving marketing activities of selected company	R. Poláček	Ing. V. Šramová
34.	Specificity of selected human resource management in small enterprises	I. Poliaková	Ing. J. Magdolenová, PhD.
35.	Marketing communication for company PetCenter Slovakia Ltd.	N. Rizmanová	Ing. V. Lendel, PhD.
36.	Application Performance Management approaches the focus on the development and employee in selected enterprise	E. Siantová	Assoc.Prof.Ing. J. Vodák, PhD.
37.	Proposal of Integrated Marketing Communications for XPS spol. Ltd.	T. Siget	Ing. M. Varmus, PhD.

No.	Theme	Student	Supervisor
38.	Analysis of business marketing communication tools\r\n	K. Slezáková	Mgr. J. Soviar, PhD.
39.	Customer satisfaction measuring in Aquapark Tatrallandia Tatry mountain resorts, Inc.	Z. Slobodová	Mgr. J. Soviar, PhD.
40.	Possibilities of use of untraditional forms of marketing communication in conditions of selected firm	Ľ. Šoška	Ing. R. Jankal, PhD.
41.	Motivation and Motivating of Employees and Managers at MetLife Amslico	K. Tršková	Assoc.Prof.Ing. M. Blašková, PhD.
42.	Utilization of European Union (and state) support for solving the investment needs of the municipality Mutne	J. Vaterka	Ing. J. Gajdošík
43.	Marketing communication of selected company	M. Vejčíková	Ing. R. Jankal, PhD.
44.	Selected components of LEAN manufacturing in small business	Ľ. Závodská	Ing. L. Richter

MASTERS THESIS

No.	Theme	Student	Supervisor
1.	The Proposal of Motivation Program of Employees and Managers in Conditions of IT Company	R. Bednárík	Assoc.Prof.Ing. M. Blašková, PhD.
2.	Propose the elements of knowledge management in the company TMG, Ltd.	S. Beňadiková	Assoc.Prof.Ing. J. Vodák, PhD.
3.	Inventory Planning and Control in a Selected Logistics Segment of a Manufacturing Business	L. Blaňarová	Assoc.Prof.Ing. J. Král, PhD.
4.	Information providing of selected business processes and their rationalization	I. Brejová	Ing. V. Lendel, PhD.
5.	Internal marketing in conditions of selected firm	K. Brosová	Ing. R. Jankal, PhD.
6.	Improvement Possibilities of Processes in Enterprise Management	J. Cabániková	Prof.Ing Š. Hittmár, PhD.
7.	Selection of International Market Entry Mode with Application of Methods for Decision Support	E. Czastek	Ing. J. Magdolenová, PhD.
8.	Decision.-Making Process in Enterprise Management	I. Gallová	Prof.Ing Š. Hittmár, PhD.
9.	Propagation support on internet	Z. Graňák	Mgr. J. Soviar, PhD.
10.	The selection and the implementation a tool of MIS for the existing IS of enterprise.	M. Janek	Ing. M. Kubina, PhD.

No.	Theme	Student	Supervisor
11.	Corporate social responsibility in conditions of selected firm	S. Jurčíková	Ing. R. Jankal, PhD.
12.	Proposal for a data-warehouse and application of selected MIS tool.	R. Juroško	Ing. M. Kubina, PhD.
13.	Motivation Program and Learning System of Scheidt&Bachmann	L. Kocifajová	Assoc.Prof.Ing. M. Blašková, PhD.
14.	Inventory Planning and Control in a Selected Logistics Segment of a Manufacturing Business	S. Kontra	Assoc.Prof.Ing. J. Král, PhD.
15.	Creating a model of information flows for the implementation of ERP system for small business enterprises.	P. Macková	Assoc.Prof.Ing. J. Vodák, PhD.
16.	Application of Quality Management Methods and Tools in a Manufacturing Business	D. Matúšová	Assoc.Prof.Ing. J. Král, PhD.
17.	International Market Selection through Multi-Criteria Decision Making	J. Pajdučáková	Ing. J. Magdolenová, PhD.
18.	Business marketing communication strategy	K. Púčková	Mgr. J. Soviar, PhD.
19.	Strategy Map Creating with Using of The Balanced Scorecard methodology.	M. Rádik	Assoc.Prof.Ing. J. Vodák, PhD.
20.	Management information flows optimization in non-profit organization	M. Rusnáková	Mgr. J. Soviar, PhD.
21.	International Market Selection with Application of Methods for Decision Support	K. Rybáriková	Ing. J. Magdolenová, PhD.
22.	The Quality of Informational and Communicational Relations of the Motivating in Strengthening of Employees' High Performance and Loyalty	V. Soboňová	Assoc.Prof.Ing. M. Blašková, PhD.
23.	Using Application of Selected Methods in Enterprise Management	J. Ščensná	Prof.Ing Š. Hittmár, PhD.
24.	Information system for Slovenský skauting, 55. zbor Lišiak Vrútky	Z. Škutchanová	Ing. V. Lendel, PhD.
25.	Information Providing of Selected Processes of Firm Proma	E. Vrabcová	Prof.Ing. Š. Hittmár, PhD.
26.	Significations and management of security police in the company	R. Zuščák	Ing. M. Kubina, PhD.

EQUIPMENT

Management laboratory



Department of Software Technologies

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Ing. Viliam Tavač, PhD.
Ing. Marek Tavač

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

Administrative Department: Mgr. Iveta Belošovičová

PhD Students: Ing. Tomáš. Bača
Ing. Matej Uram
Ing. Štefan Toth
Mgr. Peter Madzík
Ing. Matej Meško
Ing. Zuzana Fabiánová

PhD-Programme

Theme	Student	Supervisor
Optimization of Data Transmission and Agents in Ad-hoc Networks	Ing. T. Bača	Assoc. Prof. Ing. E. Kršák, PhD.
Service specifications and its effects on quality management	Ing. M. Uram	Assoc. Prof. Ing. M. Hrnčiar, PhD.
Adaptive System for Integration of Person-Machine	Ing. Š. Toth	Assoc. Prof. Ing. E. Kršák, PhD.
Decision-Making Model in Management Services	Mgr. P. Madzík	Assoc. Prof. Ing. M. Hrnčiar, PhD.
Identification and Monitoring of Mobile Objects	Ing. M. Meško	Assoc. Prof. Ing. E. Kršák, PhD.
Quality of Public Administration – Management System of Organization and Individual Efficiency	Ing. Z. Fabiánová	Assoc. Prof. Ing. M. Hrnčiar, PhD.

EQUIPMENT

Teaching and Research Laboratories

Laboratory of Object Technologies

Laboratory of Control Process Developing

Servers:

ZEUS	Fedora Core
VAII	Gentoo
HERMES	Gentoo
ATLAS	Gentoo
TITAN	MS Windows 2008 Server
JASON	MS Windows 2003 Server
PERSEUS	MS Windows 2003 Server
POSEIDON	MS Windows 2003 Server



Laboratory of Control Process Developing

COOPERATION

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, Science, Research and Sport

Cooperation with Foreign Institutes and Enterprises

- University of Pardubice, The Jan Perner Transport Faculty, Department of Informatics in Transport, Czech Republic
- TUD - University of Technology Dresden, Germany
- Czech Railways
- AŽD Prague, Czech Republic
- Administration of Railways Transportation Roads, Czech Republic

Membership in Slovak Organizations and Societies

Assoc.Prof.Ing. E. Kršák, PhD.:

- SANET – Slovak Academic Network

Assoc.Prof.Ing. M. Hrnčiar, PhD.:

- Slovak Society for Quality

Ing. O. Bartl, PhD.:

- Slovak Society for Operations Research

Ing. M. Gábor:

- Intelligent Transport Systems Association Slovakia

Ing. H. Bachratý, PhD.:

- Union of Slovak Mathematicians and Physicists

Membership in International Organizations and Societies

Assoc.Prof.Ing. M. Hrnčiar, PhD.:

- Austrian Society for Process Management

Contracts with Slovak and Foreign Institutions

- Railways of Slovak Republic
- Czech Railways
- Slovak Post
- Slovak Society for Quality
- Hewlett Packard
- AŽD Prague, Ltd. (Automation of Czech Railways)
- Union Insurance
- Transport Research Institute

BACHELOR'S THESIS

No.	Theme	Student	Supervisor
1.	Guitar School	M. Melko	Ing. M. Gábor
2.	Communication with a LED panel via RS 485	J. Brtiš	Ing. V. Tavač, PhD.
3.	Internet portal for building industry	J. Jarabica	Ing. P. Hrkút, PhD., PhD.
4.	Tool to track energy savings	J. Pakosová	Ing. M. Tavač
5.	Improving services quality by using quality methods in library organization	J. Juroško	Ing. M. Uram
6.	Application for selling travel tickets via mobile phone	J. Branický	Ing. M. Tavač
7.	Test automation for PHP applications	M. Oravec	Ing. P. Hrkút, PhD.
8.	Information system for dentists ambulance	M. Štepanovič	Ing. T. Bača
9.	Internet information system for product price comparison	M. Kontroš	Ing. P. Hrkút, PhD.
10.	Sports information system	M. Žilinčár	Ing. J. Ružbarský, PhD.
11.	Improvement of services quality by customer satisfaction measurement in AQUAPARK TATRALANDIA company	M. Blaňar	Ing. M. Uram
12.	Automated actualization of UML .FRI with RSS	M. Jančura	Ing. T. Bača
13.	Online communication tool with advanced graphical user interface	M. Sedlák	Ing. P. Hrkút, PhD.
14.	Information system for food planning for summer camps	M. Fraňo	Ing. P. Hrkút, PhD.
15.	Construction company stock holding	M. Ďurčanský	Ing. J. Ružbarský, PhD.
16.	Software tool set for webhosting	M. Hlúbik	Ing. P. Hrkút, PhD.
17.	Business process mapping in organization MEDIPRAKTIK,	P. Filipek	Ing. M. Uram
18.	Server Application Framework aimed to support Multiplayer Online Games	R. Dérer	Ing. V. Tavač, PhD.
19.	Computer Graphic and Software Applications	S. Trnovská	Ing. J. Ružbarský, PhD.
20.	Information system for management of Master students\' projects	T. Jakubčín	Ing. P. Hrkút, PhD.
21.	Data versioning and requirements management.	T. Holúbek	Ing. M. Tavač
22.	Analysis of Process of the Audit of Quality Management System	V. Sýkora	Assoc.Prof. Ing. M. Hrnčiar, PhD.

MASTER THESIS

No.	Theme	Student	Supervisor
1.	Framework for development of graphical 2D applications for Windows Mobile devices	M. Meško	Ing. P. Hrkút, PhD.
2.	Mobile phone acting as a cryptographic token	M. Kurpel	Assoc.Prof.Ing. E. Kršák, PhD.
3.	Suitability Analysis of Using Quality Tools in Organization	B. Dobrucká	Assoc.Prof. Ing. M. Hrnčiar, PhD.
4.	General methodology for selection of appropriate Self-Assessment model	J. Oriechiková	Assoc.Prof. Ing. M. Hrnčiar, PhD.
5.	Application for displaying of scheduled and real time transport traffic.	J. Belica	RNDr. H. Bachratý, PhD.
6.	Off-line application development	L. Berka	Ing. M. Tavač
7.	Optimization of web based applications for mobile devices	M. Sučeňák	Ing. P. Hrkút, PhD.
8.	Determination of the level of efficiency in the use of tools to improve organization	M. Fúcelová	Assoc.Prof. Ing. M. Hrnčiar, PhD.
9.	System for automation equipment in an intelligent building	Ľ Krausko	Assoc.Prof.Ing. E. Kršák, PhD.

OTHER ACTIVITIES:

Assoc.Prof.Ing. E. Kršák, PhD.:

- Administrator of Certificate Authority Faculty of Management Science and Informatics
- Registrar of internet domains TLD sk
- Chairman of Program Committee, Conference Objekty 2011, Žilina, November 2011, Slovak Republic

Assoc.Prof.Ing. M. Hrnčiar, PhD.:

- President of Slovak Society for Quality
- Member of the Slovak Technical Committee TK22 – Quality
- Member of the Workgroup CAF and Education (EIPA – European Institute for Public Administration)
- Member of the EQAVET – European Quality Assurance in Vocational Education
- Member of the Accreditation Committee for Vocational Education of the Slovak Republic

Ing. H. Bachratý, PhD.:

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

Ing. J. Ružbarský, PhD.:

- Coordinator of Partnership among University of Applied Sciences Dresden, and Faculty of Management Science and Informatics, University of Žilina
- LBMS Graduation Certificate: Object Analyse and Desing in UML

Ing. M. Tavač:

- Oracle Database: SQL Certified Expert

Ľ. Sadloň:

- Member of Program Committee, Conference Objekty 2011, Žilina, November 2011, Slovak Republic

J. Janech:

- Member of Program Committee, Conference Objekty 2011, Žilina, November 2011, Slovak Republic



Opening Day at the Faculty - Information for perspective students at the Department