

FACULTY

Faculty of Business and Economics

RESEARCH AREA

ICT for Support of Monitoring and Evaluation of Environment Changes as a Tool for Support of Bio-economic Innovations and Process Control

RESEARCH TEAM

Prof. Jiří Štašný, team leader, contact: jiri.stastny@mendelu.cz, tel.: +420 545 132 268

Assoc. Prof. Ivana Rábová, Mendel University in Brno, Czech Republic
Assoc. Prof. Pavel Žufan, Mendel University in Brno, Czech Republic
Prof. Jiří Hřebíček, Masaryk University, Czech Republic
Assoc. Prof. Jozef Kapusta, Constantine the Philosopher University in Nitra, Slovakia
Assoc. Prof. Vladislav Škorpil, Brno University of Technology, Czech Republic

EXPERT/TECHNICAL PROFILE OF THE TEAM (SPECIFIC PART OF RESEARCH)

Information and communication technologies, methods and algorithms for data classification and prediction, management of technological processes, process control, environmental informatics and modelling, computational science and integrated management, eGovernment, eParticipation and eEnvironment services of EU, process management support, data processing tools for management decision making, business process modeling, measurement of key performance indicators.



EXPERIENCE

Participation in national projects (programme and provider)

- The Czech Science Foundation, grant No. 403/11/2085, Construction of Methods for Multifactorial Assessment of Company Performance of Chosen Economic Activities, 2011–2013
- The Czech Science Foundation, grant No. 101/09/H050, The research of energy saving equipment for achievement of interior environment comfort, 2009–2012
- The Czech Science Foundation, grant No. 102/07/1503, Advanced Optimization of the Design of Communication Systems via Neural Networks, 2007–2009
- The Czech Ministry of Education, grant No. CZ.1.05/2.1.00/03.0072, Centrum of Sensorial, Informatics and Communications Systems (SIX), 2012–2014
- Scientific Grant Agency of the Ministry of Education, science, research and sport of the Slovak Republic and the Slovak Academy of Sciences, grant No. VEGA 1/0392/13, Modelling of Stakeholders' Behaviour in Commercial Bank during the Recent Financial Crisis and Expectations of Basel Regulations under Pillar 3- Market Discipline, 2013–2015
- Scientific Grant Agency of the Ministry of Education, science, research and sport of the Slovak Republic and the Slovak Academy of Sciences, grant No. VEGA 1/0559/14, Evaluation of machine translation, 2014–2016
- Interuniversity student competition (European Social Fund, Czech Ministry of Education, Youth and Sport, 2012–2014)
- Trends of Business Ethics and Corporate Social Responsibility in Central Europe (Visegrad fund, 21310446, 2013)
- Centre for innovative use and strengthening competitiveness of Czech brewing inputs and products (Technological Agency of the Czech Republic, 2014)



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Conference organization etc. (national and international)

- 37th International Conference on Telecommunications and Signal Processing, TSP 2014, Berlin, Germany, July 1–3, 2014
- 15th International Conference on Research in Telecommunication Technologies, RTT2013, Senec, Slovak Republic, September 11–13, 2013
- Czech Presidency European conference Towards eEnvironment 2009
- DiVAI 2014 - 10th International Scientific Conference on Distance Learning in Applied Informatics; May 5–7, 2014, Constantine the Philosopher University in Nitra
- Enterprise and Competitive Environment (International scientific conference, every March)
- Annual International Conference of the European Association of Wine Economists / Vineyard Data Quantification Society (VDQS) – May 27–30, 2015

Involvement in cross-border / regional and bilateral cooperation

- Masaryk University, Czech Republic
- Technical University of Sofia, Bulgaria
- Brno University of Technology, Czech Republic
- Constantine the Philosopher University in Nitra, Slovakia

Involvement in European (especially in Framework Programmes projects, EUREKA, EUROSTARS, COST etc.) and international cooperation

- Participation on solving FP6 Network of Excellence DEMO-net, eParticipation project FEED and FP7 project ICT-ENSURE and TaToo and eParticipation project FEED

Other foreign activities and contacts (active participation in conferences, publications, membership in international bodies etc.)

- Member of the International Federation of Information Processing (IFIP) and the secretary of WG 5.11 „Computer for Environment“ of IFIP
- Member of International Environmental Modelling and Software Society (iEMSS) and iEMSS board, the International Envirometrics Society (TIES)
- Member of Institute of Electrical & Electronics Engineers (IEEE)
- Member of World Scientific and Engineering Academy and Society (WSEAS)
- Member of Executive board of the World Association for Case method Research and Application (WACRA)
- Involvement in Danubius Academic Consortium – <http://www.danubiusdesign.org/>
- Membership in Academy of Management
- Membership in Strategic Management Society

Selected Publications in the field

- Šťastný, J., Škorpil, V., Fejfar, J.: Visualization of Uncertainty in LANDSAT Classification Process. In Proceedings of the 37th International Conference on Telecommunication and Signal Processing, Berlin, Germany 2014, pp. 701–704, ISBN 978-80-214-4983-1
- Lýsek, J., Šťastný, J.: Automatic discovery of regression model by means of grammatical and differential evolution. Agricultural Economics 2014, volume 60, issue 12, pp. 546–552. ISSN 0139-570X
- Šťastný, J., Konečný, V., Trenz, O.: Agricultural data prediction by means of neural network. Agricultural Economics 2011, volume 57, issue 7, pp. 356–361, ISSN 0139-570X
- Šťastný, J., Škorpil, V.: Analysis of Algorithms for Radial Basis Function Neural Network. Personal Wireless Communications, Springer, 2007, volume 245, pp. 54–62, ISSN 1571- 5736, ISBN 978-0-387-74158-1
- Hřebíček, J., Soukopová, J., Trenz, O.: Current Trends of Economic Modelling of Sustainable Corporate Performance and Reporting – Review and Research Agenda. Procedia Economics and Finance, sv. 2014, c. 12, pp. 234–242. ISSN 2212-5671
- Popelka, O., Hodinka, M., Hřebíček, J., Trenz, O.: Information System for Global Sustainability Reporting. In: Environmental Software Systems. Fostering Information Sharing, 10th IFIP WG 5.11 International Symposium, ISESS 2013. Heidelberg: Springer, 2013, pp. 630–640. ISBN 978-3-642-41150-2
- Kapusta, J., Munk, M., Drlik, M.: (2014). Analysis of Differences between Expected and Observed Probability of Accesses to Web Pages. In Lecture Notes in Artificial Intelligence. Springer, ISSN 0302-9743, vol. 8733, pp. 673–683
- Kapusta, J., Munk, M., Švec, P. et al.: (2014). Determining the time window threshold to identify user sessions of stakeholders of a commercial bank portal. In Procedia Computer Science. Elsevier, ISSN 1877-0509, vol. 29, pp. 1779–1790
- Syrovátka, P., Žufan, P.: Price Elasticity of Supply of Bottled Quality White Wine in the Czech Republic. Review of Agricultural and Applied Economics. XVII (2, 2014): ISSN 1336-9261
- Kuzminykh, N., Žufan, P.: Airline Alliances and their Influence on Firm Performance. Procedia Economics and Finance. 2014(12): 329–333. DOI: 10.1016/S2212-5671 (14) 00352-9 URL: <http://www.sciencedirect.com/science/article/pii/S2212567114003529>
- Rábová, I., Šťastný, J.: Business process model of key performance indicators harvesting and measuring. In DiVAI 2014 - 10th International Scientific Conference on Distance Learning in Applied Informatics. 1. vyd. Praha: Wolters Kluwer, 2014, pp. 473–482. ISBN 978-80-7478-497-2

Topics for cooperation in H2020 / project proposal

Preparation of a project within the Call for integrating society in Science and Innovation (H2020-ISSI-2015-1 / Sub call of: H2020-ISSI-2014-2015) – Topic 4: On-line mechanisms for knowledge-based policy advice (ISSI-4).

Other possible general topics to consider:

- Environmental management
- Process management support
- Data mining / Data processing tools for management decision making
- Decision support / Early warning systems – internal / external
- Knowledge management

Horizon 2020, Call: H2020-SFS-2015-2, Topic: SFS-02b-2015, Type of action: RIA, proposal number: 677569-1, proposal acronym: SensingSoil, title: Sensing the soil quality through the innovative methods and tools of precision and conservation agriculture.



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