

RESEARCH TEAM PROFILES

FACULTY

Faculty of Business and Economics

RESEARCH AREA

Corporate Sustainability, Measuring Corporate Performance, Key Performance Indicators, Business Process Modelling

RESEARCH TEAM

Assoc. Prof. Oldřich Trenz, team leader, contact: oldrich.trenz@mendelu.cz, tel.: +420 545 132 267

Prof. Jiří Hřebíček, Mendel University in Brno, Czech Republic

Prof. Milan Mišovič, Mendel University in Brno, Czech Republic

Assoc. Prof. Ivana Rábová, Mendel University in Brno, Czech Republic

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Oldřich Faldík, Mendel University in Brno, Czech Republic

Edward Kasem, Mendel University in Brno, Czech Republic

Dominik Fronc, Mendel University in Brno, Czech Republic

Ján Hazucha, Mendel University in Brno, Czech Republic

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

- Corporate sustainability approach is associated with risk management in the economic, environmental and social areas. The aim is to build long-term business values. An integral part of sustainability measuring corporate performance and the identification of key performance indicators
- Business process modelling is an analytical approach used to represent business processes of organizations. It is widely viewed as a critical component in successful business process management. It is used to capture organization's current (or "as-is") processes to create a baseline for process improvement or to design future (or "to-be") processes with those improvements incorporated
- The goal of the research is using Petri nets and non-deterministic finite automata for business process modelling
- The designed approach could help to derive key performance indicators and the methods for their measurement



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EXPERIENCE

Participation in national projects (programme and provider)

- Czech Economics in Integration and Globalization Processes and the Agrarian Sector Development within the Integrated European Market Conditions (Czech ministry of Education, 2005–2011)
- Construction of Methods for Multifactorial Assessment of Company Performance of Chosen Economic Activities (Czech Science Foundation, 2011–2013)
- Measuring corporate sustainability performance in selected sectors (Czech Science Foundation, 2014–2016)
- Building the process modelling and information systems laboratory (Czech ministry of Education, 2013)
- Innovation of technical courses (Czech ministry of Education, 2014)
- Innovation of technical disciplines at FBE (Czech ministry of Education, 2015)

Conference organization etc. (national and international)

Prof. Hřebíček was the chairman of international conferences EnviroInfo 2005, Czech Presidency European conference Towards eEnvironment in 2009 and ISESS 2011, vice-chairman of ISESS 2007, 2013 and 2015.

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 Association and Mathematics of America Association.

Selected publications

- [Current Trends of Economic Modelling of corporate sustainability](#)
HŘEBÍČEK Jiří, SOUKOPOVÁ Jana, TRENZ Oldřich: Current Trends of Economic Modelling of Sustainable Corporate Performance and Reporting – Review and Research Agenda. *Procedia Economics and Finance*. 2014. vol. 2014, n. 12, p. 234–242. ISSN 2212-5671
- [Business intelligence in corporate reporting](#)
HŘEBÍČEK Jiří, HODINKA Michal, ŠTENCL Michael, TRENZ Oldřich: Business Intelligence in Environmental Reporting Powered by eXtensible Business Reporting Language (XBRL). In *Proceedings of the 7th International Congress on Environmental Modelling and Software*. 2014, ISBN 978-88-9035-744-2
- [Use MATLAB to optimize business processes](#)
HŘEBÍČEK Jiří, TRENZ Oldřich, CHVÁTALOVÁ Zuzana, SOUKOPOVÁ Jana: Optimization of Corporate Performance Using Data Envelopment Analysis with Maple. In *In Aurelio Araujo et al. Engineering Optimization 2014*. 1. ed. London: CRC Press, 2014, p. 763–767. ISBN 978-1-138-02725-1
- [Business process model of key performance indicators harvesting and measuring](#)
RÁBOVÁ Ivana, ŠTASTNÝ Jiří: Business process model of key performance indicators harvesting and measuring. In *DIVAI 2014 – 10th International Scientific Conference on Distance Learning in Applied Informatics*. 1. ed. Praha: Wolters Kluwer, 2014, p. 473–482. ISBN 978-80-7478-497-2
- [Process model deployment of information systems technology cloud computing](#)
RÁBOVÁ Ivana, TURČÍNEK Jan: Procesní model nasazení informačních systémů technologií cloud computing. In *Informačné a komunikačné technológie v riadení a vzdelávaní*. 1. ed. Nitra: SPU Nitra, 2013, p. 95–104. ISBN 978-80-552-0983-8
- [Using UML and Petri nets for visualization of business document flow](#)
RÁBOVÁ Ivana: Using UML and Petri nets for visualization of business document flow. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 2012. vol. LX, n. 2, s. 299–306. ISSN 1211-8516
- [Use of UML and Petri nets for optimizing business workflow](#)
RÁBOVÁ Ivana, JEDLIČKA Petr: Využití UML a Petriho sítí pro optimalizaci podnikových workflow. In: *Metódy modelovania a analýzy dát v informačných systémoch*. 1. ed. Edícia Prírodovedec, num. 488. Nitra: Univerzita Konštantína Filozofa v Nitre, 2011. p. 161–179. ISBN 978-80-558-0034-9

Topics for cooperation in H2020/project proposal

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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