

List of dissertations

Category 1 - Economics and finance

- **Aleksandra Nocoń** – *System of reacting of modern central banks on banking sector instability*
- **Jacek Stelmach** - *The use of non-parametric statistical methods in economic and quality control of batch processes*
- **Jana Šimáková** – *The effects of Exchange rates and their volatility on the foreign trade*
- **Marco Cassader** – *Benchmark tracking portfolio problems with stochastic ordering constraints*
- **Michal Titko** – *Influence of crisis situations on the functionality of critical infrastructure*
- **Milan Zvarík** – *Impact of basel III on commercial bank's assets and liabilities management*
- **Monika Šulganová** – *The macroeconomic modeling of an aggregate credit risk for the needs of macroprudential policy: application to the Czech Republic*
- **Petra Lesníková** – *Sustainable development as a concept of creation and implementation of corporate strategy*

Category 2 - Raw materials, energy and the environment

- **Aleksandra Lipczyńska** - *Impact of combined system of personalized ventilation and chilled ceiling on indoor environment and energy consumption*
- **Joanna Orzel** - *Modeling of nonselective signals in the context of quality monitoring*
- **Karina Kocot** - *Microextraction in preconcentration and determination of trace metal ions by X-ray fluorescence techniques*
- **Katarzyna Segeth-Boniecka** - *Cost structure and transformation model in the management of a hard coal mining enterprise*
- **Silvie Hartmann** - *Treatment of Solid Waste Incineration Fly ash for Mitigation of Environmental Risks*
- **Slavomíra Domčeková** - *Preparation and properties of modified polymer systems containing alternative fillers*
- **Vendula Laciok (née Drastichová)** - *Measurement of Emissions of Ultrafine Particles from Small Combustion Equipment with Regard to New Findings from Research on the Safety of Nanoparticles*

Category 3 - Health and applications in healthcare

- **Anna Mielańczyk** - *Research on synthesis of star-shaped copolymers with D-glucopyranoside-centered core and their modification in order to conjugate fluorogenic compounds*
- **Iveta Jančígová** - *Modeling elastic objects in fluid flow with biomedical applications*
- **Jana Chromá** - *Assessment of pain in children with severe multiple disabilities*
- **Joanna Łaszczyk** - *The analysis of a newborn's brain cooling proces*
- **Przemysław Makowski** - *Multiscale modeling of bone tissue*

Category 4 - Information Technology

- **Daniel Benedikovič** - *Subwavelength index engineered surface grating couplers for applications in silicon photonics telecom and datacom optical interconnects*
- **Miroslav Kvaššay** - *Reliability Analysis based on Logical Differential Calculus and Minimal Cut Set Methods*
- **Piotr Mynarek** - *Thermal analysis of electrical motors*
- **Radim Dolák** - *Creating of knowledge bases of an expert system for the evaluation and introduction of the lean company concept in manufacturing and logistics*
- **Václav Kocián** - *Artificial Intelligence Algorithms for Classification and Pattern Recognition*

Category 5 - Competitive Engineering, Materials Research

- **Agata Blacha-Grzechnik** - *Molekularne warstwy organiczne stosowane w procesie elektropolimeryzacji inicjowanej powierzchniowo*
- **Andrea Soviarová** - *Influence of aluminium content in magnesium alloy on chance of dependence of internal damping on temperature*
- **Anna Śmiglewicz** - *Structure and properties of high-manganese steel formed in the result of mechanical twinning induced plasticity*
- **Jan Holešínský** - *Microstructural stability and heat resistance of steels for energy industry*
- **Lukas Heisig** - *Static and dynamic analysis of hydrodynamic journal bearings and their influence on steam turbine rotor*
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