

Thesis themes

Academic Year 2023/2024

Study Programme: Economics

Study Programme Leader: **prof. Ing. Martin Macháček, Ph.D. et Ph.D.**

doc. Ing. Jiří Balcar, Ph.D., dep. 114, +420 597 322 291

- The influence of personality and soft skills on wages and success in the labor market
- Beauty and its implications for the labor market
- Application of information theory and signaling theory in the labor market
- Environmental and other determinants of migration
- Wage determinants
- The determinants of employment at the microeconomic level
- Gender roles and other gender aspects of the labor market
- The influence of subjective perception on economic decision-making

prof. Dr. Ing. Jan Frait, ČNB Praha, + 420 224 411 111

- Monetary policy and risk-taking in financial markets

doc. Ing. Martina Halásková, Ph.D., dept. 153, +420 597 322 315

- Financing of services of general interest
- Fiscal federalism - theoretical and practical aspects
- Economic and political aspects of corruption

prof. Ing. Jana Hančlová, CSc., dept. 157, +420 597 322 285

- Evaluation of the impact of changes in energy sources on the development of economies.

doc. Ing. Martin Hodula, Ph.D., dept. 114, +420 597 322 214

- Non-bank financial intermediation (shadow banking, fintech, big tech)
- Regulation and financial stability
- Meta-analysis of selected macro-financial relations

Ing. Jan Janků, Ph.D., dept. 114, +420 597 322 214

- Macro-Prudential Policy and Financial Stability
- (Re)distributional Effects of Monetary and Macro-Prudential Policy
- Interaction of Monetary and Macro-Prudential Policy in a Low Interest Rate Environment (LIRE) and in a High Inflation Period
- Economic Analysis of Politics: The Impact of Voter's Awareness and Other Macroeconomic and Socioeconomic Factors on the Electoral Performance of Populist and Extremist Political Parties

doc. Ing. Zuzana Kučerová, Ph.D., dept. 114, +420 597 322 405

- Financial cycle, Identification, Determinants, Synchronisation with Economic Cycle, Stabilisation Instruments of Macroeconomic Policies
- Cryptocurrencies and the Role in the Current Financial System, Impact on Monetary Policies of Central Banks and Investors' Behaviour and Attention
- Monetary Policy, Current Trends, Communication of Central Banks and its Credibility in High Inflationary Episodes, the Role of Inflation Expectations

prof. Dr. Ing. Jan Libich, dept. 114, +420 597 322 480

- Macroeconomic effects of demographic changes
- The optimal design of pension systems
- Monetary – fiscal policy interactions
- Bank runs and deposit insurance
- Financing tertiary education
- Financial stability and macroprudential policy

prof. Ing. Martin Macháček, Ph.D., dept. 114, +420 597 322 343

- Selected Problems of Mainstream Economics and Attempts at its Reform
- Economic Aspects of War

doc. Ing. Aleš Melecký, Ph.D., dept. 114, +420 597 322 153

- Determinants of real estate market development – linear and non-linear models
- Housing prices – affordability of housing, spatial differences in housing prices
- Government debt management and fiscal sustainability
- Behavioral Economics – the impact of social, cognitive and emotional factors on the economic decision-making of individuals and institutions
- Application of behavioral and experimental economics on environmental issues

prof. Dr. Ing. Martin Melecký, Ph.D., dept. 114, +420 597 322 284

- Banking sector efficiency, capital reallocation, and equitable growth
- Climate change crisis, natural disasters, and disaster risk financing
- Green finance, ESG and impact investing
- State owned enterprises, state owned banks, and PPPs

prof. Ing. Richard Pospíšil, Ph.D., +420 732 285 453, richard.pospisil@upol.cz

- The economic and legal aspects of independence of Czech National Bank in relation to future membership of the Czech Republic in the Euro area
- Social entrepreneurship in the Czech Republic in the context of economic policy
- The instruments of the European Union to restore and maintain the fiscal discipline.

doc. Ing. Mariola Pytliková, Ph.D., mariola.pytlikova@cerge-ei.cz

- Wage inequality – trends and factors affecting wage inequality

- Determinants of international migration
- Labour diversity and its effects on wages, labour turnover and firm outcomes
- Immigrants, ethnic diversity and Foreign Direct Investment (FDI)
- Segregation on the labour market – demographic, education and ethnic segregation on the labour market
- Gender differentials on the labour market
- Immigrants, ethnic diversity and innovation in firms
- The role of immigrants and ethnic diversity in trade creation
- The effects of emigration on sending countries.

doc. Ing. Michaela Staníčková, Ph.D., dept. 120, +420 597 322 230

- Impacts of spending finances from EU Funds on regional development
- Economic resilience and adaptability of the territory to external shocks
- Competitiveness of selected countries and regions in a globalized economy
- Spatial patterns of socio-economic differentiation and progressiveness of the territory
- Regional development and regional disparities
- Development potential and regional specialization as a competitive advantage of the territory
- Territorial dimension of social inequalities

doc. Ing. Iveta Vrabková, Ph.D., dept. 153, +420 597 322 306

- Gaps in the performance of selected sectors of the public sector (health, education, security, culture, public administration)
- Latent performance factors of public programs (health insurance, social support, specific subsidy programs)
- Perspectives and limitations of distance forms of distribution of public services (in healthcare, social care, education)
- The influence of socio-economic factors on the concentration and deconcentration of the supply of public goods

Thesis themes

Academic Year 2023/2024

Study Programme: Economy and Management

Chairman of the Branch Committee: doc. Ing. Petra Horváthová, Ph.D., MBA

doc. Ing. Dagmar Bařinová, Ph.D., dept. 117, dagmar.barinova@vsb.cz

- Personal bankruptcy and its economic and social impact on the debtor
- Insolvency proceedings from the position of the business entity

prof. Dr. Mgr. Ing. Alexander Bělohlávek, dept. 119, alexander.belohlavek@vsb.cz

- Economic criteria for determining the method for settlement of international commercial disputes
- The method of settlement of disputes as qualitative aspect for assessing the value of a commercial case
- Center of Main Interest (COMI) from the viewpoint of European law as a means for determining business management strategy
- Risk factors in managing business from the perspective of the application of the Rome I Regulation
- Risk factors in managing business from the perspective of the application of the Brussels I Regulation

doc. Dr. Ing. Pavel Blecharz, dept. 152, pavel.blecharz@vsb.cz

- Use of Design of Experiments (Taguchi Approach) in Service Industry
- Use of advanced quality methods in product improvement
- Application of Six Sigma in process improvement

doc. Ing. Václav Friedrich, Ph.D., dep. 151, vaclav.friedrich@vsb.cz

- Measuring service quality using advanced statistical methods
- Measuring the competitiveness and performance of the business using advanced statistical methods
- Analysis of the attitudes of individuals and businesses towards sustainable development, the use of alternative energy sources and waste management

doc. RNDr. PhDr. Oldřich Hájek, Ph.D., MBA, hajek.oldrich@gmail.com

- Economic and legal aspects of school facilities development in the conditions of the Czech Republic
- Development of the real estate market in the context of economic growth in the Czech Republic
- Human capital as a factor of socio-economic development and competitiveness of Regions

doc. Ing. Martina Halásková, Ph.D., dept. 153, martina.halaskova@vsb.cz

- Management of organisations of the non-government non-profit sector

prof. Ing. Jana Hančlová, CSc., dept. 157, jana.hanclova@vsb.cz

- Evaluation of the efficiency of production units (influence of energy consumption, emissions).
- Structural analysis in the company

doc. Ing. Pavla Horváthová, Ph.D., MBA, dept. 115, petra.horvathova@vsb.cz

- Human resource management as a tool for increasing competitiveness of the organization
- Management of key positions and employees
- Application of talent management system in the enterprise

doc. Ing. Lenka Kauerová, CSc., dept. 116, lenka.kauerova@vsb.cz

- Measurement of effects of CRM concept implementation
- Cultural dimension and their significance in international trade

doc. PhDr. ThDr. Lucjan Klimsza, Ph.D., dept. 115, lucjan.klimsza@vsb.cz

- Leadership types and their influence on organizational culture
- Theory of Servant Leadership and its Contribution for Organizational Culture

doc. RNDr. Jaroslav Koutský, Ph.D., dept. 118, Jaroslav.Koutsky@ujep.cz

- Economic specialization in organisational and spatial perspective
- Transformation and restructuring processes on selected industries or economic subjects

doc. Ing. Michal Krajňák, Ph.D., MBA, LL.M, dept. 117, michal.krajnak@vsb.cz

- Quantification of the tax burden for small and medium-sized enterprises in the environment of the tax system of the Czech Republic
- Evaluation of the influence of tax and Levy burden on labor costs of the company in the business environment of the Czech Republic

doc. Ing. Lukoszová Xenie, Ph.D., dept. 152, xenie.lukoszova@vsb.cz

- Supply chain management
- Modern purchasing directions in the enterprise

doc. Ing. Pavla Macurová, CSc., dept. 152, pavla.macurova@vsb.cz

- Supply chain resilience

doc. Ing. Marie Mikušová, Ph.D., dept. 115, marie.mikusova@vsb.cz

- Family business – an opportunity and an intergenerational challenge
- A holistic approach to crisis management issues

prof. Mgr. Maciej Mitrega, PhD., dept. 116, maciej.mitrega@vsb.cz

- Building blocks of dynamic capabilities in Central and Eastern European (CEE) firms
- Building blocks of dynamic marketing capabilities – insights from industry

- Social sustainability in business strategies
- Power concepts and power dynamics in inter-organizational relationships
- Marketing capabilities of CEE companies in international markets
- Verification of possibilities for applying selected management methods in Central and Eastern European (CEE) firms

doc. JUDr. Petr Mrkývka, Ph.D., dept. 119, petr.mrkvka@vsb.cz

- Determination and diversification of public financial activity - impacts on legal regulation

prof. Bogdan Oancea, Ph.D., bogdan.oancea@faa.unibuc.ro

- Predictive analytics models used in marketing
- Customer segmentation and predictive modeling

prof. JUDr. Naděžda Rozehnalová, CSc., dept. 119, nadezda.rozehnalova@vsb.cz

- European Union – legal aspects of external trade regulations

doc. Ing. Vojtěch Spáčil, CSc., dept. 116, vojtech.spacil@vsb.cz

- Customer satisfaction measurement and loyalty programs
- The antecedents of customer citizenship behaviour
- Intergenerational differences in consumer behaviour

doc. Ing. Martin Svoboda, Ph.D., martin.svoboda@econ.muni.cz

- Structured financial products
- Investor behavior from the perspective of behavioral finance

prof. RNDr. Dana Šalounová, Ph.D., dept. 155, dana.salounova@vsb.cz

- Applications of statistical methods in marketing research
- Efficiency in health care – a DEA approach

prof. Mehdi Toloo, Ph.D., dept. 152, mehdi.toloo@vsb.cz

- Robust data envelopment analysis
- Inverse data envelopment analysis
- Data selection in data envelopment analysis
- Discriminant analysis and data envelopment analysis
- Data envelopment analysis and big data
- Data envelopment analysis under uncertainty
- Machine learning and data envelopment analysis

doc. Ing. Šárka Velčovská, Ph.D., dept. 116, sarka.velcovska@vsb.cz

- Consumer typology on the food products market
- Classification of food quality characteristics
- Identification of consumer preferences using conjoint analysis method

doc. Mgr. Ing. František Zapletal, Ph.D., dept. 157, frantisek.zapletal@vsb.cz

- Application of optimization and multi-criteria decision making methods at companies
- Efficiency at companies under risk and uncertainty
- Modelling the impacts of EU environmental policy on european companies

prof. Dr. Ing. Zdeněk Zmeškal, dept. 154, zdenek.zmeskal@vsb.cz

- Application of the multi-attribute decomposition decision-making methods in management and business administration
- Game theory application in a companies decision-making
- Dynamical models in company management under risk, flexibility and interactivity
- Corporate social responsibility models
- Real option and real game option valuation and investment models
- Application of fuzzy-stochastic models in management and business administration

Thesis themes

Academic Year 2023/2024

Study Programme: Finance

Study programme guarantor: prof. Ing. Tomáš Tichý, Ph.D.

doc. Ing. Miroslav Čulík, Ph.D., dept. 154, +420 597 322 471,

miroslav.culik@vsb.cz

- Application of advanced real options in financial decision-making of companies

prof. Dr. Ing. Dana Dluhošová, dept. 154, +420 597 322 361,

dana.dluhosova@vsb.cz

- Application of value-based measurements in performance analysis of companies and comparison with sectors

doc. RNDr. Ing. Miloš Kopa, Ph.D., dept. 154, +420 597 322 015,

milos.kopa@vsb.cz

- Advanced dynamic portfolio optimization models with stochastic dominance constraints
- Investor's preference modelling with stochastic dominance

doc. Ing. Michal Krajňák, Ph.D., MBA, LL.M, dept. 117, +420 597 322 222,

michal.krajnak@vsb.cz

- Impact of tax legislation changes on financial decision making of business entity
- Influence of tax burden on location of permanent establishment of business entity
- Macroeconomic context of parameter changes in selected tax institute

doc. Ing. Aleš Kresta, Ph.D., dept. 154, +420 597 322 173, ales.kresta@vsb.cz

- Advanced approaches to portfolio theory problems
- Development of advanced risk measurement methods
- Financial time series modelling and prediction
- Forecasting of firm specific variables using hybrid models
- Efficient-market hypothesis and profitable predictions
- Behavioral biases in financial decision-making

prof. Ing. Lumír Kulhánek, CSc., dept. 114, +420 597 322 338,

lumir.kulhanek@vsb.cz

- Capital markets integration and international portfolio diversification

doc. Ing. Aleš Melecký, Ph.D., dept. 114, +420 597 322 153, ales.melecky@vsb.cz

- Influence of spatial differences on property prices
- Determinants of housing prices in Asian countries

- Behavioral biases in investor behavior
- Financial stability and macroprudential policy
- Impact of sentiment/confidence on the financial markets

Dr. Sergio Ortobelli, dept. 154, +420 597 322 015, sergio.ortobelli@vsb.cz

- Credit risk management of large portfolios
- Optimization models with applications at financial markets

doc. Ing. Petr Sedá, Ph.D., dept. 151, petr.seda@vsb.cz

- Advanced models of financial markets volatility
- Testing the informational efficiency of financial markets
- Integration of financial markets in the context of global shocks

prof. Ing. Tomáš Tichý, Ph.D., dept. 154, +420 597 322 401, tomas.tichy@vsb.cz

- Advanced Approaches to Risk Management in Corporate Finance
- Estimation and Management of Selected Risks in Banking Industry
- Estimation and Management of Selected Risks in Insurance
- Quantitative Techniques in Corporate Finance Optimization
- Modeling and Analysis of Interaction between Financial Markets and Real Sector
- Analysis of Systemic Risks using Market Based Measures

Thesis themes

Academic Year 2023/2024

Study programme: Systems Engineering and Informatics

Study program guarantor: prof. Ing. Jana Hančlová, CSc.

doc. Ing. Václav Friedrich, Ph.D., dept. 151, +420 597 322 503, vaclav.friedrich@vsb.cz

- Statistical Analysis of Multidimensional Data, Multidimensional Models of Economic and Social Indicators
- Computational Modeling of Systems using Statistical, Numerical and Logical Methods (cs, en)

prof. Ing. Jana Hančlová, CSc., dept. 157, +420 597 322 285, jana.hanclova@vsb.cz

- Econometric modeling of changes in energy prices for households or selected sectors.
- Change in the efficiency of production units because of changes in energy sources and in reducing emissions

doc. Dr. Ing. Miroslav Hudec, dept. 157, +420 597 322 318, miroslav.hudec@vsb.cz

- Modeling and evaluation developments in smart cities by fuzzy logic
- Modelling asymmetry in evaluating alternatives and conditions by computational intelligence
- Mining and interpreting relevant linguistic summaries from multidimensional and heterogeneous environmental data

doc. Ing. Pavla Macurová, CSc., dept. 152, +420 597 322 253, pavla.macurova@vsb.cz

- Selected Tools for Increasing Resilience of Supply Chains

prof. Ing. Dušan Marček, CSc., dept. 155, +420 597 322 378, dusan.marcek@vsb.cz

- Statistical and Computational Intelligence models to Predict Chaotic High-frequency Financial Data
- Creating OLAP systems for analysis and forecasting of econometric models
- Convolutional neural networks in the prediction of economic time series
- Research of methods, tools and algorithms of OLAP technology in the field of Business Intelligence of enterprises

prof. RNDr. Václav Snášel, CSc., rector, +420 597 325 279, vaclav.snasel@vsb.cz

- Multiple-criteria decision analysis

prof. RNDr. Dana Šalounová, Ph.D, dept. 151, +420 597 322 522, dana.salounova@vsb.cz

- Statistical Methods Applications in Business Intelligence

prof. Mehdi Toloo, Ph.D., mehdi.toloo@vsb.cz

- Performance Evaluation under Uncertainty

- Risk Management & Data Envelopment Analysis

doc. Mgr. Ing. František Zapletal, Ph.D., dept. 157, +420 597 322 255, frantisek.zapletal@vsb.cz

- Stochastic and fuzzy optimization of economic processes
- Application of multi-criteria decision making methods under risk and uncertainty in economics and IT
- Impacts of emissions trading on competitiveness of EU companies
- Supplier portfolio optimization under uncertainty
- Dynamic maturity model of a company
- Benchmarking of companies using multi-criteria decision making methods with dependencies among criteria in multi-period environment

**prof. Dr. Ing. Zdeněk Zmeškal, dept. 154, +420 596 992 129,
zdenek.zmeskal@vsb.cz**

- Application of fuzzy-stochastic models (portfolio theory, derivatives valuation, dynamic programming)
- Application of the multi-attribute decomposition decision-making methods
- Application of the advanced decision-making models under risk (options), risk and flexibility (real options), risk, flexibility and interaction (real game option)