# Research

# & Development



& Development



Škoda Auto University

### General

In 2012, Škoda Auto University became a listed research organization. Research and creative activities of the academic staff of ŠAU comprise publishing in indexed journals, projects and grants solving (internal/external, national/international), organization of conferences and seminars etc.



#### Robin Maialeh

Vice-rector for Science and Research



# 2000

establishment of Škoda Auto University

# 2005

Master's degree programs accreditation



Robert Frischer Head of the Research Center

The Research Center of Škoda Auto University carries out industrial research and experimental development in the fields of advanced technological solutions. We focus on the needs of our industrial partners, in order to increase their level of technological readiness in the field of advanced solutions.

### **Research Center**

### Next Goal

One of the goals of Škoda Auto University is to obtain doctoral degree accreditation.

#### 2007 foundation of its own Internal Grand Agency

(IGA)

### 2024

obtained Institutional Accreditation

## 2023

establishment of its own Research Center

### 2022

received three major national research grants (TAČR)

### 2021

acquired the support for the Long-Term Conceptual Development of the Research Organization (DKRVO)

## 2012

becoming a research organization registered in the list of Research, Development and Innovation Council of the Czech government

### 2015

acquired the support for student projects from the Ministry of Education (SGS)

#### FINANCE AND ACCOUNTING

### JIŘINA BOKŠOVÁ

Head of the Department

#### R & D TOPICS ]

- Digitalization in the 21st Century
- Electromobility and Tax Implications
- Valuation of Intangible Assets
- Field Theory in Finance
- Financial Markets and Financial Derivatives
- Impact of Industry 4.0 on Financial Management
- ESG Reporting

#### WHAT DO WE DO?

**Project**: Cooperation, Development and Cross-Border Transfer of Industrial Symbiosis among Industry and Stakeholders (COST Action)

**Project**: New e-Government Challenges in a Europe-wide Context to Increase the Competitiveness of the Czech Republic (TA ČR)

**Project**: Impacts of the Successful Development of Electromobility on the Tax Mix of the Czech Republic in the Context of EU Policies (IGA)

**Project**: Analysis of the Selected Impacts of Charges for above-limit CO2 Emissions on the Corporate and National Economy (SGS)

Publication: Digital Czechia in Digital Europe

#### HUMAN RESOURCES MANAGEMENT

#### EVA ŠVEJDAROVÁ

Head of the Department

#### R & D TOPICS

- HR Management in an Internation Environment
- Leadership and Managerial Competencies Development
- Intercultural Leadership and Management & DEIB (Diversity, Equity, Inclusion and Belonging)
- Business Ethics and Ethics in HR Management
- Crisis Intervention and Communication, Case Management
- Innovative Didactics and Sustainable Learning Models
- Sustainability, Innovation, and Social Entrepreneurship
- Talent Management and Career Coaching

#### WHAT DO WE DO?

**Project**: Use of the 21st EWA (Empowering Wholeness Adaptive) Didactic Model for Corporate Training and Education for the Academy of Škoda Auto (contractual research)

**Project**: Holistic Wellbeing for Škoda Auto (contractual research)

**Project**: COST Action CA22124 EU Circular Economy Network for All: Consumer Protection through reducing, reusing, repairing: WG1 membership (COST Action)

Project: Business Anthropology (contractual research)

**Project**: Research Task No. 5 – Synchronization of the Development of Driving Assistance Systems with the Dispositions of the Human Psyche (government)

#### INFORMATICS

#### VLADIMÍR BENEŠ

Head of the Department

#### [ R & D TOPICS ]

- Algorithmizing, Programming and Applications of Numerical Mathematics
- Technical Infrastructure and Network Technologies
- Database Systems
- Big Data Processing
- Cloud Computing Systems
- Artificial Intelligence
- E-Government

#### WHAT DO WE DO?

**Project**: Using Artificial Intelligence to Solve Economic, Managerial, and Technical Problems in the Automotive Industry (IGA)

- **Project**: Building the e-Government Cloud of the Czech Republic Cloud Computing Information System (contractual research)
- Project: Unified Control of FTS for Škoda Auto (contractual research)
- | **Project**: REnForce Strengthening Work Force Potential in the Renewable-Energy Sector (Erasmus+)
- **Project**: Brilliant Artificial Intelligence Toolkit – Higher Education Instructors (Erasmus+)
- **Publication**: Digital Transformation of Public Administration







# LANGUAGES AND INTERCULTURAL COMPETENCES

#### DAGMAR SIEGLOVÁ

Head of the Department

#### R & D TOPICS

- Languages for Business and Academia (English, German, Spanish, Russian, Czech for foreigners)
- Content and Language Integrated Learning
- Communication Competences
- Special Needs Pedagogy
- Critical Incidents
- Language and Diversity Management
- Language Learning and Teaching Methodology

#### WHAT DO WE DO?

- **Project**: Brilliant Artificial Intelligence Toolkit Higher Education Instructors (Erasmus+, K220-HED)
- **Project**: Critical Incidents in Intercultural Communication and Promoting Diversity (Erasmus+ KA2)
- **Project**: International Capacity Building in Innovation, Transfer and Entrepreneurship (EIT Urban Mobility)
- **Projects**: Students' Language Needs Analysis and Analysis of Students' Special Needs for Study Purposes
- Project: Woche der Nachbarshaft (ČNFB)
- International conferences, summer schools, blended intensive programs

#### LAW AND ECONOMICS

**PAVEL NESET** Head of the Department

#### R & D TOPICS

- International Economics
- The World Economy
- Economic Policy
- Competition Law
- Corporate Governance
- Financial Markets

#### WHAT DO WE DO?

- **Project**: Czech European Policy in Connection with the Presidency of the Council of the EU in 2022 (TA ČR)
- **Project**: National Convention on the EU Topic: Benefits and Risks of Globalization for Trade and Investment (contractual research)
- **Project**: Inflation Development and its Forecast for Škoda Auto a.s. (contractual research)
- **Project**: FAST Framework for Automotive Skills Transformation (contractual research)
- **Project**: Proposal for a Strategic Framework for Higher Education for the Automotive Sector (TA ČR)

#### MARKETING AND MANAGEMENT

#### **PAVEL ŠTRACH** Head of the Department

#### [ R & D TOPICS ]

- International Business, Marketing, and Management
- Green Marketing
- Sustainability, CSR, ESG Reporting
- New Technologies in Marketing Communications
- Innovation Management and New Product Development
- Novel Approaches to Teaching Business Disciplines
- Automotive Transformational Impact and Mobility Ecosystem Innovation
- Digital Commerce and Technology-Driven Business Transformation

#### WHAT DO WE DO?

- **Project**: FAST Framework for Automotive Skills Transformation (contractual research)
- **Project**: Diversity, Equity, and Inclusion Practice in the German and Czech Automotive Industry (BTHA)
- **Project**: Multidisciplinary Approaches to the Sustainability of the Automotive Value Chain (IGA)
- Project: Sustainable Transport, Housing and Nutrition through the Eyes of Czech Consumers (SGS)
- Project: Proposal for a Strategic Framework for Higher Education for the Automotive Sector (TA ČR)







#### MECHANICAL AND ELECTRICAL ENGINEERING

### VOJTĚCH DYNYBYL

Head of the Department

#### R & D TOPICS

- Mechanical Engineering
- Electrical Engineering
- Materials and Production Technology
- Automation and Robotization of Technological Processes
- Machine and Process Control
- 3D Printing, AI

#### WHAT DO WE DO?

- Project: National Center of Competence for Industrial 3D Printing (TA ČR)
- Project: VRTOUCH / Modular Drilling Rig for Applications in Space-constrained Environments with Eco-friendly Drive (TA ČR)
- Project: The Use of Artificial Intelligence to Solve Economic, Managerial and Technical Problems in the Automotive Industry (IGA)
- **Project**: Universal Combs (contractual research)
- Project: Robotics Grippers (contractual research)

#### **PRODUCTION, LOGISTICS** AND QUALITY MANAGEMENT

### RADIM LENORT

Head of the Department

#### R & D TOPICS

- Sustainable Supply Chain Management
- Resilient Supply Chain Management
- Wholeness Supply Chain Management
- Smart and Green Logistics
- Lean Manufacturing and Logistics
- Advanced Quality Management
- Advanced Decision-Making Methods
- Circular Economy in Industry

#### WHAT DO WE DO?

- Project: National Center of Competence for Industrial 3D Printing (TA ČR)
- Project: Preliminary Research of Corporate Logistics and Supply Chain Resilience Capabilities (BTHA)
- Project: Exploratory Qualitative Research of Sustainability Reporting Models and Processes in Industrial Companies and Their Supply Chains (BTHA)
- Project: Green Solution for Business and Industry (Erasmus+)
- Project: Sustainable Transportation (Erasmus+ KA2)

#### **QUANTITATIVE METHODS**

#### PETR ŠULC Head of the Department

#### R & D TOPICS

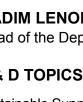
- Statistics, Statistical Methods for Quality Management
- Design and Evaluation of Industrial Experiments
- Statistical Process Control, Process Capability, Measurement System Capability
- Mathematics
- Physics, Electronics, Optoelectronics
- Data Science
- Automation of Measurement and Processing of Experimental Data

#### WHAT DO WE DO?

- Project: Proposal for a Strategic Framework for Higher Education for the Automotive Sector (TA ČR)
- **Project:** Analysis of Working Incapacity in the Škoda Auto a.s. Company (contractual research)
- Project: Concepts of Statistical Data Processing and Macroeconomics Analysis (contractual research)
- Project: Successful Development of Electromobility on the Tax Mix of the Czech Republic in the Context of EU Policies (IGA)
- Publication: Design and Evaluation of Industrial Experiments







# Contacts

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