

Be International!



DIGITALISATION OF BUSINESS AND SOCIETY

ERASMUS+ BLENDED INTENSIVE PROGRAMME

13 MAY – 17 MAY, 2024 Face-to-face lessons
&
20 May – 7 JUNE, 2024 Online lessons



**UNIVERSITY
OF PARDUBICE
FACULTY
OF ECONOMICS
AND ADMINISTRATION**



**Hochschule
Bremerhaven**



THE ERASMUS+ BIP MODULES

- Introduction to modelling and simulation
- Modern Industry 4.0 strategies
- Geomarketing
- Blockchain technology and its application in business and society
- Tools and Methods to Develop an Agile Digital Mindset
- Decision-making processes

PARTNERS

- University of Pardubice, Faculty of Economics and Administration
- Riga Technical University, Department of Entrepreneurship and Management
- University of Žilina, Faculty of Management Science and Informatics
- Hochschule Bremerhaven, Management and Information Systems

REQUIREMENTS ON STUDENTS

- Basic understanding of any organization (company or NGO), for which the digitalization strategy will be formulated.
- The choice of the company is entirely up to each student.

STUDY LEVEL

- Undergraduate students
- Postgraduate students

LECTURER PROFILE AND COURSE ANNOTATION

Name of the Lecturer:

doc. Ing. Peter Márton, PhD.

University of Žilina, Slovakia

Subject Title:



INTRODUCTION TO MODELLING AND SIMULATION

Annotation: Student learns theoretical knowledge from the field of modelling and simulation and gains practical skills how to use them to support their business-related decisions.

After the course, the student will be able to:

- identify problems that can be solved by simulation techniques,
- conduct analysis and define input data for simulation models,
- create simulation models of service systems utilising the AnyLogic simulation tool,
- define hypothesis and conduct simulation experiments,
- evaluate and interpret results of simulation experiments.

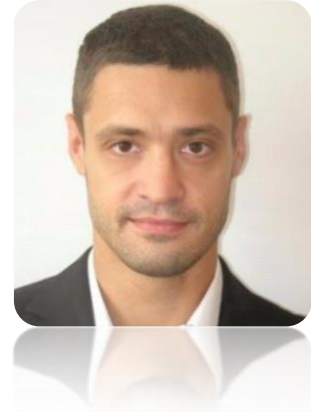
Name of the Lecturer:

Dr. oec., Vladimirs Šatrevičs

Riga Technical University, Latvia

Subject Title:

MODERN INDUSTRY 4.0 STRATEGIES



Annotation: This class provides an overview of the critical strategies for transitioning to Industry 4.0, which include technologies, methods, and organizational strategies. The shift to Industry 4.0 is stimulated by the crucial contemporary advantages utilized by modern companies in order to remain competitive. This class will help to identify “state of art” trends within Industry 4.0 and discuss potential possible opportunities and challenges. As Industry 4.0 and Smart Manufacturing are increasingly growing with creative approaches, modern product design, and major business decisions, companies need to adjust competitive strategies for gaining advantages.

Following topics to be covered:

- introduction to Industry 4.0 and Smart Manufacturing,
- internet of Things (IoT) domains – network, software, hardware and methods of data processing. Cyber-Physical Systems as basis for Smart Factories,
- new organizational models and methods - Agile project management in manufacturing. Quality 4.0.

Name of the Lecturer:

prof. Ing. Jitka Komárková, Ph.D.

University of Pardubice, Czechia

Subject Title:

GEOMARKETING



Annotation: Geomarketing is a fascinating discipline that can enhance marketing efforts by integrating location (geographic information) into the planning and execution of marketing strategies. Geomarketing helps people to make informed decisions. It allows to precisely target specific audiences based on their geographical location. By analyzing consumer demand trends and traffic patterns, it is possible to strategically choose the best location for business. Competitors analyzes, route optimization, heat maps and hotspots are other examples of geomarketing activities. Additionally, software tools (geographic information systems – GIS) help to better visualize market research findings.

After the course, the student will be able to:

- identify problems that can be solved by geomarketing software tools,
- understand the basic principles of solving the spatially-oriented problems and key principles of results visualization,
- run simple analysis in a GIS software.

Name of the Lecturer:

M.Sc. Suraj Belludi

Ing. Moses Kasolo

University of Pardubice, Czechia



Subject Title:

BLOCKCHAIN TECHNOLOGY AND ITS APPLICATION IN BUSINESS AND SOCIETY

Annotation: The aim of the lecture is to explore the fundamental principles that define blockchain, focusing on its decentralized and distributed nature, cryptographic security, and consensus mechanisms. Students will learn about expansive potential of blockchain technology, smart contracts and decentralized applications in diverse applications such as finance, supply chain management, healthcare and governance. The lecture will introduce real-world examples of blockchain implementations, showcasing how the technology enhances efficiency, reduces fraud, and fosters greater accountability in different sectors.

Following topics to be covered:

- fundamental principles of blockchain,
- blockchain, smart contracts and decentralized applications in various sectors,
- real-world examples of applications.

Name of the Lecturer:

doc. Ing. Hana Kopáčková, Ph.D.

University of Pardubice, Czechia

BIP coordinator

Subject Title:



TOOLS AND METHODS TO DEVELOP AN AGILE DIGITAL MINDSET

Annotation: The primary focus of the lecture is to provide participants with a comprehensive understanding of the evolving landscape of leadership in the digital era. The discussion begins with an exploration of the fundamental concepts behind digital transformation, emphasizing the need for leaders to navigate and drive change in the face of technological advancements. The lecture aims to distinguish between transferable and intrinsic competencies, shedding light on the importance of cultivating a skill set that not only adapts to specific technologies but also fosters a broader capacity for innovation and strategic thinking. The core of the lecture revolves around the introduction and exploration of the Agile Digital Mindset (ADM). This innovative concept encapsulates the dynamic approach required for leaders to thrive in a rapidly changing digital landscape. The lecture breaks down the components of an Agile Digital Mindset, elucidating how it involves embracing ambiguity, fostering adaptability, and promoting continuous learning. The goal is to equip students with the mindset necessary to navigate uncertainty, lead resilient teams, and drive meaningful organizational change in an era defined by technological disruption.

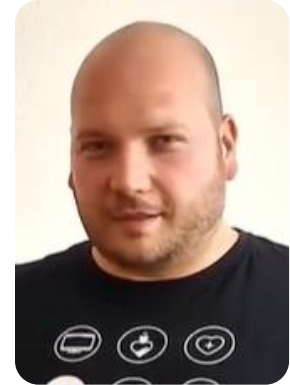
Name of the Lecturer:

Ing. Jakub Jech

University of Pardubice, Czechia

Subject Title:

DECISION-MAKING PROCESSES



Annotation: Student learns theoretical knowledge from the field of decision-making processes and multicriterial decision-making and gains practical skills how to use them to support their decisions in business field. Part of this learning unit is a practical demonstration of the entire process of multi-criteria decision-making, which leads to finding the optimal variant.

After the course, the student will be able to:

- identify problems that can be solved by decision-making techniques: understand problem of decision-making process with conditions of decision-making,
- understand of variants, criteria, and weights of decision-making: each decision-making process required inputs and its need to be managed by decision-maker,
- propose direct and indirect methods to determine weights:
get knowledge how to propose and calculate weights as a part of decision-making,
- evaluate optimal solution of decision-making process: understand how to evaluate optimal variant by all inputs,
- understand decision-making under certainty and under uncertainty: using techniques for decision-making under (un)certainty, such as Decision trees, CBR, and Fuzzy decision-making.