



LITHUANIA  
BUSINESS  
COLLEGE



15<sup>TH</sup> INTERNATIONAL SCIENTIFIC-METHODICAL-PRACTICAL  
CONFERENCE ON SUSTAINABLE REGIONAL DEVELOPMENT

***ECONOMICS, MANAGEMENT, LAW, AND TECHNOLOGY  
OPPORTUNITIES 2023***

***Klaipeda, Lithuania, 6-7<sup>th</sup> October 2023***



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**Abstract Book**

Editors

Jurgita Martinkiene – Tibor László Csegődi

Magyar Agrár- és Élettudományi Egyetem  
Gödöllő, 2023

Editors

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(Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary)

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15<sup>TH</sup> INTERNATIONAL SCIENTIFIC-METHODICAL-PRACTICAL  
CONFERENCE ON SUSTAINABLE REGIONAL DEVELOPMENT:

***ECONOMICS, MANAGEMENT, LAW, AND TECHNOLOGY OPPORTUNITIES  
2023***

***Klaipeda, Lithuania, October 6-7, 2023***

Co-organized by:

Lithuania Business College, Klaipeda, Lithuania  
Klaipeda City Municipality, Lithuania  
Klaipeda Chamber of Commerce and Crafts, Lithuania  
Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary  
Warszawska Szkoła Zarządzania-Szkoła Wyższa, Poland  
Turība University, Latvia  
South-West University Neofit Rilski, Bulgaria  
Czestochowa University of Technology, Poland  
Mediterranean University of Albania, Albania  
Ivan Franko National University of Lviv, Ukraine  
University of Tetova, North Macedonia  
Alexander Dubček University of Trenčín, Slovak Republic  
Easter European Development Agency, Slovak Republic  
European Institute of Further Education, Slovak Republic

## **ORGANIZATIONS AND COMMITTEES**

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Viktoras Krolis, General Director of Klaipeda Chamber of Commerce, Industry and Crafts

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## WELCOME MESSAGE FROM THE CONFERENCE CO-CHAIRS

*Dear Conference Participant,*

On behalf of the Organizing Committee, we are delighted to welcome you to Klaipeda, Lithuania at the 15<sup>th</sup> International Scientific–Methodical–Practical Conference “*SUSTAINABLE REGIONAL DEVELOPMENT: ECONOMICAL, MANAGEMENT, LAW AND TECHNOLOGY OPPORTUNITIES – 2023*”.

The conference aims to provide a platform for experts, professionals, researchers, and students to share the updated information and stimulate the communication with each other. Collaboration is another keyword as the conference is organized in collaboration between Lithuania Business College (Lithuania) and Hungarian University of Agriculture and Life Sciences (Hungary).

The conference program comprises of presentations from distinguished research in the field of sustainable regional development and important contributions that provide new insights into Business, Management and Economics and other areas of social sciences.

The conference has 5 topics, there are:

- *Smart and green management aspects - digital logistics, green and blue project development, digital marketing solutions.*
- *Innovation in economy – climate neutral, circular, blue, and digital economy.*
- *Todays and future of tourism - Smart city and smart tourism tendencies.*
- *Digital and safe technologies – Cyber security, Virtual - augmented reality, Cloud technologies.*
- *Personal data protection and legal regulation legal regulation of environmental protection.*

We would like to thank all the authors of submitted papers and the attendees for their contributions and participation.

We would like to extend our deepest appreciation to the exceptional work rendered by all-conference teamwork. We also thank all the experts who have dedicated their time to review abstracts and assist with organizational tasks.

We look forward to seeing your paper submission and meeting you in 2025 in Klaipeda again.

Prof. Dr. Yuriy Bilan  
Rzeszow University of Technology, Poland  
Conference Co-Chair

Prof. Dr. Valentinas Navickas  
Kaunas University of Technology, Lithuania  
Conference Co-Chair



## **ABOUT LITHUANIA BUSINESS COLLEGE (LBC)**

Lithuania Business College (LBC) is a modern, open to society and independent higher education institution founded in 1994 that prepares professionals in social and physical sciences who are focused on the Lithuanian and European labor market. LBC entails promising career opportunities, international exchange, and leisure time typical for students.

**Mission.** Lithuania Business College is determined to prepare creative, qualified professionals, to establish conditions for a lifelong learning by granting a professional bachelor's degree and to carry out the applied research that is necessary for a regional development.

**Vision.** Lithuania Business College is an innovative, transparent, socially active, and liable higher education institution, internationally recognized, versatile to the developments in the labor market and prepared to meet the needs of society.

Lithuania Business College integrates the latest IT technologies into the study process and due to this, it creates versatile and engaging means of studying. One of the main aims of the college is the improvement of study quality. Interactive lessons and various methods of engaging are being used in the process of the studying. The college has been equipped with laboratories of CISCO, construction materials and criminology together with a simulation courtroom and leadership and tourism laboratories.

It is the purpose of Lithuania Business College to ensure that students not only acquire as much work experience as possible, which is required in professional activities, but also the newest theoretical knowledge. The college has established a wide network of cooperation with various businesses and social partners therefore it provides students with internships and future placement opportunities. The college also has a practical training firm "Biurometa", which simulates the activities of real companies, which trade with one another through "Simulith" center in Lithuania and in the EUROPEAN network within the world. To prepare students for the labor market, the college has also established a career center which is providing career support for the students and graduates.

In Lithuania Business College lecture teachers who are professionals and practitioners in their own fields. In LBC lecture lawyers, legal experts, specialists of banks, finance and audit department managers, marketing and sales department managers, programming specialists, web developers, business owners, athletes, event organizers, forwarding agents of logistics etc.

Lithuania Business College maintains close relations with social partners to ensure high quality, modern, labor market-oriented studies. Among College social partners there are following organizations: SE Klaipeda State Seaport Authority, Klaipeda County Police Headquarters, UAB/Ltd "Klaipėda" hotel - Amberton, UAB/Ltd "Baltic clouds", PE European Consumer Center, UAB/Ltd Marine staff - General Crewing, Association "Klaipeda region", UAB/Ltd Idėjų balansas (ideas balance), UAB/Ltd Litlafas, Klaipeda Tourism and Culture Information Center, UAB/Ltd „Balco LTD“, UAB/Ltd „Vlantana“, UAB/Ltd „Nesė Group“, BI Klaipeda City Social Support Centre, Chamber of Notaries, District court of Palanga city, District court of Skuodas region, UAB/Ltd "MK laivyba" and other organizations.

Lithuania Business College actively engages in international study and science programs, expands the network of international partners, and has the lead among Lithuania Universities (non-university higher education institutions) in the participation of teachers and students in international mobility programs. The College maintains strong cooperation relations with Estonia, Sweden, the Czech Republic, Denmark, Turkey, and higher education institutions of other countries, has its own representative for Asian countries in India, cooperates with other foreign businesses, non-governmental sectors, and education organizations. Under Erasmus + exchange program students are given the opportunity to study and practice abroad. Lithuania Business

College has partners from more than 50 foreign countries. Students can take advantage of other European countries' experience in their study program field subjects. Every semester 20 students from Turkey, Spain, Portugal etc. come to study at LBC. LBC students gain new skills and experience in international communication.

In Lithuania Business College students are particularly encouraged to be initiative, active, enterprising, and internationally minded. The College has an active students' union, economists and lawyers' clubs, legal clinic, students are constantly encouraged to take part in extracurricular activities, students are actively involved in organization and participation of the college internal and external events.

Lithuania Business College carries out applied research necessary for regional development and scientific development works, regional problems are discussed in the annual international conferences "Regional issues: economy, management, technologies", in which representatives of businesses, associations and higher education institutions participate. Regional problems are discussed also in the systematic scientific-research journal "Vadyba/Journal of Management" published twice per year by the University in international databases CEEOL, EBSCO and Index Copernicus.

Lithuania Business College is a socially active and public-spirited higher education institution. The College together with the Order of Malta every year organizes a mass event in Klaipeda city - Gerosios zvaigzdes begimas (The Run of the Good Star). The main goal of the event is to raise money for the single elderly people who cannot take care of themselves. Lithuania Business College also patronizes the pupils of the children's home "Smiltele". At Christmas time the pupils are visited by the students at the College. The students entertain them with performances and gifts.

There are many study programs available at LBC – here you can choose from 12 different study programs and 21 specializations.

About 1 000 students are currently studying at LBC, there are open departments and centers in Klaipeda and Vilnius.

The College has a license for its activity issued by The Ministry of Education and Science of the Republic of Lithuania. Diplomas issued by the College are recognized not only in Lithuania but also in all EU. The qualification of graduates is indicated by a professional bachelor's degree.

## **ABOUT HUNGARIAN UNIVERSITY OF AGRICULTURE AND LIFE SCIENCES (MATE)**

With the foundation Hungarian University of Agriculture and Life Sciences (MATE), one of the largest agricultural-focused, multi-disciplinary higher education institutions in Europe was established on 1 February 2021.

With such a long history and legacy of excellence, Hungarian University of Agriculture and Life Sciences stands as a central pillar of higher education both in Hungary and throughout the region.

Milestones in the history of MATE:

- 1787 Faculty of Veterinary Medicine was founded.
- 1797 Georgicon (later Keszthely Academics of Agricultural Sciences) was founded.
- 1880 Ybl Miklós Technical College was founded.
- 1917 Teacher Training College, Jászberény was founded.
- 1920 University of Agriculture was founded in Budapest.
- 1950 University of Agriculture moved to Gödöllő.
- 2000 Szent István University founded.
- 2011 institutional integration to 7 faculties.
- 2016 integration of another 3 faculties (Food Science, Horticultural Science and Landscape Architecture and Urbanism) of Corvinus University of Budapest; and the disintegration of the Faculty of Veterinary Medicine.
- 2020 integration of Kaposvár University, Eszterházy University's Károly Róbert Campus (Gyöngyös) and Pannon University's Georgicon Faculty in Keszthely.

Hungarian University of Agriculture and Life Sciences are organized into PhD Schools with the aim of implementing educational, research and training activities at the highest level of study. The PhD programs are research-oriented, degree-donating projects for outstanding students. The PhD effort involves theoretical studies in a particular scientific area and original research that enriches the knowledge in the field selected for the study. During their doctoral studies, the PhD students are prepared for a creative career in academic life, business, government, or industry.

The doctoral degree awarded by the Hungarian University of Agriculture and Life Sciences is an internationally recognized degree as the professional staff of the University enjoys a high international reputation. The PhD students graduated at the MATE easily find employment in business, government offices, higher education, or research institutions either in their home country or abroad.

PhD studies comprise tutorial courses, experimental work, as well as preparation and defense of the thesis. Degrees are awarded in nine scientific areas: Animal Husbandry Science, Biological Sciences, Environmental Sciences, Horticultural Science, Plant Science, Food Science, Mechanical Engineering, Economic and Regional Sciences, Landscape Architecture and Landscape Ecology





LITHUANIA  
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CONFERENCE PROGRAMME

October 6-7, 2023, Hotel Victoria, at 5 floor, S. Simkaus str. 2, LT-92128, Klaipeda

Friday, 6<sup>th</sup> October

09:00-10:00	<i>Arrival and registration (5 floor)</i>
10:00-10:20	<p><b>The opening ceremony of the 15<sup>th</sup> International Scientific Conference:</b>  <i>Arvydas Vaitkus, Mayor of Klaipeda city</i>  <i>Viktoras Krolis, Director of Klaipeda Chamber of Commerce, Industry and Crafts</i>  <i>Prof. Dr. Angele Lileikiene, Founder of Lithuania Business College</i>  <i>Assoc. Prof. Dr. Jurgita Martinkiene, Director of Lithuania Business College</i>  <i>Volodymyr Pylypenko, Honorary Consul of Lithuania in Poltava region, Ukraine</i>  <i>Dr.h.c. mult., JUDr., Mgr., PhD., LL.M, MBA, Honor. Prof. Mult., Jozef Zat'ko,</i>  <i>European Institute of Further Education, President EIDV, Slovak Republic</i>  <i>Prof. Dr. Ivan Gryshchenko, Rector of Kyiv National University of Technology and Design, Ukraine</i></p>
10:20	<p><b>Beginning of the plenary session</b>  <i>Moderators:</i>  <i>Prof. Dr. (H/P) Yuriy Bilan, Rzeszow University of Technology (Poland) – Co-Chair</i>  <i>Prof. Dr. (H/P) Valentinas Navickas, Kaunas University of Technology (Lithuania) – Co-Chair</i></p>
10:20-10:40	<p><b>Assoc. Prof. Dr. Egle Radvile</b>  <i>Policy maker, Doctor of Engineering Informatics, Docent of VU Business School</i>  <b><i>Digital Transformation and Sustainable Development Opportunities in Regions</i></b></p>
10:40-11:00	<p><b>Volodymyr Pylypenko, Candidate of Legal Sciences, Honorary Lawyer of Ukraine, Head of the International Law and Innovations Institute LUBL</b>  <i>International Law and Innovations Institute LUBL, Honorary Consul of Lithuania in Poltava region, Ukraine</i>  <b><i>Strengthening Economic Cooperation, Expanding Cultural and Scientific Relations, Developing a Dialogue Between the Public of Lithuania and Ukraine in the Context of Sustainable Development</i></b></p>
11:00-11:20	<p><b>Prof. Dr. Pat Obi</b>  <i>Purdue University Northwest, United States of America</i>  <b><i>A Discussion of How Financial Markets Reacted to the Start of the Russia-Ukraine War in 2022: Lessons Learned</i></b></p>
11:20-11:45	<i>Coffee break (5 floor)</i>
11:45-12:05	<p><b>Assoc. Prof. Dr. Robert Jeyakumar Nathan</b>  <i>Multimedia University, Malaysia</i>  <b><i>Application of Data Analytics in Higher Education for Improved Student Experience</i></b></p>
12:05-12:25	<b><i>Round table discussion</i></b>

12:25-12:45	<p>Awarding the title of honorary doctor to Prof. Dr. Pat Obi, conferring the honorary title of Director Emeritus of the College Prof. Dr. Angele Lileikiene</p> <p>Lithuania Business College, represented by director Assoc. Prof. Dr. Jurgita Martinkienė signing of an agreement with Volodymyr Pylypenko, Honorary Consul of Lithuania in Poltava region, Ukraine</p> <p>Lithuania Business College, represented by director Assoc. Prof. Dr. Jurgita Martinkienė signing of an agreement with Prof. Dr. Ivan Gryshchenko, Rector of Kyiv National University of Technology and Design, Ukraine</p>
12:45-13:30	<b><i>Lunch break (Hotel Victoria restaurant)</i></b>
13:30-17:45	<b><i>Parallel sessions (I, II, III, 5 floor)</i></b>
18:00	<b>Closing ceremony</b>
19:00	<b>Social event at Hotel Victoria (Sky bar at 5 floor)</b>

**SECTION 1. (5 floor)**

**Smart and green management aspects - digital logistics, green and blue project development, digital marketing solutions**

**Innovation in economy – climate neutral, circular, blue, and digital economy**

Moderators:

**Assoc. Prof. Dr. Robert Jeyakumar Nathan, Multimedia University (Malaysia)**

**Assoc. Prof. Dr. Kristina Puleikiene, Lithuania Business College (Lithuania)**

13:30-13:45	<b>Prof. Dr. Liudmyla Hanushchak-Yefimenko</b> <i>Kyiv National University of Technologies and Design, Ukraine</i> <b><i>The Influence of the Circular Economy on the Management of the Innovation Ecosystem of the HEI of Ukraine in the Conditions of Post-War Reconstruction</i></b>
13:45-14:00	<b>Assoc. Prof. Dr. Robert Jeyakumar Nathan, Samanta Simonavice, PhD student</b> <i>Multimedia University, Malaysia, Lithuania Business College, Lithuania</i> <b><i>Ecological Traits and Organic Products Consumption Behavior of Older Adolescents</i></b>
14:00-14:15	<b>Senior Lect. Rajesh Sannegadu</b> <i>University of Mauritius, Mauritius</i> <b><i>Analysing the Purchasing Intentions of Customers for Fully Electric Vehicles in Mauritius</i></b>
14:15-14:30	<b>Prof. Dr. Afrim Alili, Prof. Dr. Imerlije Alili</b> <i>College Biznesi, Republic of Kosova</i> <b><i>Causality Analysis Between Economic Growth and Climate Change: Republic of North Macedonia</i></b>
14:30-14:45	<b>Dr. Sc. Adminstr. Senior Lect. Signe Enkuzena, Bc. Hrm. Lect. Sintija Fomina</b> <i>College of Business Administration, Latvia</i> <b><i>Human Resource Management Challenges for the 2023 Workplace</i></b>
14:45-15:00	<b>Lect. Janis Supe</b> <i>College of Business Administration, Latvia</i> <b><i>Economic Security in the Baltic States - Recent Paradigms</i></b>
15:00-15:15	<b>Prof. Dr. Barbara Lubas</b> <i>Warszawska Sakoda Zarzadzania - Szkola Wyzsza, Poland</i> <b><i>Asia - a Leader in Building Smart Cities</i></b>
15:15-15:30	<b>Lect. Akvile Alauskaite, Lect. Jaroslav Urbanovic</b> <i>Lithuania Business College, Mykolas Romeris University, Lithuania</i> <b><i>The Intersection of AI and Human Creativity</i></b>
15:30-15:45	<b>Assoc. prof. dr. Tibor László Csegődi</b> <i>Hungarian University of Agriculture and Life Sciences, Hungary</i> <b><i>Legal and Economic Aspects of the Energy Efficiency of Public Buildings and the Enforceability of the Resulting Demands</i></b>
15:45-16:00	<b>Džeina Kleina, Antra Grīnberga, Assoc. Prof. Dr. Robert Jeyakumar Nathan</b> <i>Liepaja University, Latvia, Multimedia University, Malaysia</i> <b><i>Drivers of Staff Motivation at Government Municipality: Case Study of Kuldīga District in Latvia</i></b>
16:00-16:15	<b>Assoc. Prof. Dr. Magdaléna Tupá, Assoc. Prof. Dr. Marcel Kordoš, Veronika Mozolová, PhD student</b> <i>Alexander Dubček University of Trenčín, Slovak Republic</i> <b><i>Digitization in Slovak Healthcare Sector and its Impact on the Working Conditions of Doctors and Nurses Working in Hospitals</i></b>
16:15-16:30	<b>Assoc. Prof. Dr. Izolda Skruibyte</b> <i>Lithuania Business College, Lithuania</i> <b><i>The Methodology of the Assessment of Corporate Social Responsibility</i></b>

16:30- 16:45	<b>Prof. Dr. (H/P) Valentinas Navickas, Tomas Skripkiunas, PhD candidate</b> <i>Alexander Dubcek University of Trencin, Slovakia, Kaunas University of Technology, Lithuania</i> <b><i>The Significance of Architectural Factors in Real Estate Market Theory</i></b>
16:45- 17:00	<b>Assoc. Prof. Jozef Habánik, Martin Šrámka, PhD, Richard Rigó, PhD student</b> <i>Alexander Dubček University of Trenčín, Slovak Republic</i> <b><i>Work Performance and Work from Home</i></b>
17:00- 17:15	<b>Assoc. Prof. Adriana Grenčíková, Assoc. Prof. Dr. Jana Španková, Kristína Kozová, PhD student</b> <i>Alexander Dubček University of Trenčín, Slovak Republic</i> <b><i>Generational Differences in Work Preferences in the Context of the Labor Market in Slovakia</i></b>
17:15- 17:30	<b>Assoc. Prof. Dr. Kristina Puleikiene, Assoc. Prof. Dr. Simona Grigaliuniene, Samanta Simonavice, assist. Prof. Dr. Mihaela State</b> <i>Lithuania Business College, Lithuania, Ștefan cel Mare University of Suceava, Romania</i> <b><i>Strengthening Social Cohesion of Local, Refugee and Migrant Young People</i></b>

**SECTION 2. (5 floor)**

**Digital and safe technologies – Cyber security, Virtual - augmented reality, Cloud technologies  
Personal data protection and legal regulation legal regulation of environmental protection  
Todays and future of tourism - Smart city and smart tourism tendencies**

Moderators:

**Assoc. Prof. Dr. Simona Grigaliuniene, Lithuania Business College (Lithuania)**

**Prof. Dr. Janis Grasis, Riga Stradins University (Latvia)**

**Assoc. Prof. Dr. Sarunas Banevicius, Lithuania Business College (Lithuania)**

13:30-13:45	<b>Assoc. Prof. Dr. Anna Zadorozhna</b> <i>Ivan Franko National University of Lviv, Ukraine</i> <b>Digital Economy and Cyber Security in Ukraine</b>
13:45-14:00	<b>Professor Dr. Rajendra Parsad Gunputh</b> <i>University of Mauritius, Mauritius</i> <b>Human Awareness to Environmental Protection in Small Islands Developing States (Sids): the Mauritian Case Study</b>
14:00-14:15	<b>Prof. Dr. Faton Shabani</b> (online) <i>University of Tetova, Nord Macedonia</i> <b>Fluctuations in Banking Activity in Recent Years in the Republic of North Macedonia</b>
14:15-14:30	<b>Senior lecturer Bhavish Jugurnath, Assoc. Prof. Dr. Bhavish Jugurnath, Ashveen Kutowaroo, Samanta Straupaite Simonavice</b> <i>University of Mauritius, Mauritius, Lithuania Business College, Lithuania</i> <b>An Investigation Blockchain Technology on Enterprise Operational Capabilities: a Meta-Analysis Approach</b>
14:30-14:45	<b>Prof. Dr. Janis Grasis</b> <i>Riga Stradins University, Latvia</i> <b>Russian Aggression Against Ukraine and International Sanctions: How Effective are Sanctions?</b>
14:45-15:00	<b>Prof. dr. Mária Fekete Farkas, Dr. iur. Zoltán Csákay</b> <i>Hungarian University of Agricultural and Life Sciences, Hungary</i> <b>Corporate Social Responsibility, Employers' data Protection Awareness and Employee Satisfaction</b>
15:00-15:15	<b>Assoc. Prof. Dr. Filip Tsvetanov, Assoc. Prof. Dr. Filip Batalov</b> <i>South-West University "Neofit Risli" Bulgaria</i> <b>The Integration of Iot-Based Systems for Remote Monitoring of The Human Condition in Telemedicine Systems, Including the Control of Pathologies Caused By Sars-Cov-2</b>
15:15-15:30	<b>Assoc. Prof. Jovita Einikiene</b> <i>Lithuania Business College, Lithuania</i> <b>The Role of Lithuanian Administrative Courts in Protecting Privacy VIA Data Protection Regime</b>
15:30-15:45	<b>Assoc. Prof. Dr. Sarunas Banevicius, Assoc. Prof. Putinas Bielskis</b> <i>Lithuania Business College, Lithuania</i> <b>Evaluation of the Smartness in the Tourist Areas of the Klaipeda Region</b>
15:45-16:00	<b>Dr. Olgerta Idrizi</b> <i>Mediterranean University of Albania, Albania</i> <b>Business Forecasting Using Artificial Intelligence</b>
16:00-16:15	<b>Prof. Kateryna Holovko</b> <i>Publishing House "Helvetica", Ukraine</i> <b>Management Activities of the Publishing House "Helvetica" to Support the Ukrainian Academic Community During the Russia-Ukraine War</b>
16:15-16:30	<b>Assist. Prof. Dr. Aleksandrs Potaicuks</b> <i>College of Business Administration, Latvia</i>

	<b><i>Data Protection Under Review of the Constitutional Court: Administrative Databases Directly Accessible to Public Authorities</i></b>
16:30-16:45	<b>Assoc. Prof. Dr. Valentas Gruzauskas, Artur Airapetian</b> <i>Vilnius university, Lithuania</i> <b><i>Impact of the Russia-Ukraine War on the Mental Health of the Lithuanian Population one Year After the Invasion</i></b>
16:45-17:00	<b>Assoc. Prof. Dr. Julija Melnikova, Prof. Dr. Inga Dailidienė, Assoc. Prof. Dr. Simona Grigaliuniene</b> <i>Klaipeda University, Lithuania Business College, Lithuania</i> <b><i>Farm-to-school'' Model from Stakeholders' Perspective: the Case of Klaipeda Region</i></b>
17:00-17:15	<b>Dr. Dolantina Hyka, Assistant professor MSc. Festim Kodra</b> <i>Mediterranean University of Albania, Albania</i> <b><i>Ciphering the Future: Cryptographic Safeguards in the Modern Administrative Landscape</i></b>
17:15-17:30	<b>Prof. Dr. (H/P) Valentinas Navickas, Ieva Petroke, PhD student</b> <i>Alexander Dubcek University of Trencin, Slovakia, Kaunas University of Technology, Lithuania</i> <b><i>Macroeconomic Contribution to Sharing Economy Development: A Perspective from the Tourism Sector</i></b>
17:30-17:45	<b>Sergii Gryshchenko, PhD student (no abstract)</b> <i>Kyiv National University of Technologies and Design, Ukraine</i> <b><i>Modern Tourism Technologies in the Context of Sustainable Development</i></b>

**SECTION 3. (5 floor)  
MULTIDISCIPLINARY**

Moderators: **Prof. Dr. Angele Lileikiene**, Lithuania Business College, Lithuania  
**Assoc. Prof. Dr. Mantas Svazas**, Vytautas Magnus University, Lithuania

13:30-13:45	<b>Prof. Dr. Vytautas Snieskus, Joana Zukauskiene, PHD student (online)</b> <i>Kaunas University of Technology, Lithuania</i> <b><i>The Importance of Investments for the Green Economy in Countries of Different Levels of Development</i></b>
13:45-14:00	<b>Assoc. Prof. Dr. Mantas Svazas</b> <i>Vytautas Magnus University, Lithuania</i> <b><i>Energy Transformation Possibilities in the Regions - the Main Directions</i></b>
14:00-14:15	<b>Assoc. Prof. Dr. Jelena Dementjeva, Mantas Toliusis</b> <i>Lithuania Business College, Klaipeda university, Lithuania</i> <b><i>Management of Digital Resources for the Implementation of the Organization's Marketing Solutions</i></b>
14:15-14:30	<b>Prof. Dr. Jorge Martin Gutierrez, Prof. Dr. Juan Albino Mendez Perez, Assoc. Prof. Dr. Simona Grigaliuniene, Agne Budrikaite</b> <i>La Laguna University, Tenerife, Spain, Lithuania Business College, Lithuania</i> <b><i>VR Usage and Development Analyses in Education for Distance Learning</i></b>
14:30-14:45	<b>Assoc. Prof. Dr. Mindaugas Kurmis, Andrius Stulgys, Saulius Tamosauskas</b> <i>Klaipeda University, Lithuania</i> <b><i>Development of Vision Based Dobot M-1 Pro Robot Control System for Parts Positioning</i></b>
14:45-15:00	<b>Assoc. Prof. Dr. Mindaugas Kurmis, Saulius Tamosauskas, Andrius Stulgys</b> <i>Klaipeda University, Lithuania</i> <b><i>Development of Drone-Based Air Pollution Data Acquisition and Processing System</i></b>
15:00-15:15	<b>Mg. Math Patriks Morevs, Prof. Dr. Tim Brüggemann, Prof. Dr. Cengiz Hakan Aydin, Assoc. Prof. Simona Grigaliuniene, Samanta Simonavice</b> <i>Liepaja University, Latvia, Fachhochschule des Mittelstands, German, Anadolu University, Turkey</i> <b><i>Qualification profile of Online Proctoring Manager</i></b>
15:15-15:30	<b>Assoc. Prof. Dr. Algirdas Giedraitis, Assoc. Prof. Rasa Romeryte-Sereikiene, Lect. Modestas Vaiksnoras</b> <i>Lithuanian Business College; Klaipeda University, Lithuania</i> <b><i>Product Quality (PQ) Identification in Manufacturing Companies: the Perspective of Managers and Executives</i></b>
15:30-15:45	<b>Research Associate Gagan Deep</b> <i>Ramesh Chand Institute of Management, Mirpur, Tronica City, Ghaziabad, NCR Delhi, India</i> <b><i>Climate Change and Legal Issues in India</i></b>
15:45-16:00	<b>Prof. Dr. Angele Lileikiene, Assoc. Prof. Dr. Jurgita Martinkiene</b> <i>Lithuania Business College, Lithuania</i> <b><i>Some Challenges to Financial Stability During the Economic Downturn</i></b>
16:00-16:15	<b>Prof. Jagbir Singh</b> <i>University of Delhi, Dept. of Geography, Swami Shraddhanand College, India</i> <b><i>Operational Decisions, Sustainability &amp; Disaster Risk Management in India: Some Challenges</i></b>
16:15-16:30	<b>Assoc. Prof. Dr. O. V. Poluiaktova, Anna Murakhovska (no abstract)</b> <i>Southern Ukrainian National Pedagogical University K. D. Ushinsky, Ukraine</i> <b><i>The War Influence on Digital Economy Development in Ukraine</i></b>

16:30- 16:45	<b>Viacheslav Yakubets, Rogherò Vitalii</b> ( <i>no abstract</i> ) <i>Odessa national conservatory, Ukraine</i> <b><i>New Google Search Engine Algorithms Influence on Musician Websites Ranking</i></b>
16:45- 17:00	<b>Lect. Maruta Ozolina</b> ( <i>no abstract</i> ) <i>Baltijas Starptautiskā akadēmija, Latvia</i> <b><i>Realization of Childrens Best Interests in Maintenance Recovery</i></b>
17:00- 17:15	<b>Anastasiia Neverkovets, doc. A.P. Syrotynska</b> ( <i>no abstract</i> ) <i>National University of Water and Environmental Engineering, Department of accounting and auditing, Ukraine</i> <b><i>The AI Influence on Cyber Security of IT Companies in Ukraine</i></b>
17:15- 17:30	<b>Dr. Sc. Ing. Prof. Yuri Kochetkov, Dr. Oec. Prof. Aleksandr Masharsky</b> <i>Baltic International Academy, Latvia</i> <b><i>Macroeconomic Indicators in the Baltic States</i></b>
17:30- 17:45	<b>Assoc. Prof. Dr. Joseph Dzhun, Oleksandr Bonatskyi</b> ( <i>no abstract</i> ) <i>Megu, Ukraine</i> <b><i>GDPR Legislation in the Context of Artificial Intelligence Development</i></b>
17:45- 18:00	<b>Olesia Rytska, Angie Mayer</b> ( <i>no abstract</i> ) <i>Highline College, United States of America</i> <b><i>The Role of Booking Apps in the Smart Tourism Sector Development</i></b>

October 7<sup>th</sup>

### **Culture programme**

9:00 Meeting at the Lithuania Business College parking lot (Turgaus str. 21, Klaipeda)

10:00 A trip to the Curonian Spit

14:00 Lunch

17:00 -18:00 Trip back to Klaipeda



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**Pat Obi**

*Purdue University Northwest, United States of America*

## **A Discussion of How Financial Markets Reacted to the Start of the Russia-Ukraine War in 2022: Lessons Learned**

This study provides an overview of how financial markets reacted to the onset of Russia's invasion of Ukraine in February 2022. An event study model is used to determine the degree and significance of abnormal returns in the stock and commodities markets around the start of the conflict. In addition to the stock markets of EU countries in the Baltics, the study also examines the reaction of G7 and African stock markets. Equity markets in these regions were analyzed for their vastly different political, geographic, and economic connections to the conflict. While the G7 and EU nations were united against Russia through the imposition of sanctions, African countries largely remained neutral due in part to their dependence on grains from the conflict region.

The study also examines the sharp rise in the value of the U.S. dollar during the period in terms of its effect on the prices of grains and petroleum, all of which are dollar denominated. As the crisis deepened, the Russian blockade of Ukraine's Black Sea ports hampered grain exports from Ukraine, where most of the country's agricultural produce is shipped out to sea. This export bottleneck worsened pre-existing problems of global food shortages caused by supply chain disruptions that began in 2021 with the easing of COVID-19 lockdowns. Unfortunately, the countries most affected were those in sub-Saharan Africa. According to the World Economic Forum (May 16, 2022), over a quarter of African countries rely on Russia and Ukraine for more than half of their wheat imports; and almost half depend on imports for more than a third of their wheat. These export constraints pushed up corn and wheat prices by more than 40 percent within weeks of the invasion. Together with crude oil, corn and wheat represent the most actively traded commodities worldwide. The study then concludes with suggestions for minimizing such price shocks in the future, especially for import-dependent economies that also rely on the U.S. currency for their international transactions.

**Robert Jeyakumar Nathan**  
*Multimedia University, Malaysia*

## **Application of Data Analytics in Higher Education for Improved Student Experience**

The advent of big data and data analytics has transformed the way performance is measured and evaluated. Digital transformation is a process of that often requires radical transformation that orients an organization towards a new direction and takes it to an entirely higher level of performance. To complement towards digital transformation, firms and institutions use data purposefully to help with making informed decision that are data driven. The use and applications of digital transformation and particularly data analytics has recently been instrumental in education and training sector as well. This presentation discusses the key drivers of digital transformation in education sector, particularly in higher education. With practical examples based on case study of data analytics from a prominent institution of higher learning in Malaysia, this presentation draws initiatives that were carried out to improve student performance and experience based on insights from data analytics. The digital framework for digital onboarding includes the phases of digitization, analytics, and operations. All three phases were initially carried out in the institution with the help of a data analytics team. After which, a program health dashboard was designed at the university based on the data, mainly looking at parameters such as student intake, student revenue and student employability among others. A useful tool for dashboarding for institutions is PowerBI software from Microsoft, which was used in this case. Based on time series data, the faculty can visualize the student performance according to their faculty and at program levels. Such visualization allows decision makers to prioritize resources for improvement at faculty and program levels. Several student experience improvements strategies were implemented based upon the data visualizations from the data analytics at the higher education institution, which could be emulated and become a useful tool for the higher education industry. The digital transformation initiatives at higher learning institutions could greatly enhance further student performance and experience, which will improve the institutions' effectiveness as well.

**Mária Farkas-Fekete, Zoltán Csákay**  
*Hungarian University of Agriculture and Life Sciences, Hungary*

## **Corporate Social Responsibility, Employers' data Protection Awareness and Employee Satisfaction**

The aim of this study is to provide a general overview on the correlation between the corporate social responsibility (CSR) and the employee satisfaction (and/or employee wellbeing) from the angle of the compliance with either the legal requirements of the EU data protection regulations or the local legislation of selected central and eastern EU countries including the Baltic states and the V4 countries. Since the “birth” of the General Data Protection Regulation (GDPR) it has become evident that employers in the territory of the EU had to build their own internal policies and guidelines in order following the provisions of the EU legislation and simultaneously with the national data protection laws. The employers' data protection awareness has therefore become one of the most crucial areas of the companies' compliance teams. This paper aims to provide a short literature review and to outline the special characteristics, if any, of the national data protection regulations in the selected countries including the practice of the national data protection authorities. For this purpose, this paper will analyze several data protection cases published by the relevant national data protection authorities of the selected countries of Central and Eastern Europe (CEE).

## **Digital Transformation and Sustainable Development Opportunities in Regions**

This scientific proceeding explores the influence of digital transformation on regional economic efficiency. It discusses potential economic, financial, and non-financial measures that can contribute to economic growth in regions and alleviate economic inequality. Research methods encompass both quantitative and qualitative analyses. Statistical data on regional economic indicators were analyzed, and interviews with regional authorities and business leaders were conducted. The data were processed using economic modeling techniques, allowing for the projection of the impact of digital transformation on regional economic factors.

**Introduction.** In the introduction, the significance of understanding how digital transformation affects regional economies is discussed. The research problem is framed as the question of economic growth and inequality reduction [Jones, P., Wynn, M.] among regions, while the objective of this study is to determine how digital transformation tools can influence these processes. The introduction also includes a literature review of theoretical and practical aspects of digital transformation in regional development.

**Methods.** The research methods include both quantitative and qualitative approaches. This study involved the analysis of statistical data on regional economic performance, as well as interviews with regional government representatives and business leaders. Data were processed using economic modeling, enabling the projection of the impact of digital transformation on regional economic factors. Digital technologies hold the potential to mitigate environmental impacts by enhancing energy efficiency, reducing waste, and advancing renewable energy sources [Brynjolfsson, E., & McAfee, A.]

Economic methods encompass various techniques and tools for assessing the influence of digital transformation on regional economic efficiency. These methods include economic analysis [Qiu, Y., Guo, Z.M.] models, which allow for the evaluation of the impact of digital transformation tools on regional GDP, labor markets, the business sector, and investments. Additionally, financial measures such as cash flow analysis can be applied to assess how digital transformation measures affect a region's financial stability and profitability. Attracting new businesses and investments becomes feasible with digital transformation, contributing to regional economic growth (European Commission, 2022). The Return on Investment (ROI) analysis is also a valuable economic method, providing insights into whether digital transformation investments in a region will yield returns and over what time frame.

Scientific methods involve empirical research methodologies, such as data collection, surveys, and experiments, to assess the impact of digital transformation on regional economies. These methods can employ statistical models and analysis to derive meaningful insights. Literature reviews, drawing upon prior academic research [Zheng, Y.K.], play a crucial role in formulating hypotheses and providing the contextual foundation for research endeavors.

Social methods encompass data collection techniques like surveys and interviews, which are instrumental in capturing the opinions and perceptions of regional communities and business stakeholders regarding the social aspects of digital transformation. These aspects may include employment opportunities, quality of life, and education. Furthermore, social research analysis can identify how digital transformation influences the perspectives and living conditions of regional populations.

Business methods are pertinent for assessing the impact of digital transformation on the regional business environment. Tools like SWOT analysis (Strengths, Weaknesses, Opportunities,

Threats) are valuable for evaluating how digital transformation affects the strengths and weaknesses of regional businesses, the opportunities they can seize, and the threats they may face. Business modeling is another essential method, allowing researchers to understand how digital transformation solutions can reshape business models and revenue streams within a region.

Results. The research findings reveal that digital transformation has a positive impact on economic growth in regions. This is evidenced by increased business productivity, the creation of new jobs, and expanded export opportunities. Furthermore, digital transformation tools can contribute to reducing economic inequality among regions by providing less developed regions with the opportunity to leverage new technologies.

Discussion. The discussion section delves into the obtained results and their implications for regional economic policy. It also explores potential future directions that regional governments and the business sector may consider to further harness the benefits of digital transformation.

Conclusions. The conclusions presented in this scientific proceeding demonstrate that digital transformation can be an effective means of fostering regional economic development. It has the potential to promote economic growth and reduce economic inequality among regions. Therefore, regional government institutions should actively implement digital transformation policies [Rachinger, M, Rauter, R.; Müller, C.; Vorraber, W.; Schirgi, E.] and measures to enhance regional economies. This may also require collaboration with the business sector and other governmental and international organizations and provides an analysis of how digital transformation tools and solutions can impact regional economies and underscores their significance in regional development.

**Ivan Gryshchenko, Liudmyla Hanushchak-Yefimenko**  
*Kyiv National University of Technologies and Design, Kyiv, Ukraine*

## **The Influence of the Circular Economy on the Management of the Innovation Ecosystem of the Hei of Ukraine in The Conditions of Post-War Reconstruction**

The article is devoted to the study of the theoretical foundations of the concept of the "circular" economy and its formation in the process of production and consumption of resources, the key principles of the formation of the circular economy and proposals for modeling the impact of the circular economy on the management of the innovative ecosystem of the Ukrainian Armed Forces in the conditions of post-war reconstruction are given. The most attractive branches of the national economy and types of economic activity for the implementation of a circular model of production. Problematic issues that arise in the process of implementing the circular economy in the management system of the innovative ecosystem of the Ukrainian Higher Education and Research Center in the conditions of post-war reconstruction are identified. The priority directions for the implementation of the circular economy in the higher education institutions of Ukraine have been formed.

It has been proven that the circular economy is inextricably linked to the formation of new business models focused on reducing the number of resources used, implementing reuse or a closed cycle of production, restoration, redesign, recycling, and recycling to ensure a long-life cycle. It is justified that the circular economy is identified with the concept of "circular economy" or with a closed cycle of production, which reflects a pre-industrial approach to almost all forms of industry. At the time, the Ukrainian realities of implementing the circular economy should be brought up to the standards of the closed cycle economy.

**Samanta Straupaite Simonavice<sup>1</sup>, Robert Jeyakumar Nathan<sup>2</sup>**

*Lithuania Business College, Klaipeda University, Lithuania<sup>1</sup>, Multimedia University, Malaysia<sup>2</sup>*

## **Ecological Traits and Organic Products Consumption Behavior of Older Adolescents**

This research determines and measures factors affecting the consumption of organic products among older adolescents in Lithuania. Previous studies discuss factors were grouped into personal and functional factors according to their impact on the attitude of ecologically conscious older adolescents. Personal factors are explained as the user's personal experience, internal qualities, and personality traits. The study showed that consumers' positive attitude towards organic products is shaped by consumers' personal motivation and available ecological knowledge. Consumers' ecological knowledge is also considered to be one of the essential factors in shaping the positive attitude of ecologically conscious consumers towards organic products. As society faces ecological challenges and searches for solutions to the problem, environmental friendliness and ecologically conscious consumers are increasingly emphasized. Consumers are encouraged to change their attitude towards organic products and to change their purchasing behavior. However, it is noticeable that emphasizing ecological problems and increasing the assortment of organic products does not encourage consumers to change their consumption habits and purchasing behavior, therefore, to understand what motivates consumers to use organic products, researchers began to analyze the factors that determine the consumption of organic products. Based on recent literature review in this area, three main factors were identified for detailed analysis in this research, which includes ecological awareness, ecological concern, and social norms of older adolescence in Lithuania. Based on the literature review discussion, this research formulates the following objectives and hypotheses for empirical analysis. Using a survey research methodology, data were collected from adolescence across Lithuania and 421 samples were finalized for analysis upon data cleaning and validation. Data was analyzed using SPSS software for descriptive analysis and hypothesis testing. Result reveal that both ecological awareness and ecological concerns of older adolescents in Lithuania are strong predictors of their intention to purchase organic products. While personal norms though had some association in descriptive analysis with purchase behavior, did not show statistical significance in impacting organic products purchase intention. Therefore, the concept of ecologically conscious adolescents consists of the consumer's ecological awareness, whereby the consumer evaluates his/her needs, behavior and its impact on the environment when purchasing products. Based on this finding it can be stated that there is an influence of the attitudes of ecologically conscious consumers on their intention to buy organic products. Therefore, future researchers may focus more on understanding factors that contribute and promote the development of ecologically conscious consumers in the country. Also, it is possible to investigate consumer attitudes, how they are formed and what factors lead to the formation of positive consumer attitudes.

**Imërlije Alili, Afrim Alili**

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## **Causality Analysis Between Economic Growth and Climate Change: Republic of North Macedonia**

Climate change is any change in climate which is attributed directly or indirectly to human activity and that alters the composition of the global atmosphere. Climate change is caused by the increment of greenhouse gases in the atmosphere through the burning of fossil fuels and land use. This causes increased radiation of infrared rays back to the earth hence temperature increases through the greenhouse gas effect. Human GHG emissions are the dominant cause of climate change since the industrial age. Since the Industrial Revolution, economic growth has generally been tied to increasing greenhouse gas emissions. A switch from fossil fuel-based to low-carbon energy sources can help sustain the same or even higher levels of production while reducing emissions, thereby enabling the decoupling of growth from emissions. Economic growth is typically measured as the rate of change in output, or, more specifically, in real gross domestic product. Real GDP is a measure of the market value of all final goods and services produced in the economy for a given year, adjusted for inflation, and is used as an indicator of material living standards in a given country. The main purpose of this paper is to determine, describe and analyze the causality between economic growth and climate change in Republic of North Macedonia. To examine the relationship between economic growth and climate change in Republic of North Macedonia, ARDL technique as well as Granger Causality analysis has been applied, covering annual data for the period 1991-2020. Moreover, the results imply the climate change as a statistically proven factor to substantially influence the economy in the Republic of North Macedonia in the long run period. If low-carbon energy becomes significantly cheaper than fossil fuels, the emissions intensity of GDP could be lowered to the degree required for absolute decoupling of emissions from economic output. Human actions, primarily burning fossil fuels but also deforestation and other activities, have resulted in a rapid increase in the concentration of greenhouse gases in the atmosphere, including carbon dioxide, methane, and nitrous oxide, trap heat close to the surface and cause global temperatures to rise. The result has been a global temperature increase of approximately 0.2°C per decade; today, mean surface temperatures are approximately 1.0°C warmer than the pre-industrial period. Republic of North Macedonia as a developing country has adopted several policies and strategies to be implemented, taking into consideration the evident role of climate change as a potential damaging factor, thus in this study we emphasize the climate change as an integral element to be taken into consideration during planning, designing, and implementing development activities, suggesting these empirical findings as further consideration for the government of the Republic of North Macedonia.

**Janis Supe**

*College of Business Administration, Latvia*

## **Economic security in the Baltic States – the Current Paradigms**

Economic security is a complex concept which is most often analyzed at state level (e.g., how safe are the countries against economic turbulence and threats) and individual level (e.g., the ability of individuals to meet their basic and essential needs sustainably).

In the last years the economies of the Baltic states have experienced different economic turbulences, for example, because of the Covid-19 pandemics, the war in Ukraine and inner problems in the countries, e.g., growing government debt, lack of financing to solve social problems etc. All that has influenced the economic security on both state and individual level.

In this research the author has done a review of scientific literature together with analysis of main economic indicators of the Baltic states to find the current paradigms in the economic security in Latvia, Lithuania, and Estonia.

Main findings of the research show that globally the Covid-19 pandemics had a significant negative impact on different aspects of state and individual economic security, it is proved by research done by several authors (e.g., Cavalhieri, 2021; Allen and Mirsaedi, 2020; Li and Mutchler, 2020; Lin et.al., 2021; and others). The author argues that it is too early to make conclusions about impact of Covid-19 pandemics on economic security as the pandemics may have longer-term impact. The first implications in research show that Covid-19 have negative impact on economic security on several groups of society, but it does not have a significant reflection in the statistical data. The author also argues that it is not enough to use only EUROSTAT approach to analyze economic security, it is necessary to broaden the dataset.

The Covid-19 pandemics have had most impact on individual economic security, however the ongoing war in Ukraine has had more impact on state economic security in the Baltic states, as larger part of the budget spending has been transferred to the defense needs. The author argues that new trends and innovations in economy could improve the economic security level in the Baltic states, especially from perspective of individuals, e.g., different aspects of digital and sharing economy, but currently there is a lack of systemic approach to analyze these paradigms.

**Joana Zukauskienė, Vytautas Snieska**  
*Kaunas University of Technology, Lithuania*

## **The Importance of Investment for the Green Economy in Countries at Different Levels of Development**

Investment in renewable energy sources is gradually becoming the most popular investment in the world. Sustainable investment is an encouraged solution because it does no harm to nature. The aim of the study is to find out whether richer or less rich countries invest more in renewable energy sources. The richer a country is and attracts more foreign investment, the faster its economy grows. If a country is less rich, attracts less foreign investment, its economy grows slower. We found that investment in the green economy is following this trend as well. Countries invest in the green economy because they want to be either completely energy independent or become less dependent on other countries. It is important for the country's economy not only to invest in other countries, but also to attract foreign investment to strengthen the domestic economy. The high level of the country's economy is indicated by direct investment in foreign states. Economic development depends on the kind of investment. Economic growth can be predicted based on investment. Investment increases the productive potential of the economy. Net investment shows the country's economic situation. The economy is growing if the amount of total investment exceeds depreciation. Investment is very beneficial and important for the development and growth of the country's economy. All investments, including green investment, improve and increase the development and growth of the country's economy. Through the generated gross domestic product, investment affects the country's economy. Economic growth depends on foreign and domestic investment. The main problem of investing in renewable resources is the cost of technology: the higher the price, the longer the payback period is. Therefore, economically stronger countries can invest more in renewable energy sources. Economically stronger countries with favorable climate conditions invest more in renewable energy sources, while economically weaker countries with poorer climate conditions invest less in them. Economic growth depends on foreign and domestic investment. The richer a country is and attracts more foreign investment, the faster its economy grows. If a country is less rich, attracts less foreign investment, its economy grows slower.

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## **The Significance of Architectural Factors in Real Estate Market Theory**

There is a significant part of the real estate market value that is not explained by usual hedonic properties. Firstly, an unlimited number of design options exists. Those options may generate different amounts of value for the property. Secondly, real estate is embedded in place, therefore, it is spatially dependent on architectural environment or urban design and planning of that environment. A hypothesis is raised that the unexplained variance of the real estate market value can be explained by architectural design factors. The scientific problem of this research is how are the architectural factors influencing the spatial dependency of the real estate market value? The object of research is the architectural factors of the real estate market value, and the aim of research is to describe the theoretical framework that allows us to evaluate the influence of architectural factors on the real estate market value. Architectural factors are selected in empirical research. The idea is to build on hedonic models and add architectural design factors. An effort is made to describe the concept of architectural factors and, consequently, architectural non-design and design factors. Not all architectural factors described in literature review are equal in terms of functional, utilitarian, and aesthetic aspects, scale, public or private context. Differences between non-design and design factors are defined. A multidimensional and complex system of architectural factors influencing the real estate market exists. The position of architectural design factors is defined. These factors can significantly alter the housing market value. Understanding this system can help to improve the hedonic models of the real estate market value.

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## **Energy Transformation Necessity in Municipal Areas: Lithuanian Case**

Energy transformation is a fundamental concept in scientific discourse, necessitated by the fundamental principles of the conservation of energy and the second law of thermodynamics. The necessity of energy transformation arises from the inherent constraints imposed by these principles on the utilization and distribution of energy within natural and engineered systems. Energy transformation into green generation is a compelling necessity rooted in scientific principles and driven by the imperatives of sustainability and environmental preservation. This transformation involves the conversion of conventional, fossil-fuel-based energy sources into cleaner, renewable alternatives, such as solar, wind, hydro, and geothermal power. The energy transformation that began in 2022 led to a breakthrough in green energy. Green generation technologies often exhibit higher energy conversion efficiencies compared to traditional fossil fuel-based power generation. It has opened opportunities to develop regional areas, as they have the land needed to build wind and solar power plants, as well as biomass waste power plants. Energy transformation enables regions to solve long-standing social problems determined by the inconvenient geographical location and the growth of agglomerations. However, to assess the potential of the regions, it is necessary to use different data groups, covering economic, social, environmental and governance aspects. This presentation aims to create conditions for gathering quantitative and qualitative data that would allow to assess the extent of energy transformation in regional areas. The presentation describes the case of Lithuania. Since the beginning of the energy crisis, there has been a breakthrough in the fields of wind and solar energy in the regions of Lithuania. This presentation is relevant because it aims to solve the problem of insufficient use of renewable energy resources in the regions. This presentation will present the regions' potential to contribute to the energy transformation.

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## **Preconditions for the "Farm-To-School" Model from Stakeholders' Perspective: The Case of Klaipėda Region**

Farm-to-school programs represent a global movement aimed at bolstering childhood nutrition, enhancing the quality of school meals, and empowering of local markets. However, these initiatives exhibit significant diversity in their implementation strategies across different countries and remain variably defined in both research and program evaluation literature. In the context of the Klaipėda region project, Farm-to-school programs could be conceptualized as initiatives centered around local or regional food procurement, alongside agriculture and nutrition-based educational endeavors. These activities would encompass the provision of locally sourced foods in schools, the facilitation of educational sessions, and the establishment of school gardens, all aimed at bridging the gap between educational institutions, local farmers, food producers, and distributors. The overarching goal is to integrate fresh, locally sourced food into both school cafeterias and curricula. The research findings, based on interviews conducted in the Klaipėda region with municipality specialists, shed light on the specific nuances of possible Farm-to-school program implementation in this region. Key takeaways from the responses include the commitment to regulatory compliance with Green Public Procurement rules, with a strong emphasis on sourcing food produced within Lithuania. Despite their dedication to supporting local agriculture and providing fresh, locally sourced food, these programs grapple with challenges related to quantity, cost, administrative hurdles, and procurement policies. Decision-making processes are influenced by a diverse array of stakeholders, including municipal bodies and the broader community.

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## **Operational Decisions, Sustainability & Disaster Risk Management in India: Some Challenges**

India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes, and landslides have been recurrent phenomena. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible to drought. There is an increasing trend in disasters both in frequency as well as damage caused in terms of human casualties, economic and environmental. Growth in the use of Operations research has secured acceptance for emergency decision makers as an effective decision-making tool by the government and other agencies in disaster risk reduction. The operations research is the scientific study of operations for the purpose of better decision making and management. Using operation research tools, the disaster managers would be able to take the effective-decision and help to reduce the impact of disaster and save the many lives. Major issues at all levels of disaster response decision making, including long-range strategic planning, tactical response planning, and real-time operational support are still unresolved and operations research can provide useful techniques for decision making and management also. The emergency preparedness and response application challenge are mainly concerned with the interaction between humans and their environment under conditions thought to be hazardous either to life or habitat. This application challenge is not only multifaceted as its title implies but also covers a wide range of disasters, many with fundamentally different underlying processes (such as earthquakes, cyclones, fires etc.). This research paper aims to give real time optimal solutions to reduce impact of disaster risk in India and help to take effective decision making. There are few challenges like shortage of accurate data, lack of experts and applications of operational research in this field of disaster management.

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## **Product Quality (PQ) Identification in Manufacturing Companies: The Perspective of Managers and Executives**

Pursuing quality as one of the main goals of a competitive manufacturing company is very important. The quantity of features and characteristics of a product reflects its quality. One of the most important aspects is that managers and executors (team members) must understand the importance of quality and know what factors affect it and what solutions take place with identified problems. Based on the identification of product quality from the point of view of managers and executives, problems are identified, and solutions are provided to change the situation. If they do not have a common understanding of product quality issues, the situation in production only worsens. Decision-making often requires access to real-time data, analytics, and resources that are typically managed by relevant departments or MANAGERS. Expected, that EXECUTORS follow established procedures and report issues to their MANAGERS. Organizations must empower their frontline employees with the authority and training to make decisions related to equipment operation and maintenance. The results of the Exploratory research revealed that the work of managers and executives with product quality has a lot of disadvantages. The general perspective of managers and executors in solving product quality problems and making decisions to eliminate them include a shared understanding of quality standards, effective communication, data-driven decision-making, empowerment, a commitment to continuous improvement, problem-solving skills, resource allocation, risk management, ongoing training, customer focus, and documentation. Organizations must empower their frontline employees with the authority and training to make decisions related to equipment operation and maintenance. In such cases, EXECUTORS are expected to exercise their judgment and expertise to keep operations running smoothly. The general perspective of managers and executors in solving product quality problems and making decisions to eliminate them include a shared understanding of quality standards, effective communication, data-driven decision-making, empowerment, a commitment to continuous improvement, problem-solving skills, resource allocation, risk management, ongoing training, customer focus, and documentation. By working collaboratively and emphasizing these factors, organizations can effectively address and prevent quality issues.

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## **Digital Technologies as a Factor of National Security of Ukraine**

Digitalization has a significant impact on the sovereignty of the state and its national security. In its turn, national security determines the measures and requirements that apply to the informatization of society and information security. The relationship between national security and digitalization means that one cannot talk about national security without considering the degree of digitalization of the country. The problems of digitalization of Ukraine have been researched by many authors. However, it takes on special significance now that national security is becoming especially important for the country. The purpose of the study is to estimate the state of digital development of Ukraine and the cyber threats that the country has experienced and formulate basic recommendations for the further digital development of Ukraine. The author examines the issue of digitalization from the point of view of strengthening Ukraine's position on the world stage, and those dangerous moments of digitalization that may appear in the case of military aggression. The author analyzes various indicators of digitalization as well as the state's contribution to the development of information and communication technologies. Ukraine improved its position according to the generalized indicator of the level of development of information and communication technologies NRI from 71st place in 2015 to 50th place in 2022. Calculations showed that in recent years the state did not allocate enough budget funds to the field of information and communication technologies. A different situation is observed for the private sector in 2019–2021 – the share of capital investments from internal sources of enterprises and organizations in the “Information and Telecommunications” section exceeds the average level of capital investments disbursed from such sources in the whole economy. The downside of digitalization is the increase in cyber-attacks with the spread of information and communication technologies. The work examines those examples of cyber-attacks that Ukraine has experienced since the beginning of Russian aggression. In the context of hostilities, Ukraine needs to increase the level of cyber protection, because the country is not among the top ten countries in the world with the highest GCI score.

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### **Drivers of Staff Motivation at Government Municipality: Case Study of Kuldīga District in Latvia**

The employee's motivation level is a factor influencing the productivity and quality of work, and it also affects the duration of the employment relationship, so companies, organizations and institutions around the world are increasingly aware of the importance of staff motivation, searching for the effective drivers for staff motivation by using tangible (material) and intangible (non-material) motivational tools. There is a high labor shortage in the labor market of Latvia, which is evident both in the private sector and state institutions and municipalities. Significantly assess and improve the motivation system in state and local government institutions to reduce employee turnover, promote employee productivity and the quality of services provided, effectively using taxpayers' finances. The scientific article was written with the aim of studying the theoretical and practical aspects of motivation and collecting and analyzing the motivational measures of administrative employees of Kuldīga District Municipality, providing recommendations for the necessary improvements. The empirical study reveals employees' assessment of human resource management practices (motivational aspects), communication and cooperation in the team/department, opportunities for development and self-realization and microclimate in Kuldīga District Municipality. The results of the empirical study reveal the positive aspects of administrative employee attitude to their work – almost every respondent (95.65%) likes the work he/she does, but simultaneous almost half (46%) of respondents have thought about changing jobs in the last year, which highlights the need to review the motivation system and employee satisfaction in the Municipality. Empirical study shows that microclimate at the Municipality is mostly satisfactory, more improvements are recommended to implement in the Municipality's human resource management practices in the motivation field and performance of direct managers as motivators and evaluators of administrative personnel work performance and development.

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## **Human Awareness to Environmental Protection in Small Islands Developing States (Sids): the Mauritian Case Study**

This contextualized paper deals with environmental protection to enhance socio-economic development in SIDS with reference to the small Republic of Mauritius. With the relevant legal and regulatory framework, it investigates environmental protection in SIDS with particular attention drawn to the small Republic of Mauritius and its huge Exclusive Economic Zone (EEZ) in the Indian Ocean, and its blue economy would generate trillion of dollars provided the EEZ is not over-exploited otherwise mankind would pay it in a very costly way. The Republic of Mauritius is also a very interesting case study because the Mauritius and its legal system inherited both French Civil Law (1715-1810) and English Common Law (1810-1968) during its two successive colonization with a written Constitution 1968 which has no provision on the right to protection of the environment and the Mauritian legislator has neither reacted promptly to implement same in the Constitution 1968 compared to other Small Island Developing States (Maldives, Seychelles) albeit there is a plethora of legislations and regulations to protect the environment in a country where there is room for improvement in various key sectors for its socio-economic development and to protect the island against nature's wrath, droughts, food and water insecurity. However, with the exploitation of petrol and oil for exploitation, activists and human rights fighters found that there might be an impact both in its green and blue economy provoking nature's wrath with tsunamis, volcanoes or cyclones which are becoming more frequent in the Indian Ocean. It is time to react fast and promptly, and this paper might enlighten a little more of human's irresponsibility.

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## **VR Usage and Development Analyses in Education for Distance Learning**

With the rising trend and increasing popularity of E-Learning, especially after the emerge of a global pandemic, new techniques are implemented each year to make the learning process more realistic. Online courses are increasingly widespread, some people take online courses to supplement their traditional classroom courses and pursue undergraduate and graduate degrees. Distance learning can take various forms and be supported by different systems and applications. To increase satisfaction with online learning, it is necessary to expand the repertoire of educational technologies and tools that enable teaching presence, because students appreciate direct online communication with the teacher, expressed in direct guidance and instructions, correspondence, feedback, assessments, monitoring, and including even comments, humor, and other forms of active and immediate interaction. With VR students can explore remote locations, study in different institutions at the same time, visualize concepts in 3D, actively participate and manipulate virtual objects in exercises to understand abstract. Social VR used for stimulating the social dimensions of online education highlight the potential of advantages like high acceptance of technology for teaching and learning tasks, but also sees the remaining challenges that need to be addressed to enable its use in higher education. VR learning environments have shown an increase in positive emotions along with a decrease in negative emotions compared to both video and textbook option. Virtual reality environments heavily rely on specialized tools and platforms and careful analyses was done including Unity 3D, Unreal Engine and Blender to analyze possibilities for combining these tools so that it would be possible to create a highly realistic an interactive environment with a minimal cost. With the goal of developing an immersive remote learning environment, the practical component was creating a virtual room that could supplant traditional conferencing tools, and which can create engaging learning environments.

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**An Investigation Blockchain Technology on Enterprise Operational Capabilities:  
A Meta-Analysis Approach**

Blockchain technology, a brand-new category of disruptive internet technology, is frequently employed by businesses as a technological aid to enhance production procedures and reduce spending. In this paper, we will examine the effects of blockchain technology on business operations, as well as their advantages for internal business processes and their effects on external business collaboration. An examination of the literature revealed that it has largely ignored the link between blockchain technology and corporate operational capabilities based on actual data, focusing instead solely on the business process modelling and technology design process of a blockchain-based solution. As a result, this paper gathers information from African businesses that are either preparing to implement blockchain technology or already have. Quantitative analysis of the data was done. The findings indicate that one of the key driving forces for the adoption of blockchain technology is the growth of the enterprise asset scale. Additionally, this study demonstrates how implementing blockchain technology improves asset rotation rates and lowers sales expense rates. However, the adoption of blockchain technology is one of the key business choices, which is influenced by several significant elements, including the manager's style, the structure of human resources, and the external policy framework, in addition to the development circumstances and stage of the firm. This paper offers some helpful recommendations for developing blockchain initiatives in the future based on the findings of theoretical and empirical investigation.

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## **Fluctuations in Banking Activity in Recent Years in the Republic of North Macedonia**

Banking activity includes a list of intermediation functions that those financial entities known as banks exercise as their main economic activity. At a general level, this activity is based on many day-to-day operations that the banking sector performs in different economies. These mainly focus on controlling and managing savings and investments. The financial system in Macedonia consists of the National Bank of the Republic of North Macedonia, commercial banks, financial companies, savings houses, exchange offices, the Deposit Insurance Fund, insurance companies, pension funds, investment funds, brokerage firms, and a stock exchange. In addition to treatment from a theoretical and normative point of view, the author through the methods of analysis, synthesis and statistics processed the official data of the National Bank mainly over the past eight years. The study provides data that recently banks kept the dominant position in the financial system and their role of the most significant segment for preserving financial stability, despite the decrease of their share in the total assets of the financial system, at the expense of the increased share of pension funds. Such a position of banks has been maintained despite the obstacles, difficulties, and crises, including the most severe and unpredictable crisis of recent years such as the Covid-19 Pandemic and then the financial crisis as a situation of dealing with the consequences of the pandemic and the challenge of economic recovery.

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### **Some Challenges to Financial Stability During the Economic Downturn**

Financial stability issues, arising during the COVID-19 pandemic and the ongoing conflict in Ukraine, have affected the problems of financial market instability: interest rates of commercial banks started to rise, inflation increased, affecting consumer solvency issues, the need for bank financing and investment opportunities decreased, part of the staff was lost, labor supply decreased, productivity declined due to emerging economic stabilization problems. Financial stability cannot be achieved without effective operation of the financial system, which is explored in this article, based on the evaluation models of financial stability. These models illustrate the integral relationship between the impact of individual factors and the effects on the interest rates of commercial institutions, the impact of interest rates on household financing, and the assessment of the interaction between interest rates and inflation. The assessment of financial stability considers the performance, liquidity, solvency, and evaluation of adverse conditions of banks as financial institutions.

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### **Russian Aggression Against Ukraine and International Sanctions: How Effective are Sanctions?**

The aim of the paper and presentation is to research legal aspects of the sanctions against Russian Federation: how these sanctions were introduced and how effective they are at present time. The research deployed descriptive, analytical, and deductive-inductive research methods. Using these methods, legal acts, policy planning documents and different reports were reviewed and analyzed, and subsequently conclusions and recommendations were made.

EU started to impose restrictive measures on Russia since 2014 in response to: 1) the illegal annexation of Crimea; 2) Russia's war of aggression against Ukraine; 3) the illegal annexation of Ukraine's Donetsk, Luhansk, Zaporizhzhia and Kherson regions.

All measures are designed to weaken Russia's economic base, depriving it of critical technologies and markets and significantly curtailing its ability to wage war (10 packages since 24 February 2022). The EU has also adopted sanctions against Belarus (in response to its involvement in the invasion of Ukraine) and Iran (in relation to the manufacture and supply of drones to Russia). Legal base in the EU Treaties give a legal base for the following sanctions: 1) arms embargoes; 2) restrictions on admission of listed persons (travel ban): targeted persons cannot enter the EU, or travel beyond their member state of nationality if they are an EU citizen; 3) freezing of assets belonging to listed persons or entities: all their assets in the EU are frozen and EU persons and entities cannot make any funds available to those listed and 4) economic sanctions or restrictions concerning specific sectors of economic activity, including import or export bans on certain goods, investment banks, prohibitions on supplying certain services etc.

When Russia annexed Crimea in 2014, the EU governments decided to forbid — with immediate effect — the sale, supply, transfer, or export of “arms and related materiel of all types, including weapons and ammunition, military vehicles and equipment, paramilitary equipment, and spare parts therefor, to Russia” on 31 July. 2014. Exception: “Contracts or agreements concluded before 1 August 2014.” This small exception offered great opportunities. According to COARM (the official Working Party of the Council on Conventional Arms Exports) between 2015 and 2020, 10 EU member states exported a total of €346 million worth of arms to Russia. After 24 February 2022 this possibility was closed.

The EU has sanctioned 1 473 individuals and 207 entities. The list of individuals includes Russia's President, Vladimir Putin; Russia's Minister for Foreign Affairs, Sergey Lavrov; former President of Ukraine, Viktor Yanukovich; members of the Russian State Duma (the lower house of parliament); Members of the National Security Council; members of the Federation Council of the Russian Federation etc.

Summing up the results of the research: arms embargoes, travel ban, freezing of assets – types of sanctions relatively more effective as control measures are more strict; economic sanctions – less effective as not so easy to control and Russian Federation could use third countries as intermediaries.

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## **The Integration of Iot-Based Systems for Remote Monitoring of The Human Condition in Telemedicine Systems, Including the Control of Pathologies Caused by Sars-Cov-2**

Population ageing, combined with severe budget constraints, will require profound changes in the health systems of EU Member States to promote healthy ageing and provide a more integrated and patient-centered response to the increasingly changing healthcare needs on the one hand.

On the other hand - summarizing the state of Bulgaria's healthcare system and the numerous analyses devoted to this area, including by the WHO, the conclusion can be drawn - the statistics are unshakable: healthcare costs in developed countries grow faster than GDP.

We must note that in the EU countries, the population's health is declared a national priority, which has an indisputable right to primary financial security, access to the latest information technologies, databases, scientific research and resources of the existing information and communication systems. This pretentious position must be realized by developing high-tech, low-cost means organically united in a single telemedicine system, "Home Clinic".

Information and communication technologies (ICT) have great potential for solving several problems faced by both developed and developing countries in providing the population with affordable, cost-effective, and high-quality medical services.

Telemedicine uses ICT to overcome geographical, economic, and technological barriers and expand access to high-quality health services to a wide range of the population.

The present research is dedicated to analyzing the state of existing methods and technologies for remote control of the state of the cardiovascular system (CSS) of the person, a proposal of methodical and technological solutions, which are the main elements of a complete IoT-based system. Special attention has been paid to the possibility of controlling the development and recovery of the body in cardiovascular diseases caused by the SARS-COV-2 virus. The presented methodology is based on photoplethysmographic technology for registering physiological data for testing and monitoring the human condition. The method is based on the analysis of the contractile functions of the muscles, heart, and aorta wall, which are reliable indicators of the state of the cardiovascular system (CSS). The method is carried out by registering a pulsogram taken photoplethysmographically from the finger (often the index finger)—and further processing. Photoplethysmographic methods for recording blood pulsations in individual sections of the bloodstream are based on the ability of biological tissue to change the degree of absorption or reflection of the light flux passing through it.

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## **The Methodology of the Assessment of Corporate Social Responsibility**

Expectations for companies and their responsible behavior are extremely high and constantly growing. Results of the research state that the actual social performance of business is still below society's expectations, and this gap increases every day. Given this, one can argue that the perception of corporate social responsibility (CSR) changes more rapidly in the consciousness of society than in that of entrepreneurs and, therefore, that the assessment of CSR becomes more relevant. So, it is very important to encourage companies to take more responsibility and pursue more sustainable activities.

The global practice of the assessment of CSR shows that different methodologies can be used to measure the CSR. However, the indices obtained using both primary and secondary data are the most suitable and most often used by research to measure CSR and reflect its multidimensionality. Indices are especially relevant for assessing and comparing social responsibility of the companies operating in different countries or regions of the world. There are many international institutions in the world which assess CSR using complex indices calculation methodologies. However, it is important that companies themselves can assess the responsibility of their activity. For that purpose, the methodology of the assessment of CSR has been developed, according to which the calculated index can assess the responsibility of business companies of different sizes and operating in different sectors. The methodology is based on the principles of sustainability, universality, comparability, comprehensiveness, availability of data, and objectivity. To compare specific CSR aspects, the calculated index can be broken down into separate components. Although the CSR methodology covers only quantitative data, the assessment reflects both the current situation and the trends of CSR development in the company and providing a comprehensive evaluation of the company's social responsibility including economic, social, and environmental aspects. CSR methodology is developed for the assessment of CSR of Lithuanian businesses but can equally be used for assessing companies abroad.

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### **Climate Change and Legal Issues in India**

Climate change is the most defining challenge of the 21st century as global risks with impacts far beyond just the environment and implications on national security and development. It is evident that climate change is a silent threat with enormous damaging potential and causing disastrous implications in the atmosphere. The climate change presents a serious challenge to constitutional rights of Indians; rights that can only be taken away by the State and by proper legal procedure. Further, as foreign states are involved and as international and other remedies against these states are limited, safeguarding constitutional rights presents substantial challenges that cannot be addressed even through the Indian judiciary's epistolary jurisprudence. Through this analysis, the article aims to demonstrate a less examined issue in international climate regime discussions-that at stake is a fundamental legal, social, and political document of modern societies. Still the government of India is very series climate change mitigation but there are lots of challenges and legal issues, which are being barriers to take the decision for climate change policies. This study focuses the India's role on international climate law and its domestic law on climate change and demonstrates the limits of its legal position in addressing climate-related threats. Climate change presents a complex challenge for India, which is reflected in its evolving set of climate change laws and policies. Aside from being one of countries most vulnerable to climate change, India is home to some of the world's poorest people whose lives and property are threatened by climate change. The government has adopted various initiatives to comply with the Kyoto Protocol. The central national initiative on climate change is the National Action Plan on Climate Change (NAPCC). Action under NAPCC is premised on the principle of sustainable development, which for the purpose of climate change.

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## **Management of Digital Resources for the Implementation of The Organization's Marketing Solutions**

The article presents the results of the research related to the management's aspects of digital marketing resource in a publishing organization operating in a specific (expert) market in Lithuania. To start this research, the concept of digital marketing resources and its definitions were analyzed, and the features of digital marketing resources and they management were distinguished. The organization operating in a specific market with a strong brand and a relatively large market share was selected. A semi-structured group interview consisting of specialists from the marketing department was used for the practical research.

It was found that the organization uses a wide range of digital resources, but the quality and accessibility of their content is at an average level, which can negatively affect the overall profitability of the publishing organization's marketing efforts. Considering the disadvantages, it is recommended to include more specialists with knowledge and experience in the field of digital marketing management; it is proposed to improve management processes and methods related to content marketing, social media management, SEM, SEO, e-mail marketing, video marketing, etc. It is important to understand that the management of digital marketing resources is a long-term process that requires orientation to the process of continuous learning, a systematic approach, creativity and originality, continuous monitoring, analyticity and improvement, so the organization should make appropriate plans and structure work processes.

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## **Evaluation of the Smartness of the Tourist Destination Websites of the Klaipeda Region**

The concept of a smart city is gaining more and more attention worldwide as emerging new information and communication technologies (ICTs) such as the Internet, Internet of Things, virtual and augmented reality, and big data technologies are integrated into everyday city life. As an essential component of smart cities, smart tourism has begun to develop as a reforming tool to provide decision makers with ideas on how to develop the tourism industry. The discourse of smart tourism is based on the hypothesis that the use of technologies that facilitate the interaction of tourism stakeholders and the data generated from this interaction can improve decision-making processes and better management of places. Smart tourism is considered a type of ICT development and is widespread in the tourism industry.

The evaluation of the smartness of the sites must be given a lot of attention, because it is a necessary condition for the improvement of the site and an integral part of the concept of a smart tourism city. Previous research has shown that a high-quality website can increase customer satisfaction, purchase frequency, and a customer's positive attitude toward an area. On this basis, the research raises *a problematic question* - What is the state of smartness of the websites of tourism information centers in the Klaipeda region. *The purpose of the study* is to evaluate the intelligence of the websites of tourism information centers in the Klaipeda region.

In the conducted study, the authors distinguished four essential evaluation categories of a smart tourism city website: 1. **Informativeness**, which consists of the following evaluation criteria: information about tourist products and services; information about accommodation establishments; information about catering establishments; information about shopping places; information about places of interest; 2. **Functionality**: connectivity (*synchronization*) with online search systems, connectivity with travel agencies/tour operators, monitoring of tourism data (*flow dynamics*), synchronization with weather forecasts (*real-time-weather*), connectivity with the local public transport system; 3. **Innovation**: mobile applications, the ability to create a tourist route, the ability to receive and capture feedback in real time, measuring visitor experiences, using virtual reality (VR) elements and 4. **Accessibility**: information accessibility for people with hearing and visual disabilities, easy access to tourist information ordering products and services, providing information about the working hours of museums and other places of interest, the possibility of purchasing a general area card (*for transport and/or visiting museums*).

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## **Business Forecasting Using Artificial Intelligence**

Methods used as Business intelligence systems, Artificial Intelligence and Machine Learning plays an important role in furnishing essential and competitive insights to strategists and decision-makers within organizations. They achieve this by analyzing operational and historical data with sophisticated analytical tools. The objective of these methods and systems is to augment the immediacy and precision of data, thereby equipping managerial echelons with a deeper understanding of their enterprise's competitive positioning.

Business can be defined as the deliberate process of creating valuable goods or services to fulfill the needs of individuals, sustain livelihoods, and contribute positively to society. These business activities are documented, either on physical paper or electronically and subsequently generated into structured data. This transformation furnishes a wealth of insights into consumer behaviors and market dynamics. Such data can be subjected to examination and exploration through specialized tools and methodologies, with the aim of discerning underlying patterns and valuable insights that illuminate the operational intricacies of the enterprise. These insights, once unearthed, can be channeled back into the organization, facilitating iterative improvements and enhancing its proficiency in meeting the ever-evolving demands of its clientele.

Sales forecasting stands as an important element within the realm of production and supply chain management, exerting across diverse facets of corporate operations encompassing planning, strategic formulation, marketing, logistics, warehousing, and resource allocation. While conventional time series forecasting techniques retain their dominance, their utility is constrained by several inherent limitations. In contradistinction, causal forecasting methodologies possess the unique capability to prognosticate forthcoming sales dynamics predicated not merely on historical patterns and trends but also rooted in the intricate interplay of multifarious variables. This research advances a comprehensive background poised to model and forecast export sales by connecting the power of artificial intelligence paradigm, machine learning and Business Intelligence. BI empowers stakeholders to examine a range of dynamic factors, including alterations in market share, shifts in consumer behavior and expenditure patterns, evolving customer preferences, organizational capabilities, and prevailing market conditions. These analytical tools and technologies enable analysts and managers to discern which adaptations are most apt for navigating the ever-evolving business landscape.

The evolution of the Business Intelligence, Artificial Intelligence and Machine Learning has been catalyzed by several transformative factors, including the advent of data warehousing as a robust repository, advancements in data cleansing techniques, the increase of more potent hardware and software infrastructures, and the emergence of versatile web-based architectures. Collectively, these advancements have engendered a more robust and dynamic environment for business intelligence operations than was till now conceivable. Drawing on empirical evidence from an e distribution enterprise, this study formulates an export sales forecasting model that leverages the potential of AI, ML and BI. Additionally, the research operationalizes this model to generate a sales projection spanning some month's horizon, the veracity of which is subsequently juxtaposed against actual sales data to discern the model's predictive efficacy. Finally, the research culminates in the presentation of a variable sensitivity analysis, shedding light on the nuanced relationships between predictor variables within the causal forecasting model.

In virtually any industry, the domain of business intelligence encompasses a suite of tools and strategies meticulously designed for the systematic collection, analysis, and visualization of data. In the realm of data mining, statistical and machine learning approaches are judiciously employed to construct decision-making models from the raw data structure. Techniques such as decision trees, regression analysis, artificial neural networks, and cluster analysis are thoroughly explored within this discourse. Furthermore, the book delves candidly into the domains of text mining, web mining, and the challenges posed by the era of big data, providing a comprehensive panorama of the multifaceted landscape of contemporary business intelligence.

This analyze tends to provide a structured blueprint for the development and deployment of a business intelligence system, Artificial Intelligence tools or Machine learning technics, exemplifying the synergy of technology and business. Furthermore, AI, BI and ML has assumed a prominent role in identifying and scrutinizing security vulnerabilities. When applied to manipulation and navigation tasks, AI-driven robots demonstrate remarkable acumen in mapping and navigating through constrained and static environments, offering innovative solutions to challenges in spatial awareness and autonomous mobility.

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## **Data Protection under Review of the Constitutional Court: Administrative Databases Directly Accessible to Public Authorities**

Digital age provides new opportunities to free flow of information, including information that by its nature qualifies as personal data. However, more extensive data storage and free circulation of data challenges personal data protection and consequently the privacy of individuals.

It shall be considered that violation of personal data rights may occur not only as a result of acts of private individuals or state authorities, but also the legislator itself when the new abstract regulations are adopted defining what type and how personal data shall be stored in state administrative databases.

The later situations have recently been put under the microscope by Constitutional Court of Latvia, thus letting the Constitutional Court to express itself on the Achilles heel of the legislation adopted by the Parliament in this regard. Therefore, the Author will particularly address the constitutional review of legislation relating to storing personal data in administrative databases directly accessible to public authorities.

The Author will analyze, firstly, the judgment of the Constitutional Court relating to the storing the personal data of an acquitted person in the archives of the Punishment Register for their entire lifetime (case No. 2022-09-01). And, secondly, the judgment of the Constitutional Court relating to public accessibility of information relating to the fines imposed on a person for offences in road traffic which have not paid within the period specified in the law (personal data available in the State Register of Vehicles and Drivers Thereof) (case No. 2018-18-01). In both cases the Constitutional Court found that respective provisions were incompatible with the Article 96 (“right to private life”) of the Constitution of the Republic of Latvia and, therefore, declared the provisions void.

Consequently, the Author will generalize what lessons these judgments provide for future administrative databases directly accessible to public authorities and will discuss what particularly any legislator must consider when ordering certain type of personal data being stored in administrative databases. The purpose of the presentation is to search the balance between protection of personal data that enforces the right to private life, on one hand, and the legitimate interest of the state to store and operate personal data in administrative databases, on other hand. These two competing interests are particularly important in the digital age.

## **Macroeconomic Indicators in the Baltic States**

The Baltic States – Latvia, Lithuania, and Estonia – are neighbors; they are located on the shores of the Baltic Sea and their conditions are the same. Their development, judging by the main macroeconomic indicators, has been quite synchronized. During the thirty-year period of their restored independence, these states have achieved different levels of success in their development. Among the Baltic States, Estonia has the most dynamic and successful development. The success of Estonia's socio-economic development is emphasized by the fact that the population of Estonia has not decreased in recent years. From 2010 to 2021, the population in Estonia decreased by only 0.04% (540 people). The population of Latvia and Lithuania is constantly decreasing and there is an acute shortage of labor force. In Lithuania, the population decreased by 9.33% (288,900 persons), in Latvia – by 10.72% (227,280 persons). The working population, mainly young people, are leaving for more developed EU countries in search of better-paid jobs and better living conditions. In Estonia, such a rather massive departure of the population to other countries is not observed. The purpose of the study: based on the analysis of macroeconomic instability, to test the hypothesis that the different levels of economic development of these states are largely due to the different quality of the managerial approach to the economy.

In terms of such important indicators as employment rate, unemployment rate, GDP per person employed and GDP per capita, Estonia is significantly ahead of Lithuania and even more ahead of Latvia. There is very little difference between Latvia and Lithuania in terms of GDP per person employed. In Estonia, the GDP indicator is significantly higher than in Latvia and Lithuania. Calculations based on statistics for the period from 2010 to 2021 show that Latvia lags Estonia in terms of GDP per person employed by an average of 17.68% per year over the period in question. Lithuania lags Estonia less than Latvia, on average by 14.6% per year. In its turn, the situation in Latvia is somewhat worse than in Lithuania. Latvia is lagging the other Baltic States and the EU countries. An important characteristic of the economic well-being of a country's population is gross domestic product per capita. Both the real standard of living and the quality of life of people depend on it. Calculations have shown that GDP per capita increased in all three Baltic States between 2010 and 2021. In Estonia, this indicator was higher than in Latvia and Lithuania, and it increased at a higher rate. In recent years, the European Union has paid increased attention to the development of innovative production, introduction of scientific and technological achievements. Without innovations, it is impossible to produce high quality products and increase competitiveness of the EU countries in the world markets. Latvia and Lithuania are in the same average group of EU countries in terms of the level of innovative economic development. This is a group of EU countries with an average number (%) of innovative enterprises from 30% to 60%: in Latvia 33%, in Lithuania 50.5% (Eurostat 2021). Estonia is in the first group of EU countries where the number of such enterprises is 60% or more – in Estonia 73%. For the Baltic States, given their limited natural and human resources, the most important indicator of economic growth is labor productivity. This indicator is the main one for the application of the intensive model of economic growth, which ensures the saving of all kinds of resources. This model is based on scientific and technological progress, innovations, developments in science and technology, and highly skilled labor force. Among the Baltic States, Estonia has achieved the greatest success in

applying the intensive model of economic growth. This indicates that the level of organization of production functioning in Estonia is higher than in Latvia and Lithuania. This is ensured by higher qualification of management personnel both in private enterprises and at the state level. The state plays an important role in such achievements.

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## **Qualification of Online Proctoring Manager (OPM)**

Online proctoring has emerged as a popular solution for conducting secure and convenient exams in the digital age. However, the analysis of the subject, carried out both through expert interviews and literature review, has revealed several problems and challenges associated with online proctoring that warrant attention. Firstly, the issue of privacy invasion and data security looms large over online proctoring. Many students and educator's express concerns about the collection, storage, and potential misuse of personal data during the proctoring process. Striking a balance between ensuring exam integrity and respecting privacy rights is crucial. Secondly, technical glitches and compatibility issues frequently disrupt the smooth functioning of online proctoring systems. From internet connectivity problems to software malfunctions, these issues can adversely affect the test-taking experience and compromise the validity of exams. Robust technical infrastructure and thorough testing protocols are essential to mitigate such challenges. Thirdly, the resistance to change is observed both in teachers and students, as a natural and expected response when introducing new methodologies such as online proctoring. People often resist change due to fear of the unknown, concerns about job security, or a preference for familiar routines. It is crucial to anticipate and address this resistance by fostering open communication, providing training and support, and emphasizing the benefits of online proctoring. To successfully introduce and manage an online proctoring process inside an academic institution, it is essential to specifically train a professional expert of the topic. The competence of an Online Proctoring Manager plays a pivotal role in addressing the problems and effectively managing the entire proctoring process. The study carried out has brought out the main competences that the OPM should hold, thus allowing to design the first training course to certify OPMs. The PROWIDE OPM will possess a diverse set of skills, including a strong understanding of privacy regulations and data security measures, proficiency in technical troubleshooting, knowledge of bias mitigation techniques, and excellent communication and interpersonal abilities. Furthermore, continuous research and development in the field of online proctoring should be pursued to improve the effectiveness and fairness of the process. Collaborative efforts among educators, technologists and students are essential in devising comprehensive solutions that preserve the integrity of assessments while upholding individual rights and ensuring a level playing field for all learners. Input from policy makers is essential from a legal perspective, to better define the OP's margins of operation and find the right balance between control and privacy protection. By doing so, we can harness the potential of online proctoring to revolutionize education and create equitable opportunities for students worldwide.

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### **Strengthening Social Cohesion of Local, Refugee and Migrant Young People**

Migration has been a part of human experience from the earliest days of civilization. Today cross-border movements are characterized by their diversity, as there are no typical characteristics, their legal statuses, and their circumstances and prospects. The millions of refugees worldwide live in a high - income countries, but the majority still are hosted by the low – and middle-income countries. Thought more than 90% of migrations in the world have taken place for employment purpose, youth including students chooses migration also for educational, administrative, social, and cultural aspects. The European Union (EU) faces challenges that effects its persistence, including the revival of national populism in many EU members and studies have shown that individuals with immigration histories identify less strongly with Europe, such aspect must be considered, because the citizens and their identities are vital for European cohesion. Successful integration benefits both migrants and destination societies, but there are various triggers, which can affect the relations toward emigrants, like the pandemic or convivial attitude toward emigrants. Psychological and socio-cultural adaption of refugees are strongly influenced economic concerns, pre-migration expectations, religion, and other factors. Settlement in a new country can be challenging process for refugees in general, and for unaccompanied minors in particular. Based on the current situation, a project on “Strengthening social cohesion and capacity of local, refugee and migrant young people by creating STEM/STEAM areas" funded by the Erasmus+ program was developed with 6 partner institutions from Turkey, Greece, Italy, Spain, Portugal, and Lithuania. The activities and workshops carried out during the project with the participants inspired the development of a research study. This article aims to research the aspects and possibilities to strengthen the social cohesion and capacity of local refugee and migrant young people. Quantitative research included respondents by country of origin from Asia: Iraq, Syria, Turkey, and Afghanistan. Analyzing the results, the hypotheses were tested assuming the differences between opinion of men and women and between respondents grouped by age. The findings of this research can be used to minimize factors that undermine favorable levels of psychological and socio-cultural adaptation and promote factors that facilitate strengthening social cohesion and capacity of local, refugee and migrant young people.

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## **Generational Differences in Work Preferences in the Context of the Labor Market in Slovakia**

The study examines the differences in the work preferences of generations X, Y and Z. Its main goal is to identify the preferences of individual generations in the context of integration into the labor market, based on a questionnaire. To achieve the stated goal, we conducted a questionnaire, the results were verified through a chi-squared test, and finally, a comparison between all generations mentioned was also performed. The results indicate that significant differences can be observed among the examined generations in aspects such as the use of digital media in the form of social media for job searching, flexible forms of employment, career development, diversity in the workplace, and loyalty to the employer. Simultaneously, it was found that generation Z has taken a dominant position in all the areas examined. They are the ones who use social media to the greatest extent for the above-mentioned purposes, among all generations they have the highest preference for flexible forms of employment, the area of career development is also the most important for them, they value diversity in the workplace compared to older generations much more, but they are also the least loyal employees among the generations in question. We see improvements in making working conditions more attractive depending on the generations. A universal policy of motivation or benefits is not sufficient, and a proactive approach by employers in the form of a more personalized approach is needed. Such an approach can have an impact on higher satisfaction and employee loyalty.

## **Work Performance and Work from Home**

Employee job performance has been associated with management since its inception as a scientific discipline. The goal of proper management of human activity is to achieve higher job performance. In its current form, job performance is not only associated with quantity, but quality as well. From the point of view of an organization's leadership, managers, or supervisors within the work environment, in the past, leading their employees to better job performance was relatively easy. With the progress of science and technology, a gradual change connected with the introduction of information and communication technology can be seen and certain types of work started to shift significantly to the home environment. This trend was greatly accelerated by the Covid-19 pandemic when, as part of interventions to prevent the spread of the virus, organizations had to react by introducing work from home wherever possible. Working from home is gradually becoming a working standard that is being used by more and more employers and employees. Many employers, also thanks to the pandemic period, have found that several kinds of costs can be saved by introducing work-from-home. On the other hand, working from home has become equally convenient for employees, bringing many advantages, but on the other hand also disadvantages, such as loss of social contact or more complicated teamwork. Of course, working from home brings other aspects, such as changing factors and the environment where work is realized, which is also connected to work performance. The aim of this paper is to identify, based on a literature review, key research themes related to work performance and working from home. To identify relevant literature, Web of Science database was selected while this research focuses on peer-reviewed publications published in English language up to April 2023. The total scope of the selected publications analyzed based on the Prisma methodology is 14 research articles between 2008 and 2023. The published studies include the following research directions: 1. Change in work performance in the context of the implementation of Covid-19 interventions, 2. Gender roles and their impact on work from home and work performance, 3. Mental and emotional aspects at home and the allocation of time for work, 4. The use of modern telecommunication technologies their impact on teamwork in the context of work from home. These 14 studies are found in several journals (n=11). The first study in the final set is from 2008. Based on a dataset taken from Web of Science (the keyword string "work performance and work from home"), a map of the keywords and the most cited authors extracted from that string was created. These maps are created using the analytical tool VOSviewer. Based on the publications analyzed, the most frequently cited author was identified (Bakker A.B.) The findings of this study contribute to the literature related to work performance and working from home.

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## The Circular Economy Transition in the European Union

The objective of this research project is to conduct a systematic review of the transition toward a circular economy within the European Union. The issue of unsustainability in the current global society is widely acknowledged within the European Union. This is attributed to the unequal distribution of benefits and costs related to resource utilization among member states of the European Union. The circular economy is acknowledged for its ability to efficiently address social and environmental issues. The transition from the existing linear economic model to a circular one has recently garnered increased attention from notable multinational corporations and influential stakeholders in attendance at the World Economic Forum. The establishment of circular economy models is crucial for promoting and enhancing the adoption of the circular economy. This research paper delves into the benefits of adopting a circular economy model in the context of industry, economy, and waste management. The development of design strategies for the circular economy is guided by a conceptual framework, and recommendations are subsequently provided in accordance with this framework.

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## **Digitization in Slovak Healthcare Sector and its Impact on the Working Conditions of Doctors and Nurses Working in Hospitals**

One of the main health policy initiatives in European Union countries is the transition from a patriarchal medical model to a co-managed and integrated approach of personalized healthcare. The implementation of the 2030 Agenda elements for Health and Quality of Life in terms of technological progress enables the healthcare delivery optimization. The impact of digital health elements and care can be observed not only on the patient care delivery side but also on the professional job side of health professionals. This study deals with the job satisfaction assessment with digitalization among doctors and nurses working in hospitals. The research was conducted through a questionnaire survey. The respondents were doctors and nurses working in hospitals in Slovakia. The study evaluates the satisfaction of doctors and nurses with the digitization of work according to the basic characteristics of respondents by means of correspondence analysis. The paper also analyses the impact of digitization of work and administrative burden, as elements of smart healthcare should have a positive impact on reducing or simplifying the administration and paperwork within the job of doctors and nurses. The results will be presented by a correspondence map.

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## **Cybersecurity Knowledge Gap in Albanian Public Administration: Bridging the Cryptographic Training Divide to Enhance Data Security**

The increasing complexity of cyber threats demands the implementation of robust safeguards, with cryptography playing a pivotal role. This research paper delves into the significance of cryptographic techniques in bolstering data security within the realms of public and private administration.

The study investigates the real-world application of cryptographic methods within administrative environments. It examines how encryption mechanisms are seamlessly integrated into data storage, transmission, and access control systems to safeguard sensitive information. Furthermore, it explores the delicate equilibrium between data security and privacy concerns, underscoring the necessity for a holistic and all-encompassing approach.

This research paper serves as a valuable resource for administrators, policymakers, and cybersecurity professionals seeking to fortify their data security measures. It offers insights into practical implementations of cryptography, ultimately contributing to the ongoing dialogue on data protection in our increasingly interconnected world.

The protection of sensitive data stands as an imperious imperative, transcending the boundaries of both public and private administration. As organizations grapple with an ever-expanding trove of confidential information, the mantle of data security has been increasingly shouldered by the formidable prowess of cryptographic techniques that has arisen as stalwart guardians, fortifying data against the encroachment of unauthorized access and steadfastly upholding the pillars of confidentiality, integrity, and authenticity.

## **Human Resource Management Challenges for the 2023 Workplace**

The paradigm of human resource management has changed dramatically. In the post-pandemic situation. Many of the changes which started during the pandemic were accelerated and have become permanent aspects of our working lives. The combination of remote and office work in the work organization is here to stay, automation and bots together with human resources are forming a new, unprecedented hybrid resource, when companies are searching and evaluating potential candidates, they pay much more attention to candidates' skills than to the obtained formal academic degree.

Human well-being, respect for autonomy, and working hours adapted to the needs of the individual. It has become a mandatory condition in the relationship between employer and employee. Reports on mental health and well-being show that 81% of respondents consider workplace care for people's mental health in the long term as a very important factor in choosing a workplace.

This presentation provides an insight into the challenges that human resources and business managers are facing today. The aim is to analyze the causes of the current situation, to offer solutions and invite for discussion on how successfully take care of the most important resource, while not forgetting about the fulfillment of business goals

## **Management Activities of the Publishing House “Helvetica” to Support the Ukrainian Academic Community During the Russia-Ukraine War**

Helvetica Publishing group unites 9 academic publishers and 2 research organizations.

Publishing House “Helvetica” (founded in 2012) is currently one of the leading international scholarly publishers in Eastern Europe. It focuses on domestic and foreign periodicals. We publish the most scientific journals in Ukraine – more than 200. The publishing house regularly launches various scientific-editorial projects in cooperation with foreign universities and publishers.

Oldi+ is a Ukrainian publisher established in 2000 in Kherson. It focuses on the publication of academic and scientific books.

“Baltija Publishing” is a Latvian publisher established in 2014 in Riga. It focuses on the publication of foreign scholarly periodicals and books (collective and individual monographs and textbooks) and the organization of international conferences on different sciences.

“Liha-Pres” is a Ukrainian-Polish publishing house established in 1996 in Lviv. It actively cooperates with European and Ukrainian higher education institutions. “Liha-Pres” focuses on publishing scholarly contributions (collective and individual monographs).

“Juridica” is a Ukrainian publishing house established in 2022. It focuses on legal literature (textbooks, study guides, monographs).

“Young Scientist” deals with publishing the journal “Young Scientist” and the organization of international scientific-practical conferences.

“University Book” is a Ukrainian publishing house established in 1999 in Sumy. It publishes academic and scientific literature.

“TakiBook” is a book printing house established in 1995 in Odesa. It cooperates with Odesa authors and publishing houses, as well as ones from different regions of Ukraine, near and far abroad.

“Asiatica” was established in 2022. It focuses on publishing books devoted to the Orient. Ginkgo biloba is the publisher's symbol.

Center for Ukrainian and European Scientific Cooperation is a non-governmental organization established in 2010. CUESC priorities are the organization of international scholarly conferences and academic internships in the EU countries and institutional visits for domestic undergraduate and postgraduate students and young scientists.

Black Sea Research Institute of Economy and Innovation is an independent research establishment which aims to contribute to the integration development of economic science and business and search for new approaches to managing socio-economic systems amidst the European integration processes.

The team was kept in full (70 employees). After Kherson's occupation, it was decided to establish a backup printing house. The backup printing house of the Publishing House “Helvetica” is being developed in Drohobych. On November 11, 2022, Kherson was liberated. We are looking forward to resuming the work of the head printing house.

About 400 domestic academic periodicals were arranged and published. Ukrainian scientists published their contributions in 8 Polish periodicals free of charge thanks to partner support – Wydawnictwo Adam Marszałek. We assist editorial groups affected by military invasion by rendering free services. 28 partnership agreements were signed with Ukrainian periodicals. Authors can publish two articles free of charge before the end of 2023. We keep supporting every scientist during a tough time!

Together with the Ministry of Education and Science of Ukraine, it was implemented a project “Special issues of scientific journals devoted to European integration”. Purpose of the Special issues of scientific journals devoted to European integration: Popularization of the introduction of the European integration subject in research in various science fields of scientists, higher education institutions, and scientific establishments of Ukraine. Target audience: Academic and research staff of HEIs and scientific establishments, practitioners, undergraduate, postgraduate and postdoctoral students, and everyone interested in European integration. Funding: All costs associated with the publication of special issues under the project were covered by the Publishing House “Helvetica”. Specialties/subject areas covered by periodicals: Pedagogy. Social Work. Culture and Arts. History and Archaeology. Philosophy. Philology. Political Science. Economics and Management. Psychology. Philology. Journalism. Law Enforcement. International Law. Law. Public Management and Administration. More than 300 peer-reviewed articles on European integration were published in special issues.

A collective monograph “The Russian-Ukrainian War (2014 – 2022): historical, political, cultural-educational, religious, economic, and legal aspects” was printed.

More than 250 scientists published for free their contributions devoted to Russia’s invasion of Ukraine, its influence on every life area, and prospects for the post-war restoration and development of Ukraine. The collective monograph consists of 180 sections.

We hope for the best for our country and wish all a speedy victory! Let’s keep working!

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## **The role of Lithuanian Administrative Courts in Protecting Privacy VIA Data Protection Regime**

The need for legal protection of individual privacy in the context of automatic data processing became important with the development of the first large scale computers.

For a long time, Article 8 of the European Convention on Human Rights entangled the right to personal data with the right to privacy. The Charter of Fundamental Rights of the European Union recognized the right to data protection after the Lisbon Treaty came into force (2009). Starting then, this right received the status of autonomous fundamental right and was separated from the right to privacy.

In a globalized world the effectiveness of full economic and strategic value of European internal market depends, amongst other things, on the free flow of information. So, harmonization and more legal certainty and security for the stakeholders is of the biggest value. The EU market must be able to act as one on the international level, so the General Data Protection Regulation (GDPR) is a very important legal instrument for ensuring even economic goals. GDPR gives a direct effect without any need of transposition. The aim to contribute to an easier flow of information within the internal market as well as to achieve a greater legal certainty and security. Member states are under the obligation to make every effort to see that EU law is applied correctly and uniformly within each state.

Moreover, the Regulation is applied to controllers not established in the EU if they offer goods or services or monitor the behavior of data subjects, residing in EU.

The presentation will introduce data protection legislation, the main General Data Protection Regulation's provisions, especially concerning "data processing" and "data controller" concepts, the conditions for lawful data processing and other principles which must be observed during data processing process.

Another important point of this presentation is to present the case law of national courts of the Republic of Lithuania in the field of data protection and their functions in ensuring the uniform appliance of the General Data Protection Regulation.

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## **Macroeconomic Contribution to Sharing Economy Development: A Perspective from the Tourism Sector**

As global economic landscapes undergo rapid transformation, the sharing economy has emerged as an influential player, particularly evident within the tourism industry. This research endeavors to delve deeply into the myriad ways in which macroeconomic variables affect the evolution of the sharing economy in the tourism domain, harnessing the insights and expertise of industry professionals.

To achieve a thorough understanding, the study utilized an expert elicitation method, comprising structured expert interviews. Key figures from both the macroeconomic analysis domain and the tourism-sharing economy nexus were selected, offering a balanced and comprehensive perspective. Each expert was presented with a series of scenarios and questions designed to gauge the influence of various macroeconomic factors on the sharing economy's development within tourism.

The elicitation process allowed the creation of a weighted assessment system, with coefficients assigned based on collective expert opinion. This system facilitated a granular understanding of how distinct macroeconomic elements, such as global fiscal policies, technological advancements, labor market shifts, and broader economic trends, potentially drive or impede the sharing economy's momentum in the tourism sector.

A salient revelation from the findings was the paramount importance of the socio-cultural and economic environment in steering the sharing economy's direction in tourism. Notably, while all macroeconomic factors played a part, certain determinants stood out in their perceived influence, as highlighted by the expert cohort.

This research significantly augments existing literature by offering a meticulous macroeconomic lens on the sharing economy-tourism interplay, an angle previously underrepresented. The insights gleaned hold profound implications for policymakers, strategists, and industry practitioners, underscoring the necessity of tailoring strategies in alignment with macroeconomic indicators and expert insights.

In summation, this research underscores the symbiotic relationship between global economic dynamics and niche industry growth patterns. As tourism leans ever more into shared economic models, understanding these macroeconomic interplays becomes imperative, with this study serving as a foundational beacon for future explorations and strategic formulations.

## **The Impact of Macroeconomic Factors on the Performance of the Construction Sector in Lithuania**

The construction sector is closely related to the economic situation in the country. The main products of this sector are residences, business structures. Demand for these products is highest when the economic situation in the country is good, but when the economy slows down, the demand for these products also falls. This is because when the economic situation is good the population has spare money, loans are cheaper, and the risk of job loss is low. This leads to an increase in the rate of growth of residential construction, as there is more demand for this product. Similarly, businesses are expanding due to increased sales, higher demand, and the resulting increase in non-residential construction. Therefore, to maximize the performance of the Lithuanian construction sector, it is important to keep an eye on the macroeconomic environment and to understand when the economy offers opportunities and when it brings threats. To this end, the construction sector and the macroeconomic environment are analyzed, the theory of economic cycles and the impact of macroeconomic factors on the construction sector is analyzed, and an empirical study of the impact of macroeconomic factors on the construction sector is carried out. An analysis of the scientific literature on business cycles and the main macroeconomic factors that affect the performance of the construction sector. Economic cycles are closely linked to construction performance. The boom or peak phases of the economy provide opportunities for the construction sector, while the recession and crisis phases bring threats. Understanding potential threats or opportunities maximizes performance, and this understanding requires an analysis of macroeconomic factors. Therefore, the main macroeconomic factors to be considered when analyzing both the changes in economic cycles and the factors that directly affect the construction sector are identified. The main factors identified are aggregate demand, employment levels, corporate profits, import levels, interest rates, gross domestic product. However, it is also very important to analyze the existence of a real estate bubble, especially in the construction sector. An empirical study has been carried out to analyze the relationship between the identified macroeconomic factors and the construction sector in Lithuania. For this purpose, the Eviews software is used to construct a correlation matrix, regression models, find the elasticity coefficient and forecast.

## **The Relationship Between Torrenting and Streaming Services**

One of the goals of the research was to assess the situation of torrenting and streaming services in Hungary, and on the other hand, to reveal the cause-and-effect relationships that make the respondents choose one or the other, or possibly both types of content, and, to provide a survey of general consumption patterns. The research was carried out according to the traditional procedure, after the secondary research, qualitative and then quantitative research followed. During the qualitative research, it was an important aspect to choose subjects with different educational qualifications and different incomes, and after the selection, during the research, they were interviewed one by one. The quantitative research was done with the help of a Google questionnaire, the goal was to create a sample of at least 200 people. During the research, it was revealed that the respondents are very sensitive to price. Among those interviewed, there are those who use both streaming services and torrenting, but in the market for films and series, HBO Go is used by most. From the point of view of the music industry, it appears that most respondents do not use streaming services, and most respondents access music tracks through torrenting. From the point of view of the game industry, Steam has been the most chosen service provider since its release in 2004, but new entrants to the game industry market can very easily gain serious recognition. Users consider torrenting to be a safe solution for trying out a given program before making any purchases. Further research can examine the processes in specific sectors in a genre-specific manner regarding torrenting and streaming services, considering, for example, the product sample effect. It is hoped that this research will provide an opportunity to explore the conditions of streaming and torrent services in Hungary, and if a larger sample is taken, it can provide a more accurate picture of the evolution of market processes.

## **The intersection of AI and Human Creativity: Can Machines Truly Embody Creativity?**

Creativity has long been the defining trait that sets humans apart from machines. However, a new wave of generative artificial intelligence (AI) applications is challenging this boundary. Tools like ChatGPT and Dall-E create the illusion of performing creative tasks that closely resemble human capabilities. Consider a machine generating a captivating painting or composing a poem that seems remarkably human. But does this imply that computers are genuinely creative, or are they merely replicating patterns and colors they've learned from data? This presentation refrains from taking a deterministic stance and instead fosters an open discussion about the intersection of AI and human creativity.

To dive into this complex and philosophical question, we first need to define creativity. Oxford Dictionary defines it as "The use of imagination or original ideas to create something." It's a concept closely linked to our capacity for generating novel ideas, rooted in imagination. For example, a writer crafting unique characters and storylines through their vivid imagination is often seen as a prime example of creative expression. Human creativity often arises from making associations, drawing from observations, experiences, and knowledge to develop unique ideas and perspectives.

Enter generative AI, powered by machine learning algorithms that acquire principles from extensive training data. These algorithms then generate novel outputs based on predefined rules and patterns in response to prompts. For instance, OpenAI's GPT-4, with its trillion parameters, can simulate human-like text generation. However, the question remains: does this constitute true creativity, or is it a replication of human creative processes?

We must also consider ethical implications, such as intellectual property and bias in AI-generated content. These concerns need open dialogue to ensure responsible AI integration in creative domains.

In the end, distinguishing between human and machine creativity presents an ongoing philosophical debate. Is machine creativity an authentic wellspring, or is it merely an illusion replicating human ingenuity? This presentation invites you to join an open discussion, where diverse perspectives converge at the fascinating intersection of AI and human creativity.

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### **Asia - a Leader in Building Smart Cities**

This study presents a comprehensive overview of the various aspects of the development of smart cities from Asian perspective. The main purpose of the study is to present the issue of smart city problematics and the Asian perspective in the context of innovation and quality of life in urban areas. The idea is also to illustrate the many potential benefits, which range from technology-led initiatives such as open data and integrated ICTs to using their application to enhance “traditional” areas, such as education and the environment.

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