



Carpathian Logistics Congress

Congress Programme

December, 2nd-4th 2019

Hotel Tatra, Zakopane, Poland, EU



VSB TECHNICAL
UNIVERSITY OF OSTRAVA



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Agnieszka FELIKS, M.Sc

WELCOME RECEPTION

Dec 1st 2019, Main Corridor

18:00 – 19:30 Registration

CONFERENCE OPENING

Dec 2nd 2019, Main Conference Hall A

10:15 – 10:30 Prologue

Prof. Jerzy FELIKS., Prof. Radim LENORT, Prof. Martin STRAKA

PLENARY SESSION

Dec 2nd 2019, Main Conference Hall A

10:30 – 13:00 Invited Lectures

Chairwoman: *Prof. Maja KIBA-JANIAK*

PL1	Josu TAKALA	University of Vaasa, Finland	<i>Validating a decision making method basing on technology and knowledge priorities for sustainable strategies for innovative start-ups</i>
PL2	Tadeusz SAWIK	AGH University of Science and Technology Cracow, Poland	<i>Supply chain disruption management using multi-portfolio approach</i>
PL3	Lech BUKOWSKI	The University of Dabrowa Górnicza, Dabrowa Górnicza, Poland	<i>Ensuring supply continuity using an extended risk matrix. Can the proportion expressing the nature beauty support a risk assessment?</i>

INVITED SPEAKERS



Prof. Josu TAKALA
University of Vaasa, Finland

Prof. Tadeusz SAWIK

AGH University of Science and Technology Cracow, Poland



Prof. Lech BUKOWSKI
The University of Dabrowa Górnicza, Dabrowa Górnicza, Poland

13:00 – 14:30 Lunch

SESSION A (TRENDS IN LOGISTICS)

Dec 2nd 2019, Conference Hall A

14:30 – 16:30 Lectures

Chairman: prof. **Dušan MALINDZAK**

1. FORMÁNEK Ivo

PERFORMANCE INSTABILITY OF LOGISTICS PROCESSES AND THEIR IMPACT ON MANUFACTURING COMPANIES

Vysoká škola podnikání a práva, a.s., Praha, Czech Republic, EU

Co-authors **Vozňáková Iveta**

2. TENGLER Jiří

LOCALIZATION OF TRANSPORT AND LOGISTIC UNITS THROUGH ELEMENTS OF THE INTERNET OF THINGS

University of Žilina, Žilina, Slovakia, EU

Co-authors **Sláva Gašparová, Andrej Dávid**

3. JARZĘBOWSKI Sebastian

SHORT SUPPLY CHAIN MANAGEMENT - CONCEPTUAL FRAMEWORK

Kozminski University, Warsaw, Poland, EU

4. KIBA-JANIAK Maja

SUPPLY CHAIN MANAGEMENT IN JAPANESE COMPANIES LOCATED IN POLAND - CASE STUDIES

Wrocław University of Economics and Business, Jelenia Góra, Poland, EU

Co-authors **Baraniecka Anna, Witkowski Jarosław**

5. ŻAK Jacek

NEW SILK ROUTE AS A GLOBAL LOGISTICS CHAIN/ CORRIDOR

Poznań University of Technology, Poznań, Poland, EU

6. ALAZZAWI Ali

DESIGN AND EVALUATION OF LAST MILE TRANSPORTATION/ LOGISTICS SOLUTIONS. A CASE STUDY OF POZNAN CITY, POLAND.

Poznań University Of Technology, Poznań, Poland, EU

Co-authors **Wojciech Pańka, Justyna Polcyn, Jacek Żak**

7. BOICHUK Nataliia

SUSTAINABLE LOGISTICS: A FRAMEWORK FOR GREEN CITY LOGISTICS - EXAMPLES OF POLISH CITIES

Opole University, Opole, Poland, EU

Co-authors **Sabina Kauf**

SESSION B (TRANSPORT AND WAREHOUSE MANAGEMENT)

Dec 2nd 2019, Conference Hall B

14:30 – 16:30 Lectures

Chairman: Prof. **Agnieszka TUBIS**

1. HUSINEC Michal

USING THE EOQ PRINCIPLE FOR EFFICIENT VEHICLE UTILIZATION

Czech University Of Life Sciences, Prague, Czech Republic, EU

Co-authors **Šubrt Tomáš, Fejfar Jiří**

2. KARKULA Marek

COMPARISON OF CAPABILITIES OF RECENT OPEN SOURCE TOOLS FOR SOLVING CAPACITATED VEHICLE ROUTING PROBLEMS

AGH University of Science and Technology, Cracow, Poland, EU

Co-authors **Duda Jerzy, Skalna Iwona**

3. LASKOWSKA-RUTKOWSKA Aleksandra

TRANSFORMATION OF NATIONAL AIRPORT SYSTEM TOWARDS HUB AND SPOKE MODEL - THE

CASE STUDY OF POLAND

Lazarski University, Warsaw, Poland, EU

4. **HANCZAR Paweł**

TRAIN CREW SCHEDULING: A NOVEL MATHEMATICAL MODEL AND SOLUTION ALGORITHM

Wrocław University of Economics and business, Wrocław, Poland, EU

Co-authors **Arash Zandi**

5. **BIERNIKOWICZ Wiktor**

THE ROLE AND IMPORTANCE OF RAIL TRANSPORT IN THE PROCESS OF DEPLOYMENT OF NATO FORCES - CASE STUDY

General Tadeusz Kosciuszko Military University of Land Forces Wrocław, Wrocław, Poland, EU

Co-authors **Kowalski Kazimierz, Ryczyński Jacek, Szukalski Maciej**

6. **NEHRING Karol**

MODELLING OF CONTAINER TRAIN HANDLING IN THE LAND INTERMODAL TERMINAL

Politechnika Warszawa, Poland, EU

Co-authors **Jachimowski Roland**

7. **MARSZEWSKA Joanna**

IMPACT OF NATURAL DISASTER RISKS ON JAPANESE SUPPLY CHAINS

Jagiellonian University Poland, EU

16:30 – 17:00 Coffee break

SESSION C (PRODUCTION LOGISTICS)

Dec 2nd 2019, Conference Hall A

17:00 – 18:15 Lectures

Chairman: *Prof. Lech BUKOWSKI*

1. **MICHLOWICZ Edward**

LOGISTICS ENGINEERING IN INDUSTRY 4.0 AND DIGITAL FACTORY 2.0 SYSTEMS

AGH University of Science and Technology, Cracow, Poland, EU

2. **KOWALCZYK Małgorzata**

CRITICAL PATH VALUE ESTIMATION METHOD TAKING INTO ACCOUNT THE SKEWNESS OF PERT DISTRIBUTIONS

AGH University of Science and Technology, Cracow, Poland, EU

Co-authors **Zwolińska Bożena**

3. **BARTOSEK Vladimír**

LOGISTIC CONCEPTION IN THE CONDITIONS OF CIRCULAR ECONOMY

Brno University of Technology, Brno, Czech Republic, EU

Co-authors **Jurova Marie**

4. **MALINDŽÁK Dušan**

THE ORDERS LOGISTICS IN INDUSTRY 4.0

Technical University in Kosice, Kosice, Slovakia, EU

Co-authors **Mačuga Daniel, Pacana Andrzej**

SESSION D (CROSS-FUNCTIONAL LOGISTICS AND SUPPLY CHAIN DRIVERS)

Dec 2nd 2019, Conference Hall B

17:00 – 18:30 Lectures

Chairman: *Prof. Sylwia WERBIŃSKA-WOJCIECHOWSKA*

1. **WINCEWICZ-BOSY Marta**

INTERNATIONAL LOGISTICS AS PART OF NATO EXERCISES ON THE EXAMPLE OF ANACONDA 2016

General Tadeusz Kosciuszko Military University of Land Forces Wrocław, Wrocław, Poland, EU

Co-authors **Mańkowska Maria**

2. **PATERAK Sławomir**

FOOD PRODUCTS AS AN ELEMENTY OF MILITARY LOGISTICS ON THE EXAMPLE OF THE LAND FORCES ACADEMY

General Tadeusz Kosciuszko Military University of Land Forces Wrocław, Wrocław, Poland, EU

Co-authors **Marta Winciewicz-Bosy**

3. CHAMRADA Daniel

POSSIBILITIES OF EFFECTIVE USE OF EMERGENCY LOGISTICS APPLYING THE INCEPTION PHASE IN DISASTER MANAGEMENT

Czech University of Life Sciences Prague, Prague, Czech Republic, EU

Co-authors **Subrt Tomas**

4. MILEWSKI Radosław

NON-PRICE CRITERIA FOR ASSESSING SUPPLIERS' OFFERS IN SUPPLY LOGISTICS

General Tadeusz Kościuszko Military Academy of Land Forces (MULF), Wrocław, Poland, EU

Co-authors **Kwiatkowski Michał**

5. DALEWSKA Izabela

ECONOMIC PERFORMANCE AS AN INDICATOR OF ORGANIZATION FUNCTIONS EFFECTIVENESS - LITERATURE REVIEW.

Kozminski University, Warszawa, Poland, EU

Co-authors **Sebastian Jarzębowski**

6. KIBA-JANIAK Maja,

CHALLENGES FOR CITY LOGISTICS IN SELECTED AUSTRALIAN CITIES

Co-authors **Russell Thompson**

20:00 – 02:00 – Gala dinner – Tatra Hotel – Hall A

Tuesday Dec 3rd 2019

ACCOMPANING PROGRAMME

Dec 3rd 2019

8:00 – 9:00 Breakfast

9:15 – 13:00 Accompanying Programme MEETING AT THE HOTEL'S PARKING 9.15 AM

13:00 – 14:30 Lunch

POSTER SESSIONS 1, 2

Dec 3rd 2019, Floor 1, Floor 2

15:00 – 16:30 Poster Session

Chairman: Prof. Edward MICHLOWICZ

Start of the poster session in the hall B

The poster session will be held December 3rd 2019 from 15:00. Poster sizes: preferred size A1 -594 mm (width) × 841 mm (height), maximum size – B1 - 707 mm (width) × 1000 mm (height) in vertical arrangement. **Before the start of the session, authors should put up posters in designated places.**

P01 CHAMIER-GLISZCZYŃSKI Norbert

Innovative aspects of robotics in the service of Logistics 4.0

Koszalin University of Technology, Warsaw University of Technology, Koszalin, Poland, EU

Co-authors **Kostrzewski Mariusz**

P02 DUDEK Marek

Leagile model of the World Class Manufacturing System

AGH University of Science and Technology, Cracow, Poland, EU

P03 KUTÁČ Josef

Allocation of overhead logistics costs and other supporting activities to primary activities of manufacturing enterprises

VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU

Co-authors **Kutáč Josef, Kutáč Tomáš, Janovská Kamila, Švecová Eva**

P04 SAMOLEJOVÁ Andrea

Application of Ergonomic Methods in the Production Workplace
VŠB - Technical University of Ostrava, Ostrava, Czech Republic, EU
Co-authors **Lampa Martin; Hrubá Dominika**

P05 PRZYBYLSKA Edyta

Determinants of rail freight development in the context of intermodality priorities
Silesian University of Technology, Gliwice, Poland, EU
Co-authors **Kramarz Marzena**

P06 KRAMARZ Marzena

Scenarios for the development of rail freight in Poland
Silesian University of Technology, Gliwice, Poland, EU
Co-authors **Przybylska Edyta, Burdzik Rafał**

P07 MARCINKOWSKI Jakub Mateusz

Framework for modelling the measurement of dysfunctions in B2B relations in the supply chain
Wroclaw University of Economics and Business, Jelenia Gora, Poland, EU
Co-authors **Kutzner Iwona**

P08 ŠAFRÁNEK Marek

Greening of Fleet in Transport Company of Ostrava
VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU
Co-authors **Vozňáková Iveta, Formánek Ivo**

P09 STAWIARSKA Ewa

Risk Management in Automotive Supply Chains in Poland
Silesian University of Technology, Zabrze, Poland, EU

P10 HRUBÁ Dominika

Opportunities and Threats of Industry 4.0 for Human Resource Management
VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU
Co-authors **Samolejova Andrea**

P11 LENORT Radim

Logistics Maturity Models - State of the Art and Critical Evaluation
VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU

P12 LAMPA Martin

Using the Monte Carlo Method to Optimize Maintenance
VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU
Co-authors **Samolejová Andrea**

P13 BURCHART-KOROL Dorota

DEVELOPMENT OF ALTERNATIVE TRANSPORT FUELS PATHWAYS TOWARDS SUSTAINABLE MOBILITY
Silesian University of Technology, Katowice, Poland, EU

P14 DOHN Katarzyna

Scenarios for the development of the inland waterways transport in Poland
Silesian University of Technology, Gliwice, Poland, EU
Co-authors **Lilla Knop, Żebrucki Zbigniew**

P15 ŻEBRUCKI Zbigniew

Risk management in maritime container transport
Silesian University of Technology, Gliwice, Poland, EU
Co-authors **Kruczek Mariusz**

P16 PUSKAS Dominik

Implementation of RFID technology for waste disposal vehicles
Technical university of Kosice, Institute of Logistics, Kosice, Slovakia, EU
Co-authors **Marcela Malindžáková**

P17 DENDERA-GRUSZKA Małgorzata

ANALYSIS OF DETERMINANTS AFFECTING THE TRANSFORMATION OF SUPPLY CHAINS

Politechnika Opolska, Opole, Poland, EU

Co-authors *Kulińska Ewa*

P18 SZUKALSKI Maciej

Accident Rate in the Transport of Dangerous Goods in the Lower Silesian Voivodeship.

Military University of Land Forces, Wrocław, Poland, EU

Co-authors *Biernikowicz Wiktor, Kowalski Kazimierz, Ryczyński Jacek*

P19 KOŁAKOWSKI Tomasz

Heterarchy as an important problem of the project teams functioning within supply chains

Wrocław University of Economics and Business, Jelenia Góra, Poland, EU

Co-authors *Jagoda Agnieszka*

P20 JAN Filipczyk

Road safety of the transport of dangerous goods - some aspects

Politechnika Śląska, Wydział Transportu i Inżynierii Lotniczej, Katowice, Poland, EU

P21 RYDLEWSKI Mateusz

Assessment of possibilities of using bike-sharing systems in the tourist aspect

Wrocław University of Science and Technology, Wrocław, Poland, EU

Co-authors *Tubis Agnieszka, Skupień Emilia*

P22 TUBIS Agnieszka

Inventory control system for products with high demand volatility

Wrocław University of Science and Technology, Wrocław, Poland, EU

P23 WOLNIEWICZ Łukasz

Readability tests of passenger information systems

Wrocław University of Science and Technology, Wrocław, Poland, EU

Co-authors *Restel Franciszek J.*

P24 HAŁADYN Szymon

The concept of restoring rail traffic on local railways in mountain areas

Wrocław University of Science and Technology, Wrocław, Poland, EU

Co-authors *Restel Franciszek J.*

P25 KIERZKOWSKI Artur

A Multi-Criteria Model for the Assessment of the Checked Baggage Claim Process at the Airport

Wrocław University of Science and Technology, Wrocław, Poland, EU

Co-authors *Kisiel Tomasz*

P26 MASŁOWSKI Dariusz

Preventing urban transport problems through the use of sustainable and smart logistics

Politechnika Opolska, Opole, Poland, EU

Co-authors *Kulińska Ewa*

P27 SVOZIL Martin

Establishing the Cellular Manufacturing of Heating Sets - Case Study

VŠB - Technical University of Ostrava, Ostrava, Czech Republic, EU

Co-authors *Lenort Jana*

P28 KULIŃSKA Ewa

Production liquidity - as the key logistics category

Opole University of Technology, Opole, Poland, EU

P29 MAŁKUS Tomasz

ASSUMPTIONS FOR THE REGULATION OF OPERATIONS IN REVERSE LOGISTICS

Cracow University of Economics, Cracow, Poland, EU

P30 RYCYŃSKI Jacek

System of monitoring and quality control of liquid fuels in Poland - conceptual model
Military University of Land Forces MULF Poland, Wrocław, Poland, EU
Co-authors **Wiktor Biernikowicz, Kazimierz Kowalski, Maciej Szukalski**

P31 PISZ Iwona

Corporate Social Responsibility in supply chain
Opole University, Opole, Poland, EU
Co-authors **Sabina Wyrwich-Płotka**

P32 JACHIMOWSKI Roland

Modelling of container train handling in the land intermodal terminal
Wydział Transportu Politechnika Warszawska, Warszawa, Poland, EU
Co-authors **Nehring Karol**

P33 DĄBROWSKA Alicja

Order picking system analysis for e-commerce enterprise on the basis of simulation model
Wrocław University of Science and Technology, Wrocław, Poland, EU
Co-authors **Giel Robert, Plewa Marcin**

P34 KAČMÁRY Peter

Development and possibilities of demand forecasting of the beverage cans reflecting the consumption of selected beverage cans from the manufacturer's point of view.
Technical University of Košice, Košice, Slovakia, EU
Co-authors **Daňko Adrián**

P35 WERBIŃSKA-WOJCIECHOWSKA Sylwia

FUZZY APPROACH TO SUPPLY CHAIN RISK ASSESSMENT. CASE STUDY
Wrocław University of Science and Technology, Wrocław, Poland, EU
Co-authors **Maciej Chlebus**

P36 TOMAŠTÍK Marek

Transportation of Art Objects and their Risks
Tomas Bata University in Zlín, Zlín, Czech Republic, EU
Co-authors **Víchová Kateřina, Wagnerová Daniela, Černohlávková Eva**

P37 SOFRANKO Marian

The design of software solution for transport control and organization in the quarry using principles of logistics
Technical University of Kosice, Kosice, Slovakia, EU
Co-authors **Vegsoova Olga, Sulovec Vladimir, Beca Jan, Suver Martin**

P38 JAKUBIAK Michal

The concept of minimizing master data in the production planning process on the example of ERP and APS software
Wrocław University of Economics and Business, Wrocław, Poland, EU

P39 ZWOLIŃSKA Bożena

Value at Risk level determination for two intercorrelated random variables
AGH University of Science and Technology, Cracow, Poland, EU

P40 ROSOVA Andrea

The material flow simulation of custom production of treatment machines for mining activities
Technical University of Kosice, Košice, Slovakia, EU
Co-authors **Khoury Samer, Sofranko Marian, Małkus Tomasz, Paska Martin, Ondov Marek**

P41 MICHALSKI Paweł

Impact of relationships in the supply chain on the success of a construction project
Wrocław University of Economics and Business, Wrocław, Poland, EU

P42 VEGSOOVA Olga

The characteristics of the logistics system to minimize air transport incidents
Technical University of Kosice, Kosice, Slovakia, EU

Co-authors **Kacmary Peter, Gallo Peter, Betus Miroslav**

P43 BOICHUK Nataliia

SUSTAINABLE LOGISTICS: A FRAMEWORK FOR GREEN CITY LOGISTICS - EXAMPLES OF POLISH CITIES

Opole University, Opole, Poland, EU

Co-authors **Kauf Sabina**

P44 BINDZÁR Peter, MAČUGA Daniel

PROPOSALS FOR DEVELOPMENT OF KOŠICE'S INTEGRATED TRANSPORT SYSTEM BASED ON MULTI-CRITERIA DECISION-MAKING

Technical University of Kosice, Košice, Slovakia, EU

P45 KOWALSKI Kazimierz

LOGISTICS ASPECTS OF WEAPON SYSTEMS MODERNIZATION

general Tadeusz Kosciuszko Military University of Land Forces, Wrocław, Poland, EU

Co-authors **Wiktor Biernikowicz, Jacek Ryczynski, Maciej Szukalski**

P46 BESTA Petr

CURRENT REQUIREMENTS OF METALLURGICAL PRODUCTION ON THE USE OF LOGISTIC TOOLS IN PROCESS OPTIMIZATION

VSŠ - Technical University of Ostrava, Ostrava, Czech Republic, EU

Co-authors **Bezecný Jan**

16:30 – 17:00 Coffe Break

SPECIAL SESSION – Polish language

Dec 3rd 2019, Conference Hall B

17:00 – 18:00

Chairmen: *Prof. Marek KARKULA*

Prezentacja publikacji uczestników konferencji oraz dyskusja na temat sposobów i możliwości publikowania efektów prac naukowych w obszarze logistyki w Polsce.

18:00 – 18:45 MATERNOWSKA Malgorzata, FELIKS Jerzy

CYFROWA TRANSFORMACJA W FIRMACH PRODUKCYJNYCH. SZANSA CZY ZAGROŻENIE?

POTENCJAŁ ROZWOJU I WDRAŻANIA W POLSCE TECHNOLOGII KOLEI PRÓŻNIOWEJ W KONTEKŚCIE SPOŁECZNYM, TECHNICZNYM, EKONOMICZNYM I PRAWNYM – PROGRAM GOSPOSTRATEG.

INNOWACYJNA TECHNOLOGIA MASOWEJ PRODUKCJI MEBLI KASTOMIZOWANYCH HANDCRAFT POLSKA SP. Z O.O. - PROGRAM OPERACYJNY INTELIGENTY ROZWÓJ.

**19:30 – Regional dinner – BUS
MEETING AT THE HOTEL'S PARKING
DEPARTURE OF THE BUS AT 19:15
BUS RETURN AT 22:30 and 23:30**

CLOSING SESSION – CLOSING THE CONGRESS

Dec 4th 2019, Conference Hall A

Chairman: *Prof. Jerzy FELIKS*

10:30 – 12:00

Summary and Conference Closing

12:00 – Lunch

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CONFERENCE SCHEDULE

Dec 2 nd 2019	08:00 – 12:00	Registration	
		Main Conference Hall A	
	10:00 – 10:30	CONFERENCE OPENING	
	10:30 – 13:00	PLENARY SESSION – INVITED LECTURES	
	13:00 – 14:30	Lunch	
		Hall A	Hall B
	14:30 – 16:00	SESSION A	SESSION B
	16:30 – 17:00	Coffee break	
	17:00 – 18:30	SESSION C	SESSION D
	20:00 – 2:00	Gala dinner	
Dec 3 rd 2019	09:00 – 13:00	Accompanying Programme	
	13:00 – 14:30	Lunch	
		Floor 1	Floor 2
	14:30 – 16:30	POSTER SESSION 1	POSTER SESSION 2
	16:30 – 17:00	Coffee break	
	17:00 – 18:30	TLM SESSION - Hall B	
	19:30 –	Regional dinner	
Dec 4 th 2019		Hall B	
	10:30 – 12:00	CLOSING OF THE CONGRESS	
	12:00 –	Lunch	

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