

Preliminary Program TP'2022

Symposium Program

Sessions	ZOOM (password for all sessions: TP2022)
1	https://polsl-pl.zoom.us/j/97591996578?pwd=bjVnYnZMaE5SUEJRcVlqSVExZ2g2dz09
2	https://polsl-pl.zoom.us/j/97591996578?pwd=bjVnYnZMaE5SUEJRcVlqSVExZ2g2dz09
3	https://polsl-pl.zoom.us/j/97591996578?pwd=bjVnYnZMaE5SUEJRcVlqSVExZ2g2dz09
4	https://polsl-pl.zoom.us/j/97591996578?pwd=bjVnYnZMaE5SUEJRcVlqSVExZ2g2dz09

Monday, 27th June 2022

Katowice, Faculty of Transport and Aviation Engineering

9⁰⁰ – 10⁰⁰ Registration
*Katowice, Faculty of Transport and Aviation Engineering,
Kraśińskiego 8, room 110*

10⁰⁰ – 11³⁰ **Session no. 1**
*Katowice, Faculty of Transport and Aviation Engineering,
Kraśińskiego 8, room 120*

Chairman – Dr. habil. Maria Cieśła

10⁰⁰ – 10⁰⁵ Open speech
*Aleksander SŁADKOWSKI, Chairman of the International
Scientific Committee*

10⁰⁵ – 10¹⁵ Questions of organization of the Symposium TP'2022
Grzegorz WOJNAR, Chairman of the Organizing Committee

10¹⁵ – 10³⁰ THE DIVERSITY OF SORPTION PROPERTIES OF
RICE DURING MARITIME TRANSPORT AS AN
ELEMENT OF RISK ASSESSMENT IN THE
LOGISTICS PROCESS

Anna FLIS, Aneta OCIECZEK, Adam KAIZER

10³⁰ – 10⁴⁵ THE IMPACT OF SELECTED FACTORS ON THE
SALE OF TICKETS IN TICKET VENDING
MACHINES IN THE GZM METROPOLIS
*Elżbieta MACIOSZEK, Aleksander SOBOTA, Paulina
ŚWIERK*

10⁴⁵ – 11⁰⁰ PREFERENCES FOR CHOOSING A PARKING
SPACE BY DRIVERS USING PPZ IN A SELECTED
CITY IN POLAND

Elżbieta MACIOSZEK, Agata KUREK

11⁰⁰ – 11¹⁵ INFLUENCE OF TEMPERATURE REGIMES ON
THE WEAR OF TIRES OF MINING DUMP TRUCKS
*Aman SHAKENOV, Aleksander SŁADKOWSKI, Ivan
STOLPOVSKIH*

11 ¹⁵ – 11 ³⁰	SOLUTIONS OF TEMPORARY TRAFFIC ORGANISATION EMPLOYED IN WROCLAW <i>Magdalena SKIBA</i>
11 ³⁰ – 11 ⁴⁵	Coffee break <i>Katowice, Faculty of Transport and Aviation Engineering, Krasińskiego 8, room 110</i>
11 ⁴⁵ – 12 ⁴⁵	Session no. 2 <i>Katowice, Faculty of Transport and Aviation Engineering, Krasińskiego 8, room 120</i> Chairman – Dr. habil. Henryk Bąkowski
11 ⁴⁵ – 12 ⁰⁰	THE IMPACT OF THE SARS-CoV-2 VIRUS ON THE AVIATION INDUSTRY <i>Bartosz STOŁTNY, Grzegorz PERUŃ</i>
12 ⁰⁰ – 12 ¹⁵	METHODOLOGY OF VERIFYING THE TECHNICAL CONDITION OF AN AIRCRAFT PISTON ENGINE <i>Bartosz STOŁTNY, Grzegorz PERUŃ</i>
12 ¹⁵ – 12 ³⁰	THE IMPORTANCE OF CORRECT DETERMINATION OF THE BUS LINES RUNNING TIME IN PUBLIC TRANSPORT <i>Aleksander SOBOTA, Krzysztof DREWNIOK</i>
12 ³⁰ – 12 ⁴⁵	PUBLIC TRAFFIC SYSTEM MODELLING – PUBLIC PASSENGER TRANSPORT CASE STUDY OF CITY OF ZAGREB <i>Marijan RAJSMAN</i>
13 ⁰⁰ – 15 ⁰⁰	Lunch <i>Katowice, Academy of Music, Wojewódzka 33</i>
15 ¹⁵ – 16 ³⁰	Session no. 3 <i>Katowice, Faculty of Transport and Aviation Engineering, Krasińskiego 8, room 120</i> Chairman – Dr. habil. Damian Hadryś
15 ¹⁵ – 15 ³⁰	PROJECT OF USING A COMPUTER GAME FOR MODELING ROAD TRAFFIC IN URBAN AREAS <i>Karol KAMPA, Jakub LECH, Adam JABŁOŃSKI, Marcel GRUSZCZYŃSKI, Kamil ULMAN, Krystian SZEWCZYŃSKI</i>
15 ³⁰ – 15 ⁴⁵	DEVELOPMENT OF COMMERCIAL AIRCRAFT IN TERMS OF AIRCRAFT INTERIOR ARCHITECTURE <i>Jakub MARSZAŁKIEWICZ</i>
15 ⁴⁵ – 16 ⁰⁰	THE USE OF MACHINE LEARNING TO IMPROVE ROAD TRANSPORT MANAGEMENT PROCESSES <i>Artur BUDZYŃSKI, Aleksander SŁADKOWSKI</i>
16 ⁰⁰ – 16 ¹⁵	RESEARCH OF THE REACTION TIME TO THE LIGHT STIMULUS WITH THE USE OF A REFLEX

16 ¹⁵ – 16 ³⁰	<p>SIMULATOR <i>Sandra OMYLIŃSKA, Vanessa MARTINEZ, Magdalena ZEGAREK, Krystian SZEWCZYŃSKI</i></p> <p>THE USE OF UAVS IN THE TRANSPORT OF GOODS IN URBAN AREAS <i>Joanna GAJDZISZEWSKA, Karol PAPAJ, Kamil PAPAJ, Patryk WOJDAŁA</i></p>
16 ³⁰ – 17 ⁰⁰	<p>Coffee break <i>Katowice, Faculty of Transport and Aviation Engineering, Krasińskiego 8, room 110</i></p>
17 ⁰⁰ – 18 ³⁰	<p>Session no. 4 <i>Katowice, Faculty of Transport and Aviation Engineering, Krasińskiego 8, room 120</i></p>
	<p>Chairman - Dr. habil. Grzegorz Peruń</p>
17 ⁰⁰ – 17 ¹⁵	<p>THE IMPACT OF TRANSPORT BELTS DAMAGE ON SECURING THE LOAD ON THE VEHICLE <i>Marcin PODCZASZYŃSKI, Maciej KOREJWO, Damian HADRYŚ</i></p>
17 ¹⁵ – 17 ³⁰	<p>ASSESSMENT OF SELECTED SAFETY SYSTEMS FOR TRANSPORT WITH USING FORKLIFTS <i>Krystian FURGAŁA, Klaudia MOSUR, Sandra OMYLIŃSKA, Sylwia RAK, Damian HADRYŚ</i></p>
17 ³⁰ – 17 ⁴⁵	<p>THE CLOTHING AND EQUIPMENT OF THE CYCLIST AS SAFETY ELEMENTS WHEN USING THE BICYCLE FOR EXTREME RIDES <i>Piotr KOCIUBA, Damian HADRYŚ</i></p>
17 ⁴⁵ – 18 ⁰⁰	<p>WASTE AND POLLUTION FROM USAGE OF TRADITIONAL CAR AND HYBRID CAR <i>Agnieszka KUSZ, Paulina ROBAKOWSKA, Damian HADRYŚ, Wioletta CEBULSKA</i></p>
18 ⁰⁰ – 18 ¹⁵	<p>ASSESSMENT OF SELECTED ELEMENTS OF RAILWAY INFRASTRUCTURE WITH THE USE OF UNMANNED AERIAL VEHICLES <i>Michał BATKO, Anna BUTOR, Jarosław KONIECZNY, Krzysztof LABISZ</i></p>
18 ¹⁵ – 18 ³⁰	<p>INFLUENCE OF SIMULATION OF ATMOSPHERIC CONDITIONS CLOSE TO REAL ON THE TESTED POLYMER MATERIALS <i>Anna BUTOR, Michał BATKO, Jarosław KONIECZNY, Krzysztof LABISZ</i></p>
19 ⁰⁰ – 21 ⁰⁰	<p>Official Dinner <i>Katowice, Restaurant "Gwarek", Przemysłowa 2</i></p>

Symposium Program
Tuesday, 28th June 2022
Katowice, Gliwice, Tarnowskie Góry

8⁴⁵ – 9³⁰

Departure to Gliwice

*Katowice, Faculty of Transport and Aviation Engineering,
Kraśńskiego 8*

9³⁰ – 12⁰⁰

Sightseeing of the Gliwice Airport and Simulator Center

Lotnisko, 44-100 Gliwice

12⁰⁰ – 13⁰⁰

Departure to the Restaurant “Gołębek”

Orzech ul. Bytomska 134

13⁰⁰ – 13⁴⁵

Lunch

Orzech, Restaurant “Gołębek” Orzech ul. Bytomska 134

13⁴⁵ – 14¹⁵

Departure to the Historic Silver Mine

ul. Szczęść Boże 81, 42-600 Tarnowskie Góry

14³⁰

Sightseeing of the Historic Silver Mine

Tarnowskie Góry

16⁰⁰ – 17⁰⁰

Return to Katowice

*Katowice, Faculty of Transport and Aviation Engineering,
Kraśńskiego 8*

17⁰⁰

Symposium Closing

*Katowice, Faculty of Transport and Aviation Engineering,
Kraśńskiego 8*

Conference Program

Sessions	ZOOM (password for all sessions: TP2022)	YouTube (public)
Plenary	https://polsl-pl.zoom.us/j/95165396839?pwd=Y2ZaMUZQSTdleTI0ODNhWVpGWnFpdz09	https://youtu.be/CAYasMbPM3g
A	https://polsl-pl.zoom.us/j/95165396839?pwd=Y2ZaMUZQSTdleTI0ODNhWVpGWnFpdz09	https://youtu.be/fQ3-TqgFFs8
B	https://polsl-pl.zoom.us/j/97816134124?pwd=MitQWEg2SVdBS0tzVnZzRUM2RDRIUT09	https://youtu.be/Bm9L_Wj-C-w
C	https://polsl-pl.zoom.us/j/95165396839?pwd=Y2ZaMUZQSTdleTI0ODNhWVpGWnFpdz09	https://youtu.be/fQ3-TqgFFs8
D	https://polsl-pl.zoom.us/j/97816134124?pwd=MitQWEg2SVdBS0tzVnZzRUM2RDRIUT09	https://youtu.be/Bm9L_Wj-C-w
E	https://polsl-pl.zoom.us/j/95165396839?pwd=Y2ZaMUZQSTdleTI0ODNhWVpGWnFpdz09	https://youtu.be/iNW8drTemxM
F	https://polsl-pl.zoom.us/j/97816134124?pwd=MitQWEg2SVdBS0tzVnZzRUM2RDRIUT09	https://youtu.be/ZvJReNS0FpM
G	https://polsl-pl.zoom.us/j/95165396839?pwd=Y2ZaMUZQSTdleTI0ODNhWVpGWnFpdz09	https://youtu.be/iNW8drTemxM
H	https://polsl-pl.zoom.us/j/97816134124?pwd=MitQWEg2SVdBS0tzVnZzRUM2RDRIUT09	https://youtu.be/ZvJReNS0FpM
I	https://polsl-pl.zoom.us/j/95165396839?pwd=Y2ZaMUZQSTdleTI0ODNhWVpGWnFpdz09	https://youtu.be/sPVKBnsIQtw
J	https://polsl-pl.zoom.us/j/97816134124?pwd=MitQWEg2SVdBS0tzVnZzRUM2RDRIUT09	https://youtu.be/Do549-mgl3g

Wednesday, 29th June 2022

**FACULTY OF TRANSPORT AND AVIATION ENGINEERING
and SILESIA HOTEL IN KATOWICE**

8⁰⁰ – 9⁰⁰

Registration

*Katowice, Faculty of Transport and Aviation Engineering,
Kraśińskiego 8, room 120*

9⁰⁰ – 11³⁰

Opening Session

*Katowice, Faculty of Transport and Aviation Engineering,
Kraśińskiego 8, room 174*

9⁰⁰ – 9⁰⁵

SPEECH OPENING CONFERENCE

*Aleksander SŁADKOWSKI, Chairman of the International
Scientific Committee*

9⁰⁵ – 9¹⁰

**GREETINGS ON BEHALF OF THE SILESIA
UNIVERSITY OF TECHNOLOGY**

Arkadiusz MEŻYK

9¹⁰ – 9²⁵

**TRAINING OF STUDENTS OF THE TRANSPORT
DIRECTION AT THE SILESIA UNIVERSITY OF
TECHNOLOGY**

*Bogusław ŁAZARZ, Piotr FOLEGA, Aleksander
SŁADKOWSKI*

9²⁵ – 9³⁰

**GREETINGS TO THE CONFERENCE PARTICIPANTS
ON BEHALF OF THE CITY OF KATOWICE**

Marcin KRUPA

9³⁰ – 9⁵⁰

**PLANS FOR THE DEVELOPMENT OF PASSENGER
RAILWAY INFRASTRUCTURE IN THE CITY OF
KATOWICE**

Bogusław LOWAK

9 ⁵⁰ – 10 ⁰⁵	INTELLECTUALIZATION OF VIBRATION CONTROL OF MALFUNCTIONS IN RAIL TRANSPORT <i>Telman ALIEV, Tofig BABAYEV, Rauf GADIMOV, Narmin RZAYEVA</i>
10 ⁰⁵ – 10 ²⁵	HIGHER SANCTIONS FOR DRIVERS WHO BREAK TRAFFIC REGULATIONS <i>Szymon CZYSZ</i>
10 ²⁵ – 10 ⁴⁵	INFLUENCE OF TRACK GEOMETRY CONDITION MONITORING ON RAILWAY INFRASTRUCTURE MAINTENANCE PROCESSING <i>Gintautas BUREIKA, Gediminas VAIČIŪNAS, Dachuan SHI, Armando Carrillo ZANUY</i>
10 ⁴⁵ – 11 ⁰⁵	PREDICTION OF FINE PARTICULATE MATTER IN LOW EMISSION ZONES USING A MODIFIED NUMERICAL METHOD FOR A SYSTEM OF ORDINARY DIFFERENTIAL EQUATIONS <i>Asen ASENOV, Ivan GEORGIEV, Velizara PENCHEVA, Kremena MINEVA</i>
11 ⁰⁵ – 11 ²⁵	UNAUTHORIZED INTERFERENCE WITH THE SCR SYSTEM <i>Marcin WRÓBEL</i>
11 ²⁵ – 11 ³⁰	Questions of organization of the Conference TP'2022 <i>Grzegorz WOJNAR, Chairman of the Organizing Committee</i>
11 ⁴⁰ – 12 ¹⁵	Travel to the factory of the railway industry Alstom <i>Chorzów, ul. Metalowców 9, 41-500 Chorzów</i>
12 ¹⁵ – 14 ³⁰	Sightseeing of the factory of the railway industry Alstom <i>Chorzów</i>
14 ⁴⁰ – 15 ⁰⁰	Travel to the Silesian Hotel in Katowice <i>ul. Szybowcowa 1A, 40-502 Katowice</i>
15 ⁰⁰ – 16 ⁰⁰	Lunch Silesian Hotel in Katowice
16 ⁰⁰ – 16 ³⁰	Registration at the SILESIA HOTEL <i>ul. Szybowcowa 1A, 40-502 Katowice</i>
16 ⁴⁰ – 17 ⁵⁵	Session A “Problems of Rail Transport 1” Chairman – Dr. habil. Jarosław KONIECZNY Co-chairman – Dr. Adam MAŃKA
16 ⁴⁰ – 16 ⁵⁵	VERIFICATION OF THE SYSTEM FOR SIMULATING AND OPTIMIZING THE PASSAGE OF

	A TRAIN SET <i>Adam MAŃKA, Jarosław KONIECZNY, Krzysztof LABISZ, Piotr KISIELEWSKI</i>
16 ⁵⁵ – 17 ¹⁰	ASSESSMENT OF THE STABILITY OF A FREIGHT WAGON WHEN MOVING IN CURVED SECTIONS OF THE TRACK <i>Bahrom ABDULLAEV, Fayzitdin MUZAFFAROV, Sokhib NAMOZOV, Khamza RAKHMATOV, Farrukh MUZAFFAROV</i>
17 ¹⁰ – 17 ²⁵	RELATIONSHIP BETWEEN DELAY AND THE NEED FOR STATIONS ON SINGLE-TRACK LINES FOR TRAIN PASSING <i>Michael BAŽANT, Josef BULÍČEK</i>
17 ²⁵ – 17 ⁴⁰	CALCULATION OF THE ESTIMATED POSITION OF THE TRAIN IN GNSS DENIED CONDITIONS WITHIN THE RAILWAY NETWORK MODEL <i>Jan FIKEJZ, Tomáš DVOŘÁK</i>
17 ⁴⁰ – 17 ⁵⁵	METHOD TO VERIFY THE SAFETY INTEGRITY LEVEL OF RAIL VEHICLE CONTROL SYSTEMS <i>Grzegorz KACZOR, Maciej SZKODA, Magdalena MACHNO</i>
16 ⁴⁰ – 17 ⁵⁵	Session B “Logistic and Economic Problems 1” Chairman – Dr. habil. Krzysztof LABISZ Co-chairman – Dr. Krzysztof BIZOŃ
16 ⁴⁰ – 16 ⁵⁵	AN APPLICATION OF THE AHP METHOD FOR SUBSTANTIATION OF CLUSTER PROJECTS OF TRANSPORT AND LOGISTICS ENTERPRISES <i>Kateryna ANDRIUSHCHENKO, Valentyna SMACHYLO, Olena SHEPTUKHA, Viktoriia RUDEVSKA</i>
16 ⁵⁵ – 17 ¹⁰	ASSESSMENT OF LOGISTIC FACTORS AND FORECAST OF THEIR IMPACT ON ECONOMIC GROWTH: ON THE EXAMPLE OF KAZAKHSTAN <i>Zhanarys RAIMBEKOV, Aleksandr SLADKOWSKI, Kunduz SHARIPBEKOVA, Bakyt SYZDYKBAYEVA</i>
17 ¹⁰ – 17 ²⁵	THE IMPACT OF THE TRANSPORT SECTOR ON THE ECONOMIC DEVELOPMENT OF UKRAINE IN COMPARISON WITH THE EU COUNTRIES <i>Iryna BOZHUYDAI, Anastasiia USTILOVSKA</i>
17 ²⁵ – 17 ⁴⁰	EU FRAMEWORK PROGRAMMES: RESEARCH & INNOVATION IN THE TRANSPORT AREA <i>Tofiq BABAYEV, Khalida MELIKOVA, Sevinj BABAYEVA</i>
17 ⁴⁰ – 17 ⁵⁵	PROSPECTS FOR INTERLINKING TRANSPORT, SPATIAL, AND DEVELOPMENT PLANNING AT THE REGIONAL LEVEL IN SLOVENIA <i>Andrej GULIČ</i>

17⁵⁵ – 18¹⁵

Coffee Break

18¹⁵ – 20⁰⁰

Session C “Problems of Rail Transport 2”

Chairman – Dr. habil. Krzysztof LABISZ

Co-chairman – Dr. Krzysztof BIZOŃ

18¹⁵ – 18³⁰

IMPROVED EFFICIENCY OF DISC BRAKE WITH INTEGRATED FRICTION UNITS

Yury OSENIN, Darya KRIVOSHEYA, Vadim ANTOSHKIN

18³⁰ – 18⁴⁵

STUDY OF THE DEPENDENCE OF EFFECTIVENESS OF AUTOMATIC ROLLING STOCK WHEEL DAMAGE DETECTION SYSTEMS ON WEATHER CONDITIONS

Stasys STEIŠŪNAS, Gediminas VAIČIŪNAS

18⁴⁵ – 19⁰⁰

INVESTIGATION OF THE EFFICIENCY OF ADDITIONAL ENGINE OIL FINE FILTRATION EQUIPMENT INSTALLATION ON DIESEL TRAINS

Gediminas VAIČIŪNAS, Stasys STEIŠŪNAS

19⁰⁰ – 19¹⁵

SIMULATION METHOD FOR MEASURING THE IMPACT ENERGY OF RAIL VEHICLES EQUIPPED WITH A SOFT ABSORBER

Aleksandra LISOWSKA, Henryk SANECKI, Maciej SZKODA

19¹⁵ – 19³⁰

EVALUATION OF FATIGUE FAILURE OF DRAW HOOKS USED IN RAIL WAGONS

Henryk BAŃKOWSKI, Janusz ĆWIEK, Andrzej SOKOŁOWSKI

19³⁰ – 19⁴⁵

THE INFLUENCE OF THE TRAM OPERATION AND THE TRAFFIC LIGHTS CONTROL ON DRIVERS' BEHAVIOURS AT A MULTIMODAL INTERSECTION IN ALGERIA

Mouloud KHELFI, Salim BOUKEBBAB, Neila BHOURI

19⁴⁵ – 20⁰⁰

STIFFNESS ANALYSIS OF A RAIL IN A TRACK USING MES

Krzysztof BIZOŃ

18¹⁵ – 20⁰⁰

Session D “Logistic and Economic Problems 2”

Chairman – Dr. habil. Jarosław KONIECZNY

Co-chairman – Dr. Adam MAŃKA

18¹⁵ – 18³⁰

LOGISTICS RATINGS AND THEIR IMPACT ON CONSUMER PURCHASING BEHAVIOR IN UKRAINE

Liudmyla SLIUSAREVA, Valentyna SMACHYLO, Iryna BOZHAYDAI

18³⁰ – 18⁴⁵

ALGORITHM OF VEHICLE ROUTING OF SOLID

18 ⁴⁵ – 19 ⁰⁰	WASTE COLLECTION IN THE MEGALOPOLIS WITH FIXING LEVEL OF CONTAINERS FILLING <i>Myroslav OLISKEVYCH, Viktor DANCHUK</i> THE UNIFIED EVALUATION CRITERIA SYSTEM FOR THE SELECTION OF THE MOST PREFERABLE MODE, ROUTE AND MEANS OF TRANSPORTATION FOR OVERSIZED AND SUPER HEAVY CARGOES <i>Ričardas MALKUS, Jūratė LIEBUVIENĖ, Rima GRIŠKONIENĖ</i>
19 ⁰⁰ – 19 ¹⁵	PEDESTRIAN-FRIENDLY NEIGHBORHOODS, URBAN PLANNING AND PUBLIC HEALTH SYNERGY <i>Raed AL TAL, Enas ZAREER, Baraah MUDRAJ, Marah AL- TAWHEEL, Yazid HAMODAH</i>
19 ¹⁵ – 19 ³⁰	THE RESIDENTS OF SMALL TOWNS AS USERS OF PUBLIC TRANSPORT IN THE TIME OF COVID- 19 PANDEMIC <i>Marcin ŚWITAŁA, Agnieszka ŁUKASIEWICZ</i>
19 ³⁰ – 19 ⁴⁵	THE NUMBER OF SPARE VEHICLES DETERMINATION IN A REGULAR BUS TRANSPORT <i>Stanislav PALUCH, Juraj DUBOVEC</i>
19 ⁴⁵ – 20 ⁰⁰	PARKING FEES AND REGULATIONS AS A TRANSPORT DEMAND MANAGEMENT TOOLS <i>Leszek BYLINKO</i>
20 ¹⁵ – 22 ³⁰	Friendly meeting <i>ul. Szybowcowa 1A, 40-502 Katowice</i>

Conference Program
Thursday, 30th June 2022
SILESIA HOTEL IN KATOWICE
Szybowcowa 1A, 40-502 Katowice

7 ⁴⁵ – 8 ⁴⁵	Breakfast (<i>Silesian Hotel in Katowice</i>)
9 ⁰⁰ – 9 ³⁰	Travel to the GUDIO Coal Mine and sightseeing <i>Zabrze</i>
10 ⁰⁰ – 12 ⁰⁰	Visit to the GUDIO Coal Mine and sightseeing <i>3 Maja 93, 41-800 Zabrze</i>
12 ⁰⁰ – 12 ⁴⁰	Departure to the Conference in Silesian Hotel <i>Katowice</i>
12 ⁵⁰ – 13 ⁵⁰	Lunch <i>Silesian Hotel in Katowice</i>
14 ⁰⁰ – 16 ⁴⁵	Session E “Problems of Road Transport 1” <i>Chairman – Dr. habil. Damian GAŁKA</i> <i>Co-chairman – Dr. habil. Rafał BURDZIK</i>
14 ⁰⁰ – 14 ¹⁵	ANALYSIS OF THE IMPACT OF THE IMPLEMENTATION OF THE ENERGY RECOVERY SYSTEM AND THE ADDITION OF INERT GAS TO THE AIR – FUEL MIXTURE SUPPLYING THE INTERNAL COMBUSTION ENGINE IN MODERN HYBRID CAR – ECOLOGY AND OPERATIONAL PARAMETERS <i>Maciej PALUCH, Marcin NOGA</i>
14 ¹⁵ – 14 ³⁰	BEYOND CAR DEPENDENCY: AN ANALYSIS OF THE PUBLIC PERCEPTION OF URBAN VEHICLE ACCESS REGULATIONS <i>Gabriel OGUNKUNBI, Ferenc MESZAROS</i>
14 ³⁰ – 14 ⁴⁵	EFFICIENCY OF AN OFF-ROAD HEAVY DUTY SERIES HYBRID VEHICLE BASED ON MODIFIED WHTC CYCLE <i>Ugnė Koletė MEDŽEVEPRYTĖ, Rolandas MAKARAS, Alfredas RIMKUS</i>
14 ⁴⁵ – 15 ⁰⁰	OPTIMAL DISTRIBUTION OF PUBLIC BUS CONNECTIONS BETWEEN SEVERAL LOCAL CARRIERS <i>Tomáš MAJER</i>
15 ⁰⁰ – 15 ¹⁵	TOWARDS BETTER EFFICIENT MANAGEMENT OF URBAN PUBLIC TRANSPORTATION BY BUS IN

	THE CITY OF CONSTANTINE <i>Mounira KELILBA, Rachid CHAIB</i>
15 ¹⁵ – 15 ³⁰	CONTRIBUTION TO THE EVALUATION OF THE PROBLEMS RELATED TO THE INTENSIVE USE OF THE PERSONAL CAR DURING DAILY JOURNEYS A STUDY IN THE CITY OF SKIKDA – ALGERIA <i>Fatma Zohra DJEKRIF, Linda BOUYAYA, Rachid CHAIB, Mouna AIZI, Hizia AMANI</i>
15 ³⁰ – 15 ⁴⁵	PERFORMANCE AND EMISSIONS CHARACTERISTICS OF A DIESEL ENGINE FUELLED WITH CARBON NANOPARTICLES BLENDED DIESEL AND BIODIESEL <i>Stasys SLAVINSKAS, Vida JOKUBYNIENĖ</i>
15 ⁴⁵ – 16 ⁰⁰	EVALUATION OF VIBRATION AND NOISE CHARACTERISTICS OF A COMPRESSION-IGNITION ENGINE FUELLED WITH NATURAL GAS-BIODIESEL DUAL FUEL <i>Saulius STRAVINSKAS, Alfredas RIMKUS, Jonas MATIJOŠIUS</i>
16 ⁰⁰ – 16 ¹⁵	BUS LANE IMPLEMENTATION STRATEGY <i>Mateusz SZARATA</i>
16 ¹⁵ – 16 ³⁰	THE INTERDEPENDENCE OF BUS DRIVING MODE AND ENERGY EFFICIENCY: CASE STUDY OF URBAN PASSENGER TRANSPORT <i>Igor TARAN, Vadim LITVIN</i>
16 ³⁰ – 16 ⁴⁵	APPLICATION OF TRANSPORT SECURITY SYSTEM IMAGING FOR EMERGENCY MASS NOTIFICATION SYSTEMS <i>Grzegorz POKORSKI, Bogusław JAGUSIAK</i>
14 ⁰⁰ – 16 ⁴⁵	Session F “Problems of Production and Operation of Vehicles 1” Chairman – Dr. habil. Janusz ĆWIEK Co-chairman – Dr. habil. Aleksander SOBOTA
14 ⁰⁰ – 14 ¹⁵	RESEARCH ON THE WEAR RESISTANCE OF THE INNER SURFACE OF A CENTRIFUGAL PUMP HOUSING MADE OF FIBROUS CONCRETE <i>Akzharkyn IGBAYEVA, Kassym YELEMESOV, Sayin BORTEBAYEV, Dinara BASKANBAYEVA, Assem UTEGENOVA</i>
14 ¹⁵ – 14 ³⁰	CHANGES IN THE PERCEPTION OF TELEMATICS TECHNOLOGY BY ROAD TRANSPORT COMPANIES IN 2020-21 <i>Wojciech ZALEWSKI, Magdalena OSIŃSKA</i>
14 ³⁰ – 14 ⁴⁵	DILATATION OF THE METHOD OF FIXATION

	MOVEABLE SANDS <i>Mauzhuda MUZAFFAROVA</i>
14 ⁴⁵ – 15 ⁰⁰	THE EFFECT OF SALT ACCUMULATION ON THE STRENGTH CHARACTERISTICS OF THE SOIL OF THE SUBGRADE <i>Abdubaki KAYUMOV, Rashidbek HUDAYKULOV, Barno SALIMOVA, Dilshod ARALOV</i>
15 ⁰⁰ – 15 ¹⁵	DISTRACTION IN TRAFFIC IN POLAND - USE OF MOBILE PHONES <i>Katarzyna SICIŃSKA, Maria Dąbrowska-LORANC, Agnieszka KRUPIŃSKA</i>
15 ¹⁵ – 15 ³⁰	CONVERGENCE TECHNOLOGY OF VEHICLE PARTS SURFACE FINISHING <i>Valeriy SIKULSKIY, Kateryna MAIOROVA, Iurii VOROBIOV, Petro FOMICHEV, Svitlana MYRONOVA</i>
15 ³⁰ – 15 ⁴⁵	BASALT FIBER REINFORCED EPOXY COMPOSITES FOR VEHICLE APPLICATIONS <i>Janusz ĆWIEK, Łukasz WIERZBICKI</i>
15 ⁴⁵ – 16 ⁰⁰	REGENERATIVE MMA WELDING OF CONCRETE MIXER TRUCK MADE OF HARDOX 450 STEEL <i>Tomasz WĘGRZYN, Bożena SZCZUCKA-LASOTA, Tadeusz SZYMCZAK, Bogusław ŁAZARZ, Krzysztof Ireneusz WILCZYŃSKI</i>
16 ⁰⁰ – 16 ¹⁵	PLASTIC PROPERTIES OF AHSS WELD - ESTIMATION OF PROCESS PARAMETERS BY SIMULATION USING METHOD OF FUNDAMENTAL SOLUTIONS <i>Bożena SZCZUCKA-LASOTA, Tomasz WĘGRZYN, Anita UŚCIŁOWSKA, Jan PIWNIK</i>
16 ¹⁵ – 16 ³⁰	ANALYSIS OF STRESS CONCENTRATION IN CRANE BUMPER DURING A COLLISION <i>Tomasz HANISZEWSKI, Tomasz WĘGRZYN, Bożena SZCZUCKA-LASOTA</i>
16 ³⁰ – 16 ⁴⁵	SURFACE SHAPING OF AI PARTS USED FOR ENGINES BY LASER ALLOYING WITH Fe POWDER <i>Krzysztof LABISZ, Jarosław KONIECZNY, Wojciech PAKIEŁA</i>

16⁴⁵ – 17¹⁵ **Coffee Break**

17¹⁵ – 19⁴⁵ **Session G “Problems of Road Transport 2”**

Chairman – Dr. habil. Bożena SZCZUCKA-LASOTA

Co-chairman – Dr. Robert WIESZAŁA

17¹⁵ – 17³⁰ IMPROVING EFFICIENCY OF TRANSPORTING

	<p>LIGHTWEIGHT BULKY CARGO BY MOTOR TRANSPORT <i>Phridon GOGIASHVILI, Shalva KIRTADZE, Gocha LEKVEISHVILI, David KBILASHVILI, Jumber CHOGOVADZE, Besik SIRBILADZE</i></p>
17 ³⁰ – 17 ⁴⁵	<p>OCTAVE BANDS ANALYSIS OF THE CAR NOISE EMISSIONS AT DIFFERENT SPEED <i>Gergana STANEVA, Rosen IVANOV, Georgi KADIKYANOV</i></p>
17 ⁴⁵ – 18 ⁰⁰	<p>PERSONALITY AND TRAFFIC PERCEPTION. EXPERIMENTAL RESEARCH OF YOUNG ADULTS <i>Piotr MAMCARZ, Radovan MADLENAK, Saugirdas PUKALSKAS, Dalibor BARTA, Vidas ŽURAULIS, Paweł DROŹDŹIEL, Robertas PEČELIŪNAS</i></p>
18 ⁰⁰ – 18 ¹⁵	<p>MODERN SAFETY SYSTEMS IN THE ACCEPTANCE OF VEHICLE USERS <i>Monika STOMA, Agnieszka DUDZIAK, Paweł DROŹDZIEL</i></p>
18 ¹⁵ – 18 ³⁰	<p>TOPOLOGY OPTIMIZATION OF THE GEARBOX HOUSING WITH THE ASPECT OF MINIMISING VIBRO-ACOUSTIC PROPERTIES BASED ON THE NUMERICAL SIMULATION <i>Bogusław ŁAZARZ, Łukasz MAZUREK</i></p>
18 ³⁰ – 18 ⁴⁵	<p>ENGINE OIL CONTAMINATION AS A RESULT OF THE RUNNING-IN PROCESS OF AN INTERNAL COMBUSTION ENGINE <i>Wioletta CEBULSKA, Damian HADRYŚ, Marek JASIOK</i></p>
18 ⁴⁵ – 19 ⁰⁰	<p>ROAD USERS' PERCEPTION OF ROAD TRAFFIC SAFETY, EDUCATION AND PREVENTION: CASE STUDY CROATIA <i>Danijela BARIĆ, Artur KALIN</i></p>
19 ⁰⁰ – 19 ¹⁵	<p>QUALITY REQUIREMENTS OF MEANS OF TRANSPORT ON THE EXAMPLE OF CARS <i>Robert WIESZAŁA, Sandra OMYLIŃSKA, Jacek MENDALA</i></p>
19 ¹⁵ – 19 ³⁰	<p>ANALYSIS OF THE IMPACT OF THE GEAR'S INTERNAL STRUCTURE ON THE GEARS CONTACT PATTERN <i>Michał JUZEK</i></p>
19 ³⁰ – 19 ⁴⁵	<p>NEW FUNCTIONALITIES OF THE WEIGH-IN-MOTION SYSTEM - iWIM SOLUTION <i>Aleksander KONIOR, Tomasz KONIOR, Krzysztof BRZozowski, Andrzej MACZYŃSKI, Artur RYGUŁA</i></p>
17 ¹⁵ – 19 ⁴⁵	<hr/> <p>Session H “Problems of Production and Operation of Vehicles 2” Chairman – Prof. Tomasz WĘGRZYN Co-chairman – Dr. Tadeusz OPASIAK</p>
17 ¹⁵ – 17 ³⁰	<p>DAMAGES OF THE SECTION INSULATOR GUIDE</p>

	CAUSED BY ELECTRIC ARC <i>Jarosław KONIECZNY, Krzysztof LABISZ</i>
17 ³⁰ – 17 ⁴⁵	ENVIRONMENTAL ASSESSMENT OF HYDROGEN PRODUCTION AND APPLICATION IN TRANSPORT MEANS <i>Dorota BURCHART</i>
17 ⁴⁵ – 18 ⁰⁰	INVESTIGATIONS OF TRANSPORT POSSIBILITIES OF THE NEW VIBRATORY CONVEYOR EQUIPPED WITH A SINGLE ELECTROVIBRATOR <i>Weronika ŻMUDA, Piotr CZUBAK</i>
18 ⁰⁰ – 18 ¹⁵	TRANSPORT FEATURES OF A NEW, SELF- ATTUNED CONVEYOR <i>Piotr CZUBAK, Witold SURÓWKA</i>
18 ¹⁵ – 18 ³⁰	THE PROBLEM OF USING THE SIZE AND TYPE OF A FLEXIBLE COUPLING IN A DRIVE SYSTEM <i>Tadeusz OPASIAK, Jerzy MARGIELEWICZ, Damian GAŚKA, Tomasz HANISZEWSKI</i>
18 ³⁰ – 18 ⁴⁵	HIGH ENERGY ORBITS IN ENERGY HARVESTING <i>Damian GAŚKA, Jerzy MARGIELEWICZ, Tadeusz OPASIAK, Tomasz HANISZEWSKI</i>
18 ⁴⁵ – 19 ⁰⁰	NEW DESIGN SOLUTIONS OF ENERGY HARVESTERS <i>Jerzy MARGIELEWICZ, Damian GAŚKA, Tomasz HANISZEWSKI, Tadeusz OPASIAK</i>
19 ⁰⁰ – 19 ¹⁵	EVOLUTION OF A BIFURCATION DIAGRAM AS A TOOL TO SEARCH FOR CHAOTIC SOLUTIONS IN A WIDE SPECTRUM OF INPUT DATA <i>Tomasz HANISZEWSKI, Jerzy MARGIELEWICZ, Damian GAŚKA, Tadeusz OPASIAK</i>
19 ¹⁵ – 19 ³⁰	CHARACTERISTICS OF PENETRANT TESTING (PT) <i>Grzegorz PERUŃ</i>
19 ³⁰ – 19 ⁴⁵	VISUAL TESTING VT - CHARACTERISTICS OF DIAGNOSTIC METHODS AND FIELDS OF APPLICATION IN THE TRANSPORT <i>Grzegorz PERUŃ</i>

20⁰⁰ – 23⁰⁰ **Official Dinner**
Silesian Hotel in Katowice

Conference Program
Friday, 1st July 2022
Silesian Hotel in Katowice

8⁰⁰ – 9⁰⁰

Breakfast (*Silesian Hotel, Katowice*)

9⁰⁰ – 10¹⁵

Session I “Air Transport Problems and Related Aspects”

Chairman – Dr. habil. Jarosław KOZUBA
Co-chairman – Dr. habil. Grzegorz WOJNAR

9⁰⁰ – 9¹⁵

DESCRIPTION OF THE MOVEMENT OF UNMANNED AIRCRAFT TRANSPORT

Dmitriy KRITSKIY, Oleksii POPOV, Sergiy YASHIN

9¹⁵ – 9³⁰

LEGAL FRAMEWORK FOR ADDRESSING AIR TRAFFIC NOISE

Aleksandra VASILJ, Biljana ČINČURAK ERCEG, Aleksandra PERKOVIĆ

9³⁰ – 9⁴⁵

AIRPLANES WITH A FRONTAL STABILIZER (CANARD) ON THE EXAMPLE OF SELECTED PATENTS AND CONSTRUCTIONS

Jakub MARSZAŁKIEWICZ

9⁴⁵ – 10⁰⁰

HUMAN AS A MAIN THREAT: UNDECLARED DANGEROUS GOODS IN MARITIME TRANSPORT & AVIATION

Andrea MATERNOVÁ, Matúš MATERNA

10⁰⁰ – 10¹⁵

INNOVATIVE TOOLS FOR THE DEVELOPMENT OF TRANSPORT ENTREPRENEURSHIP: EUROPEAN EXPERIENCE AND UKRAINIAN NEEDS OF THE POSTWAR ECONOMIC REVIVAL

Inna RIEPINA, Larysa LIGONENKO, Oleksandr SADOVNYK, Lyubov DZYUBENKO, Vita KOVTUN

9⁰⁰ – 10³⁰

Session J “Problems of Transport Operation”

Chairman – Dr. habil. Anita UŚCIŁOWSKA
Co-chairman – Dr. habil. Tomasz HANISZEWSKI

9⁰⁰ – 9¹⁵

DIAGNOSING OF SUSPENSION SYSTEMS IN THE M1 CATEGORY CARS IN SCOPE OF ROAD SAFETY

Jan FILIPCZYK, Łukasz KONIECZNY

9¹⁵ – 9³⁰

MULTI-OBJECTIVE OPTIMIZATION MODEL FOR MULTI-DEPOT MIXED FLEET ELECTRIC VEHICLE SCHEDULING PROBLEM WITH REAL WORLD

CONSTRAINTS

Jerzy DUDA, Szymon FIEREK, Marek KARKULA, Piotr KISIELEWSKI, Radosław PUKA, Adam REDMER, Iwona SKALNA

9³⁰ – 9⁴⁵

NEW SCENARIOS OF AUTONOMOUS AND CONNECTED URBAN MOBILITY: TRANSPORT SYSTEM SIMULATION BY DIGITAL TWINS

Elżbieta MACIOSZEK, Muhammad YASIR

9⁴⁵ – 10⁰⁰

INFLUENCE OF DIPPED BEAM LIGHT SOURCES IN HEAVY GOODS VEHICLES ON THE SAFETY OF PEOPLE AT NIGHT

Krzysztof TERESZKIEWICZ, Paweł KĘPA

10⁰⁰ – 10¹⁵

TRUCK DRIVER RISK ASSESSMENT AND MANAGEMENT BASED ON FMEA METHODOLOGY

Maria CIEŚLA

10¹⁵ – 10³⁰

ANALYSIS OF THE RUNNING OF LONG-DISTANCE TRAINS ON NON-ELECTRIFIED LINES IN POLAND

Wojciech KAMIŃSKI

11³⁰ – 12³⁰

Departure to Pyrzowice

Katowice, Faculty of Transport and Aviation Engineering, Krasieńskiego 8

12³⁰ – 15⁰⁰

Sightseeing of the Katowice International Airport, Katowice - Poland

Wolności 90, 42-625 Ożarówice

15⁰⁰ – 16¹⁰

Return to Katowice

Katowice, Faculty of Transport and Aviation Engineering, Krasieńskiego 8

16²⁰

Conference Closing

Katowice, Faculty of Transport and Aviation Engineering, Krasieńskiego 8

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Transport Problems '2022

Symposium Program

Monday, 27 June 2022

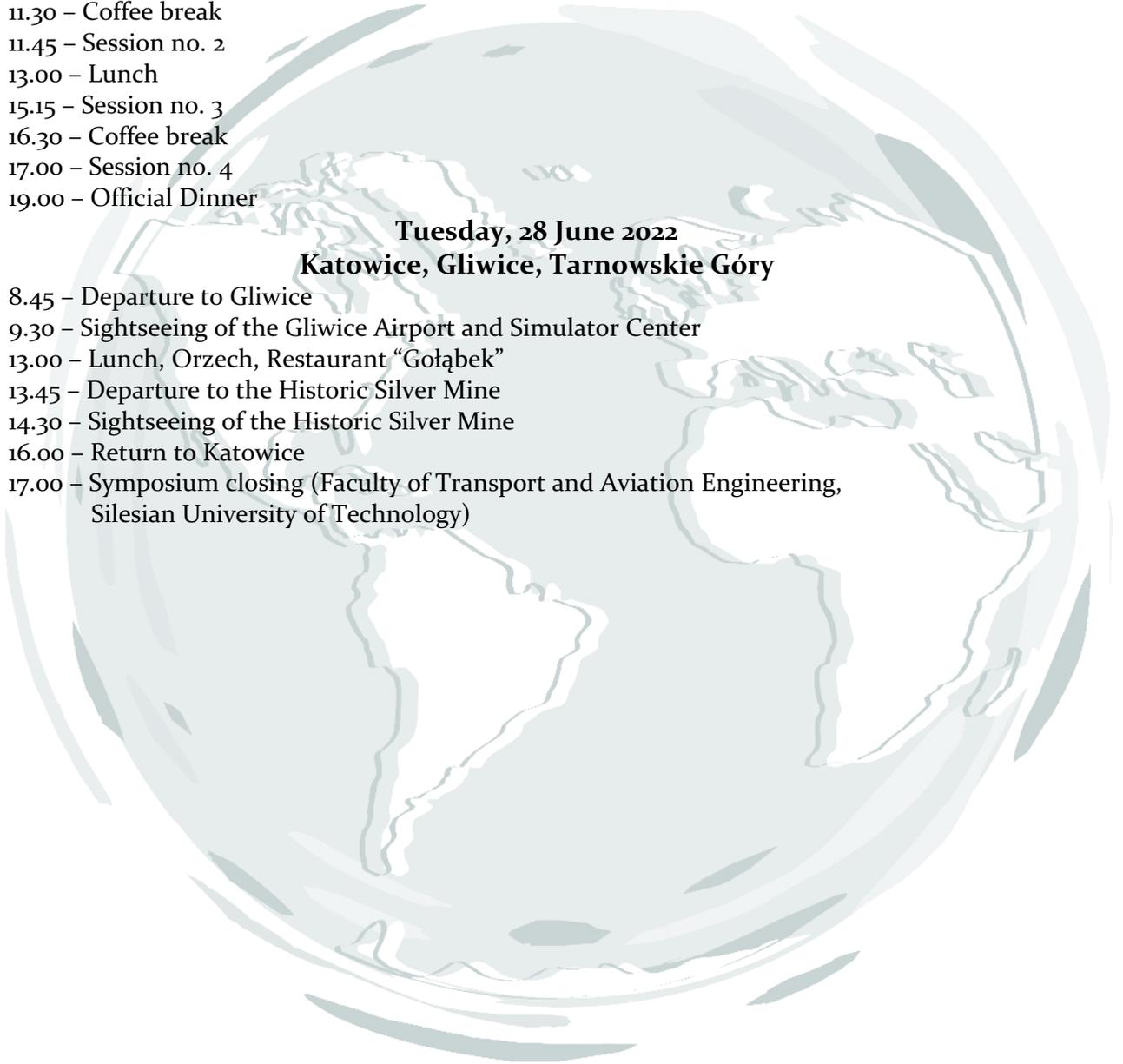
Katowice

- 9.00 – Registration (Katowice, Krasieńskiego 8)
- 10.00 – Session no. 1
- 11.30 – Coffee break
- 11.45 – Session no. 2
- 13.00 – Lunch
- 15.15 – Session no. 3
- 16.30 – Coffee break
- 17.00 – Session no. 4
- 19.00 – Official Dinner

Tuesday, 28 June 2022

Katowice, Gliwice, Tarnowskie Góry

- 8.45 – Departure to Gliwice
- 9.30 – Sightseeing of the Gliwice Airport and Simulator Center
- 13.00 – Lunch, Orzech, Restaurant “Gołębek”
- 13.45 – Departure to the Historic Silver Mine
- 14.30 – Sightseeing of the Historic Silver Mine
- 16.00 – Return to Katowice
- 17.00 – Symposium closing (Faculty of Transport and Aviation Engineering, Silesian University of Technology)



Transport Problems '2022

Conference Program

Wednesday, 29 June 2022

Katowice (Faculty of Transport and Aviation Engineering & Silesian Hotel)

- 8.00 – Registration (Katowice, Krasieńskiego 8)
- 9.00 – Opening Session
- 11.40 – Travel to the factory of the railway industry Alstom Chorzów
- 12.15 – Sightseeing of the factory of the railway industry Alstom Chorzów
- 14.40 – Travel to the Silesian Hotel in Katowice
- 15.00 – Lunch
- 16.00 – Registration at the Silesian Hotel, Katowice
- 16.40 – Presentations in parallel sessions
- 17.55 – Coffee Break
- 18.15 – Presentations in parallel sessions
- 20.15 – 22.30 Friendly meeting

Thursday, 30 June 2022

Katowice (Silesian Hotel in Katowice)

- 7.45 – Breakfast
- 9.00 – Travel to the GUDIO Coal Mine and sightseeing, Zabrze
- 10.00 – Visit to the GUDIO Coal Mine and sightseeing, Zabrze
- 12.00 – Departure to the Silesian Hotel in Katowice, Katowice
- 12.50 – Lunch
- 14.00 – Presentations in parallel sessions
- 16.45 – Coffee break
- 17.15 – Presentations in parallel sessions
- 20.00 – Official Dinner

Friday, 1 July 2022

Katowice (Silesian Hotel in Katowice)

- 8.00 – Breakfast
- 9.00 – Presentations in parallel sessions
- 11.30 – Departure to the Katowice International Airport, Katowice – Poland, Ożarówice
- 12.30 – Sightseeing of the Katowice International Airport, Katowice – Poland, Ożarówice
- 15.00 – Return to Katowice
- 16.20 – Conference closing (Faculty of Transport and Aviation Engineering, Silesian University of Technology)