



TECHNICAL UNIVERSITY OF KOŠICE  
Faculty of Aeronautics



**NEW TRENDS IN AVIATION DEVELOPMENT 2021**

**THE XVI INTERNATIONAL SCIENTIFIC  
CONFERENCE**

Faculty of Aeronautics

Košice, Slovakia



**NTAD – programme**

**25.11.2021 – Košice**

- 09:30 – 09:35** **Opening – Dean of the Faculty of Aeronautics, Technical University of Košice – assoc. prof. Peter Korba PhD.**
- 09:35 – 10:00** **Session 1 - Session Chair - R. Andoga**
- 09:35 – 10:00 Testing Pilots' Responses on Flight Simulators - Current Status – Rudolf Jalovecký, Ján Bořil, Miroslav Jirgl
- 10:00 – 12:00** **Session 2 - Session Chair – K. Draganová**
- 10:00 – 10:15 Proactive Mechanisms against Occurrences in Civil Aviation - Branko Mikula, Peter Kaľavský, Robert Klír
- 10:15 – 10:30 Aviation Safety in the European Transport Policy - Božena Konecka-Szydełko
- 10:30 – 10:45 The Overall Cumulative Impact of Covid-19 and Brexit on European Supply Chains – Matej Fuchs, Martin Řezáč, Radovan Soušek
- 10:45 – 11:00 Differences In Low-cost Airline Business Models in 2018, 2019 and in Pandemic Year 2020 – Comparison of Easyjet, Ryanair and Wizz Air - Dominik Mrňa, Benedikt Badánik
- 11:00 – 11:15 Blowing as a Mean of Drag Reduction of Wing – Strut Junction - Vítězslav Hanzal, Robert Kulhánek, Zdeněk Pátek,
- 11:15 – 11:30 Conceptual Design of the Power Supply for the Mobile Monitoring Unit - Patrik Kašper, Miroslav Šmelko, Ladislav Tomčo, František Heško
- 11:30 – 11:45 Modernisation of Quadcopter – Case Study - Ondřej Trčka, Vojtěch Graf, Martin Blatoň
- 11:45 – 12:00 Innovations in the field of aircraft ground handling - Patrik Šváb, Peter Korba, Samer Abdo, Michaela Tirpáková, Jaroslav Hura



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**13:00 – 15:00 Poster Session - Session Chair – M. Schrotter**

Design of a Model of an Additional Meteorological Network for the Needs of the Aviation Component of the Integrated Rescue System – Ladislav Choma, Martin Kováč, Anna Čekanová

Accuracy of Determining the Position of Flying Objects in the Conditions of Ideal Time Base Synchronization - Peter Dzurovčín, Sebastián Makó, Simona Bernáthová

Identification of Research Problems for Creating Digital Content of Selected Flight Training Subjects - Jozef Sabo, Martin Kelemen

Evaluation of Operating Efficiency of the Baggage Handling System, Depending on the Damage of Identification Labels - Tomáš Musil, Stanislav Fábry, Marek Pilát, Ine Majorošová

Economic Comparison of Airlines in Asia-pacific Region Based on Specific Indicators in Years 2018-2020 - Sebastián Makó, Stanislav Szabo, Miroslava Čičváková, Staislav Szabo jr., Peter Koščák

Evaluation of the Impacts of Production Facility Objects Construction on the Operation of Secondary Radar - Milan Džunda, Lucia Melníková

Innovations in the Field of Aircraft Ground Handling - Patrik Šváb, Peter Korba, Samer Abdo, Michaela Tirpáková, Jaroslav Hura

Transformation of Eurocontrol's Classroom Courses into Remote Learning - Marián Jančík, Lucia Melníková, Branislav Kandra

Utilization of NDT Methods in Aircraft Maintenance - Samer Abdo, Michal Hovanec, Peter Korba, Patrik Šváb

Abrasion of Tires in Aviation - Nikola Stařičná, Peter Koščák, Milan Džunda



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**Poster session**

Free Route Airspace-Graphs, Networks, Algorithms - Miroslava Ferencová,  
Ladislav Főző, Peter Szabó

Control of the Airplane Sighting System - Šimon Karaffa, Róbert Bréda,  
Miriam Hlinková

General Conceptual Design of Small Unmanned Aircraft Situational  
Control - Miriam Hlinková, Rudolf Andoga, Šimon Karaffa, Róbert Bréda

Transport Constructions, Their Safety in Connection with the Protection of  
the Population - Barbora Klučková, Kateřina Tomanová, Lenka Brumarová,  
Jiří Pokorný

Modern Flight School with Electronic Smart Concept - Andrej Novák, David  
Dvorščák, Tomasz Lusiak

**END OF DAY 1**



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**26.11.2021 – Košice**

**10:00 – 12:00 Session 3 - Session Chair – P. Koščák**

- 10:00 – 10:15 Topology Optimization Study of Airplane Controls Console - Juraj Hub, Aleš Aster
- 10:15 – 10:30 Airport Medical Screening - Way to Restore Confidence - Zbyšek Korecki, Vladimír Smrž, Tomáš Pecháček
- 10:30 – 10:45 Aerobatic Trainer Aircraft Conceptual Design - Vladimír Klein, Filip Škultéty, Jozef Čerňan
- 10:45 – 11:00 Life Cycle Assessment of Environmental Impacts of Transport Infrastructure for Evidence-based Policy Making - Kovacikova Kristina, Antonin Kazda, Andrej Novak
- 11:00 – 11:15 Covid 19 and its Impact on AMDAR Data - Miriam Jarošová
- 11:15 – 11:30 Business Continuity Management through Stakeholders Collaboration and Participation – Dana Rozová, Matej Fuchs
- 11:30 – 11:45 Comparison of Three Camera Calibrations Based on UAV Images - Tamás Jancsó, Péter Udvardy, Attila Varga
- 11:45 – 12:00 Changes in the Civil Aviation Legislation and Measures Caused by the COVID-19 Crisis - Tatiana Remencová, Alena Novák Sedláčková, Robert Verhaar

**END OF THE CONFERENCE**

Organiser



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