26–27 October 2022, Prague

NTCA 2022
New Trends in Civil Aviation
23rd International Conference

Day 1: Wednesday 26. 10. 2022

09:00    Registration
09:30    Opening Speech

09:40–11:00 **Session 1: Aviation Maintenance** (chairman: Slobodan Stojić)
Systemic Approach to Workplace Safety in Aircraft Maintenance, Repair and Overhaul Organizations (A. Lališ)
Prediction of Required Materials for Aircraft Heavy Maintenance (O. Vitovec)
Biohazard Assessment for Maintenance Technicians (P. Klamo)
Infrared Thermographic Inspection of Aerospace CFRP Laminates and Sandwiches: Resistive Heating Element as a Source of Thermal Stimulation (V. Tříska)

11:00–11:20 Coffee Break

11:20–13:00 **Session 2: Aviation Personnel Training and Recruitment** (chairman: Viktor Valenta)
Design of Wearable Eye Tracker with Automatic Cockpit Areas of Interest Recognition (V. Socha)
Effect of a Break in Flying on the Piloting Precision in Airline Pilots (M. Šudoma)
The Design and Implementation of Upgraded ESCAPE Light ATC Simulator Platform at the CTU in Prague (A. Bouchal)
Research of the Employment in Air Transport in the Czech Republic (M. Kalivodová)
Utilization of Virtual Reality Into Sailplane to Airplane Transition Training (R. Matyáš)

13:00–14:00 Lunch

14:00–14:35 **Keynote Speaker: Prof. Dirk Vandepitte (KU Leuven)**
Experimental Analysis of Driveline Performance of Flapping Wing Nano-Robots

14:40–15:40 **Session 3: Unmanned Aerial Vehicle Technology Trends** (chairmen: Max Chopart, Stanislav Kušmírek)
Effect of Icing on the Unmanned Aerial Vehicle Propulsion Systems (K. Hylmar)
Experimental Analysis of the Effect of Icing an Unmanned Aerial Vehicles In Multicopter Configuration (P. Pecho)
Upward Wing Elevation Stabilizes Descending Flight of a Tailless Flapping Wing Micro Air Vehicle (T. Roelandt)

15:40–16:00 Coffee Break

16:00–18:30 **Session 4: Advances in Air Operations** (chairman: Andrej Lališ)
Wide-Area GPS Interference Over Europe From an Unknown Source (J. Steiner)
Utilization of Correlation Between NACp and NIC Parameters for GNSS Jamming Detection (J. Hospodka)
Relationship Between the Transponder Triggering Area and the SSR Mode S Surveillance Coverage Map (S. Pleninger)

17:00–17:10 Short break

Analysis of Reported Aviation Safety Occurrences Related to Laser Attacks (J. Hospodka)
Masks up – In-Flight Mild Hypoxia, Respiration and COVID-19 (L. Hanáková)
Alignment of Aviation Safety Taxonomies and Event Types in STAMP (K. Grötschelová)
Analysis of Flight Delay Data Using Different Machine Learning Algorithms (B. T. L. Simon Shepherd)

19:00 Reception
**Day 2: Thursday 27. 10. 2022**

**09:30**  
Opening

**09:40–12:20**  
**Session 5: Airport Development** (chairman: Slobodan Stojić)  
- Digital maturity of selected regional airports in the Slovak and Czech Republic (T. Remencová)  
- Impact of Smart Technologies on Passenger Flow and Queueing at Airports (T. Dvořáková)  
- Performance-based analysis of aerodrome weather forecasts (F. Simone)

**10:40–11:00**  
Coffee Break

**10:40–11:00**  
- Air Cargo Demand Prediction on Selected Routes by Holt-Winter Algorithm (P. Vittek)  
- Impact of the critical taxiway infrastructure changes on the throughput at Prague Airport (P. Had)  
- Static validation of the Enhanced diversion airport selection methodology (P. Olexa)  
- Current State and Possible Challenges in the Development of Green Airports (M. Koščáková)

**12:20–12:40**  
Large Coffee Break

**12:45–13:20**  
**Keynote Speaker: Johann Dauer (DLR)**  
Automated Low Altitude Air Delivery – Concepts for Cost Efficient Air Transportation with Drones

**13:20–14:20**  
**Session 6: Emerging Technologies** (chairman: Andrej Lališ)  
- The Rules for Accepting the Implementation of U-space Airspace (M. Černý)  
- Division of VLL into Specific Airspaces for UAS Operation (T. Tiučof)  
- Remote Tower: Assessment of Implementation Options in Slovak Civil Airports (A. Kornienko)

**14:25**  
Best Presentations Awards Announcement & Closing Speech

**Venue**

Czech Technical University in Prague  
Czech Institute of Informatics, Robotics and Cybernetics (CIIRC)  
Jugoslávských partyzánů 1580/3 160 00 Prague 6, Dejvice

**Contact information**

In case of any questions or suggestions do not hesitate to contact the conference Organizing committee:  
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