

INTERNATIONAL WORKSHOP ON ADVANCES IN CIVIL AVIATION SYSTEMS DEVELOPMENT

A DAY

March 18, 2025

Opening ceremony

Start –17:00 (EET UTC+2, Kyiv Time)

10:00 (EST UTC-5, Lafayette Time)

In-sides events

INTERNATIONAL WORKSHOP ON ADVANCES IN CIVIL AVIATION SYSTEMS DEVELOPMENT

B DAY

March 19, 2025

On-line: <https://www.youtube.com/live/rA5OQTraTR4>

Welcome Words

Start – 12:00 (EET UTC+2, Kyiv Time)

05:00 (EST UTC-5, Lafayette Time)

Aerodynamics

Moderator – Ivan Ostroumov

Start – 12:20 (EET UTC+2, Kyiv Time)

05:20 (EST UTC-5, Lafayette Time)

1. Analysis of Measuring Errors during Aerodynamic Research in Wind Tunnel
Oleksander Zhdanov, Olha Sushchenko, and Valerii Orlianskyi

Air Transportation

Moderator – Ivan Ostroumov

Start – 12:35 (EET UTC+2, Kyiv Time)

05:35 (EST UTC-5, Lafayette Time)

2. Advanced IoT Sensor Network for Continuous Cargo Condition Surveillance During the Flight
Dmytro Prosvirin, Volodymyr Kharchenko, and Pavel Krents
3. Simulation Modelling for Supply Chain Optimization with a Logistics Hub Based at an Airport Complex
Kostiantyn Cherednichenko, Viktoriia Ivannikova, and Olena Sokolova
4. Theory of Subjective Preferences Entropy in Application to Air Transportation Technologies: Rational Recombination of Resources
Andriy Goncharenko

Management and Economics

Moderator – Maksym Zaliskyi

Start – 13:15 (EET UTC+2, Kyiv Time)

06:15 (EST UTC-5, Lafayette Time)

5. Modeling of Integration Business Processes for Aviation Enterprise in the Context of Sustainable Development
Zarina Poberezhna and Maksym Zaliskyi
6. Experimental Study of the Method for Cyber Incidents Management in Aviation Critical Infrastructure
Sergiy Gnatyuk, Viktoria Sydorenko, Artem Polozhentsev, and Serhii Sydorenko
7. Strategic Diagnostics for Optimization of Aviation Enterprises Activity in the Condition of Digital Transformations
Serhii Smerichevskyi, Oleksandr Truhan, Zarina Poberezhna, and Oksana Chumak

Interference in Global Navigation Satellite System

Moderator – Ivan Ostroumov

Start – 13:50 (EET UTC+2, Kyiv Time)

06:50 (EST UTC-5, Lafayette Time)

8. Research of the Influence of Retransmission Radio Interference on SBAS Characteristics
Valery Konin, Tetiana Maliutenko, David Duchet, and Natali Caccioppoli
9. AIM Technology Experimental Testing with Different Types of Antennas
Oleksandr Kutsenko, Volodymyr Kharchenko, and Valeriy Konin

Impact of Russian-Ukrainian war on Global Air Transportation System and Recovery of Ukrainian Civil Aviation

Moderator – Ivan Ostroumov

Start – 14:15 (EET UTC+2, Kyiv Time)

07:15 (EST UTC-5, Lafayette Time)

10. Area Analysis of DME/DME Positioning Method in Ukrainian Airspace
Ivan Ostroumov and Nataliia Kuzmenko
11. Mental Health of University Students in Wartime
Elvira Luzik, Valentyna Semychenko, Nataliia Ladohubets, Anzhelika Kokarjeva, and Lesia Konoplianyk
12. Military Impact on Civil Aviation: Case Study of AHY8243 Flight Based on ADS-B Data Processing
Ivan Ostroumov, Denys Kolesnichenko, Daria Tkachuk, and Olena Kyzymchuk

Aircraft Noise

Moderator – Ivan Ostroumov

Start – 15:05 (EET UTC+2, Kyiv Time)

08:05 (EST UTC-5, Lafayette Time)

13. Reference Aircraft Noise Model for the New Supersonic Airplane Design with Corrected Noise Propagation and Engine Installation Effect Contributions
Oleksandr Zaporozhets, Vitalii Makarenko, Vadim Tokarev, and Kateryna Kazhan
14. Local Air Quality Assessment for SENECA Aircraft
Kateryna Synylo, Andrii Krupko, and Oleksandr Zaporozhets

Communication Systems for Civil Aviation Systems

Moderator – Maksym Zaliskyi

Start – 15:30 (EET UTC+2, Kyiv Time)

08:30 (EST UTC-5, Lafayette Time)

15. Antennas Combination for Ground and Airborne Segments of UAV Communication Systems
Olga Shcherbyna, Oleksandr Zadorozhnyi, and Fedir Katushonok
16. Frequency Synthesizer of X Band
Leonid Sibruk and Yaroslav Gritsev
17. Analysis of the Quality of Service Indicators for Aviation Communication Systems
Georgiy Konakhovych, Maksym Zaliskyi, Serhii Tarasiuk, Anzhela Lelechenko, Veniamin Antonov, and Oleksandr Bondarev
18. Antenna Feed by Several Sources of Waveforms
Ludvig Ilnitskiy, Ihor Zakutynskiy, Leonid Sibruk, and Olga Shcherbyna

Surveillance Data Processing in Civil Aviation

Moderator – Ivan Ostroumov

Start – 16:20 (EET UTC+2, Kyiv Time)

09:20 (EST UTC-5, Lafayette Time)

19. Object Coordinate Determination Based on Dempster-Shafer Evidence Theory
Igor Prokopenko, Sofiia Alpert, Maksym Alpert, and Yuliia Petrova
20. Estimation of Mid-Air Collision Risk Based on ADS-B Trajectory Data
Oleg Ivashchuk and Ivan Ostroumov
21. Classification of Flight Situation Based on Risk of Flight Level Loss for Improved Airspace Safety
Ivan Ostroumov, Yurii Bezkorovainyi, Oleksii Holubnychyi, Olha Sushchenko, Oleksandr Solomentsev, and Maksym Zaliskyi

Methods of Operational Efficiency Improvement for Civil Aviation Systems

Moderator – Maksym Zaliskyi

Start – 17:00 (EET UTC+2, Kyiv Time)

10:00 (EST UTC-5, Lafayette Time)

22. Algorithms for Selecting the Optimal Filter in the Architecture of a Multi-Channel Passive Interference Compensation System
Ihor Prokopenko and Anastasiia Dmytruk
23. Predictive Analytics of Decision-making for Aviation Operation Enterprise
Oleksandr Solomentsev, Maksym Zaliskyi, Zarina Poberezhna, and Oleksiy Zuiev
24. The Determination of the Probability of Failure-Free Operation for System Operated in Two Modes
Petro Yablonskyi, Oleksandr Avramenko, Valentyn Dyptan, Pavlo Openko, Serhii Pustovyi, and Volodymyr Klymchuk

Sensors in Civil Aviation

Moderator – Maksym Zaliskyi

Start – 17:40 (EET UTC+2, Kyiv Time)

10:40 (EST UTC-5, Lafayette Time)

25. Features of Stability Analysis of Complex Nonlinear Dynamic Systems in Phase Space
Petro Snitsarenko, Rimvidas Khrashchevskyi, Olga Ivanets, Maryna Arkhyrei, and Nataliia Bilak
26. Design of Robust Tracking System for Combined Control of Information and Measuring Devices of Aircraft
Olha Sushchenko
27. Chaos-based Secured Data Transmission Scheme for Civil Aviation Applications
Roman Voliansky, Nina Volianska, and Yunifa Miftachul Arif
28. Model the geometric characteristics determining of spatial landmarks for survey-comparative navigation system
Oleksii Chuzha, Yurii Hryshchenko, Olena Tachinina, and Oleksandra Bankova

Human Factor in Civil Aviation

Moderator – Maksym Zaliskyi

Start – 18:30 (EET UTC+2, Kyiv Time)

11:30 (EST UTC-5, Lafayette Time)

29. Optimization of Cross-Professional Interaction “Pilot-Air Traffic Controller” during Collaborative Practical Training
Tetiana Shmelova, Yuliya Sikirda, Maxim Yatsko, and Volodymyr Kolotusha
30. Collaborative Decision-Making During the Rescue Operation by the Unmanned Aerial Vehicle Group
Tetiana Shmelova, Illia Marienkov, Stepan Simchenko, and Peter Dischler

Unmanned Aircraft Systems

Moderator – Ivan Ostroumov

Start – 18:50 (EET UTC+2, Kyiv Time)

11:50 (EST UTC-5, Lafayette Time)

31. UAS Communication Links and Protocols Analysis to Ensure Wind Information Obtaining and Exchange
Yuliya Averyanova, Oleksii Sushych, Irina Pryhodko, and Yevheniia Znakovska
32. Assessment of the Impact of Variable Mass of an Unmanned Aerial Vehicle on Flight Range and Endurance
Andrii Hnashuk, Valentina Konovaliuk, Gennadiy Yun, and Kristina Marintseva
33. Method for Correcting Unreliable Readings of a GNSS Receiver when Using a Cost-Efficient Autopilot
Vitalii Larin and Bohdan Blazhei

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March 20, 2025

Unmanned Aircraft Systems (On-line)

Moderator – Ivan Ostroumov

Start – 16:00 (EET UTC+2, Kyiv Time)

09:00 (EST UTC-5, Lafayette Time)

34. [Short Packets Transmission Modelling in UAV Systems](#)
Volodymyr Kharchenko, Andrii Grekhov, and Vasyl Kondratiuk
35. [Management of Unmanned Aerial Vehicles Swarm: An Overview](#)
Dmytro Krytskyi
36. [Visual Positioning of the UAV in Conditions of Impossibility of Using External Navigation Signals](#)
Oleksii Hurtovyi, Kostiantyn Dergachov, and Anatolii Yaremenko
37. [Simulation Platform for Testing and Validating of UAV Visual Guidance Algorithms](#)
Kostiantyn Dergachov, Vladyslav Dubinin, Eugene Ovdyyuk, Iryna Bychkova, and Denys Puhach

Antonov Airlines (On-line)

Start – 17:00 (EET UTC+2, Kyiv Time)

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Duration – 2 hours