

**4<sup>TH</sup> INTERNATIONAL CONFERENCE ON  
ADVANCES IN  
CIVIL AVIATION SYSTEMS DEVELOPMENT**

**ACASD**

**KAI & KSE**

March 26, 2026

**2026**

# 4<sup>TH</sup> INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL AVIATION SYSTEMS DEVELOPMENT

March 26, 2026

**KSE Engineering School  
Kyiv School of Economics**

**In-person / online**

[https://us02web.zoom.us/j/86059409457?pwd=PNPiH7ngdm3JP5jyDOEW9ukEh5H  
Fd8.1](https://us02web.zoom.us/j/86059409457?pwd=PNPiH7ngdm3JP5jyDOEW9ukEh5H<br/>Fd8.1)

Passcode 462610

## **Section A.**

*Location: Kyiv School of Economics, Mykolya Shpaka Str., 3, Kyiv, Ukraine*

*Room: 4.08*

*Start –11:00 (EET UTC+2, Kyiv Time)*

*Moderator – Ivan Ostroumov*

Welcome words

1. An Approach to Assessing the Detectability of Contrast in Microwave Radiometric Systems  
*Andriy Bulay, Yevhen Holovynskyi, Volodymyr Kosharskyi, Semen Zhyla and Olha Zhyla*
2. Software for Broken Information Recovery in Unmanned Aerial Vehicle Telemetry Data  
*Nataliia Kuzmenko*
3. Time-Indexed Azimuth Beacon Based on an Antenna Array  
*Oleksandr Kutsenko, Volodymyr Kharchenko and Valeriy Konin*
4. Enhancing Performance of Navigational Aid Network in Ukrainian Airspace Using TACAN  
*Ivan Ostroumov*
5. A Hybrid BERT-Regression Model for Resource Optimization for Automated Expert Assignment System in Aviation Occurrence Investigation

*Maksym Liubarets and Ivan Ostroumov*

6. Detection of Small Objects at Airfields Using the Convolutional Neural Network

*Danyil Klokta, Yevheniia Znakovska, and Yuliya Averyanova*

7. Synthesis of Antenna Array Radiation Pattern for Suppression of Radio Interference in Satellite Navigation Signals

*Valeriy Konin and Oksana Ishchenko*

8. Platform for Research of Flight Dynamics and Testing of Automatic Control Systems of the Aircraft

*Kostiantyn Dergachov, Vladyslav Dubinin, Eugene Ovdiyuk, Iryna Bychkova, and Denys Puhach*

9. Multi-Decision Support System for Collaborative Decision-Making in Flight Emergency

*Tetiana Shmelova, Yuliya Sikirda, Maxim Yatsko, Vadym Stratonov, and Viacheslav Dombrovskiy*

10. Implicit Nonlinear Discrete Maps for Safety-Critical Aviation Systems

*Roman Voliansky, Nataliya Krasnoshapka, Iurii Shramko, Borys Kuznetsov, Ihor Bovdui, Tatyana Nikitina, and Yunifa Miftachul Arif*

11. Visual Tracking of Aircraft on Glideslope for Air Traffic Control

*Eugene Ovdiyuk and Konstantyn Dergachov*

12. Optimization of Solutions in UAS Operators Based on the Simulator Training and Collaborative Decision Making

*Tetiana Shmelova and Oleksii Mykhatskyi*

13. Performance Evaluation of YOLO Models for Drone Detection in Real-World Aerial Imagery

*Ugurcan Sen, Emrah Ozkaynak, and Caner Ozcan (online)*

14. Conceptual Aircraft Design Modelling Including the Effects of Disruptive Technologies on Environmental Impact

*Oleksandr Zaporozhets, Kateryna Synylo, Kateryna Kazhan, Vitalii Makarenko, Vadim Tokarev, and Andrzej Chyla (online)*

# 4<sup>TH</sup> INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL AVIATION SYSTEMS DEVELOPMENT

March 26, 2026

**Kyiv Aviation Institute**

**In-person only**

## **Section B.**

*Location: Kyiv Aviation Institute, Liubomyra Huzara Ave., 1, Kyiv, Ukraine*

*Room: 3.109*

*Start –11:00 (EET UTC+2, Kyiv Time)*

*Moderator – Maksym Zaliskyi*

1. Application of AI Technologies in Aircraft Cargo Monitoring Systems  
*Dmytro Prosvirin, Volodymyr Kharchenko, Pavel Krents, Oleh Zaritskyi, Dmytro Shyrokoradi, Joerg Abendroth, Andrii Kuznetsov, and Pavel Hrynchenko*
2. Human Factor Management for Ensuring Aviation System Safety in Uncertainty Conditions  
*Tamara Mykheieva, Dmytro Bugayko, Nataliia Zaiets, and Olena Datsun*
3. Dangerous Object Recognition for X-ray Screening System of Aviation Security  
*Nazar Yehorov, Maksym Zaliskyi, Zarina Poberezhna, and Daryna Yaremenko*
4. Hybrid Regression and Machine Learning Approach for Forecasting and Managing Financial Risks in Safety-Critical Civil Aviation Software Systems  
*Andriy Dudnik, Oleh Dyriavko, Andrii Fesenko, Nataliia Odribets, and Oleksandr Velhan*
5. Digital Transformation of Aviation Infrastructure Using Intelligent Transport Systems  
*Zarina Poberezhna and Dmytro Malnov*
6. Integrated cargo system with airport-based hub for sustainable transportation network

*Milan Dziadykevych, Kostiantyn Cherednichenko, Olena Sokolova, Vladyslav Ivanov, Maksym Gryshchenko, Viktoriia Ivannikova*

7. Synthesis of Aircraft Motion Control System Using Experiments in a Wind Tunnel

*Olha Sushchenko, Oleksander Zhdanov, and Nazar Yakubovskiy*

8. On-board System for Radio Emitting Source Direction Finding Using an Amplitude Method

*Fedir Katushonok, Olga Shcherbyna, Oleksandr Zadorozhnyi, Myroslav Riabiy, and Anatolii Simchuk*

9. Calculation of Optimal Values of Equipment Parameters for a Secured Radio Channel of Aviation Airborne Electronic Communications

*Denys Bakhtiiarov, Bohdan Kotyk, Veniamin Antonov, Volodymyr Klymchuk, Georgiy Konakhovych, and Anna Kviatkovska*

10. Weibull Distribution-Based Maximum Likelihood Classification for Satellite Image Processing in Remote Sensing

*Igor Prokopenko, Sofiia Alpert, Maksym Alpert, and Kostiantyn Prokopenko*

11. Efficiency Analysis of Maintenance Types for CNS Equipment

*Oleksandr Solomentsev, Oleksiy Zuiev, Maksym Zaliskyi, Anton Chermianin, and Artem Palamarchuk*

12. Estimation of Durability Indicators for Radio Electronic Equipment in Case of Limited Failure Statistics

*Petro Yablonskyi, Volodymyr Klymchuk, Oleksandr Avramenko, Valentyn Dyptan, Pavlo Openko, Evhen Smychenko, and Pavlo Plakhotniuk*

13. An Adaptive Approach to Building Reliable Data Collection Systems from Open Web Resources

*Serhii Otrokh, Vladyslav Kliuchuk, Bohdan Zhurakovskiy, Mikhail Shalyhin, and Yurii Melnyk*

14. Analytical Design of Precision Gimballed Inertial Navigation Systems

*Olha Sushchenko and Yurii Melnyk*

15. UAV Trajectory Correction Using Filtering: Kalman's Filter or Particle Filter

*Dmytro Kucherov and Natalia Khalimon*

16. Assessment of Pilot Training Adequacy for Operations in Special Flight Situations

*Yurii Hryshchenko, Oleksii Chuzha, and Oleksandra Bankova*

17. Chronobiological and Psychophysiological Aspects of Operator Activity in the Conditions of Transcontinental Flights

*Yevhen Moiseyenko, Larysa Kosheva, and Maryna Arkhyrei*

18. Architecture of the Wildfire Suppression Problem Using a Heterogeneous Group of Unmanned Vehicles

*Svitlana Pavlova, Valerii Chepizhenko and Hu Rongxi*

# 4<sup>TH</sup> INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL AVIATION SYSTEMS DEVELOPMENT

March 26, 2026

**KSE Engineering School  
Kyiv School of Economics**

**online**

<https://us02web.zoom.us/j/86059409457?pwd=PNPiH7ngdm3JP5jyDOEW9ukEh5H>

[Fd8.1](#)

*Passcode 462610*

## **Section C. Open Lectures**

*Start –14:00 (EET UTC+2, Kyiv Time)*

*14:00-14:40 (EET UTC+2, Kyiv Time)*

1. Designing a standardized FPV drone pilot and instructor curriculum:  
Simulation, Hardware and flight instruction - Lessons learned from military  
PFV instruction courses  
*Associate Prof. Christian Janke Embry Riddle Aeronautical University,  
Worldwide Campus*

2. *Open lecture 2*

# 4<sup>TH</sup> INTERNATIONAL CONFERENCE ON ADVANCES IN CIVIL AVIATION SYSTEMS DEVELOPMENT

March 26, 2026

**KSE Engineering School  
Kyiv School of Economics**

**online**

<https://us02web.zoom.us/j/88980164706?pwd=lwS2wH27wi8AwqSVHvMnQzFzWSaAKw.1>

*Passcode 650506*

## **Section D.**

*Start –19:00 (EET UTC+2, Kyiv Time)*

*12:00 (EST UTC-5, Lafayette Time)*

*Moderator – Ivan Ostroumov*

1. Deep Learning-Based Image Processing for Threat Detection and Avoidance System  
*Eren Altun, Mustafa Kale, and Caner Ozcan*
2. Adaptive Encryption of Telemetry Messages Using Lightweight Cryptographic Mechanisms for Aviation ADS-B Systems  
*Inna Rozlomi, Emil Faure, and Serhii Naumenko*
3. System and Methods of Computer Vision for Detection and Recognition of Hard-to-Observe Objects in Three-Dimensional Space  
*Artem Chekhovskoi, Dmytro Krytskyi, Ihor Artomov, and Alina Artomova*
4. Cost-Effective FPV Quadrotor System for Close-Range Inspection of Port and Shipbuilding Infrastructure  
*Oleksandr Gerasin, Roman Kramarenko, Volodymyr Golikov, Andrii Topalov, Oleh Yushko, and Serhii Robotko*
5. Intelligent Software for Assessing the Language Competence of Aviation Personnel According to ICAO Standards  
*Volodymyr Polishchuk, Miroslav Kelemen, Inna Polishchuk, Martin Kelemen, Jr., and Branko Mikula*