



Coanda Scientific Events

Partners:

SC Carfil SA, Brasov



Romanian Committee for the History and
Philosophy of Science and Technology (CRIFST) of
the Romanian Academy, Bucharest



CRIFST

The 12th Edition of the International Conference
*Redefining Community in
Intercultural Context RCIC'25*
Military Ethics in the Age of Hybridity

The 26th Edition of the International Conference AFASES, 2025
*Scientific Research and
Education in the Air Force*

BRASOV

22-24 May, 2025



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CRIFST

Thursday, 22nd May, 2025

19:00 Welcome cocktail at “Henri Coandă” Air Force Academy, Officers’ Dining Facility

Friday, 23rd May, 2025

9:00 – 10:00 Registration of participants – “Henri Coandă” Air Force Academy’s Auditorium

10:00 - 10:15 CONFERENCE OPENING – “Henri Coandă” Air Force Academy’s Auditorium

Brig Gen(AF) Assoc Prof **Marius ȘERBESZKI, PhD** (Rector of “Henri Coandă” Air Force Academy)

10:15 - 11:45 PLENARY LECTURES - “Henri Coandă” Air Force Academy’s Auditorium

General (Ret) **Ștefan DĂNILĂ** (Former Chief of General Staff/ Integrated Intelligence Defence and Security Solutions, Bucharest, Romania)

Nick McCARTER (Chief Executive Officer, Chartis Federal/ Periscope Aviation, McLean, VA, United States of America)

Ella Magdalena CIUPERCĂ (National Institute for Research and Development in Informatics, ICI, Bucharest, Romania)

11:45 - 12:00 Coffee Break

12:00 - 13:30 PARALLEL PANELS

13:30 - 14:30 Lunch Break/ Officers’ Dining Facility

14:30 - 16:00 PARALLEL PANELS

16:15 - 17:30 PARALLEL PANELS

18:00 - 23:00 Conference Dinner, The Columns Hall, Officers’ Club

Saturday, 24th May, 2025

10:00 - 14:00 Guided tour. The Black Church, The First Romanian School

14:00 Departure of participants

The 26th Edition of the International Conference AFASES, 2025

Scientific Research and Education in the Air Force

AFASES 2025 CONFERENCE PROGRAMME

Friday, 23rd May, 2025 12:00-13:30

MILITARY SCIENCES. HISTORY OF MILITARY SCIENCE & TECHNOLOGY / ROOM F.E.3-4	HUMANITIES & SOCIAL SCIENCES/ ROOM F.E.2-10
<p>Chairs: Tiberiu TĂNASE & Traian OSTAHE</p> <p>1. Sevladin STOYKOV, Ivo RADULOV, Zhivo PETROV (Rakovski National Defence College, Sofia) – The Role of the Rakovski National Defence College in Increasing the Resilience of the National Security System</p> <p>2. Traian OSTAHE (Romanian Committee for the History and Philosophy of Science and Technology, CRIFST, of the Romanian Academy, Bucharest) – Learned Lessons through Clausewitz Perspective</p> <p>3. Tiberiu TĂNASE, Camelia-Elena GOLEANU (Romanian Committee for the History and Philosophy of Science and Technology, CRIFST, of the Romanian Academy, Bucharest) – Information, a Weapon of War</p>	<p>Chairs: Marius MILANDRU & Cristian DRAGOMIR</p> <p>1. Angela-Karina AVĂDĂNEI (“Mihai Viteazul” National Intelligence Academy, Bucharest), Adrian LEENCIUC (“Mihai Viteazul” National Intelligence Academy, Bucharest/ “Henri Coandă” Air Force Academy, Braşov) – Hungarian Language Media in Romania: Setting Minority Perceptions of Russia’s War Against Ukraine</p> <p>2. Margarita GAVRILOVA (“Georgi Benkovski” Air Force Academy, Dolna Mitropolia) – Proactive Learning-Shifting Towards a More Innovative Higher Education</p> <p>3. Pavlin TSONEV (“Georgi Benkovski” Air Force Academy, Dolna Mitropolia) – Enhancing Student Assessment: a Dual-Method Approach</p> <p>4. Valya TSVETANOVA (“Georgi Benkovski” Air Force Academy, Dolna Mitropolia) – Framing Aerodynamic Terminology: a Linguistic Approach Preliminary Study </p> <p>5. Marius MILANDRU (“Henri Coandă” Air Force Academy, Braşov) – Implementation of Project Management within the Military Organization</p>

AERONAUTICAL AND ATMOSPHERIC SCIENCES [I]/ ROOM F.E.3-4	ENGINEERING AND APPLIED SCIENCES/ ROOM F.E.2-10
<p>Chairs: Vasile PRISACARIU & Danail DAMYANOV</p> <ol style="list-style-type: none">1. George-Răzvan BUICAN, Robert APREOTESEI (Transilvania University, Brasov) – Design and Experimental Evaluation of an Ion Wing Prototype2. George-Răzvan BUICAN, Alexandrina IVAȘCU, Andrei BENCZE (Transilvania University, Brasov) – Bio Composite Materials as a Sustainable Solution for Modern Industries3. Andrei BENCZE, George-Răzvan BUICAN (Transilvania University, Brasov) – Design Optimization Using FEM for Cargo Floor Strut4. Andrei BENCZE (Transilvania University, Brasov) – Study on the Use of 3D Printed Parts for Aircrafts and Drones5. Darius BOGHIEZ, George-Răzvan BUICAN (Transilvania University, Brasov) – Design and Experimental Evaluation of an Ion Engine Prototype.6. Danail DAMYANOV (“Georgi Benkovski” Air Force Academy, Dolna Mitropolia) – Structural Analysis. The Malfunctions of the Gas Turbine Engine Ai-25TI7. Vasile PRISACARIU, Alexandru-Ioan CIUR, (“Henri Coandă” Air Force Academy, Brașov) – Aerodynamic Analysis Regarding the Flight Parameters of Modern Jet Trainers8. Alexandru-Nicolae TUDOSIE (University of Craiova), Elena-Elisa DRAGOMIR (In Flight Test Research and Innovation Center, Craiova), Daniel-Cristian DRAGOMIR (University of Craiova) – Automatic Control of a Supersonic Air Inlet with Variable Inner Cross-Section	<p>Chairs: Cornel ARAMĂ & Liviu GĂINĂ</p> <ol style="list-style-type: none">1. Gabriel ANASTASIU (“Dragos Voda” National College, Câmpulung Moldovenesc), Andreea Valentina ANASTASIU (Polytechnic University, Cluj-Napoca), – Aspects of Hamming Encryption Using Raspberry PI Pico2. Cornel ARAMĂ (“Henri Coandă” Air Force Academy, Brașov) – A Study on Methods to Apply the Energy Conservation Theorem in the Investigation of Traffic Accidents Using Detailed Breakdown of Energies3. Nicolae CONSTANTIN, Anișor NEDELCU (Transilvania University, Brasov) – Enhancing Flood Response in Romania: The Role of AI and Integrated Alarm Systems4. Andrei LUCHIAN (Transilvania University, Brasov) – Cybersecurity in Airports – Challenges, Technologies, and Protection Strategies for Critical Infrastructure5. Liviu GĂINĂ, Alin MECLEA (“Henri Coandă” Air Force Academy, Brașov) – Energy Independence: An Essential Pillar for Critical Infrastructure Resilience

Friday, 23rd May, 2025 16:15-17:30

AERONAUTICAL AND ATMOSPHERIC SCIENCES [II]/ ROOM F.E.3-4	AERONAUTICAL AND ATMOSPHERIC SCIENCES [III]/ ROOM F.E.2-10
<p style="text-align: center;">Chairs: Ionică CÎRCIU & Mihai PRICOP</p> <p>1. Ionică CÎRCIU (“Henri Coandă” Air Force Academy, Braşov) – Versatility, Adaptability and Flexibility of Helicopter Armament Variants</p> <p>2. Constantin Adrian MIHAI, Romulus LUNGU (Polytechnic University, Bucharest) – Nonlinear Dynamics and Adaptive Control Using The Dynamic Inversion Concept and Neural Networks for a Guidance Gyrosystem (GG) With One Gyroscope and Two Suspension Gimbals (GAR) Part 1. Obtaining the Nonlinear Dynamic Model</p> <p>3. Constantin Adrian MIHAI, Romulus LUNGU (Polytechnic University, Bucharest) – Nonlinear Dynamics and Adaptive Control Using The Dynamic Inversion Concept and Neural Networks for a Guidance Gyrosystem (GG) With One Gyroscope and Two Suspension Gimbals (GAR) Part 2. Adaptive Control Architecture Design and Validation</p> <p>4. Mihai PRICOP, Ionuț BUNESCU, Vlăduț HOTHAZIE, Mihăiță Gilbert STOICAN, Leonida NICULESCU (“Elie Carafoli” National Institute for Aerospace Research and Development, Bucharest) – Impact Theory Applied for Hypersonic Vehicles</p> <p>5. Mihai PRICOP, Ionuț BUNESCU, Vlăduț HOTHAZIE, Mihăiță Gilbert STOICAN (“Elie Carafoli” National Institute for Aerospace Research and Development, Bucharest) – Identification of Optimal Dihedral Angle of an X-Wing Loitering Munition</p>	<p style="text-align: center;">Chairs: Adrian PITICAR & Eduard MIHAI</p> <p>1. Adrian PITICAR, Alexandru TUDOR (“Henri Coandă” Air Force Academy, Braşov) – Increase in freezing level height in Romania over the 1980-2024 period</p> <p>2. Marilena-Ioana ZUZEAC, Bogdan ANTONESCU (University of Bucharest) – The Climatology of Aviation Hazards Impacting Romanian Airports</p> <p>3. Vasile PRISACARIU, Răzvan MĂNESCU (“Henri Coandă” Air Force Academy, Braşov) – Considerations for of Atmospheric and Environmental Data Acquisition with Quadcopter UAV</p> <p>4. Simona ANDREI, Mariana ADAM, Alexandru DANDOCSI (National Institute for Research and Development in Optoelectronics - INOE 2000) – The use of CAMS products for supporting the atmospheric monitoring and air quality assessment in Romania.</p> <p>5. Marius TUTUNEA (“Henri Coandă” Air Force Academy, Braşov) – Research of the Ground Mobile UAV Stations Used in Search and Rescue Missions</p> <p>6. Eduard MIHAI (“Henri Coandă” Air Force Academy, Braşov) – The Future of Air Navigation in the Context of Evolving Artificial Intelligence</p>