

Lucrări științifice:

Un număr de 52 de articole științifice au fost publicate pe blog-ul *Substance* al facultății ÉTS. Dr. Botez prezentat lucrări privind cercetările sale și ale echipei la 58 evenimente internaționale în calitate de invitat. Implicarea în *social media* demonstrează angajamentul cercetătoarei față de diseminarea sporită a rezultatelor cercetării sale. Pentru mai multe detalii, se poate consulta site-ul *Research Gate*. În prezent dr. Botez este una din cele mai cunoscute cercetătoare în funcție de numărul de citiri (Read) ale articolelor = 314.235, ceea ce indică interesul mare față de rezultatele cercetărilor prezentate în publicațiile sale.

Dr. Botez a fost clasată, în funcție de numărul ei de publicații **din perioada 2011-2021** pe locul 1 în Canada în domeniile *Aircraft Optimization*, *Aircraft Model*, *Aircraft Aerodynamics*, *Aircraft Simulation*, pe locul 1 la nivel mondial în domeniul *Aircraft Optimization* și pe locul 3 la nivel mondial în domeniul *Aircraft Model*. Publicațiile dnei dr. Botez au fost citate, prin utilizarea factorului **Field-Weighted Citation Impact FWCI** calculat în baza de date *Scopus* (mai mult decât media mondială a citărilor) în cele trei domenii de cercetare ale ei: *Morphing*; *Wing Camber*; *Ailerons* - cu 47%, *Airports*; *Air Transportation*; *Aircraft* - cu 167%, *Trajectory Optimization*; *Flight Management Systems*; *Vertical Flight* - cu 172% mai mult.

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302. Van Iersel, Q. G., Murrieta-Mendoza, A., Félix Patrón, R. S., Hashemi, S. M., Botez, R. M., "The Attack and Defense on Aircraft Trajectory Prediction Algorithms", *AIAA Aviation 2022*, Chicago, IL, SUA, 27 iunie-1 iulie.
303. Dos Santos, S. B., Botez, R. M., Bueno, D. D., 2023, "Damage Detection in Concrete Structures from Aerial Photographs obtained by UAV", *Symposium of the Graduate Program in Mechanical Engineering (PPGEM)*, Ilha Solteira, Brazilia.
304. Durand, A., Ghazi, G., Botez, R. M., 2023, "An Innovative Approach to Aircraft Ground Trajectory Optimization using a Bi-Directional A* Algorithm", *Canadian Aeronautical Society Institute (CASI) Symposium*, Ottawa, Canada, 14-16 noiembrie.
305. Gurrola Arrieta, M. J., Lasne, A., Botez, R. M., 2023, "Fuel Consumption Evaluation of a Regional Aircraft using a High-Fidelity Cycle Model", *Canadian Aeronautical Society Institute (CASI) Symposium*, Ottawa, Canada, 14-16 noiembrie.
306. Zohreh Nejad, E. E., Ghazi, G., Botez, R. M., 2023, "Development of Nonlinear Six-Degree-of-Freedom Ground Dynamics Model for the Cessna Citation X", *Canadian Aeronautical Society Institute (CASI) Symposium*, Ottawa, Canada, 14-16 noiembrie.
307. Hosseini, S. M., Kierbel, R., Ghazi, G., Botez, R. M., 2023, "Development of a Fuzzy Logic-based Control System for the Lateral Motion of the Cessna Citation X Business Aircraft", *Canadian Aeronautical Society Institute (CASI) Symposium*, Ottawa, Canada, 14-16 noiembrie.
308. Durand, A., Toulet, M., Ghazi, G., Botez, R. M., 2023, "Cessna Citation X Ground Performance Model for estimating Fuel Consumption and Emissions during Taxiing Operations", *Canadian Aeronautical Society Institute (CASI) Symposium*, Ottawa, Canada, 14-16 noiembrie.
309. Negahban, M. H., Botez, R. M., 2023, "Twist Morphing Wing for Rolling Maneuver: Application to UAS-S45", *Canadian Aeronautical Society Institute (CASI) Symposium*, Ottawa, Canada, 14-16 noiembrie.
310. Szymanski, M., Ghazi, G., Botez, R., 2023, "Single and Multi-Agent Reinforcement Learning Approach to Optimize Aircraft Ground Trajectories at Airports", *Joint 10th European Conference for Aeronautics and Space Sciences (EUCASS) & 9th Council of European Aerospace Societies (CEAS) Conference*, Lausanne, Elveția, 9-13 iulie.
311. Andrianantara, R. P., Ghazi, G., Botez, R. M., 2023, "Neural Network Adaptive Controller with Approximate Dynamic Inversion for Pitch Control of the Cessna Citation X", *American Institute of Aeronautics and Astronautics AIAA AVIATION Forum*, San Diego, SUA, 12-16 iunie.

312. Bashir, M., Negahban, M. H., Botez, R. M., Wong, T., 2023, "Aerodynamic Flow Control using a Dynamically Morphing Leading Edge (DMLE) for the UAS-S45 Airfoil", *American Institute of Aeronautics and Astronautics AIAA AVIATION Forum*, San Diego, SUA, 12-16 iunie.
313. Hosseini, S. M., Ghazi, G., Botez, R. M., 2023, "Application of Type One Adaptive Fuzzy Sliding Mode Control System for the Longitudinal Motion of the Cessna Citation X", *American Institute of Aeronautics and Astronautics AIAA AVIATION Forum*, San Diego, SUA, 12-16 iunie.
314. Tondji, Y., Ghazi, G., Botez, R. M., 2023, "CRJ 700 Longitudinal Aerodynamic Coefficients Identification using Support Vector Machine", *American Institute of Aeronautics and Astronautics AIAA AVIATION Forum*, San Diego, SUA, 12-16 iunie.
315. Hosseini, S. M., Ghazi, G., Botez, R. M., 2023, "Design of a Type Two Fuzzy-based system to Control the Pitch Rate of the Cessna Citation X", *American Institute of Aeronautics and Astronautics AIAA AVIATION Forum*, San Diego, SUA, 12-16 iunie.
316. Hosseini, S. M., Inga, C., Ghazi, G., Botez, R. M., 2023, "Model-Referenced Adaptive Flight Controller based on Recurrent Neural Network for the Longitudinal Motion of Cessna Citation X", *American Institute of Aeronautics and Astronautics AIAA AVIATION Forum*, San Diego, SUA, 12-16 iunie.
317. Hashemi, S. M., Botez, R. M., Ghazi, G., 2023, "Comparison Study between PoW and PoS Blockchains for Unmanned Aircraft System Traffic Management", *American Institute of Aeronautics and Astronautics AIAA AVIATION Forum*, San Diego, SUA, 12-16 iunie.
318. Szymanski, M., Ghazi, G., Botez, R. M., 2023, "Development of a Map-Matching Algorithm for the Analysis of Aircraft Ground Trajectories using ADS-B Data", *American Institute of Aeronautics and Astronautics AIAA AVIATION Forum*, San Diego, SUA, 12-16 iunie.
319. Bashir, M., Longtin Martel, S., Botez, R. M., Wong, T., 2023, "Design of a Variable Camber Morphing Winglet with Composite Lamination Structural Analysis and Failure Analysis–Application to the UAS-S45", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, National Harbor, MD, SUA, 23-27 ianuarie.
320. Hashemi, S., Hashemi, S. A., Botez, R. M., Ghazi, G., 2023, "Attack-tolerant Trajectory Prediction using Generative Adversarial Network Secured by Blockchain Application to the UAS-S4 Ehécatl", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, National Harbor, MD, SUA, 23-27 ianuarie.
321. Bashir, M., Zonzini, N., Botez, R. M., Ceruti, A., Wong, T., 2023, "Numerical Investigation of a Dynamically Morphing UAS-S45 Wing Airfoil at Moderate Reynolds Number", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, National Harbor, MD, SUA, 23-27 ianuarie.
322. Geronel, R. S., Botez, R. M., Bueno, D. D., 2023, "A Vibration Suppression for Payloads attached to an UAV based on SMA Springs", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, National Harbor, MD, SUA, 23-27 ianuarie.
323. Hashemi, S., Hashemi, S. A., Botez, R. M., Ghazi, G., 2023, "A Novel Air Traffic Management and Control Methodology using Fault-Tolerant Autoencoder and P2P Blockchain Application on the UAS-S4 Ehécatl", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, National Harbor, MD, SUA, 23-27 ianuarie.
324. Negahban, M. H., Bashir, M., Botez, R. M., 2023, "Aerodynamic Optimization of a Novel Synthetic Trailing Edge and Chord Elongation Morphing: Application to the UAS-S45 Airfoil", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, National Harbor, MD, SUA, 23-27 ianuarie.
325. Zohreh Nejad, E., Ghazi, G., Botez, R. M., 2023, "Modeling the Longitudinal Dynamics of the Cessna Citation X using Neural Network Methodology", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, National Harbor, MD, SUA, 23-27 ianuarie.
326. Longtin Martel, S., Bashir, M., Botez, R., Wong, T., 2023, "A Pareto Multi-Objective Optimization of a Camber Morphing Airfoil using Non-Dominated Sorting Genetic Algorithm", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, National Harbor, MD, SUA, 23-27 ianuarie.

327. Grigorie, L. T., Botez, R. M., Grigorie, O., Jula, N., 2024, "INS-MEMS/GPS Integrated Systems based Artificial Intelligence Algorithms for Navigation in GPS Challenging Environments", *2nd International Conference on Aerospace and Aeronautical Engineering*, Florence, Italia, 21-22 martie.
328. Kuitche, M. A. Jr., Yañez-Badillo, H., Botez, R. M., 2024, "Flight Dynamics and Control of UAS-S4 and S45", *2nd International Conference on Unmanned Vehicle Systems-Oman (UVS)*, Muscat, Oman, 12-14 februarie.
329. Bashir, M., Botez, R. M., Wong, T., 2024, "Effect of Dynamic Camber Morphing on Dynamic Stall Characteristics of the Bombardier CRJ-700", *AIAA AVIATION Forum & Exposition*, Las Vegas, SUA, 29 iulie-2 august.
330. Hosseini, S. M., Bematol, I., Ghazi, G., Botez, R. M., 2024, "A Novel Particle Swarm Optimization Based Fuzzy Super-Twisting Sliding Mode Control System for the Lateral Motion of Cessna Citation X", *AIAA AVIATION Forum & Exposition*, Las Vegas, SUA, 29 iulie-2 august.
331. Watteau, T., Ghazi, G., Botez, R. M., 2024, "Optimizing Airport Ground Movements using Multi-Agents Reinforcement Learning", *AIAA AVIATION Forum & Exposition*, Las Vegas, SUA, 29 iulie-2 august.
332. Hashemi, S. M., Botez, R. M., Ghazi, G., 2024, "Long Term Trajectory Prediction Enhancement by Embedding Attention Mechanism in Long Short Term Memory Model; Application to the UAS-S4 Ehécatl", *AIAA AVIATION Forum & Exposition*, Las Vegas, SUA, 29 iulie-2 august.
333. Andrianantara, R. P., Mancera Coyotl, F. D., Ghazi, G., Botez, R. M., 2024, "Robust Pitch Control of the Cessna Citation X Using C-Star Architecture and Adaptive Neural Networks", *AIAA AVIATION Forum & Exposition*, Las Vegas, SUA, 29 iulie-2 august.
334. Durand, A., Ghazi, G., Botez, R. M., 2024, "Enhancing Best-First Search Algorithms for Aircraft Ground Trajectory Optimization with Non-Additive Cost Functions", *AIAA AVIATION Forum & Exposition*, Las Vegas, SUA, 29 iulie-2 august.
335. Dos Santos, B. S., Botez, R. M., Geronel, R. S., Dos Santos, C. Jr., Bueno, D. D., 2024, "Aerial Photographs for Crack Detection in Concrete Structures using Convolutional Neural Networks", Universidade Estadual Paulista (UNESP) – Regional Meeting of Applied and Computational Mathematics ERMAC, Isla Solteira, Brazilia, 25-27 iulie.
336. Zohreh Nejad, E. E., Aillot, P., Henry, C., Ghazi, G., Botez, R., 2024, "Cessna Citation X Ground Speed Control using Deep Reinforcement Learning", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, Orlando, FL., SUA, 8-12 ianuarie.
337. Bashir, M., Botez, R., Wong, T., 2024, "Design and Optimization of Droop Nose Leading Edge (DNLE) Morphing Wing Skin for the UAS-S45", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, Orlando, FL., SUA, 8-12 ianuarie.
338. Quintin, E., Andrianantara, R. P., Ghazi, G., Botez, R., 2024, "Neural Network Adaptive Controller with Approximate Dynamic Inversion for the Cessna Citation X Lateral Control", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, Orlando, FL., SUA, 8-12 ianuarie.
339. Andrianantara, R. P., Ghazi, G., Botez, R., 2024, "Model Predictive Controller with Adaptive Neural Networks and Online State Estimation for Pitch Rate Control of the Cessna Citation X", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, Orlando, FL., SUA, 8-12 ianuarie.
340. Hashemi, S. M., Botez, R., Ghazi, G., 2024, "Fault-tolerant Trajectory Prediction using Random Forest Methodology Application to UAS-S4 Ehécatl", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, Orlando, FL., SUA, 8-12 ianuarie.
341. Hosseini, S. M., Ghazi, G., Botez, R., 2024, "Design of a Nonlinear Adaptive Fuzzy Logic System for Cessna Citation X Speed Control", *American Institute of Aeronautics and Astronautics AIAA SciTech Forum*, Orlando, FL., SUA, 8-12 ianuarie.
342. Dos Santos, S. B., Botez, R. M., Bueno, D. D., 2025, "Crack Detection in Concrete Structures Using UAVs and Convolutional Neural Networks", *International Symposium on Dynamic Problems of Mechanics DINAME*, Águas de Lindóia, São Paulo (SP), Brazilia.

Manuale de specialitate pentru predarea cursurilor la ÉTS în limba franceză, publicate la librăria COOP a ÉTS-ului (6):

1. Botez, R. M., 2004, "Notes de laboratoires - Contrôle des avions" – GPA 741, 68 pagini.
2. Botez, R. M., 2005, "Notes de cours - Contrôle des avions" – GPA 741, 296 pagini.
3. Botez, R. M., 2006, "Notes de travaux pratiques - Résistance des matériaux" – GPA 305, 130 pagini.
4. Botez, R. M., 2007, "Notes de laboratoires - Introduction à l'avionique" – GPA 745, 106 pagini.
5. Botez, R. M., 2017, "Notes de cours - Résistance des matériaux" – GPA 305, 192 pagini.
6. Botez, R. M., 2021, "Notes de cours - Introduction à l'avionique" - GPA 745, 400 pagini.

Articole publicate în Substance la ÉTS pentru diseminarea științifică a cercetării atât în limba engleză, cât și în limba franceză, pe site:

1. Murrieta Mendoza, A., Botez, R., 2014, "Réduire les émissions de CO2 des avions commerciaux".
2. Murrieta Mendoza, A., Botez, R., 2014, "Reducing CO2 emissions of commercial aircrafts".
3. Dăncilă, R. I., Botez, R., Ford, S., 2014, "Missed Approaches and rejected Landings - Economic and Environmental Impact".
4. Dăncilă, B., Botez, R., 2014, "New FMS Algorithm for predicting Aircraft's Level-Flight Fuel Burn".
5. Dăncilă, B., Botez, R., 2014, "Nouvel algorithme pour prédire la consommation d'essence d'un avion en vol".
6. Felix Patron, R. S., Botez, R., 2015, "How to make Fuel-Efficient Trajectories to reduce Aircraft CO2 Emissions".
7. Felix Patron, R., Botez, R., 2015, "Comment réduire les émissions de CO2 des avions".
8. Berrou, Y., Felix Patron, R.S., Botez, R., 2015, "How to optimize Aircraft Flight Path to reduce their CO2 Emissions!"
9. Berrou, Y., Felix Patron, R.S., Botez, R., 2015, "Comment optimiser la trajectoire de vol de avions pour réduire leurs émissions de CO2!"
10. Tchatchueng Kammegne, M.J., Grigorie, L.T., Botez, R.M., 2016, "Real-Time Testing of a Morphing Wing Model in a Wind Tunnel".
11. Tchatchueng Kammegne, M.J., Grigorie, L.T., Botez, R.M., 2016, "Tests en temps réel d'un démonstrateur d'aile déformable en soufflerie".
12. Murrieta Mendoza, A., Botez, R., 2016, "Fuel Consumption Computation to optimize the Trajectory of Aircraft".
13. Murrieta Mendoza, A., Botez, R., 2016, "Calculer la consommation de carburant pour optimiser la trajectoire de vol".
14. Tchatchueng Kammegne, M.J., Grigorie, L.T., Botez, R.M., 2016, "Morphing Wing Design to reduce Airplane Fuel Consumption".
15. Tchatchueng Kammegne, M.J., Grigorie, L.T., Botez, R.M., 2016, "Une aile déformable d'avion pour réduire la consommation de carburant".
16. Murrieta Mendoza, A., Botez, R., 2016, "Dijkstra's Algorithm to optimize Flight Trajectories".
17. Murrieta Mendoza, A., Botez, R., 2016, "L'algorithme de Dijkstra pour optimiser les trajectoires de vol".
18. Murrieta-Mendoza, A., Beuze, B., Ternisien, L., Botez, R., 2017, "Search Algorithm to Optimize Vertical Reference Trajectories".
19. Murrieta-Mendoza, A., Beuze, B., Ternisien, L., Botez, R., 2017, "L'algorithme de recherche en faisceau pour optimiser les trajectoires".
20. André, T., Communier, D., Flores Salinas, M., Botez, R., Carranza Moyao, O., Wong, T., Gauthier, G., 2017, "Mesure de l'influence d'un aileron sur le comportement aérodynamique en soufflerie".

21. André, T., Communier, D., Flores Salinas, M., Botez, R., Carranza Moyao, O., Wong, T., Gauthier, G., 2017, "Measuring Impact of an Aileron on Aerodynamic Behaviour in a Wind Tunnel".
22. Machtetto, A., Communier, D., Botez, R., Carranza Moyao, O., Wong, T., 2017, "Automatisation du changement d'angle d'une aile dans la soufflerie Price – Païdoussis du LARCASE".
23. Machtetto, A., Communier, D., Botez, R., Carranza Moyao, O., Wong, T., 2017, "Automating Wing Angle Changes inside the LARCASE Price – Païdoussis Wind Tunnel".
24. Botez, R. M., 2017, "ICAO's Efforts to Reduce GHG Emissions".
25. Botez, R. M., 2017, "Les démarches de l'OACI pour réduire les émissions de GES".
26. Botez, R. M., 2017, "Trois projets de recherche pour aider l'OACI à réduire ses émissions de gaz à effet de serre GES".
27. Botez, R. M., 2017, "Three Research Projects to help ICAO to reduce Greenhouse Gas Emissions".
28. Segui, M., Thompson, E., Botez, R., 2018, "Aerodynamic Modeling of the World's Fastest Business Jet".
29. Segui, M., Thompson, E., Botez, R., 2018, "Modélisation aérodynamique du jet d'affaire le plus rapide du monde".
30. Segui, M., Ghazi, G., Mantilla, M., Bezin, S., Botez, R., 2018, "Morphing Wing Technology – For the Future of Aviation".
31. Segui, M., Ghazi, G., Mantilla, M., Bezin, S., Botez, R., 2018, "L'aile déformable: une technologie d'avenir pour l'aviation".
32. Segui, M., Mantilla, M., Botez, R., 2018, "Original Methods for finding a Wing Shape Airfoil".
33. Segui, M., Mantilla, M., Botez, R., 2018, "Méthodes originales pour déterminer la forme d'un profil d'aile".
34. Bardela, P. A., Pageaud, P., Botez, R., 2018, "Validation d'un modèle pour le compresseur d'un moteur Cessna".
35. Bardela, P. A., Pageaud, P., Botez, R., 2018, "Validation of a Cessna Engine Compressor Model".
36. Communier, D., Botez, R., Wong, T., 2019, "Analyse d'un nouveau système de bord de fuite déformable".
37. Communier, D., Botez, R., Wong, T., 2019, "Analyzing a New Morphing Trailing Edge System".
38. Kuitche, M., Botez, R. M., 2019, "Améliorer les performances des drones en utilisant des simulateurs de vol".
39. Kuitche, M., Botez, R. M., 2019, "Improving Drone Performance using Flight Simulators".
40. Dăncilă, R. I., Botez, R., 2020, "Nouveau modèle atmosphérique pour l'optimisation des trajectoires de vol".
41. Dăncilă, R. I., Botez, R., 2020, "New Atmospheric Data Model for Flight Trajectory Optimization".
42. Ghazi, G., Maniette, N., Botez, R., 2020, "Des trajectoires de décollage qui réduisent l'impact environnemental".
43. Ghazi, G., Maniette, N., Botez, R., 2020, "Takeoff Trajectories to Reduce Environmental Impacts".
44. Khan, S., Botez, R., Grigorie, L.T., 2020, "Un actionneur d'aile déformable novateur grâce à l'IA".
45. Khan, S., Botez, R., Grigorie, L.T., 2020, "Artificial Intelligence Methods for a Novel Morphing Wing Actuator".
46. Bashir, M., Longtin-Martel, S., Botez, R., Wong, T., 2021, "Morphing Application to the UAS-S45 Drone for Aerodynamic Performance".
47. Bashir, M., Longtin-Martel, S., Botez, R., Wong, T., 2021, "Un drone à ailes déformables pour augmenter l'aérodynamisme".
48. Botez, R. M., 2022, "Réduire l'impact environnemental des avions".

49. Bashir, M., Longtin-Martel, S., Botez, R., Wong, T., 2022, "Nouvelles technologies d'aile déformable pour les drones de l'avenir".
50. Negahban, M. H., Bashir, M., Botez, R. M., 2023, "Technologie de drones de nouvelle génération appliquée à l'UAS-S45".
51. Gurrola Arrieta, M. J., Botez, R., 2023, "In-House High-Fidelity Simulation Model for Aircraft Engines".
52. Gurrola Arrieta, M. J., Botez, R., 2023, "Modèle de simulation haute-fidélité pour moteurs d'avion".

Keynote, Plenary, Panel și Invited Speaker la diverse evenimente și conferințe:

1. *Invited Guest Speaker and Moderator*, 2008, "Avionics Session", The International Aerospace Innovation Forum, Montreal, Que., Canada.
2. *Invited Speaker*, 2012, "Research performed at the Laboratory of Applied Research in Active Controls, Avionics and AeroServoElasticity", University of Clarkson, Mechanical and Aeronautical Engineering Department, Clarkson, NY, SUA, 24 octombrie.
3. *Keynote Speaker*, 2012, "Morphing Wing Laminar Flow Improvement", The International Conference of Aerospace Institute for Aerospace Research Elie Carafoli INCAS "AEROSPATIAL 2012", București, România, 11-12 octombrie.
4. *Keynote Speaker*, 2014, "Increase of Aerodynamic Performance of a Wing-Tip Design", The International Conference of Aerospace Institute for Aerospace Research Elie Carafoli INCAS "AEROSPATIAL 2014", București, România, 18-19 septembrie.
5. *Plenary Speaker*, 2014, "Aerospace Engineering Women", The "Woman Leadership" Workshop at the CSME International Congress, Ottawa, Ont., Canada, 1 iunie.
6. *Plenary Speaker*, 2015, "UAV Sustainability", The 62nd Canadian Aeronautical Space Institute CASI Aeronautics and AGM 3rd GARDN Conference, Montreal, Que., Canada, 19-21 mai.
7. *Keynote Speaker*, 2015, "Level D Research Aircraft Flight Simulator use for Novel Methodologies in Aircraft Modeling and Simulation", The 2nd International Workshop on Numerical Modeling in Aerospace Sciences "NMAAS 2015", București, România, 6-7 mai.
8. *Plenary Speaker*, 2016, "New Methodologies for Green Aircraft Flight Trajectories Optimization", The ESTACA's International Week, Plenary Green Transportation Session, Paris, Franța, 14-16 noiembrie.
9. *Invited Speaker*, 2016, "Innovative Wing Tip Equipped with Morphing Upper Surface and Morphing Aileron", The Greener Aviation 2016 Conference, Bruxelles, Belgia, 11-13 octombrie.
10. *Invited Keynote Speaker*, 2016, "Finite Elements Methods Utilization in Morphing Wing Tip Technologies", The Aerospace Engineering Analysis & Simulation: NAFEMS Event, Montreal, Que., Canada, 4 octombrie.
11. *Invited Keynote Speaker*, 2016, "New Methodologies for Missed Approach Computing in terms of Fuel Consumption and Emissions for a Boeing B-737-400", The International Conference of Aerospace Sciences "AEROSPATIAL 2016", București, România, 26-27 octombrie.
12. *Plenary Speaker* at the "Round Table on the Canadian-Romanian Research Collaborations", 2016, The Academic Forum at the 40th American Romanian Academy of Arts and Sciences ARA, Montreal, Que., Canada, 28-31 iulie.
13. *Keynote Speaker*, 2016, "Advances in Aircraft Modeling and Simulation Methodologies", The 40th American Romanian Academy of Arts and Sciences ARA, Montreal, Que., Canada, 28-31 iulie.
14. *Invited Speaker*, 2016, "Aircraft Computational and Experimental Advanced Methodologies", The 10th International Conference on Advanced Computational Engineering and Experimenting ACE-X 2016, Split, Croația, 3-6 iulie.
15. *Keynote Speaker*, 2016, "Modeling and Simulation for Environmentally Better Aircraft", CMC Electronics Professional Event, Montreal, Que., Canada, 30 mai.
16. *Keynote Speaker*, 2016, "Multidisciplinary Modelling, Simulation and Experimental Methods applied to Aerodynamics, Materials, and Active Controls Issues", The 6th International

- Conference & Workshop REMOO-2016, Budva, Montenegro, 18-20 mai.
17. *Keynote Speaker*, 2016, "Methodologies for Identification of an Aero-Propulsive Engine Model from Flight Tests", 4th International Workshop on Numerical Modelling in Aerospace Sciences, NMAS 2016, București, România, 11-12 mai.
 18. *Invited Speaker*, 2016, "Modeling, Simulation and Wind Tunnel Testing of Aircraft Trajectory Optimization and Morphing Wing Aircraft", NASA Ames Research Center, San Jose, CA, SUA, 15 octombrie.
 19. *Invited Speaker*, 2017, "Aircraft Computational and Experimental Flight Trajectories Optimization", The 10th International Conference on Advanced Computational Engineering and Experimenting ACE-X2017, Viena, Austria, 3-6 iulie.
 20. *Plenary Speaker*, 2017, "New Methodologies Validations with Experimental Tests for Aircraft Components and Energy Applications", The 7th International Conference & Workshop REMOO-2017, Veneția, Italia, 10-12 mai.
 21. *Keynote Speaker*, 2018, "Green Aircraft Minimum Fuel Consumption Methodologies", GLObal and Regional Environmental Protection – GLOREP 2018, Timișoara, România, 15-17 noiembrie.
 22. *Invited Speaker*, 2018, "Green Aircraft Modeling and Simulation based on Flight Tests", Technion – Israel Institute of Technology, Haifa, Israel, 5 noiembrie.
 23. *Plenary Speaker*, 2018, "Various Wing Morphing Technologies Simulation and Experimental Tests Research", The International Conference of Aerospace Sciences AEROSPATIAL 2018, INCAS, București, România, 25-26 octombrie.
 24. *Invited Speaker*, 2018, "Romanian Aces during the two World Wars", The 100 Years of Aviation in Romania Conference, Academia Română, București, România, 24 octombrie.
 25. *Keynote Speaker*, 2018, "Présentation de la gestion des projets académiques au LARCASE à l'ÉTS", PMI, Montreal Section, Communauté de Pratique Aéronautique et Transport aérien du PMI-Montréal, Que., Canada, 12 septembrie.
 26. *Invited Speaker*, 2018, "Optimized Neural Network Applications for Aircraft Engine Modeling", The 29th European Conference on Operational Research EURO-2018, Valencia, Spania, 8-11 iulie.
 27. *Invited Speaker*, 2018, "Adaptive Neuro-Fuzzy Inference System Application for the Design and Experimental Validation of Morphing Wing Tip", The 8th International Conference & Workshop REMOO Energy 2018, Veneția, Italia, 29-31 mai.
 28. *Invited Speaker*, 2018, "Aero-Propulsive Engine Modelling based on Flight Test Data", The 42nd American Romanian Academy of Arts and Science ARA Congress: ARA at the Great Union Centenary, Cluj, România, 19-25 mai.
 29. *Invited Speaker*, 2018, "Mihai and Alexandru Ciucă Brothers – Romanian Scientists", The 42nd American Romanian Academy of Arts and Science ARA Congress: ARA at the Great Union Centenary, Cluj, România, 19-25 mai.
 30. *Keynote Speaker*, 2018, "Simulation Model of the Unmanned Aerial Systems UAS-S4 Ehecalt and UAS-S45 Báalam", The 6th International Workshop on Numerical Modelling in Aerospace Sciences NMAS 2018, București, România, 16-17 mai.
 31. *Invited Speaker*, 2018, "Identification and Validation Methodologies of an Aero-Propulsive Engine Model from Flight Tests", The 12th International Conference on Advanced Computational Engineering and Experimenting ACE-X 2018, Amsterdam, Olanda, 1-5 iulie.
 32. *Invited Speaker*, 2018, "Morphing Wing Technologies Aero-Structural Interactions Studies", The BIT's 4th Annual World Congress of Smart Materials – 2018 on the Theme: Weaving an Avatar Dream Together" WCSM-2018, Osaka, Japonia, 6-8 martie.
 33. *Keynote Speaker*, 2019, "Morphing Horizontal Tail Airfoil Design for the Cessna Citation X Business Aircraft Modeling", The 38th Caius Iacob Conference on Fluid Mechanics and its Technical Applications, București, România, 7-8 noiembrie.
 34. *Keynote Speaker*, 2019, "A Morphing Wing Application with a Full-Scaled Portion of a Real Wing", The 9th International Conference & Workshop Energy Reliability REMOO 2019, Hong Kong, 16-18 aprilie.
 35. *Keynote Speaker*, 2019, "Adaptive Wing Design Novel Multidisciplinary Methodologies",

- XXV International Congress of the Italian Association of Aeronautics and Astronautics, Roma, Italia, 9-12 septembrie.
36. *Keynote Speaker*, 2019, "Aircraft Modeling and Simulation Technologies using Morphing Winglets", The 7th International Workshop on Numerical Modelling in Aerospace Science NMAS Conference, București, România, 15-16 mai.
 37. *Keynote Speaker*, 2019, "Wind Tunnel Testing of a Morphing Wing Experimental Model for a Regional Aircraft", The Tandem Aero-Days Conference, București, România, 27-30 mai.
 38. *Keynote Speaker*, 2019, "Structural Modeling for Morphing Wings", The 26th Assembly of Advanced Material Congress IAAM, Stockholm, Suedia, 10-13 iunie.
 39. *Keynote Speaker*, 2019, "Fuzzy Logic Modified Methodology Application in a Green Aircraft Technology", The 30th European Conference on Aerospace Research EURO-2019, Dublin, Irlanda, 23-26 iunie.
 40. *Keynote Speaker*, 2019, "Experiments on a Morphing Wing Model for a Full Scaled Portion of a Real Wing", The 21st Edition of the International Conference on Scientific Research and Education in the Air Force AFASES 2019, Brașov, România, 31 mai - 2 iunie.
 41. *Keynote Speaker*, 2019, "Novel Control Technologies for a Morphing Wing Tip", The 2nd Aerospace and Aeronautical Engineering Conference, Frankfurt, Germania, 18-19 februarie.
 42. *Plenary Speaker*, 2020, "Artificial Neural Networks New Methodology Application for Aerodynamic Coefficients Calculations for Airfoil Shape Design", The 9th Edition of the International Conference of Aerospace Science, București, România, 15-16 octombrie.
 43. *Keynote Speaker*, 2021, "Morphing Wing and Morphing Wing Tip Design for Flow Transition Delay", International Symposium on Electric Aircraft & Autonomous Systems ISEAS-2021, Eskisehir Technical University, Eskisehir, Turcia, 16-18 decembrie.
 44. *Plenary Speaker*, 2021, "Prediction of a Flight Dynamics Model for the Unmanned Aerial System UAS-S4 from Hydra Technology", The 39th Caius Iacob Conference on Fluid Mechanics and its Technical Applications, București, România, 28-29 octombrie.
 45. *Keynote Speaker*, 2021, "Optimisation of an Adaptive Wing Systems", International Conference on Adaptive Structures and Technologies ICAST-2021, ETH Zurich, Elveția, 5-8 octombrie.
 46. *Workshop Invited Speaker*, 2021, "Future of Space Engineering" - Workshop Aerospace Engineering", The 18th Edition of the International Multi-Conference on Systems Signals and Devices (SSD), Tunisia, 22 martie. Acest atelier virtual a avut loc ca activitate în cadrul proiectului germano-tunisian PRASEE, care promovează modernizarea educației și orientarea spre practică în cadrul studiilor de inginerie.
 47. *Invited Speaker*, 2021, "Flight Dynamics Analysis Studies for Unmanned Aerial Systems UAS-S4 and UAS-S45 from Hydra Technologies", The Virtual 14th International Conference on Advanced Computational Engineering and Experimenting ACEX-2021, Malta, 4-8 iulie.
 48. *Invited Speaker*, 2021, "Research Activities at the LARCASE", Avis de recherche conference, ÉTS, Montreal, Canada, 3 noiembrie.
 49. *Keynote Speaker*, 2022, "Morphing Design Aspects for Business Aircraft for Fuel Consumption Reduction", International Symposium on Sustainable Aviation ISSA, RMIT University, Melbourne, Australia (Virtual), 3-5 august.
 50. *Invited Speaker*, 2022, "Applications of Artificial Intelligence in Aircraft Modeling, Simulation and Controls at the LARCASE Laboratory at ÉTS", Forum Mobilit.AI, Quebec, Canada, 17-19 mai.
 51. *Invited Panel Speaker*, 2023, "Canadian American Research Collaborations", Academic Panel (US and Canadian universities) Meeting, The Great Lakes Aviation and Space Technology Alliance (GLASTA) Symposium, Cleveland, OH., SUA, 11-12 octombrie.
 52. *Keynote Speaker*, 2023, "Morphing Green Aircraft Design Technologies for Fuel Consumption Reduction", 3rd International Conference on Aerospace, Mechanical, & Mechatronics Engineering ICAMME-2023, Dubai, UAE, 21-23 iunie.
 53. *Keynote Invited Speaker*, 2023, "Methodologies for Morphing Unmanned Aerial Systems Performance Improvement", 10th International Conference on Recent Advances in Air and Space Technologies RAST 2023, Istanbul, Turcia, 7-9 iunie.

54. *Keynote Invited Speaker*, 2023, "Presentation of the Applied Research Laboratory in Active Controls, Avionics and AeroServoElasticity LARCASE", Smart Diaspora 2023, Timișoara, România, 10-13 aprilie.
55. *Invited Panel Speaker*, 2024, "Design Concepts for a Flight Simulator of an Unmanned Aerial System (UAS) from Hydra Technologies", International Symposium on Unmanned Systems: AI, Design & Efficiency, Baku, Azerbaijan, 22-24 mai.
56. *Invited Panel Speaker*, 2024, "Disruptive Technologies in Sustainable Aviation", AIAA Aviation Forum & Exposition, Las Vegas, SUA, 29 iulie-2 august.
57. *Keynote Speaker*, 2024, "Research Activities at the Laboratory of Active Controls in Active Controls, Avionics and AeroServoElasticity LARCASE", Invited Students Conference at the "Giordano Bruno" Highschool, Budrio (proche de Bologna), Italia.
58. *Keynote Speaker*, 2024, "Research Activities at the Laboratory of Active Controls in Active Controls, Avionics and AeroServoElasticity LARCASE", NSERC CREATE Training Program / Optimizing Power Skills in Interdisciplinary, Diverse & Innovative Academic Networks OPSIDIAN conference.