

Professor Ruxandra Mihaela BOTEZ, Editor-in-Chief of the INCAS BULLETIN was elected AIAA FELLOW in 2024



4 | AIAA FELLOWS AND HONORARY FELLOWS—CLASS OF 2024

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It is a pleasure for the INCAS – National Institute for Aerospace Research “Elie Carafoli” to mention that **Dr. Ruxandra BOTEZ, Editor-in-Chief of the INCAS BULLETIN** and **Full Professor at the École de technologie supérieure ETS – University of Quebec**, in the **Department of Systems Engineering and in the Department of Aerospace Engineering**, has been named recently in 2024, **Fellow of the American Institute of Aeronautics and Astronautics AIAA**, as announced on its website, on 8 of February 2024. The AIAA is the world's largest aerospace learned society, as it has more than 35,000 individual members from 80 countries, and 100 corporate members.

In fact, an AIAA member must be an AIAA Associate Fellow before becoming an AIAA Fellow. Professor BOTEZ was elected as Associate Fellow in 2016, and the selection and nomination process was very complex as a maximum of one Associate Fellow for every 150 voting members determines the number of Associate Fellows per year. “The AIAA confers Fellow upon AIAA Associate Fellows in recognition of their notable and valuable contributions to the arts, sciences or technology of aeronautics and astronautics, as mentioned in the AIAA constitution. Only one Fellow for every 125 Associate Fellows is elected as an AIAA Fellow every year”.



The evaluation of AIAA Fellows nominations is based, every year, on the candidate’s technical/management contributions and accomplishments, service to the AIAA and other aerospace professional societies, endorsement letters, as well as several committee meetings and discussions. The most qualified candidates were endorsed by the AIAA Honors and



Awards Committee and approved by the AIAA Board of Trustees, as mentioned on the AIAA website.

“The Class of 2024 AIAA Honorary Fellows and Fellows are among the most respected names in the aerospace profession. Congratulations to each member of this year’s class for their many accomplishments,” said Laura McGill, AIAA President. “These distinguished individuals have earned the respect and admiration of our broad science and engineering community. We are in awe of their creativity and exceptional contributions to advance the performance and capability of aerospace systems.” Mr. Dan Dumbacher, AIAA CEO, has added: “AIAA takes great pride in honoring the Class of 2024 Honorary Fellows and Fellows. These professionals have made significant and lasting contributions to the aerospace community. Their passion and dedication are inspiring the generations that follow to reach even greater heights.” 

Since the inception of this honor (in 1934), therefore, since 90 years, only 2,064 AIAA Associate Fellows have been elected as AIAA Fellows. Professor BOTEZ is the 4th representative of Canada to have earned this honor since its creation. Ruxandra was nominated for her *outstanding and sustained academic and industrial research contributions in green aircraft design, modeling, simulation, and experimental validation with wind tunnel and flight test data*.

The Class of 2024 AIAA Honorary Fellows and Fellows was composed by only 4 Honorary Fellows and 28 Fellows, and it was twice celebrated in Washington, DC, USA.



Firstly, the 2024 AIAA Class was inducted on 14th of May 2024 during the **AIAA Fellows Induction Ceremony and Dinner** at the **Washington Plaza Hotel** , and the photos 1 to 5 were published on the AIAA website . During this first event, a reception was organized, followed by a dinner. The participants were only the AIAA Fellows, and the new elected AIAA Fellows in 2024. They have sat together for dinner, and after receiving their diplomas, the new elected AIAA Fellows were congratulated by the AIAA Fellows present in the dinner room. At this event, the photo 1 shows Professor BOTEZ at the reception with Professor Inderjit Chopra and AIAA Fellow from University of Maryland, the photo 2 shows Mrs. Laura McGill giving the opening ceremony remarks, the photos 3.1 and 3.2 show Professor BOTEZ at a dinner table. Then, the ceremony started with a PowerPoint presentation, and each new elected AIAA Fellow was called to get her or his diploma from Mrs. McGill and Mr. Dumbacher. In fact, each new elected AIAA Fellow has sent, in advance, his or her photo, as well as a maximum of 10 photos of the family and working environment, and these photos were added in the PowerPoint presentation. The photos 4 and 5 show Professor BOTEZ with her diploma of AIAA Fellow in photo 4, and with Mrs. McGill and Mr. Dumbacher in photo 5.

Secondly, the 2024 AIAA Class was celebrated during the **AIAA Awards Gala** on May 15th 2024 at the **John F. Kennedy Center for the Performing Arts** , and the photos 6 to 9 were published on the AIAA website . During this second event, the participants went to the Awards Gala presentation, and then they went to the dinner. The photo 6 presents Dr. Ruxandra BOTEZ on the balcony of the Kennedy Arts Center before the beginning of the Awards Gala. The photos 7-1 and 7-2 show Dr. BOTEZ’ family (including her parents) and her LARCASE team at the CRJ-700 research simulator room on the screen of the Awards Gala stage before its official beginning. All AIAA Honorary Fellows and AIAA Fellows elected in 2024 are shown in the photo 8. The photo 9 shows Dr. BOTEZ with Dr. Ioana TRIANDAF (her friend working at the Naval Research Laboratory in Washington DC) at the AIAA dinner where musicians were playing a classical concert.

All these photos were taken by the AIAA or by Dr. BOTEZ.

Short Biography of Professor BOTEZ

Dr. Ruxandra BOTEZ is Full Professor at ÉTS - Quebec University in Canada since 1998. She has obtained her master's in engineering from the Faculty of Aircraft Design in Bucharest, Romania, master's in applied science from Ecole Polytechnique, and PhD from McGill University in Montreal, Canada. Ruxandra was also a Postdoctoral Fellow at Auburn University in the USA, and she has an industrial aerospace engineering experience of 5 years obtained from the Factory of Helicopters in Brasov, Romania and Bombardier in Dorval, Canada.

Ruxandra is the Canada Research Chair Tier 1 Holder in Aircraft Modeling and Simulation Technologies since 2011 , and she is the Head of the Laboratory of Applied Research in Active Controls, Avionics and AeroServoElasticity LARCASE at the ÉTS since 2003 . The LARCASE is equipped with 4 state of art equipment, including two research aircraft flight simulators for the business aircraft Cessna Citation X and for the Commercial Regional Aircraft CRJ-700 developed by CAE, the Unmanned Aerial System UAS-S4 and the UAS-S45 developed by Hydra Technologies, as well as a subsonic blown down wind tunnel (donation from Professors Michael Païdoussis and Stuart Price from McGill University).

Ruxandra is also a Fellow of two other well-known institutes in the aerospace field in Canada and in United Kingdom, more precisely, she is a Fellow of the Canadian Aeronautical Society Institute (CASI) and Royal Aeronautical Society (RAeS). She is also a Fellow of three other international associations, such as the Asia-Pacific Artificial Intelligence Association (AAIA), the International Artificial Intelligence Industry Alliance AIIA-AI and the International Association of Advanced Materials (IAAM). Dr BOTEZ is also a Fellow of the Canadian Academy of Engineering (CAE), and she is also a member of two other academies: the EU Academy of Science and the American Romanian Academy of Arts and Science (ARA). Dr BOTEZ is also an Honorary Member of the International Sustainable Aviation and Energy Research Society (SARES) and a member of other associations and organizations, such as the Society of Automotive Engineering SAE International, Vertical Flight Society (VFS) International and the Romanian Academic Association of Canada (RAAC).

Ruxandra is Editor-in-Chief of the INCAS BULLETIN and Associate Editor or Editorial Board Member of different other journals including the Aeronautical Journal, published by the Cambridge University Press. Ruxandra graduated approximately 500 students in her academic career as their direct supervisor, as they have finalized under her supervision their projects and theses (Bachelor's, Master's and PhD). Ruxandra is an author or co-author of more than 600 publications. Among these publications, we can enumerate 200 archival original journal articles, 350 conference papers, 7 invited book chapters and other contributions. Ruxandra and her team have obtained more than 65 awards related to their research; she also gave more than 50 invited speaker presentations.

Ruxandra's projects were and are realized in collaboration with partners from various universities in Canada, and in other countries in Europe (France, Italy, Netherlands, Romania), as well as in Turkey and Brazil. Professor BOTEZ collaborates also with research institutes in Canada (IAR-NRC), in the USA (NASA), in Germany (DLR), in Italy (CIRA) and in Romania (INCAS). She also collaborates on various research projects with a high number of worldwide aerospace companies, such as Bombardier Aerospace, CAE, CMC Electronics, Bell Helicopter Textron, Thales Aerospace, GlobVision, FLIR, Presagis, with Leonardo Aircraft (in Italy), Hydra Technologies (in Mexico), and other companies.

Ruxandra considers that “the AIAA Fellow distinction to be one of the most prestigious that an aerospace engineer can obtain as very few persons were chosen for this distinction. The nomination and selection process are very complex, and the competition is very high. It is estimated that only 1 in 1000 AIAA members can hope to be part of this inner circle one day”.

The **INCAS Team** would like to congratulate Professor Ruxandra Mihaela BOTEZ for this important distinction in her career.



Professor Ruxandra BOTEZ and Professor Inderjit Chopra and AIAA Fellow, University of Maryland, USA - Photo 1



The AIAA President Mrs. Laura McGill giving opening remarks - Photo 2



Professor BOTEZ at one of the AIAA dinner tables – Photo 3.1



Professor BOTEZ at one of the AIAA dinner tables – Photo 3.2



Professor BOTEZ with the AIAA Fellow Diploma – Photo 4



Professor BOTEZ with the AIAA Fellow Diploma given by Mrs. Laura McGill and Mr. Dan Dumbacher – Photo 5



Dr. BOTEZ on the balcony of the John F. Kennedy Center of Performing Arts – Photo 6



PowerPoint photo presentation of Dr. BOTEZ with her mother – Photo 7-1



PowerPoint photo presentation of Dr. BOTEZ with her family and LARCASE team at the CRJ-700 flight simulator – Photo 7-2



The Class of 2024 AIAA Fellows with Mrs. Laura McGill (Dr. BOTEZ is the third person from the left) – Photo 8



Dr. TRIANDAF and Dr. BOTEZ at the classical concert given at the AIAA Awards Gala – Photo 9