Dr. Ruxandra Mihaela Botez, Canada
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Professor Ruxandra Botez received her Bachelor's degree in Aircraft Design Engineering from the Faculty of Aircraft Design in Bucharest, Romania in 1984. Ruxandra became an Aircraft Design Engineer and her graduation project concerned gust load studies on the IAR-99 military aircraft. She worked from 1984-1987 as an Engineer at the aeronautical company ICA-Brasov in Romania. Ruxandra received her Master's degree in Applied Sciences, on Dynamic Stall research for helicopters from Ecole Polytechnique in Montreal in 1989. This research was of interest to Bell Helicopter Textron. Ruxandra obtained her PhD degree from McGill University in 1994 in the area of Fluid-Structure Interactions and Nonlinear Dynamics. Next, she worked as a Postdoctoral Fellow in helicopter control at Auburn University in the USA until 1995, and then she became the AeroServoElasticity task leader in the Active Control Technology project at Bombardier Aerospace.

She started working at the ETS as an Associate Professor in 1998, and became Full Professor in 2003. She founded the Research Laboratory in Active Controls, Avionics and AeroServoElasticity LARCASE in 2003, and has continued to be its director. The LARCASE is one of the rare academic aeronautical laboratories equipped with three major aerospace infrastructures, all acquired by Dr Ruxandra Botez. These are: the Research Aircraft Flight Simulator (RAFS) from CAE Inc. for the Cessna Citation X, the Price-Païdoussis Subsonic Blow-Down Wind Tunnel, and the Unmanned Aerial System UAS-S4 from Hydra Technologies in Mexico.

Dr. Botez's leadership can be seen in the success of research projects jointly conducted with Aerospace companies, research institutes and universities, such as NASA DFRC (USA), Bombardier Aerospace, Thales, Bell Helicopter Textron, CAE Inc., CMC Electronics-Esterline, Presagis, US Naval Research Laboratories, DLR (Germany), the US Air Force Academy and 50 other NATO participants, Hydra Technology (Mexico), Alenia, CIRA and the University of Naples (Italy), and INCAS and the University of Craiova (Romania). Since 2006, students working on research projects under Dr Botez' supervision have received 14 awards at various competitions. In addition, four Master's theses, one Bachelor report and one PhD thesis were recognized as excellent. Three of those students' presentations earned *excellent* at IEEE conferences.

During two CRIAQ competitions, her team received the *Second Award* for the CRIAQ MDO 505 project in April 2014, and the *Third Award* for the CRIAQ 7.1 completed project in March 2012. Dr Botez and her team received two other awards in 2012: the *Presagis award* for the *Best Simulation Model,* which was completed for the Hawker 800 XP business aircraft, and the *RTO Scientific Achievement Award*, the prestigious award offered to the NATO research team AVT-161. Dr Botez and her team worked with the AVT-161 team on the military X-31 aircraft. At the *Greener Aviation: Clean Sky breakthroughs and worldwide status conference* during 12-14th of March 2014 in Brussels, Belgium, Professor Botez name was included in the *Short List* for the Award selection at this conference. In 2007, Dr Botez received the *Certificat of Excellence to CRIAQ Pioneers* from CRIAQ and the *ETS Award of Excellence* for her exceptional researcher qualities, industrial achievements, and the graduation of around 150 Bachelor, Master's and PhD students. Ruxandra was also a finalist in the *2006 Women of Distinction Gala in the*

Education Category organized by the YWCA Foundation. Ruxandra is author and co-author of 77 referred journal papers, 164 referred conference papers and 4 invited book chapters. The activities of Dr Botez have been mentioned by the media in more than 60 papers and interviews published in different languages: French, English, Romanian, Italian and Spanish.

Q: What's the best part of your job?

A: The best part of my job is working on and completing aerospace projects in collaboration with aerospace companies in Montreal, where most of the Canadian aerospace industry is located, as well as on an international scale with US, European and Mexican partners. Students who have had the opportunity to work on these projects at the LARCASE can find challenging careers in aircraft design after their graduation. Women are always encouraged to work in our aeronautical laboratory.

Q: What's the favorite part of your career?

A: One of my favorite parts of my present career is the pilot training on the Unmanned System UAS-S4 that was bought with research funds from Hydra Technologies in Mexico. This training includes flying three different UAVs: a 25 kg radio-controlled Corrostick, the 30 kg radio-controlled Ground Control Station (GCS) Guerrero and a 75 kg UAS-S4 GCS. My passion for Aircraft Design Engineering is very close to my passion for flight training.

Q: Who (other than family members) do you admire most?

A: Think that people who have a passion for their work should be admired.

Q: What's one piece of advice you would give to Women in Engineering?

A: I think that it is extremely important to have a passion to work in engineering. I also believe that we should remain true to our femininity in terms of dress and behaviour, and be proud of our achievements and the fact that we are a minority in Mechanical Engineering. By our presence and success in this field, we are all contributing to the advancement of younger generations. Photos show Ruxandra with the LARCASE equipments.

The three photos show Ruxandra in front of the Aircraft Research Flight Simulator from CAE Inc., the Unmanned Aerial System UAS-S4 from Hydra technologies in Mexico and the Wind Tunnel Blow Down Subsonic Price-Païdoussis.

LARCASE web site: **www.larcase.etsmtl.ca;**
Research Gate web site: **https://www.researchgate.net/profile/Ruxandra_Botez?ev=hdr_xprf;**
Canada Research Chair in Aircraft Modeling and Simulation Technologies; **http://www.chairs-chaires.gc.ca/chairholders-titulaires/profile-eng.aspx?profileId=2744**