

**Professor Ruxandra Botez**

## **Defining the aircraft of tomorrow**

May 11, 2018

Montréal has forged a solid reputation in the aeronautics sector, and along with Seattle and Toulouse, is considered one of three main aerospace centres in the world. In fact, the Montréal Metropolitan Area is responsible for 60% of all Canadian production in this sector. More than 235 companies employ 42,000 individuals, and 70% of all Canadian aeronautics research funds are invested in this area.

ÉTS has attained a very favourable position in the aeronautics research industry, due in large part to the fact that one of the world's leading experts in this field, Professor and Researcher Ruxandra Botez, has been at ÉTS since 1998.



### **Major aeronautics projects**

Holder of the Canada Research Chair in Aircraft Modeling and Simulation Technologies, and founder of LARCASE (Research Laboratory in Active Controls, Avionics and Aeroservoelasticity), Ruxandra Botez initiates and implements major aeronautics projects at ÉTS, working in collaboration with Canadian partners (Bombardier, CMC Electronics-Esterline, Thales, Bell Helicopter Textron, CAE, FLIR Systems, Presagis, the Aerospace Research Centre at NRC) and international partners in Europe (CIRA, University of Naples in Italy, University of Craiova in Romania), the United States (NASA), Mexico (Hydra Technologies) and other countries.

Her laboratory houses a number of highly sophisticated pieces of equipment, including the Research Aircraft Flight Simulator for the Cessna Citation X business jet designed by CAE, the UAS-S4 autonomous flight system designed by Hydra Technologies in Mexico and the Price-Paidoussis subsonic wind tunnel. It is also home to

many dozens of passionate students and researchers from all academic levels, who are working together to define the aircraft of tomorrow.

### **Exceptional contributions**

Professor Botez has made significant contributions to aeronautics research from both a theoretical and practical perspective. Her work has been cited in many scientific journals, and has earned her team numerous prestigious awards and distinctions.

### **Advances in the “green” aircraft technologies**

Professor Botez also conducts research into solutions aimed at reducing greenhouse gases. Her teams focus their efforts on the technology of wings and other morphing aircraft components that allow for drag to be reduced thanks to the use of active control systems. In addition, the researchers are developing methods for optimizing flight trajectories, which will also contribute to fuel consumption reduction.

See also :

[Research Laboratory in Active Controls, Avionics and Aeroservoelasticity \(LARCASE\)](#)

### **Pour information**

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