



# Women in Science Speaker Tour

## Veterinary Medicine Engineering – A New Field of Science

### ***Virtual Public Talk by*** **Dr. Nadja Bressan, Ph.D.**

*Assistant Professor, Faculty of  
Sustainable Design Engineering,  
University Prince Edward Island*

**Thursday, January 20, 2022**

**12:00 – 1:00**

**Mount Saint Vincent  
University**

***[Click here](#) for link to virtual  
meeting.***



**Science + Atlantic**  
connecting science education and research

Nadja Bressan currently works at the Faculty of Sustainable Design Engineering, University of Prince Edward Island and does research in Control Systems Engineering and Biomedical Engineering.

Nadja's research program is based on Veterinary Medicine Engineering and takes place in her lab, the MAB - Mechatronics Applied to Biomedicine. This novel field aims to improve therapeutics, animal care, and animal research developing models to replicate human and animal real-time data as digital twin, enabling learning and reasoning dynamically to improve decision-making of physicians, veterinarians, and scientists without exploiting animals.

Nadja Bressan received a BS in Industrial Automation from Universidade de Caxias do Sul, Brazil, in 2005; MSc in Automation, Instrumentation and Control in 2007 and PhD (European Doctorate) in Biomedical Engineering in 2011 from Faculty of Engineering of the University of Porto, Portugal.

Nadja developed the first Supervisory Control and Data Acquisition system for total intravenous anesthesia using Target Controlled Infusion in the neurosurgery environment. Nadja was a clinical researcher at the Anaesthesiology Department of Hospital Geral de Santo António in Porto, working regularly in the neurosurgery setting collaborating in clinical and animal research.