



AGE-WELL WP5.1 AMBI-MON PROJECT

Master's and PhD Students in Biomedical Engineering or Electrical and Computer Engineering

DESCRIPTION:

Carleton University is seeking exceptional Master's and PhD students in Biomedical Engineering or Electrical and Computer Engineering to contribute to research supported by AGE-WELL NCE. The project, **WP5.1 Ambient-Based Physiological and Functional Monitoring (AMBI-MON)** aims to develop sensor systems that can be embedded in the person's environment and that deliver health and functional information in real time. For example, a bed-based pressure sensor will collect information on breathing, bed movements and characteristics of getting out of bed—all helpful in monitoring respiratory health, risk of skin breakdown, and transfer safety. Involvement in this project is an unique opportunity to gain experience working with an active, vibrant group of graduate students, researchers, industry partners and community-based organizations at a national- and international-scale.

WP5.1 AMBI-MON is co-led by Dr. Rafik Goubran (Acting Vice-President Research and International at Carleton University) and Dr. Frank Knoefel (Physician and Care of the Elderly expert at Élisabeth Bruyère Hospital).

A successful candidate will conduct their thesis in areas that focus on the use of smart sensors and systems such as pressure-sensitive mat technology to monitor health issues faced by many older adults including sleep apnea, pressure wound management and chronic heart failure.

QUALIFICATIONS:

- Excellent interpersonal skills
- Excellent communication skills (written and verbal)
- Ability to work productively, both individually and in groups
- Ability to work independently, following timelines to complete work in efficient manner.
- Technical skills, including knowledge of digital signal processing, data analytics and real-time systems

APPLICATION:

Interested individuals are asked to send their CV and academic transcript to **Caroline Ethier, TAFETA Research Manager and AGE-WELL's Work Package (WP) 5 Coordinator** at: cethier@bruyere.org

Please note: Successful applicants must meet the admission requirements and be admitted to a graduate program at Carleton University. Further details are available at the following links: www.ociece.ca, and www.ocibme.ca.