# PhD Position in Smart, Shape-Changing, Adaptable Materials for Deformable Surfaces

We are developing next-generation deformable surfaces that can actively change their shape and mechanical properties in response to external stimuli. These adaptive systems unlock new possibilities for flexible, responsive technologies with potential applications in biomedical wearables, soft robotics, and more.

The **Materials as Machines Lab** and the **NanoMechanics and Materials Characterization Lab** at Carleton University are **jointly recruiting a PhD student** to work on **smart, shape-changing, and adaptable materials** for programmable deformable surfaces.

**You will work on:**

- Design and analysis of architected and responsive materials
- Mechanical, thermal, and functional characterization of stimuli-responsive systems
- Integration into adaptive structural or robotic platforms

**We are looking for candidates with:**

- MASc/MSc in Mechanical, Materials, or Physics Engineering (or a related field)
- Experience with polymers, composites, or smart materials
- Solid mechanics background with experimental and analytical skills
- Familiarity with numerical modeling (e.g., FEA, COMSOL) is an asset

**What we offer:**

- Fully funded PhD position (stipend + tuition)
- Joint supervision by **Prof. Irina Garces** (Materials as Machines Lab) and **Prof. Ronald Miller** (NanoMechanics Lab)
- Access to state-of-the-art fabrication, testing, and characterization facilities
- A collaborative and interdisciplinary research environment

**Start date:** Flexible

**To apply:**

Please email the following materials as a **single PDF file to** mmlab@cunet.carleton.ca:

1. A cover letter describing your research interests and relevant experience
2. Your CV

3. Contact information for three references
4. Copies of your academic transcripts (MASc and Undergrad)

Name the PDF file as: **GivenName-FamilyName-Application-(XXX)-DD-MM-YYYY.pdf**, where "DD-MM-YYYY" is the date of your email and "XXX" indicates whether you are applying for a **PhD** or **MASc** position. **Word documents will not be accepted**.
Use the following subject line for your email:
**MCML (Grad): XXX Application GivenName FamilyName**