

**CARLETON UNIVERSITY**  
**Department of Mechanical and Aerospace Engineering**  
**MASTER'S THESIS EXAMINATION**

**CANDIDATE:** *Nina Dmytrenko*

**DATE:** *Friday August 31, 2018, 10:00 3124 Mackenzie Building*

**THESIS TITLE:** *Assessing the Impact of Rock-Bed Storage for Tempering Air-to-Air Heat Pumps*

**EXAMINATION BOARD:**

**Internal Examiner** William O'Brien, Civil & Environmental Engineering (In Person)

**Member of Department** Henry Saari, Mechanical & Aerospace Engineering (In Person)

**Member of Joint Institute** William Hallett, Mechanical Engineering - (In Person)  
University of Ottawa


**Thesis Supervisor** Cynthia Cruickshank, Mechanical & Aerospace (In Person)  
Engineering

**Thesis Co-Supervisor** Ian Beausoleil-Morrison, Mechanical & Aerospace (In Person)  
Engineering

**Chair/Director of Department or Designate** Ronald Miller (Ex-officio)

**Dean of Faculty** Fred Afagh (Ex-officio)

**Dean, Faculty of Graduate and Postdoctoral Affairs** Matthias Neufang (Ex-officio)

  
\_\_\_\_\_  
**Ronald Miller, Chair/Director of Department or Designate**  
**Department of Mechanical and Aerospace Engineering**