(5-6 minutes)

**Slide 1**

Greeting

Please advise me on how to start the presentation. *Your quick background. How you got involved? Your interest (which links to the sentence below)*

Climate change touches all our lives because it affects all aspects of modern life.

**Slide 2:**

What is happening?

In Canada and around the world extreme heat is a major health problem. The impact of heat waves has already caused many serious illnesses and deaths across Canada. Some examples of extreme heat-related deaths in Canada are: 156 deaths in July 2009 in British Columbia, 280 deaths in July 2010 and 86 deaths in July 2018 in Quebec.

**Slide 3**

Cities and towns tend to be much warmer than the surrounding countryside. This is called the “urban heat island” and it threatens over 30 million Canadians because over 4 out of 5 people in Canada live in urban settings. In metropolitans, Urban Heat Island is the main cause of experiencing extreme heat. Rapid urbanization, population growth and acceleration of energy usages are the major reasons for the emergence of UHI. The main base of the growing trend of UHI in metropolitan is the vertical growth of buildings and reduced ratio of green areas to residential and commercial areas. On a sunny day, paved surfaces can be 27-50 °C hotter than the air. The difference is especially noticeable at night when the heat captured by pavement and buildings during the day continues to warm the city after the sun goes down. Large cities can be as much as 12 °C warmer than their surrounding environments in the evening.

**Slide 4**

What do experts suggest?

Health Canada provides some solutions to eliminate UHI and related-health problems such as: expanding vegetation cover, implementing climate-sensitive urban design and planning, integrating natural ventilation and water features into urban designs, and reducing waste heat production.

**Slide 5**

How to Engage Science and Climate Action?

Climate monitoring typically involves data collection and data processing where AI and citizen science approaches can be complementary and valuable, and data analysis, where scientists can use machine learning to ask questions of processed data. Climate monitoring provides users with the information they need for effective planning and operations to respond to climate variations in the frequency, intensity and location of extreme weather and climate events. Citizen science, AI or the integration of both can maximize outcomes for scientists and conservation managers, in the context of data collection, data processing, and data analysis.

**Slide 6**

What We Can Do?

Climate change solutions start close to home, but involve new ways of thinking, planning, and acting in workplaces, neighbourhoods, and communities across the country. Providing a heat map is one tool that can be used to investigate impacts of UHI and its proposed solutions on Global Warming.

**Slide 7**

Dawson College campus is a good location to investigate UHI impacts. An expected outcome is that increasing the amount of vegetation on campus will have an impact. The campus is in the heart of downtown Montreal with approximately 12 acres of green space. Areas on campus with varying amounts of vegetation density [**for the AI Climate presentation contract this sentence to** *from gardens to parking lots make it a wise…* **naming the gardens won’t be understood by a non-Dawson audience without more context**] such as the Peace Garden (high), the Three Sisters Garden (medium), the Theatre Garden (moderate to low), the Roof Garden (low) and parking lots (low) make it a wise choice for examining effects of green spaces on UHI. Access to the campus throughout the year provides opportunities to collect and monitor data so that we can also study seasonal effects of weather to the UHI. Furthermore, with the involvement of students and faculty from many different programs we can model Citizen Science based environmental research and a key role to perform this study is collaboration of different disciplines in technical and social dimensions of this project. We will generate many different experiments that students will be involved with and we are going to etherate (**what is this word? accelerate? Not sure what you are saying here.**) Dawson College Heat Map project.

Thank you!