

Summer 2023 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region.

- Visit the [Sustainability Scholars Program website](#) to learn [how the program works](#) and to [apply](#).
- Be sure to review the application guide on the Apply page to confirm your eligibility before applying.

Applications close at midnight on Sunday January 29, 2023.

Project Title: Research to understand carbon emission and sequestration costs of paper consumption in the retail industry (and airports)

Project Background & Overview

Going green is becoming increasingly attractive to consumers and businesses worldwide. More consumers often consider a company's environmental footprint before purchasing products. Many businesses are now committed, more than ever, to innovating and transforming operations to help reduce pollution levels and lower their carbon footprint. This is a trend we're seeing across a number of industries and sectors.

Excessive use and waste of paper are key contributors to environmental woes. According to Wikipedia, worldwide consumption of paper has risen by 400% in the past 40 years, with 35% of harvested trees being used for paper manufacture. Paper manufacturing generates the third largest amount of industrial air, water, and land emissions in Canada. In 2015, the industry released 174,000 tonnes of emissions to air, water, and land (or 5.3%) out of a total of 3.3 million tonnes of emissions released by all industries in Canada, most of the waste (96%) was released into the air.

Canada and many other countries have committed to achieving net-zero greenhouse gas (GHG) emissions by 2050. Among many other things, reducing paper waste and carbon footprint are increasingly social and economic concerns. We need to take rational and responsible actions to reduce paper waste, for example by using emerging e-paper technology as an alternative solution.

New technologies such as, e-paper are being explored as alternatives to eliminate paper consumption and waste, thereby minimizing the adverse effects on the environment and making it a worthy alternative across a range of applications and use cases. To understand the potential benefits of such new technologies, we first need to understand the possible environmental impact of paper manufacturing and consumption in industries most likely to benefit from e-paper alternatives.

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Project Description

The purpose of this project is to produce an updated estimate of the carbon emissions and carbon sequestration costs of paper manufacturing and consumption in Canada with a specific focus on the retail sector and airports.

By looking into these selected sectors for which e-paper is highly applicable this study will assess the waste and GHG emissions reduction potential of replacing paper in these industries.

The result of this research will be a stepping stone to help Canadian consumers and businesses understand the environmental benefits of switching to e-paper. The results will further be expected to provide an initial piece of empirical evidence and reference for academic research and regulatory policy development in the future.

Project scope

- Conduct a literature review to collect existing data, research, and information about paper consumption, production, and GHG emissions in Canada by industry (retail sector and airports/airlines) and region (BC, ON, and QC).
- Perform a hypothetical analysis of reducing paper consumption and GHG emissions for a subset of paper products most easily replaceable with e-paper in the retail sector and airports/airline industry.
- Time permitting: Undertake a regulatory policy review with regard to e-paper applications in Canada and other jurisdictions.

This project is envisioned to address the following:

- Annual paper consumption and waste of the top 3-5 industrial paper users across Canada, breaking down by province if possible.
- Annual manufacture and production of paper in Canada
- Annual GHG emissions by manufacture and production of paper in Canada
- Annual trees cut for paper manufacture across Canada

Deliverables:

- A final report containing a summary of the work completed
- A presentation to key stakeholders
- A final report for the online public-facing Scholars Project Library

Time Commitment

- This project will take **250** hours to complete.
- This project must be completed between May 1, 2023 and August 15, 2023.
- The Scholar is to complete hours between 9 am and 5 pm Monday to Friday, approximately 10-12 hours per week.

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Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Familiarity with research methodologies and survey techniques
- Statistical analysis
- Familiarity conducting focus group research
- Deadline oriented
- Knowledge of retail industry an asset
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Comfortable interacting with strangers to conduct public/in person surveys
- Familiarity preparing feasibility studies, an asset
- Experience with financial modelling and analysis, an asset
- Experience with life-cycle cost analysis, an asset
- Familiarity with quantifying and comparing GHG emissions an asset
- Some familiarity with a few of the larger local retailers such as Canadian Tire, SaveOn, Safeway, London Drugs, No Frills, etc. (as a consumer), an asset
- We ask that the Scholar be physically located in the lower mainland so they can attend in-person meetings with the project mentor in their offices in Burnaby

Smart Label Solutions Inc., a proud Canadian company, is a world leading e-paper application provider and a key business of Printers Plus Inc., which has been in the label business for over 32 years. As an innovator in leveraging technology for digital transformation, Smart Label Solutions helps businesses large and small improve operations, management, and the consumer experience through e-paper technology. Our clients come from different industries, and as a solution driven and service minded company, we work interactively with them on every project to ensure every challenge is considered.

Applications close **midnight Sunday January 29, 2023**

Apply here: [Click here to apply](#)

Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 23, 2023.

[Click here for details and to register.](#)

Below are some links to useful resources to help you with your resume and cover letter (there are many more online). Some of these resources also provide information on preparing for your interview.

<https://students.ubc.ca/career/career-resources/resumes-cover-letters-curricula-vitae>

<https://www.grad.ubc.ca/current-students/graduate-pathways-success>

<https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services>