



Info Session: Summer 2023 Funding Opportunities for Undergrad Students in Engineering

March 6, 2023

McGill Engineering Student Centre (MESCC)
Frank Dawson Adams Building | Room 22

Rachel Schafts

Skills Development / Empower Advisor

Christin Blohm-Pape

Student Advisor





Let's talk!

Today's info session will give you with the opportunity to...

- Familiarize yourself with the structure and eligibility criteria of the Global Challenges Award and SURE international
- Gain an understanding of the application process
- See examples of past projects
- Ask us your questions!

What is the Global Challenges Award?

Funding to help undergraduate students in McGill's Faculty of Engineering defray costs associated with participating in an unpaid opportunity using their engineering or architectural knowledge while serving the community and promoting societal change.

- Up to 15 projects selected for the Summer 2023
- Up to \$10,000 per student
- Project must:
 - Be 12-16 weeks in duration during summer 2023
 - Use your engineering or architectural knowledge
 - Be structured, clear in its description of duties, responsibilities and deliverables, and supervised by a professional
 - Not be affiliated with a for-profit company

Applications open until March 27, 2023:

www.mcgill.ca/engineering/initiatives/empower/global-challenges-award



Photo credit: Benitta Chaedir

What kinds of projects qualify?

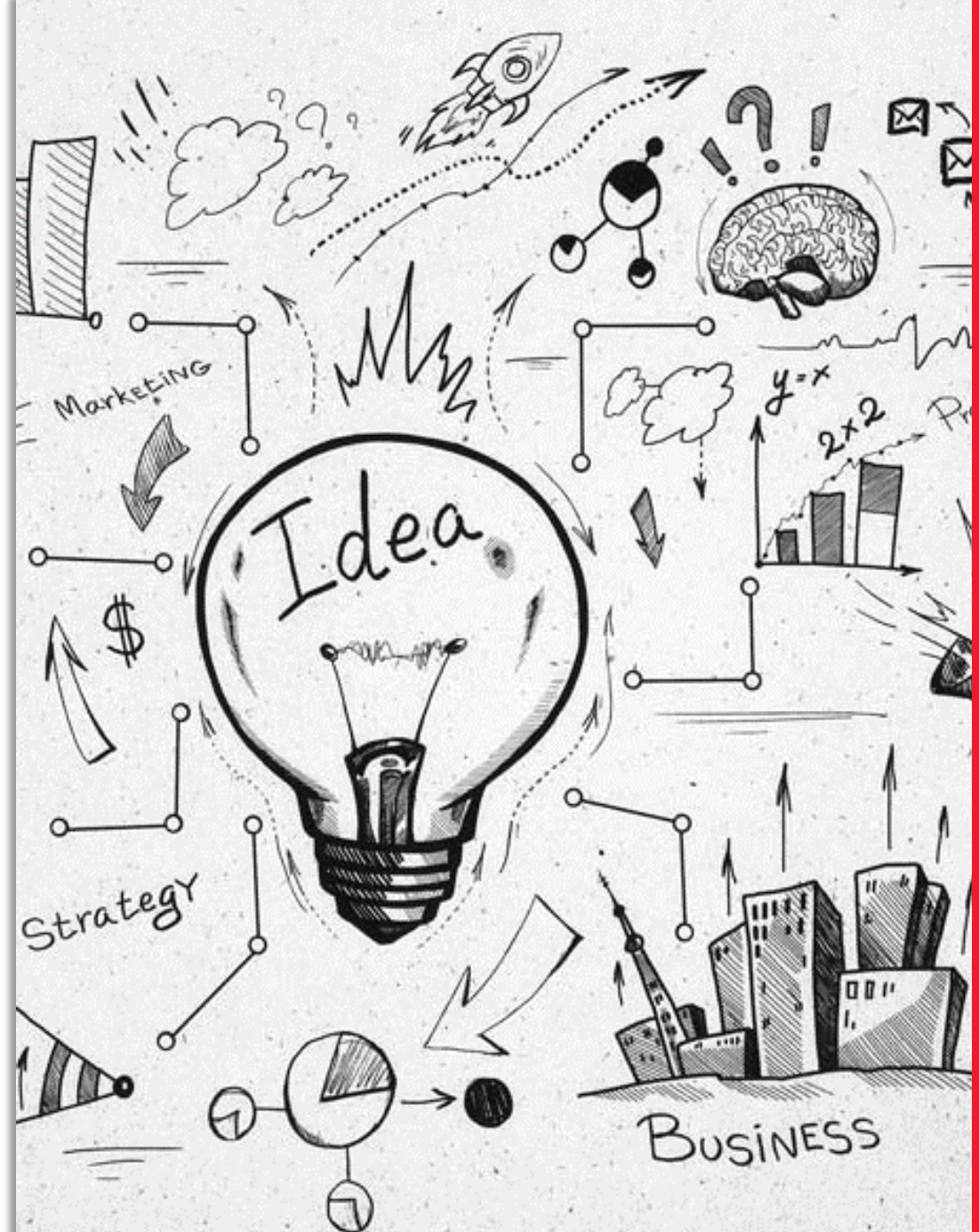
- ✓ New or ongoing projects related to engineering or architecture in a community organization/non-profit/NGO
- ✓ Unpaid service learning opportunities in Canada or abroad that require an engineering or architecture student

Not sure? Schedule a meeting to discuss with Rachel Schafts, Skills Development / Empower Advisor:

Email: empower.engineering@mcgill.ca

Book appointment: [Online \(MS Teams\)](#) | [In-person \(FDA 22\)](#)

- Select service: Empower / Global Challenges



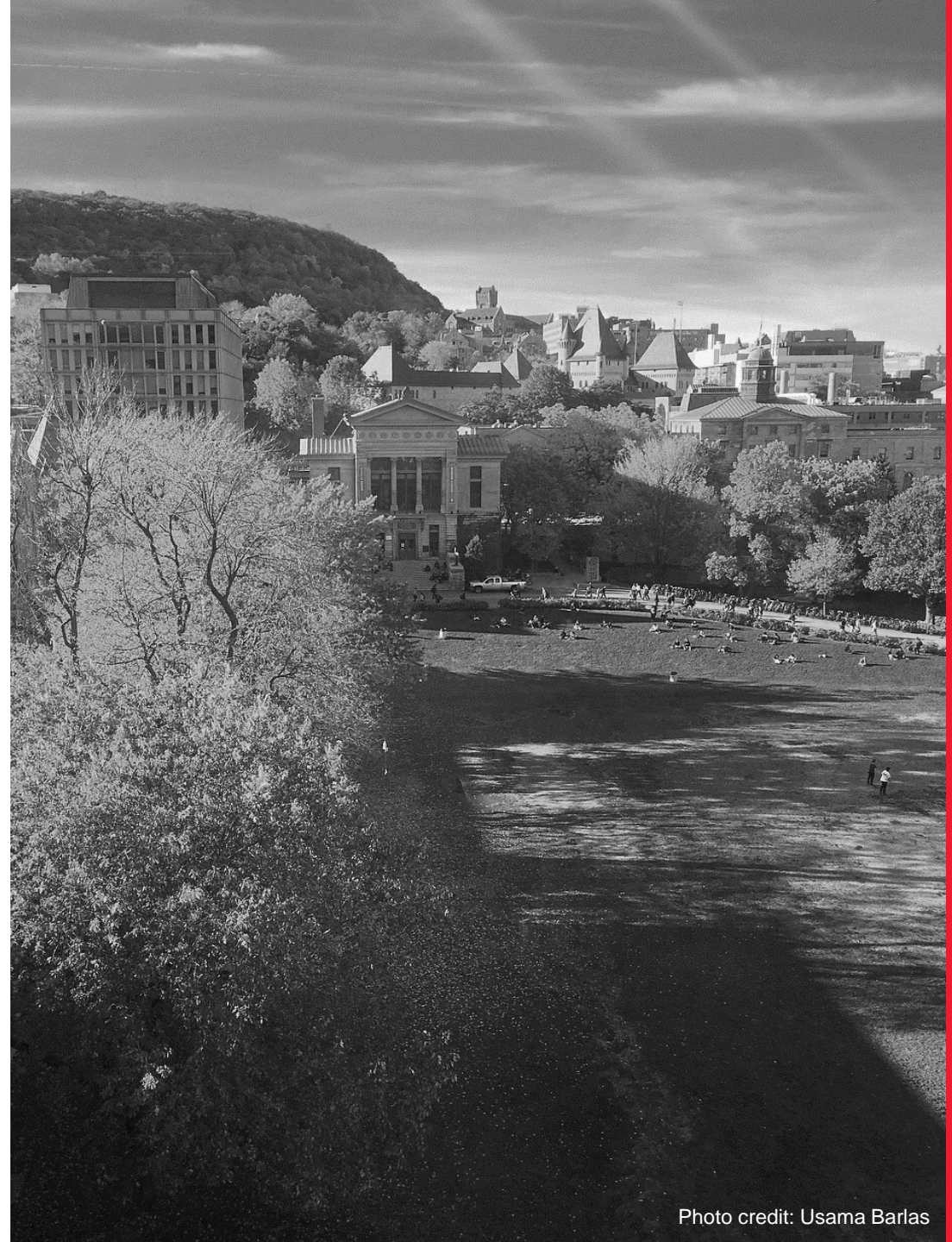
What kinds of projects do not qualify?

Projects/work NOT be eligible for the Global Challenges Award:

- ☹️ internship or co-op work term at a for-profit company
- ☹️ research-focused project
- ☹️ for credit course/ program (field studies or course credit)
- ☹️ exchange semester abroad
- ☹️ study away semester

Apply for funding for research-focused projects/ programs:

- [Summer Undergraduate Research in Engineering](#)
- [SURE International - University affiliated Research Abroad](#)

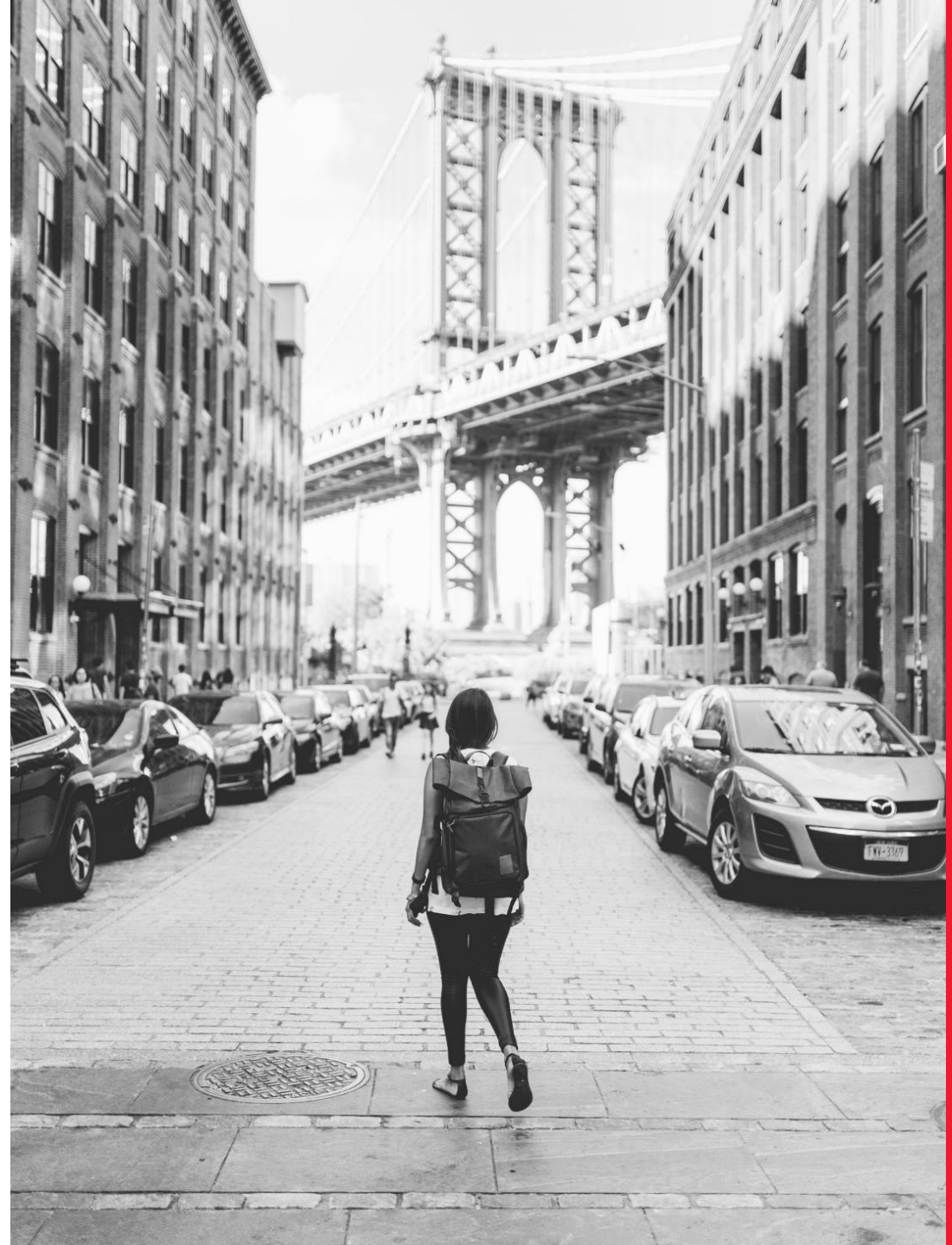


Who can apply for a Global Challenges Award?

- ✓ Undergraduate student in McGill's Faculty of Engineering
- ✓ You will be returning to your studies in Fall 2023
- ✓ You are in satisfactory academic standing
- ✓ You will have completed at least 2 full-time academic terms by Summer 2023

More info:

www.mcgill.ca/engineering/initiatives/empower/global-challenges-award



Example 1: Footbridge in eSwatini

2nd year Civil Engineering student

Project: Design and build footbridge in Godloza community in the Shiselweni region of eSwatini

Dates: July & August 2022 (6 weeks)

Non-profit collaborator: [Engineers in Action](#)

Audience/Impact: Built footbridge in order to improve the mobility around the Godloza community during rainy season, when it becomes difficult or impossible to cross the Mpatha river due to flooding.

Total funds awarded: \$12,500



Example 2: Water filtration backpack

2nd year Bioengineering student

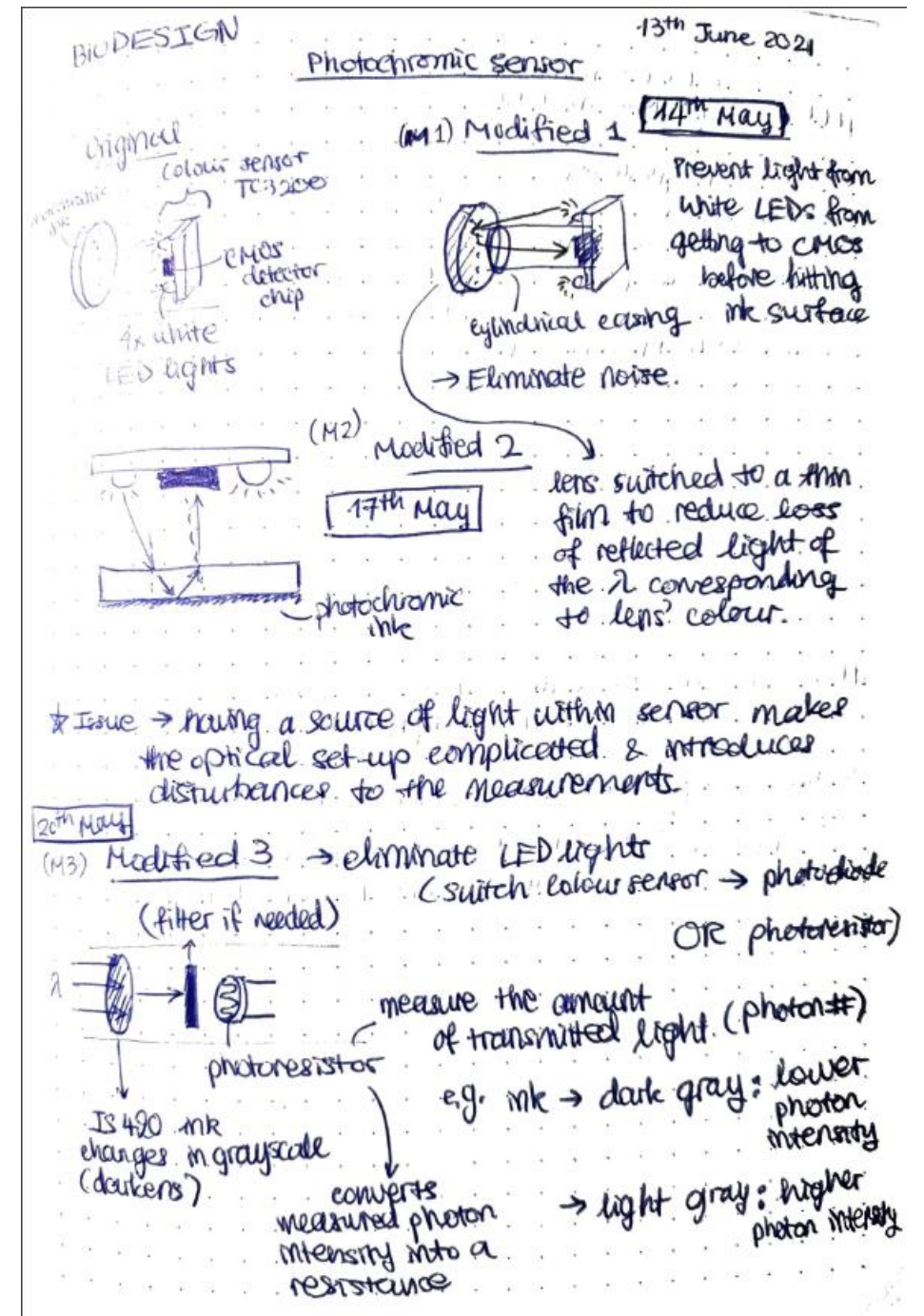
Project: SOLar-A water filtration backpack - Inspect the functionality of the photochromic sensor to be used in the backpack and improve upon the design to make it more robust and functional

Dates: May – August, 2021

Non-profit collaborator: [Global Brigades](#)

Audience/Impact: The water filtration backpack SOLar-A is a clean water project to help provide the Honduran communities with an easier and safer method of obtaining clean water for daily use.

Total funds awarded: \$7,000



Example 3:

Antarctic Expedition

2nd year Chemical Engineering student

Project: ClimateForce: Antarctica Expedition 2022

Dates: 2 weeks - March 2022

Non-profit collaborator: [2041 Foundation](#)

Audience/Impact: Connected with a range of climate youth leaders, professionals, CEOs, and scientists in order to create a community of Antarctic ambassadors. Attended lectures on climate science, cleantech progress, and the Antarctic ecosystem. Made Antarctic landings to see the untouched polar ecosystem and documented experience.

Total funds awarded: \$3,250



Example 4:

Green Gas Biodigester

1st year Bioengineering student

Project: Green Gas Biodigester – research, design & pitch

Dates: May – August 2022

Non-profit collaborator: [Engineers Without Borders \(EWB\) - Canada Africa Innovation Fellowship](#)

Audience/Impact: The goal was to help with the issue of organic waste pollution in Ghana, specifically Accra, and offer alternatives to burning biomass for fuel. We developed a cost-effective residential biodigester which will convert organic waste into biogas, which can, in turn, be used to for cooking and heating.

Total funds awarded: \$6,250

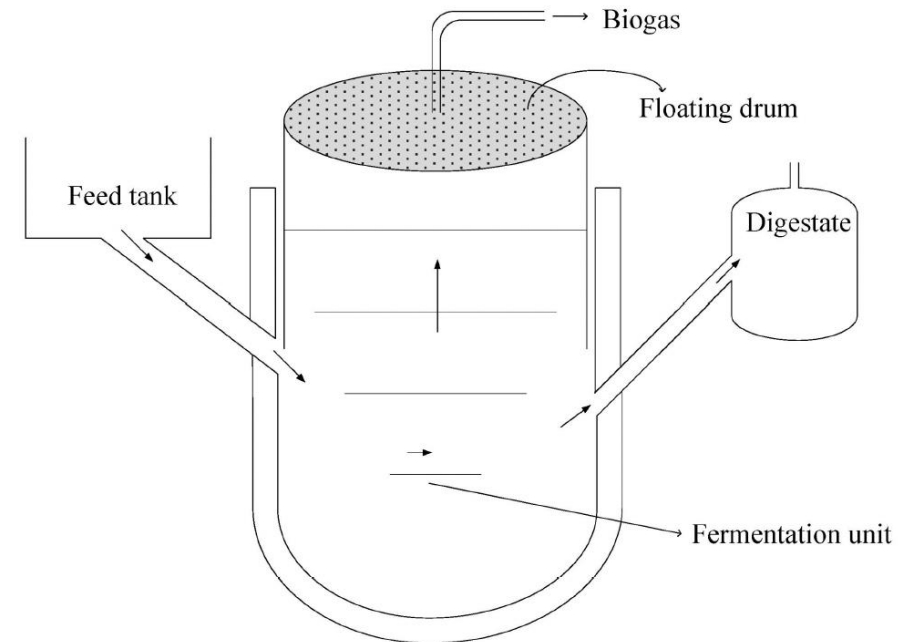


Figure 4. Simple schematic presented at pitch of the biodigester

Sign me up!

1. Identify your project
 - ✓ If you are stuck or have questions, make an appointment with Rachel Schafts to discuss
2. Gather your application materials
 - ✓ Letter of interest, CV, budget, copy of transcript, proof of participation
3. Submit your application online before March 27, 2023
 - ✓ www.mcgill.ca/engineering/initiatives/empower/global-challenges-award

We will respond by mid-April to confirm if you have been awarded funding

If you are unsure whether or not your opportunity falls within the eligibility criteria, we suggest meeting and discussing with Rachel Schafts, Skills Development Advisor.

Email: empower.engineering@mcgill.ca

Book appointment: [Online \(MS Teams\)](#) | [In-person \(FDA 22\)](#)

- Select service: Empower / Global Challenges



Photo credit: Laura Vanderweyen

SURE International Travel Stipend

Christin Blohm-Pape

Student Affairs Advisor/Manager

McGill Engineering Student Centre (MESC)

Frank Dawson Adams Building

Room 22



Undergraduate Research

- Many opportunities for undergraduate research abroad exist for Engineering students.
- Generally, students are responsible for all aspects of their own research opportunities abroad – including finding them.

SURE International for Engineering Students:

<https://www.mcgill.ca/engineering/students/undergraduate/research>



Undergraduate Research

- Not a formal part of a Bachelors Degree - ***Not for credit*** (possible exceptions: co-op students)
- Consider universities and other institutions of research too, e.g. hospitals.
- We distinguish between:
 - Research*** – academic setting, paid or unpaid, credit or non-credit.

Internships – outside a university, paid, work related to your field of studies. Not for credit, but *may* result in recognition on your transcript through the

[Engineering Internship Program](#)

Other institutions and people may use these terms interchangeably.



Finding a Research Position

- Remember, McGill is international:
 - McGill's connections can open doors that are closed to other students.
 - Network! Talk with professors, TAs, advisors, peers, etc
- **Some** examples of existing external research programs:
 - **DAAD-RISE Program**, Germany: www.daad.de/rise/en/
 - Research Internships at **EPFL**, Switzerland:
<http://futuretudiant.epfl.ch/researchinternships>
 - **IAESTE Canada** ([Work. Experience. Discover. | IAESTE Canada](#))
 - International students: programs offered by your home country
(Example: NSF REU for American students)



More Tips for Finding a Research Position

- Think about your interests: a specific university, field of research, topic for grad school,...
- Don't be shy! Send an email (cover letter) with a description of your research interests, why *you* are interested in *their* research and institution, and your CV.
 - *Imagine you are the professor. Why should they choose you and not another student? Why do you want to be part of that research team? What do you want to contribute and get out of the experience?*
- You will probably have to contact multiple professors. This is normal - don't be discouraged!
- Consider the **ethical context** of your activity. Does your host charge unreasonable fees on a for-profit basis? How does your project impact your host organization, surrounding community, yourself?

SURE International – Travel Stipend Application

- Application for SURE International Stipend: **Open until March 31st**
- Selected candidates will be contacted mid-April.
- Application form available on the SURE International website:
<https://www.mcgill.ca/engineering/students/undergraduate/research/student-section/research-internationally>
- Award amounts vary.
- SURE International Confirmation Form to be submitted after completion of the research project.
- SURE International Experience is added to the [co-curricula record](#).
 - McGill's Co-Curricular Record (CCR) is a document that recognizes a student's involvement in learning opportunities outside the classroom.

SURE International Application – Budget Example

Category	Monthly cost	Total
Lodging (rent)	\$1000	\$4000
Food	\$400	\$1600
Travel to work (STM pass)	\$80	\$240
TOTAL	\$1480	\$5840

SURE International Application – Confirmation Letter Example

****SAMPLE CONFIRMATION LETTER****



EDGENÖSSISCHE TECHNISCHE HOCHSCHULE LAUSANNE
POLITECNICO FEDERALE DI LOSANNA
SWISS FEDERAL INSTITUTE OF TECHNOLOGY LAUSANNE



RECONFIGURABLE ROBOTICS LABORATORY
Institute of Mechanical Engineering

Prof. Jamis Paik, PhD
EPFL-STI-ICM-RRL, BM 4118 Station 17
CH-1015 LAUSANNE (Switzerland)
Tél.: +41 21 693 59 48
Email: jamis.paik@epfl.ch
http://RRL.epfl.ch

DATE

Letter of support for NAME OF STUDENT

To whom it may concern:

I certify NAME OF STUDENT will be conducting following research at my lab at HOST UNIVERISTY for DURANTION this summer. I believe he has the profile and motivation to conduct the following research.

Please contact me at your convenience if you require more information regarding the project or NAME OF STUDENT

Project Title: XXXXXX

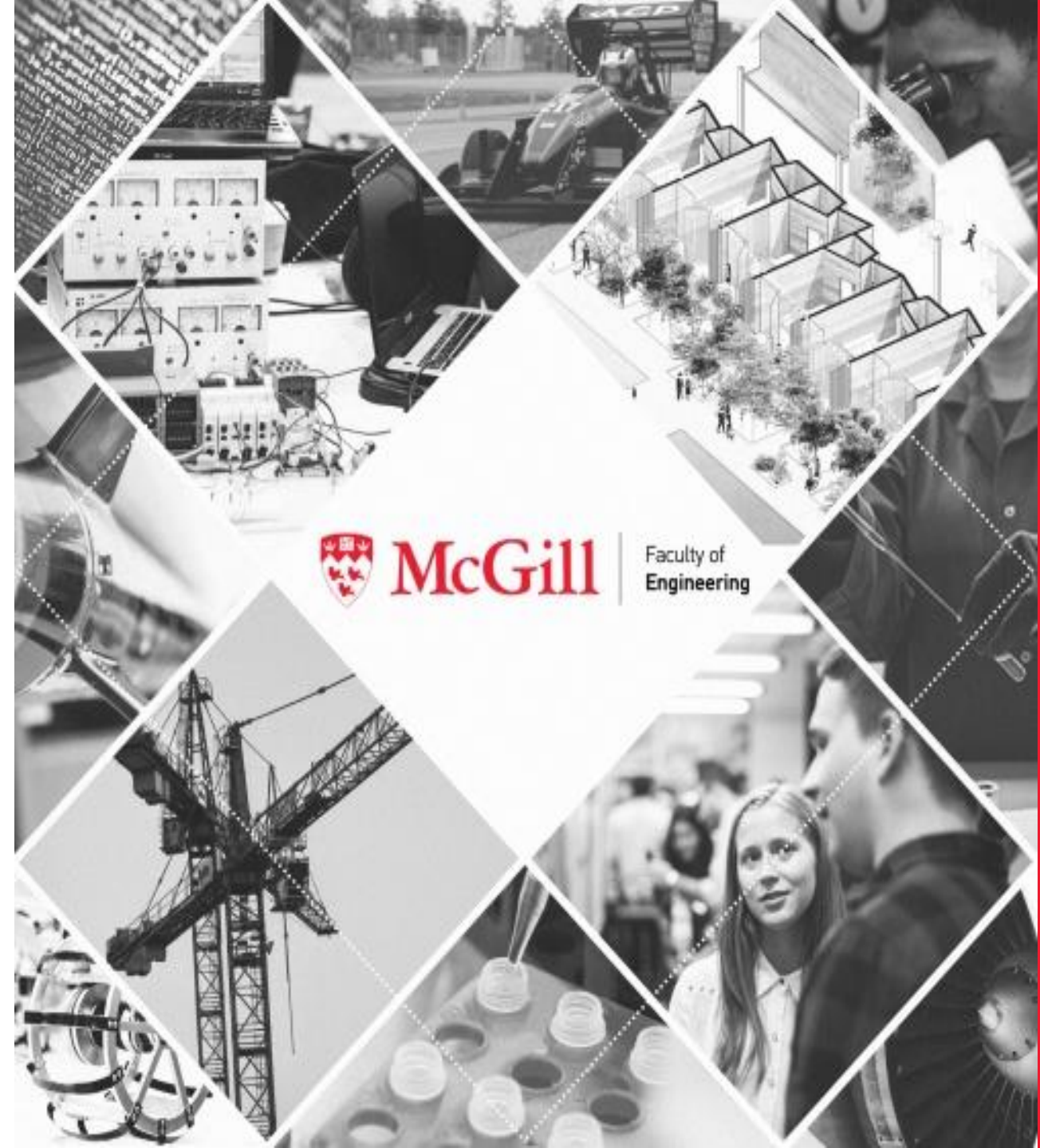
Description: XXXXXX

Roles & Responsibilities: XXXXXX

Official signature
Name and title (printed out)

Available Funding

- Schull Yang International Experience Awards
- The Antje Graupe Pryor Awards
- Enhanced Educational Opportunities (EEO)
 - Need-based funding (→ Scholarships and Students Aid Office:
<https://mcgill.ca/studentaid/special-funding/eoo>)



Schull Yang International Experience Awards

These awards provide financial assistance across the University to support a wide range of international activities.

- You need to find your project and supervisor.
- Min. 10 weeks; 12-16 weeks preferred.
- Award amounts vary.



Schull Yang
International
Experience Awards

Antje Graupe Pryor Awards



- Funding only available to Engineering students.
- Established in 2015 by a generous gift from the late Werner Graupe and the Antje Graupe Pryor Foundation.
- Awarded to students at McGill who opt to conduct their research in the European Union and who want to get a head start on graduate work or future research careers.
- Award amounts vary.

Enhanced Educational Opportunities (EEO)

Enhanced Educational Opportunities (EEOs) are high quality mobility or work experience opportunities that take place outside of the classroom; they foster self-development and can help students transition successfully to the workplace or graduate studies

Need-based funding: The University has provided the Scholarships & Student Aid Office with special funding to pilot an EEO Bursary Program.

Bursaries are non-repayable forms of financial assistance based on demonstrated financial need. The Scholarships & Student Aid Office will ask for this supporting documentation to determine if applicants are eligible for the EEO Bursary Program.

More information on eligibility and the application process for need-based EEO funding can be found [here](#).

Tips for planning a research term abroad...

1. Get informed

- ✓ Some resources: MESC, workshops, website, professors, advisors...
- ✓ Learn about different research programs, learn about visa requirements etc.

2. Estimate your expenses

- ✓ Cost of living, transportation, etc..

3. Find Financial support

- ✓ SURE travel stipend: Apply by March 31st
- ✓ EEO...check if you are eligible?

4. Preparations prior to departure..

- ✓ COVID-19: research local restrictions and measures currently in place; review insurance coverage (health insurance sufficient? trip cancellation coverage?)
- ✓ Download McGill Student Travel Registry app
- ✓ Have plan in case of emergency

Any Questions?

Stay in touch!

E: empower.engineering@mcgill.ca

W: www.mcgill.ca/empower

E: sure-info.engineering@mcgill.ca

W: www.mcgill.ca/engineering/student/s/undergraduate/research/student-section/research-internationally



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