WISE Planet

Cohort 4| Class of 2024

WISE Planet | Cohort 4 | Class of 2024

CONGRATULATIONS

"To me, WISE Planet is a space of intersectional solidarity where the struggle for equity and justice is shared and strengthened through collaboration and mutual care."

I choose to rewrite the narrative.

Over the past year, we have embarked on a transformative journey, united by a shared commitment to empower underrepresented voices in science, technology, engineering, and mathematics (STEM). In doing so, we have laid the groundwork for a more inclusive and just society and begun building something even more profound—a community of resistance and hope.

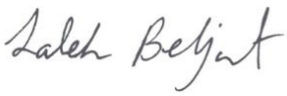
Our journey has been about more than acquiring knowledge and skills in a world that often tries to marginalize and silence. It has been about reclaiming space— a space where our diverse perspectives are celebrated, and our voices amplified. It is what *bell hooks* called a "space of Radical Openness": A space on the margins of the patriarchal system. A place of risk and resistance that challenges dominant narratives, fosters creative and solidarity. In this space, we need a community of resistance emerges—a collective that stands together against marginalization and champions equity and justice.

Within the WISE Planet program, you have cultivated this openness and made this community of resistance. Through your Leadership Equity Action Plan (LEAP) projects, you have advanced inclusion, challenged the narratives that have sought to push us to the margins., and illuminated the path toward equity. Your projects are acts of creativity, resilience, and power—each a beacon illuminating the path toward equity and justice.

This year, we have embraced the values of radical collaboration and mutual support, recognizing that leadership is rooted in collective strength. Together, we have learned to navigate the complexities of change leadership, systems thinking, and sustainable development. Let us continue to stand together, dream boldly, and act courageously. We have also made a foundation of solidarity that will outlast the challenges of our time. A foundation that ensures our collective voice is integral and transformative. Your courage and determination have made this possible. You are rewriting the narrative, proving that a better future is not just possible—it is already being shaped by your hands.

Witnessing your growth, strength, and unwavering commitment has been a privilege. Together, we resist the forces that seek to divide, and we actively design a future defined by inclusion, justice, and radical openness. Let us continue to stand together, to dream boldly, and to act courageously.

In solidarity and with pride,



Laleh Behjat, Ph.D., P.Eng., FCAE, FCSSE, FEC

WISE Planet Program Founder
Prairie Chair, NSERC Women in Science and Engineering
Professor, Department of Electrical and Software Engineering,
Schulich School of Engineering, University of Calgary

I choose to take up space.

Each Cohort brings new lessons and insights for those of us managing and delivering the program. This Cohort I was reminded of the value of one-on-one connections and recognizing the individual journey everyone is on. When I made the time to reach out more, I was always rewarded with surprising insights and touching stories. It is such an honour when someone shares their story with you.

Specifically, Cohort 4 reminded me how our unique circumstances (and in some cases challenges) can be used as a launchpad to do something impactful – even when and if the impact doesn't look exactly like the 'plan' that was created at the beginning of the year.

The Change Leadership Training program is an initiative built on a vision of a future that is dependent on yet to be discovered structures and procedures. Let's all move beyond accepting or simply being comfortable with uncharted paths and roadblocks – let's celebrate them as proof that we've discovered territory worth exploring. Let's embark into the unknowns together with patience and understanding.

Cohort 4, it is our sincerest hope that regardless of what roles, companies, or life circumstances you find yourselves in in the future that you will stay flexible, stay alert, stay optimistic, stay connected and support one another, and always speak up!

Jennifer van Zelm, MSc
WISE Planet Program Manager

I choose to believe in my hopes, not my fears.

Wow! This past year has been a rollercoaster ride, whether you're talking about politics, culture, or climate change. Despite all the turmoil, as program participants, you never gave up. In fact, you continued to show up, bringing your whole selves and holding yourselves to higher standards than we even imagined for you and it was a genuine honor to work with you.

The WISE Planet team and I are incredibly proud of all that you have accomplished from channeling your inner writer to tell the stories of future LEAP project beneficiaries to strategizing how to pitch policy recommendations. You amazed me with your thoughtful consideration of the assignments, your active participation in live sessions and your tireless efforts to progress your LEAP projects. I hope that you gained valuable experience from your projects, even if the main lesson learned was change takes time, so be persistent because it may take a year to get the right people together in one room!

Congratulations! As you join the community of change leaders, be confident, support each other and use your united strength to shape the future!

Stacia Thompson McCoy, PhD
WISE Planet Program Developer

WISE Planet

Women in Science and Engineering for a Sustainable Planet

The WISE Planet program began in February 2021 and to date has enrolled 121 participants in five cohorts nominated from industry, non-profit organizations, and universities across Canada. Over the last four years, WISE Planet has been on a journey to plan, implement and communicate strategies to build a diverse and inclusive future. The program goal is to empower the voices of equity deserving groups and highlight their perspectives so that together we can build a diverse, inclusive, equitable, and just society.

The one-year change leadership training covers four online learning modules, experiential learning through Leadership Equity Action Plan (LEAP) projects, and networking opportunities through the WISE Planet Network. The program is a journey that encourages creative, collaborative, agile planning skills while building up the participant's confidence to see themselves as agents of change.

OUR VISION:

Create a diverse, inclusive, equitable and just society by giving women and other historically underrepresented groups in STEM the power to make change happen.

Email:
wiseplanet@ucalgary.ca

Website:
https://www.ucalgary.ca/wise-planet

LinkedIn:
https://www.linkedin.com/company/wise-planet-at-ucalgary/

YouTube:
https://www.youtube.com/@wiseplanet

Bluesky:
https://bsky.app/profile/wiseplanet.bsky.social

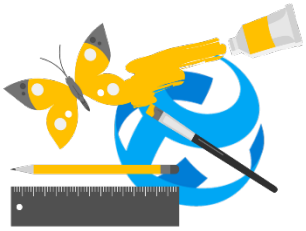
About WISE Planet

Personal Leadership

The goal of this module is to explore implicit bias and its effect on leadership, conflict management style, and leadership style. The module also explores value-based leadership and the role of ethics in the development of science and engineering. Participants learn leadership tools to support change leadership and managing change.

Culture & Systems

The goal of this module is to understand how culture defines our organizations, our actions, and our interactions. Participants also learn how systems and associated power structures are created and how systems perpetuate inequalities. The goal is to gain understanding of how to change culture and systems through strategy, collaboration, activism, and policymaking.



Designing for Disruptions

The goal of this module is to learn how to design systems that are robust and can handle disruptions. Participants learn how to design strategy, perform uncertainty analysis, and build scenarios for disruptive technologies. Participants gain an understanding of how to incorporate disruptions to improve plans through creative process and scenario planning.

Sustainability

The goal of this module is to understand that sustainability is a holistic approach in which the UN Sustainable Development Goal themes of nature, economy, wellbeing, and society are interdependent and interconnected. Participants explore sustainability topics such as Climate Action, Regenerative Design, Life Cycle Assessment, Gender Equality, and Policy Advocacy while learning how smaller, individual actions can collectively have a societal impact and how organizations can align their actions with their sustainable values.

LEAP Projects

All participants undertake a Leadership Equity Action Plan (LEAP) project as part of their WISE Planet training. These projects aim to address equity, diversity, and inclusion (EDI) at the participant's partner organization through recruitment, retention or innovation initiatives.

WISE Leaders

The WISE Planet network of volunteers, mentors, and allies from academia and industry are an important component of the program.

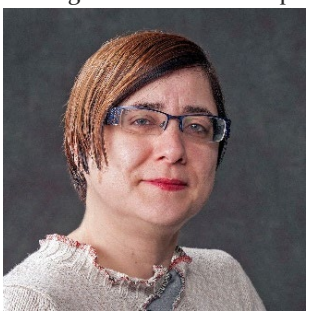
Firas Ali
Worley

Paula Berton
University of Calgary;
CalAgua Innovations Corp

Alicia Bjarnason
CCWESTT

Debbie Burke
BBA Consultants

Jennifer Chen
Emissions Reduction Alberta



Laura Curiel
University of Calgary

Glenn Dolphin
University of Calgary

Kirsten Eeuwes
EPCOR

Megan Gill
Repowered Leadership /
Alberta Direct Connect
Consumer Association

Jill Hager
Garmin Canada

Kelly Hall
Vermillion Power
Technologies / Kelly Hall &
Associates

Nathan Helder
BluEarth Renewables

Heather Herring
Make it So Inc.

Jillian Johnson
Green Cat Hydrogen Ltd.

Chimene Kabriel
Worley

Kelly Krahulic
FortyTwo Innovations

The contributions of WISE Leaders as advisers, mentors and sponsors of individual participants or Learning Communities of participants, and their feedback on Leadership Equity Action Plan (LEAP) projects is a valued part of the WISE Planet program.

Veronica Madonna
Athabasca University

Sedigheh Mahdavi
Innovate Calgary

Jen Malzer
City of Calgary

Latha Nachiyamai
Garmin Canada

Deirdre Norman
Imperial Oil

Kyle O'Keefe
University of Calgary

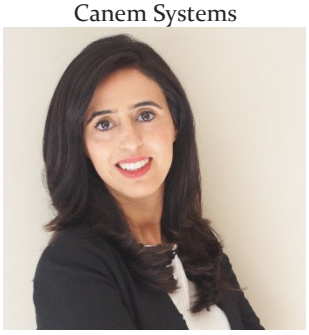
Najmus Saltanat
ENMAX Power

Jamal Seede
Canem Systems

Ghada Sfeir
University of Calgary

Shuchita Singh
Synopsys

Sarah Stewart
ENMAX Power



Monika Tamber
Manulife Investment

Stacie Wilkinson
Entrepreneur/Self Employed,
Executive Leadership Coach

Jonathan Withey
Mount Royal University

AN MAI

"I joined WISE Planet because I am inspired by other women and I would like to inspire my students to be a part of this evolution".

I choose to believe in positivity and possibilities!

BIOGRAPHY

An is an assistant professor at the University of Calgary, with a deep connection to the institution. A proud alumna, she completed her BSc, MSc, and PhD degrees at the University of Calgary. Since 2018, she has contributed to the Schulich School of Engineering as a sessional instructor. From 2021 to 2024, she further enriched the university community as a Research Associate at the Energi Simulation Centre for Geothermal Systems Research.

With over a decade of industry experience in the energy sector, An has dedicated her career to advancing subsurface recovery mechanisms. Her work prioritizes balancing technological innovation with minimizing environmental impacts, aiming to enhance shareholder value while promoting sustainability. She is deeply committed to bridging the gap between industry and academia and to nurturing a future generation of engineers who are not only highly skilled but also compassionate toward society and the environment.

LEAP PROJECT

Integrating Sustainability Discussion into First Year Curriculum

The current generation of engineers being trained by academic institutions has a vested interest in sustainability, highlighting the need to integrate sustainability principles into engineering education. This integration is vital for preparing future engineers to address global challenges, meet evolving societal needs, enhance innovation, and promote ethical responsibility in their practice.

In Fall 2023, I co-taught ENGG 204 (Fundamentals of Engineering Materials) alongside three other instructors under the same coordinator. In my blocks, I initiated discussions on sustainability, sparking interest among students. Building on this experience, I had the opportunity to teach ENGG 204 as the sole instructor during the Spring term. With the autonomy to design the curriculum, I incorporated discussions on recycling, introduced the concept of a circular economy, and engaged students in discussions with sustainability topics. However, limited classroom time posed challenges in dedicating sufficient attention to these topics.

As the ENGG 204 coordinator for Fall 2024, I further revised the curriculum to include discussion on the full life cycle of materials, particularly metals, with a focus on recovery and recycling. During this period, I have also discussed with my colleagues in other departments to identify specific areas where sustainability discussions could be integrated. These efforts aim to incorporate sustainability across engineering curricula, enhancing its prominence and relevance.

Moving forward, my focus is on encouraging other departments to strengthen sustainability initiatives within their programs. I plan to engage with instructors overseeing fourth-year capstone project courses to explore ways to integrate sustainability principles into project designs. This collaborative effort will help ensure that sustainability becomes a cornerstone in the engineering education experience, equipping students to tackle real-world challenges with a holistic and environmentally conscious approach.

I believe that the modifications I made to the ENGG 204 curriculum enrich the first-year engineering program. My aim is to further enhance the course, to provide students with a deeper understanding of sustainable engineering practice, and thus, position graduates to address contemporary societal and environmental challenges. These enhancements will give the institution a competitive advantage by producing graduates that are better prepared to succeed in a sustainability-focused workforce.

BETH RICHARDSON

"I joined WISE Planet because I wanted to learn more about the opportunities for women in leadership in Alberta"

I choose to spend more time around inspiring people and learn from the amazing things they do!

BIOGRAPHY

Beth Richardson is an Assistant Professor at Mount Royal University. Her doctoral and postdoctoral research focused on diversity of eukaryotic microbial communities in mining reclamation sites in the Athabasca Oil Sands Region. Her research programme at Mount Royal University uses environmental DNA to study the ecology and evolution of microbial life in response to hydrocarbon exposure.

LINKEDIN

https://www.linkedin.com/in/bethhrichardson/

LEAP PROJECT

The Effect of Gender on STEM Teaching Loads in Albertan Higher Education

My LEAP project is on gender distribution in STEM teaching loads in higher education in Alberta. I'm interested in why instructors of all genders choose (or are assigned) their workloads, courses and sections, and the various institutional and environmental factors that contribute to observed trends.

In the future, I hope to survey instructors in STEM departments at different Albertan institutions to determine the effect of gender on both desired and realised teaching workloads.

BETH STERLING LEE

"I joined WISE Planet because I wanted to learn how to make a difference.

I choose not to accept, "But it has always been that way."

BIOGRAPHY

If a younger version of myself was told that I would end up as an engineering instructor in Edmonton, Alberta, my younger self would have had a very good laugh. I started (unintentionally) down the road to caring about engineering education during my own undergraduate degree. I was fortunate to have attended Olin College of Engineering, where I lived and breathed project-based learning and experiential education. I ended up in Canada for graduate school at UBC, for reasons somewhere between "Vancouver seems like a nice city," and "It's 2008...how will I ever get a job?" In a tale as old as time, we ended up in Edmonton courtesy of the Vancouver housing market. Since then, I have been at the University of Alberta as a lab coordinator and sessional instructor in Materials Engineering, where I am able to spend my days sharing a love of my field with the next generation of engineers. While my younger self may still be having a laugh, I am happy with how my unexpected path has unfolded.

LINKEDIN

https://www.linkedin.com/in/beth-sterling-lee/

LEAP PROJECT

Reducing Barriers to Problem-Based Learning in Engineering Education

This LEAP project originally focused on pedagogical methods aimed at reducing the performance gaps between students from varying backgrounds, with a particular emphasis on problem-based learning (PBL). PBL is not only an effective teaching method, but it can also help reduce inequalities in student performance. Ultimately, this project aims to help others implement PBL in their own courses. However, implementing PBL can be challenging, and convincing others of its benefits may be even more difficult.

In the initial stage of this project, the starting aim was to identify the barriers and beliefs that prevent others from implementing PBL in their courses. Based on these findings, a framework will be developed to guide others in implementing PBL in a way that is both feasible and accessible to instructors at all stages of their careers. This LEAP project will benefit not only instructors, but also students who have been historically disadvantaged in traditional classroom environments. Since then, the work has pivoted towards collaborating with committees at the departmental and faculty levels, including efforts to define and provide scope for experiential, active, and problem-based learning. This allows for substantially more collaboration with interested parties, and these initiatives will ultimately help reach a broader audience and facilitate more systematic implementation of this engineering education change.

CAILEIGH MACISAAC

"I joined WISE Planet to connect with other women in STEM and to learn how we can become leaders in our field.

WISE Planet helped with this and taught me more than I expected - like unconscious biases, regenerative design, and the EDI issues being faced by my fellow participants. I would recommend this course for any woman in STEM."

I choose to persevere.

BIOGRAPHY

After earning a Bachelor of Science in Civil Engineering from the University of Alberta, I began my career with Graham Construction in Edmonton, Alberta, as a Project Coordinator. My first major project was the Groat Road Bridge over the North Saskatchewan River, which I worked on from tender to completion. This complex project presented several unique challenges, requiring innovative solutions such as constructing an ice bridge, deploying a gantry crane on an existing bridge, and building a river berm with sheet pile cofferdams for isolation. This experience pushed me to challenge my approach to construction and design, inspiring me to pivot my career.

Following this project, I transitioned to structural design with GeoMetrix Group Engineering. In this role, I have contributed to a wide range of projects, including bridge load evaluations, bridge designs and design reviews, bridge-sized culverts, barrier designs, temporary works designs and various retaining wall systems, further expanding my expertise in structural and civil engineering.

LINKEDIN

https://www.linkedin.com/in/caileigh-macisaac-816b4b13b/

LEAP PROJECT

WISE Role Models for STEM Careers

The greatest barrier to entry into STEM careers that I have observed is a lack of awareness. For many young women, the perception that STEM careers are "not for them" persists, not because they lack the ability or interest, but because they haven't been introduced to these roles in a relatable way. This gap in both awareness and representation contributes to the underrepresentation of women and diverse groups in STEM—a challenge that affects not just individuals, but society as a whole.

This year, through my **LEAP Project**, I developed a solution to these challenges: an engaging, accessible website that provides comprehensive information on STEM careers. The platform allows students to explore a wide range of careers through detailed work descriptions, salary information, and educational requirements. It also includes video testimonials from people in STEM—individuals who reflect the diversity of our communities. These videos showcase personal stories, why these individuals chose their careers, and what they love about their work, helping young people see themselves in similar roles.

Through conversations with teenagers, I realized that many lack the enthusiasm to explore future career paths on their own initiative. My platform addresses this by offering a resource not just for students, but also for teachers, who can use it to inspire their students and show them how their current learning can open doors to exciting STEM careers. This effort aims to create a future where diversity in STEM leads to better innovation and representation.

This year, the foundation for the website was laid by creating an initial framework for the website content, including templates of career profiles and video interview formats. What I learned from this process is that storytelling is powerful. Hearing firsthand from professionals not only demystifies STEM careers but also makes them more approachable and relatable.

Moving forward, the vision is to grow this platform into a living, evolving resource. Each year, new cohorts of WISE Planet participants can add more careers, videos, and resources to the site. Expanding its reach will involve connecting with schools, raising awareness through presentations, and encouraging students to explore the site. Future additions could include:

- **A mentoring section**: Allowing students to shadow STEM professionals or apply for part-time and summer jobs.
- **Interactive forums**: Creating spaces for students to ask questions and receive guidance from STEM professionals.
- **Outreach to educators**: Ensuring teachers have the tools to use this platform in their classrooms effectively.

The long-term vision is to establish a community of students and mentors, united by a shared goal of fostering diversity and inclusion in STEM. By bridging the gap in awareness and representation, we can open doors for young women and others to not only enter STEM careers, but to thrive in them.

CHELSEA SQUIRES

"I joined WISE Planet because I'm tired of seeing the same issues continue - I want action."

I choose to keep pushing the goals of my project to create more lasting change.

BIOGRAPHY

A Senior Manager of Data Science with two Master of Science degrees, I bring technical expertise, strategic insight, and energetic leadership to every challenge. I thrive on turning complex problems into creative, impactful solutions, like transforming client segmentation and launching AI-driven risk mitigation tools.

Known for my "aggressively supportive" leadership style, I build strong teams and inspire them to excel. My passion for data science extends to volunteering with Women in AI, empowering others in this evolving field. Whether aligning executives, translating technical findings, or injecting humor into a meeting, I bring passion and personality to everything I do. I make the impossible not just possible, but fun and inspiring.

LINKEDIN

https://www.linkedin.com/in/chelseasquires/

LEAP PROJECT

Building a Talent Pipeline for Data and AI Roles at ATB Financial

ATB Financial, a prominent financial institution in Alberta, Canada, is committed to staying at the forefront of technological innovation. However, the rapid advancement of data and AI technologies has created a significant gap between the skills required for these roles and the available talent pool in the province. This talent scarcity poses a challenge for ATB's growth strategy and its broader commitment to community development. Traditional talent acquisition methods have proven insufficient to address this gap, necessitating a more innovative and sustainable approach.

To address this challenge, I propose the creation of an "Equitable & Symbiotic Talent Pipeline System" for ATB Financial. This initiative aims to build a robust talent pipeline by connecting ATB with community partners focused on developing data and AI skills. The project's core components include a centralized repository of required skills for data and AI roles, aligned with ATB's Path to 2030 strategy and updated to reflect evolving industry needs. It also involves a curated network of community organizations capable of supporting ATB's skill needs, fostering collaboration, and knowledge transfer. Finally, it will use a series of events and activities designed to foster collaboration and skill development between ATB and community partners.

This talent pipeline system will provide numerous benefits. ATB will gain access to a diverse and skilled talent pool, ensuring it has the human capital to drive innovation and growth. The initiative will contribute to the upskilling and economic growth of the Alberta community by supporting the development of in-demand data and AI skills. By investing in community development, ATB will strengthen its employer brand and attract top talent. The project will foster innovation and collaboration between ATB and community partners, leading to new ideas and solutions.

The project has progressed significantly. The talent gap and its impact on ATB and the community have been clearly defined. The core components of the talent pipeline system have been designed. Key stakeholders, including ATB teams, community partners, and potential talent, have been identified. Metrics for evaluating the project's success, including talent pipeline security, community perception, and risk mitigation, have been established.

The next steps in the project involve developing a pilot program to test the feasibility and effectiveness of the talent pipeline system with a select group of community partners. It will also require securing buy-in and support from key stakeholders, including ATB's Senior Leadership Team (SLT). Finally, the pilot program will be implemented, continuously evaluated, and adjustments will be made based on the learnings.

The "Equitable & Symbiotic Talent Pipeline System" is a strategic initiative that addresses a critical talent gap while contributing to community development. By investing in this project, ATB Financial can secure a sustainable talent pipeline, drive innovation, and strengthen its position as a leader in the Alberta technology sector. I plan to propose this pilot program to the SLT in the upcoming fiscal year and seek their support for its implementation.

CLAUDIA GOMES DA ROCHA

I choose to lead, inspire, and be kind.

"I joined WISE Planet because it is the best leadership training program available, with the unique aspect of combining equity, diversity, and inclusion content considerations with innovative and sustainable solutions applicable to impart large-scale (and positive) societal changes."

BIOGRAPHY

As a faculty member of the Department of Physics and Astronomy (UCalgary, since 2018), Dr. Rocha leads the Complex Nano Materials Group, tackling problems in theoretical condensed matter physics, computational nanoscience, and quantum materials. Using computer simulations, the group investigates non-conventional nanomaterials engineered for specific technological applications: neuromorphic systems, i.e., computing units that process information like neurons in the brain; transparent conducting films to enhance performance/durability of display technologies; chemical sensors for accurate detection of impurities in the environment; and quantum materials to enable the quantum technologies of the future. Dr. Rocha is a member of the Institute for Quantum Science and Technology, Quantum Alberta, and Hotchkiss Brain Institute. Dr. Rocha received her MSc (2001) and PhD (2005) degrees in physics from the Fluminense Federal University (FFU) in Brazil. There followed a series of postdoctoral experiences in Europe: research fellow at Trinity College Dublin (TCD), Ireland (2005-2008); Alexander von Humboldt Fellow at Dresden University of Technology, Germany (2008-2011); independent researcher at the University of Jyväskylä, Finland (2011-2014); and senior research fellow at TCD, Ireland (2014-2018).

WEBSITE

https://profiles.ucalgary.ca/claudia-gomes-da-rocha

LEAP PROJECT

Addressing Accessibility in Post-secondary Educational Spaces

This project aims to make post-secondary educational spaces more accessible by establishing a framework for engaging and deploying resources and services as well as implementing actions. In many places in Canada and around the world, various university buildings were constructed in the 50s-60s, and they lack essential features and services that are key for people with disabilities. To address the accessibility status of older buildings, we focus on formulating a framework that identifies advisors, partners, experts, and relevant community members, who can determine prime locations that need immediate attention in terms of accessibility, which can include building and floor accesses, elevators, emergency exits, parking spots, accessible washrooms, inclusive classrooms as well as lighting, furniture, access to services, and accessible signage. In this way, we will be paving the way to more welcoming, equitable, diverse, inclusive, and accessible institutions, aligning with common values of fostering inclusive and supportive educational spaces for all.

EMMA HOPE & MEGHAN HO

"We joined WISE Planet because we wanted to gain the knowledge and resources to better support women and other underrepresented groups"

We choose to continue promoting initiatives that foster a sense of belonging for women and allies in the workplace.

BIOGRAPHY

Emma Hope: I graduated from the University of Alberta with a Bachelor of Mechanical Engineering in 2021. I was a part of the co-op program at the U of A so was able to work in a couple different positions while in university. I worked at EPCOR in Edmonton where I worked with Project Managers on a variety of projects in the Wastewater Treatment facility. My second co-op position was at AltaSteel in Edmonton where I did some more design type work at the steel mill with the site engineering team. I started at Spartan Controls in December of 2021 as an Application Specialist for the Control team in Edmonton and moved to the Calgary office in the same role in November 2022.

Meghan Ho: I graduated from the University of British Columbia with a Bachelor of Chemical Engineering in December 2020. During my studies, I participated in UBC's co-op program and gained experience with various companies. My first co-op term was as a Research Assistant, where I assisted a PhD student in developing a novel electrochemical technology that later became Mangrove Lithium. For my second co-op, I worked as a Testing Technician with SWITCH Materials, a smart window start-up. My final co-op term was with Spartan Controls in January 2019, where I served as an Application Specialist, primarily working with municipal customers. After graduation, I returned to Spartan in March 2021 in the same role, where I now work with customers in the chemical and renewable industries.

LEAP PROJECT

Continuing to Grow the Spartan Supporting Women (SSW) Network

We were introduced to the Spartan Supporting Women (SSW) Network when we joined the WISE Planet program. The SSW Network is a community of Spartans committed to creating a sense of belonging for women and allies, promoting knowledge sharing through networking, and advancing careers through peer support, mentoring, and connection. The SSW Network was an initiative started by Spartan's previous WISE Planet cohort: Kristi McGuire, Megan Pleau, Emily Griffin, and Drew Ryan. These four are based out of Spartan Controls' Edmonton office, which was the location for the successful pilot launch of the SSW Network in December 2023. We are based out of the other two larger offices, in Calgary and Burnaby.

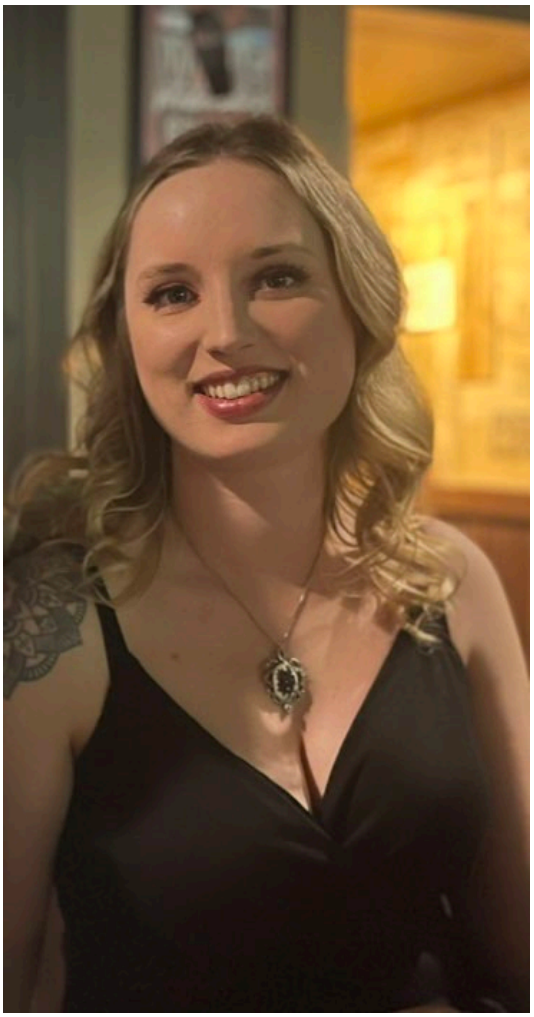
The early focus was on establishing the SSW Network in our respective offices by forming core teams and hosting local events. On March 6, 2024, as part of Spartan Controls' International Women's Day celebration, the SSW Network was launched across all offices with a company-wide Mentoring Circle event. Throughout 2024, the SSW Network hosted additional events across all Spartan locations, including mentoring circles, guest speaker panels, and various social activities.

While we had established core teams in our Edmonton, Calgary, and Burnaby offices, a key challenge emerged: how could we bridge the gap between our larger offices and more isolated regional locations to ensure all employees had the same opportunities for connection, mentorship, and development? The goal of our project was to increase awareness and participation in the SSW Network across all thirteen Spartan offices, particularly those in smaller, more remote regions. To address this, we decided to create an online platform and made an effort to ensure that our major events were accessible to everyone across the organization, either in person or virtually.

In spring 2024, we created an online platform where members could access resources, review past events, and submit suggestions for future events. We also established a Microsoft Viva Engage page in the fall, where we posted event summaries and surveys to gather feedback. As of now, 147 Spartans have signed up for our SSW Viva page, and we anticipate this page becoming the main platform for members to engage with each other between events. During the speaker event hosted in the fall, we organized in-person viewing parties at every office, in addition to offering a virtual option. As a result of these efforts, a couple of women from our Fort McMurray office reached out to start a core team in that location. This was a huge milestone for the SSW team, and we hope to have a core team in each Spartan location over the coming months.

In the long term, we hope the SSW Network becomes a driving force for Spartan's culture—helping to attract top female talent and empowering employees to take ownership of their personal and career development. With the support and resources we receive from Spartan's management team, we aim to continue expanding the reach of the Network by hosting more events and building out the online platform to help foster a self-sustaining network that continually adapts to the needs of its members.

FRANCESCA HAMMEL



"I joined WISE Planet because I wanted to grow my skills in leadership of Equity, Diversity, and Inclusion and be a representative for positive change at my organization"

I choose to promote and foster an environment that is psychologically safe for all.

BIOGRAPHY

I am a Gas Specification Management Technologist at ATCO Energy Solutions, with a diploma in Chemical Laboratory Technology from SAIT and a member of ASET. I have worked in a variety of positions since starting with the company in 2020. Originally, I started out as a COOP student in the Gas Specification Management (GSM) Laboratory, moved on to work as a utility operator in field operations and pressure control, and finally gained a permanent spot back in the GSM Laboratory. In my current role, I am responsible for gas specifications management of ATCO Natural Gas Distribution system and the operation of all field and laboratory processes used for gas and liquid analysis. I analyze natural gas samples for component identification related to odorization monitoring, heat value measurement and gas quality control. I am passionate about working with the regional Alberta field operators, with whom I work closely in order to achieve shared goals.

LEAP PROJECT

Recruitment and Retention of Females in Field Related Operational Roles

I believe that my company is trying to hire a more diverse workforce (specifically male /female) however, it is tough when the majority of people who apply are male. There are a few problems that I can see:

1. There needs to be more awareness that these jobs exist and that females can become successful in these roles.

2. Management / hiring managers / recruiters should be mindful that there could be an unconscious bias when hiring in historically and currently male-dominated positions.

3. Retention of females in field level positions is critical to maintain a diverse work environment.

Throughout the year I have had to pivot my project a couple of times after speaking with my leaders and HR. Currently, I would like to start a statistical study that compares the amount of females who apply for field level positions, how many of those females got interviews (pending that their skill set is applicable to the job), and how many females got hired. Putting numbers on paper will help the company realize that there is a gap between the goals of the company and following through on meeting those goals.

My project is still very much in the early stages and I foresee it staying that way for the foreseeable future as ATCO is currently working on many other DEI initiates. My biggest achievement through this experience has been the opportunity to speak to many of my leaders and gaining the confidence to do so. I am very grateful to have been given this opportunity to participate in the WISE planet program and I will continue to advocate for equal representation of females in the workplace.

GABRIELA SOUZA

"I joined WISE Planet because I wanted to develop leadership skills and meet women working in STEM fields"

I choose to complete a project that resonated with me and my experience.

BIOGRAPHY

My name is Gabriela Souza, I am Brazilian, and I have lived in Calgary since September 2017. I moved to Canada to attend university; I studied Mechanical Engineering with a Minor in Petroleum at UofC and have been working on wells-related industry since my internship. I enjoy the work since it is always a different challenge. I wanted to participate in this program to develop leadership skills as a recent graduate, as well as expand my network, especially of women working in STEM fields.

LEAP PROJECT

International Students Informational Page

The objective of my project was to create a comprehensive resource page designed to provide information for the hiring of international students. The resource equips company employees with essential knowledge regarding the prerequisites for hiring co-op and newly graduated students. It aims to enable staff to effectively address questions at career fairs, panels, and similar events. Additionally, it serves as a valuable tool for the students and new graduates by providing them with general information on permit requirements, maintaining current documentation, and understanding post-graduation needs.

GHAZALEH VAZHBAKHT

I choose to be a part of positive change.

"I'm grateful to Synopsys for nominating me for WISE planet. I joined the program to become a better leader and to connect with like-minded people that are passionate about EDI."

BIOGRAPHY

I am an electrical and computer engineer currently serving as a project engineering manager in the semiconductor industry. Born and raised in Iran, I completed mt bachelor's degree in Tehran and worked as a researcher for nearly four years before relocating to Canada. I earned my master's degree in electrical and computer engineering from Carleton University and then joined Synopsys as an R&D engineer in the Non-Volatile Memory design team. My diverse life experiences have heightened my awareness of everyday discrimination and biases, and I am committed to driving change to ensure that everyone has the opportunity to reach their full potential and have their voice heard.

LINKEDIN

https://www.linkedin.com/in/ghazalehvazhbakht/

LEAP PROJECT

Pay Transparency within Organizations

Employee retention and hiring the right candidates are major challenges for organizations, especially as remote work has globalized competition. Offering competitive salaries and employee recognition are effective strategies to address these issues with pay transparency playing a key role. By providing clear salary ranges, organizations help candidates align their expectations before applying, while also fostering trust with current employees. Transparent compensation practices not only boost workplace culture by addressing concerns about fairness but also promote diversity, narrow the gender gap, and encourage innovation.

Over the past year, I researched pay transparency and its impact on organizations and employees. I focused on understanding its challenges and determining a level of transparency that benefits both parties. To gather insight, I created an organizational survey to assess employees' preferences. The next step is to gather the data and present the findings to leadership and propose a plan for implementing pay transparency.

HADISA AYOOBI

"I joined WISE Planet to enhance my understanding of change leadership techniques, which will empower me to identify and dismantle barriers to success in my workplace and other environments."

I choose embracing change leadership by fostering a culture of innovation, empowering my team, and leading by example to navigate transitions effectively. I prioritize equity, diversity, and inclusion to ensure all voices are heard and valued.

BIOGRAPHY

Hadisa is a Project Engineer and a new member of the Pembina Pipeline team, having joined the Facilities Project Development group in 2023. In her role, she collaborates closely with the Pembina Business Development group to evaluate new investment opportunities. Hadisa holds a Bachelor of Science in Chemical Engineering from the University of Calgary. Prior to joining Pembina, she worked as a Project Engineer at Inter Pipeline Ltd, where she contributed to various pipeline projects.

Mentorship has been pivotal in Hadisa's career development. She now mentors young professionals and has supported initiatives such as the Women's Network and the Diversity & Inclusion Council at Inter Pipeline Ltd. Hadisa is a dedicated advocate for equity, diversity, and inclusion within her workplace and professional network. In her spare time, she enjoys practicing yoga and taking nature walks.

LEAP PROJECT

Employee Attraction, Retention and Progression through Peer Mentorship

The proposed mentorship program at Pembina aims to address career growth and development as an area for improvement based on the 2023 WISE Planet Cohort Survey. The program will be integrated into the Pembina Women Inclusion Network's roles and responsibilities, with the pilot implementation timeline of Q1 2025. The program will offer a mentor list, allowing mentees to select their mentors. The program will include a pilot phase and feature networking events for mentors and mentees to meet in person, primarily during lunch hours. Initially, the program will be piloted for Women in STEM fields and Engineers-in-training, with plans to expand to the entire organization in the second phase.

The mentorship program offers significant benefits for both mentors and mentees. For mentors, it can be incorporated into their Individual Development Plan and leadership development plan, providing a structured approach to accountability and tracking. Mentees will gain access to experienced individuals, fostering a sense of community and belonging. The organization will benefit from improved succession planning, knowledge transfer, and employee retention.

The program also addresses equity, diversity, and inclusion (EDI) by increasing inclusivity through networking and connecting diverse groups within Pembina. Networking events will be held at various Pembina locations to reach a broad audience. Currently in the Preparation phase, the project aims to move the pilot program into the Execution Phase by Q1 2025.

HARSHINI ANISINGARAJU

"I joined WISE Planet because I was inspired by the agents of change the women who developed this course are."

I choose to embrace my strength, trust my voice and support women around me knowing that our potential is boundless.

BIOGRAPHY

Harshini was born in India and immigrated to Canada when she was 9 years old, calling Calgary home for the last 21 years. She graduated from the University of Calgary with a Bachelor of Science in Electrical and Computer Engineering and has been working at Fluor Canada since 2018. Currently, she performs Power System Studies on various projects and is Fluor's Executive Sponsor for the University of Calgary. In 2023, she received the Young Resource Leader award from the Alberta Chamber of Resources for developing a program that aids early career engineers in attaining their P. Eng designation. Being a woman in a male-dominated industry, Harshini is determined to re-define norms and serve as a reminder for all the work that's yet to be done when it comes to diversity and equality.

LINKEDIN

https://www.linkedin.com/in/harshini-anisingaraju-927677b1/

LEAP PROJECT

HER: Hear, Empower, Reflect

Over the past year, my LEAP project has focused on finding ways to support and empower young women in their careers within my organization. Initially, I approached this with numerous ideas, eager to create meaningful change. However, as I started to brainstorm potential project ideas, I realized that my organization already offers a wide array of training, programs and initiatives aimed at professional development, community involvement, leadership and supporting women. This shifted the focus of my project from creating something entirely new to identifying what I could contribute to the current framework that would enhance the sense of connection among women.

Through the WISE Planet Program online modules, I was starting to notice that I shared a unique connection with the many women I conversed with during our breakout sessions, despite not meeting in person, since we were in an environment where we could be open, trusting and vulnerable with each other. Another highlight about the process to develop my LEAP project were the interviews I was doing with people in my organization. It made me realize that the best thing I could do for young women in my organization was to foster connections like the ones I was making through the WISE Planet Program and the interviews. I understood that while structured programs like mentorship, training, and leadership workshops are crucial, the emotional and social support women experience in the workplace can be equally impactful. I wanted to create a consistent, open forum where women could come together to share their experiences, challenges, and triumphs. This kind of space can help women feel validated in their experiences and supported in their careers, not only leading to individual growth but also a stronger sense of community.

The initiative I would like to further develop is a program called “HER.” The acronym stands for Hear, Empower and Reflect. The goal is to create a safe, inclusive environment where women at all levels of their careers can participate in discussions centered around specific themes, such as navigating career growth, overcoming imposter syndrome, balancing work and personal life, and advocating for oneself in the workplace. Each session would be guided by a facilitator who introduces the topic, shares relevant background information, and then opens the floor for participants to share their experiences and perspectives.

One key element of HER is its flexibility and accessibility. To ensure maximum participation, the sessions could be held monthly during lunch hours or scheduled as virtual meetings, allowing women from different locations to join. This approach also makes it easier to integrate the program into existing workplace routines. To kick off the initiative, I proposed starting with a pilot program featuring three sessions over three months, with topics chosen based on an employee survey. Feedback from these sessions would guide the development of a more permanent program structure.

Realistically implementing HER in my workplace involves leveraging existing resources and networks. For instance, engaging senior female leaders who can act as facilitators or guest speakers to inspire and guide participants. Additionally, promoting the program through internal communication channels and employee resource groups ensures greater visibility and engagement.

Reflecting on this journey, the most rewarding part has been connecting with other participants and the instructors in the 2024 cohort. Their insights, challenges, and successes have reinforced the importance of shared experiences and mutual support. My hope is that HER not only strengthens the connections among women in my organization but also contributes to a culture where every woman feels empowered to succeed.

HERMIE MONTERDE

"I joined WISE Planet because of its singular programming that transforms early career participants to future STEM leaders."

''Hit two birds with one stone", they said. So, I took PhD Math and joined the WISE Planet program.

BIOGRAPHY

Hermie Monterde (she/her) is a PhD candidate at the University of Manitoba. Her research involves applications of techniques from combinatorics and linear algebra to problems in continuous quantum walks.

She is passionate about graduate student advocacy, SOGIESC rights, and gender equity in STEM. Currently, she is a member of the CMS Women in Mathematics Committee, the president of the Graduate Mathematics Society, and a member of the board of directors of Women in Combinatorics.

Hermie is also active in organizing seminars and mini-symposia, including the Prairie Discrete Mathematics Workshop 2022, the 05C50 Online, and the inaugural Queer in Computational Applied Mathematics Conference.

Outside of mathematics, she is active in migrants' and labor rights grassroots movements in Manitoba.

As a brown transgender woman from the Philippines, Hermie has experienced the barriers created by capitalism, colonization and patriarchy, which continue to disenfranchise low-income, disabled, racialized and SOGIESC-diverse people. Hermie believes that it is only by recognizing and tearing down these barriers that we can truly create an equitable, diverse and inclusive community.

WEBSITE

https://sites.google.com/view/hermiemonterde
https://scholar.google.com/citations?user=BUC1oekAAAAJ&hl=en

LEAP PROJECT

Not Your Typical Gender Diversity in STEM

Since the second wave feminism movement took place in the 1970s, there has been an increase in the number of women academics in STEM fields. Despite this fact, gender parity is still far from being achieved in STEM. Gender parity is important in STEM as it reflects the power balance, or lack thereof, between men and women scientists. Gender diversity, on the other hand, is different from gender parity in that gender diversity takes into account nonbinary and nontraditional notions of gender. So, while the inclusion of women is crucial in attaining gender diversity, the inclusion of women who fit the traditional notions of a woman is not enough to achieve gender diversity. Hence, one may think of gender diversity as a nuanced and decolonial version of gender parity.

In this LEAP project, we aspire to contribute, primarily, to gender diversity in STEM. We intend to start small and focus on the early career folks (graduate students and postdoctoral fellows) in the mathematical sciences. Our goal is to promote the valuable contributions and promising qualities of gender-diverse mathematicians to STEM and the broader academic community. Some aspects of this LEAP project include (1) constructing a website of gender-diverse folks in STEM that includes their contributions as researchers and members of the STEM community, (2) establishing professional development activities, designed for gender-diverse early career folks, to prepare them for job applications and future endeavors in STEM, and (3) building a supportive community of gender-diverse individuals through social and academic events (either in-person or virtual).

This project is the first equity initiative of its kind. This requires time for planning, including brainstorming and consultation with stakeholders, especially with gender-diverse academics in STEM, as well as an ample amount of financial investment to realize the above-mentioned activities. While this project is currently at the exploration stage, we hope to inspire other academics to replicate this idea in their respective STEM fields. Ultimately, we envisage a STEM community that aspires to gender diversity. After all, gender diversity is a prerequisite for diversity, and, hence, EDI is an illusion without striving for gender diversity.

JACOB LAMB

"I joined WISE Planet because I wanted to improve my teaching practices, to be more inclusive and to learn new perspectives."

I choose to organize a community of practice around inclusive teaching practices at the Schulich School of Engineering.

BIOGRAPHY

I have always wanted to be an engineer, being good at math and liking to solve puzzles lent me in that direction from an early age. But it turns out, I also like to talk, more than the average engineer! So, it hasn't been that surprising that I've followed more in my mother's footsteps (elementary school teacher) than my father's (mechanical engineer) and become a teaching-track professor at the University of Calgary. I completed my undergraduate and master's degree at Heriot-Watt University, Edinburgh where I spent a lot of time on extra-curricular leadership and work opportunities. I also undertook an international exchange, to Calgary, which is how I made my connections to come back for the PhD in Transportation Engineering in the Integrated Infrastructure for Sustainable Cities program. I followed this experience as a consulting engineer for a couple of years before I secured my current position, where I am glad to "bookend" the civil engineering student program, by teaching ENGG202 Statics to first year students, and ENCI570 Capstone to final year students.

LINKEDIN

https://www.linkedin.com/in/jacoblambxp/

LEAP PROJECT

Department Level Supports and Guidance for Inclusive Engineering Education

For my LEAP Project I wanted to localize a lot of the great work that the University of Calgary and engineering education field has done to recommend inclusive teaching practices. As a graduate student, I participated in both the "Scholarship of Teaching and Learning Advancing Graduate Education in STEM" program (SAGES) and the Taylor Institute for Teaching and Learning Graduate Student Certificate program, where I discovered the vast field of engineering education and realized the thoughtfulness beyond the technical information that can be put into an educational program. I saw from my experience, however, that these programs were mostly attended by the already convinced, and that in my new role as an assistant professor (teaching), I had an opportunity to bring some of this learning into the Faculty and Department. Thus, the inspiration for my project.

At the start of the WISE Planet program in the first half of 2024, I sought demographic information about the students, faculty, and staff in the department – I reasoned that this data would be a foundation for future discussions. The Schulich School of Engineering and University of Calgary at large has an Equity Diversity and Inclusivity Data Hub and Office, which gathers such data at a faculty and university level, respectively. I then made internal connections over the summer to further narrow down this information to the department level. I enjoyed this part of the WISE Planet program that gave me a reason to venture beyond my department and make links to other parts of the community.

Moreover, I was pleasantly surprised to see, at the 2024 retreat, other faculty members presenting on topics of inclusivity, as I hadn't yet connected with them and was unaware that they also had an interest in advancing our community of practice. The resulting discussions highlighted the importance of the demographic data I was already seeking, and I look forward to the 2025 retreat where I can share the results of my LEAP Project.

In parallel, I advanced the community of practice aspect of my project with a successful Teaching Academy Grant for Educational Leadership from the Taylor Institute for Teaching and Learning. This grant was led by my colleague Dr Robyn Mae Paul, an existing member of the Teaching Academy, with me as the co-applicant and recruit to the academy. Together, we established a book club meeting that welcomed all the new teaching-steam assistant professors within the Schulich School of Engineering. The number of teaching-stream tenure-track professors has doubled since administrative changes to the position were implemented in early 2023, so, as one of these new members, I was eager to create a safe space for me and my colleagues centered around improving our inclusive teaching practices. The twice semesterly meetings have already covered the topics of "Decolonization in Engineering Education", and "Advancing an Integrative Perspective of Identity in Engineering Education", from the International Handbook of Engineering Education Research.

JANE OKAFOR

"I joined WISE Planet because it offered a year-long commitment to leadership training and resources, collaboration and networking with other Cohorts from both industry and academia"

I choose joy. I choose a positive outlook on life. Regardless of the role(s) I play in the lives of people around me, I choose to be a positive role model and a reliable ally.

BIOGRAPHY

Jane Okafor is a Plant Process Engineer within the Operations Engineering Team at Pembina Redwater Fractionation and Storage Facility since joining the company in 2023. In her role, she supports the safe and reliable operation and maintenance of projects and turnarounds at the facility. Prior to joining Pembina, Jane held similar roles, supporting natural gas processing facilities located in Fort St. John area of British Columbia.

Jane holds a Bachelor of Engineering degree in Chemical Engineering from the Federal University of Technology (FUTO) Owerri, Nigeria and a Master of Science degree in Chemical Engineering from the University of Calgary.

Jane is a wife and mother of three children and considers herself a resourceful and dependable daughter, sister, friend, ally, mentor: inspiring the next generation of strong and confident women.

Jane appreciates the significance of designing and implementing a mentorship program (Pembina Cohort 4 LEAP project) within an organization because she credits a handful of women and male allies who inspired the zeal for self-actualization, in her youth, influencing the trajectory of her life.

LEAP PROJECT

Employee Attraction, Retention and Progression through Peer Mentorship

The proposed mentorship program at Pembina aims to address career growth and development as an area for improvement based on the 2023 WISE Planet Cohort Survey. The program will be integrated into the Pembina Women Inclusion Network's roles and responsibilities, with the pilot implementation timeline of Q1 2025. The program will offer a mentor list, allowing mentees to select their mentors. The program will include a pilot phase and feature networking events for mentors and mentees to meet in person, primarily during lunch hours. Initially, the program will be piloted for Women in STEM fields and Engineers-in-training, with plans to expand to the entire organization in the second phase.

The mentorship program offers significant benefits for both mentors and mentees. For mentors, it can be incorporated into their Individual Development Plan and leadership development plan, providing a structured approach to accountability and tracking. Mentees will gain access to experienced individuals, fostering a sense of community and belonging. The organization will benefit from improved succession planning, knowledge transfer, and employee retention.

The program also addresses equity, diversity, and inclusion (EDI) by increasing inclusivity through networking and connecting diverse groups within Pembina. Networking events will be held at various Pembina locations to reach a broad audience. Currently in the Preparation phase, the project aims to move the pilot program into the Execution Phase by Q1 2025.

JENNIFER VAN DER MERWE

"I joined WISE Planet to gain skills and strategies related to leadership."

I choose to embrace life to its fullest, striving to make every moment meaningful. I am committed to advocating for those who cannot advocate for themselves, lending my voice to amplify theirs. I believe in being the change our community needs—creating a world where everyone feels valued, equal, and included.

BIOGRAPHY

Jennifer Van Der Merwe is a Project Manager with Pembiina Pipeline's Engineering and Construction team and has been with the company since 2014. In her role, she works closely with Pembina's Business Development group to evaluate and assess new investment opportunities. Jennifer holds a Bachelor of Science in Geomatics Engineering from the University of Calgary.

A proud Calgarian, Jennifer is married and the mother of two young sons. Her eldest son was born with a severe neurological developmental delay, and outside of work, she dedicates significant time advocating for his care and ensuring he receives the support he needs. In her free time, Jennifer enjoys outdoor activities such as 4x4 off-roading in the backcountry, hiking, skiing, and exploring nature.

Jennifer considers the LEAP project to be the highlight of her WISE Planet experience. Through this initiative, we navigated Pembina's internal processes to facilitate the appropriate method to pilot a mentorship program, which underscored both the strong demand for such a program and the complexities of its execution. Inspired by this work, Jennifer chose to volunteer as a Mentorship Coordinator for the Learning Subcommittee of Pembina's Women's Inclusion Network (WIN) to continue advancing the mentorship program and bring it to fruition.

Participating in WISE Planet and engaging in discussions with WIN at Pembina have been pivotal in Jennifer's professional growth. These experiences have reinforced her commitment to driving positive change within the organization and supporting initiatives that foster inclusion, development, and collaboration.

LEAP PROJECT

Employee Attraction, Retention and Progression through Peer Mentorship

The proposed mentorship program at Pembina aims to address career growth and development as an area for improvement based on the 2023 WISE Planet Cohort Survey. The program will be integrated into the Pembina Women Inclusion Network's roles and responsibilities, with the pilot implementation timeline of Q1 2025. The program will offer a mentor list, allowing mentees to select their mentors. The program will include a pilot phase and feature networking events for mentors and mentees to meet in person, primarily during lunch hours. Initially, the program will be piloted for Women in STEM fields and Engineers-in-training, with plans to expand to the entire organization in the second phase.

The mentorship program offers significant benefits for both mentors and mentees. For mentors, it can be incorporated into their Individual Development Plan and leadership development plan, providing a structured approach to accountability and tracking. Mentees will gain access to experienced individuals, fostering a sense of community and belonging. The organization will benefit from improved succession planning, knowledge transfer, and employee retention.

The program also addresses equity, diversity, and inclusion (EDI) by increasing inclusivity through networking and connecting diverse groups within Pembina. Networking events will be held at various Pembina locations to reach a broad audience. Currently in the Preparation phase, the project aims to move the pilot program into the Execution Phase by Q1 2025.

JOANNA ZHONG

"I joined WISE Planet because I firmly support equity, diversity and inclusion and would like to learn how to put them into practise"

I choose to be an advocate for sustainable innovation and inclusion.

BIOGRAPHY

I am a scientist, educator, and advocate for equity, diversity, and inclusion (EDI). Currently, I serve as an Assistant Professor in Sustainable Systems Engineering and Chemical and Petroleum Engineering at the University of Calgary, focusing on biomass conversion for renewable energy and sustainable materials. I earned my PhD at the University of British Columbia, where I developed innovative approaches for biofuels production and lignin valorization. My career spans diverse roles, including industrial postdoctoral researcher and as an associate innovation manager at Innovate Calgary driving technology commercialization. I have also taught renewable energy courses and managed international education programs, fostering collaborations in sustainable forestry and bioeconomy. As a woman, mother and minority scientist, I am passionate about mentoring underrepresented students and fostering inclusive environments in STEM. Beyond academia, I champion flexible policies for caregivers and promote collaboration to ensure diverse perspectives contribute to innovation. In my free time, I enjoy hiking, reading, and spending time with my family. My work reflects my belief that sustainability and inclusion are vital for building a better future.

LINKEDIN

https://www.linkedin.com/in/joanna-na-zhong-0b9014a7

LEAP PROJECT

Encouraging Undergraduate Students to Pursue Graduate Studies

The transition from undergraduate to graduate studies is critical for cultivating future innovators and researchers for Canada and Alberta. However, I noticed that many engineering undergraduates at UofC opt for industry positions over graduate education. Through a survey, I identified key barriers: limited exposure to research opportunities during undergraduate study, poor financial incentives, and minimal salary differentiation between advanced degree holders and undergraduates in the job market. In addition to native students, international undergraduate students are also a major focus group in this project. Their diverse perspectives, experiences, and cultural backgrounds enrich the learning environment and encourage cross-cultural understanding and collaboration. However, the lack of local connections and networks for international students may limit their access to research resources.

To address these challenges, my suggestions are as follows:

1. **Enhance Research Exposure**: Develop a structured Undergraduate Research Engagement Program (UREP) that offers expanded summer internships, co-op placements, and semester-long lab projects. This initiative will include mentorship from faculty and graduate students to immerse undergraduates in research.

2. **Promote Graduate Study Benefits**: Host workshops and panel discussions with alumni and industry leaders to highlight the long-term career advantages of MSc and PhD degrees, including leadership roles and specialized opportunities.

3. **Advocate for Financial Incentives**: Collaborate with the university and industry partners to establish graduate study scholarships and raise awareness of existing funding opportunities to alleviate financial concerns.

This project will help build a culture of research engagement, showcasing graduate education as a viable and rewarding path for undergraduates. By addressing structural and perception barriers, I hope to inspire more students to explore advanced studies and contribute to innovation in engineering and beyond.

JOLENE PHELPS

I choose to continue learning and speaking up.

"I joined WISE Planet because I wanted to learn more about how to identify and disassemble the barriers that underrepresented groups face, and engage with a group of like-minded individuals"

BIOGRAPHY

I am a postdoctoral researcher and engineering design instructor at the University of Victoria. I have a BSc in chemical engineering and a PhD in biomedical engineering from the University of Calgary. My research focuses on developing stem cell-based treatments for neurodegenerative conditions. At the time of joining WISE Planet, I was working as a program manager for a health research training platform, providing education, stipend support, and professional development training to researchers across Canada. We worked with community partners, non-profit, and for-profit organizations to create experiential learning opportunities (e.g., outreach, knowledge translation, mentorship, community service), and to better train the next generation for careers within and outside of academia. This work, alongside the WISE Planet program, spurred my interest in returning to academia in an effort to have a wider impact and push for societal change. I continue to work on efforts to increase community engagement in research, to improve research impact and the perspectives that the community has on researchers, and to encourage underrepresented groups to engage in higher education and the scientific process.

LINKEDIN

https://www.linkedin.com/in/jolene-phelps-94679339/

LEAP PROJECT

The Impact of Diversity and Inclusivity on Research Success

There is a growing body of evidence that relates diversity (varied perspectives and approaches from different identity groups) to improved outcomes of success, including higher intellectual engagement, general knowledge, critical thinking, and social skills (Holoien, 2013). Higher education institutions are striving to increase diversity and inclusion efforts at all levels as more benefits of diversity are recognized. In research labs, ethnic diversity has been shown to correlate highly with publication impact both on an individual and group level (Powell, 2018; AlShebli et al., 2018; Stvilia et al., 2010). However, minority students have reported feelings of being isolated, unwelcomed, invisible, and distant (Ahmad et al., 2019). This is seen in the high reduction in retention of racialized individuals and those with disabilities who account for 40% and 22% of the population respectively at an undergraduate level, and only 8% and 4.5% in academic senior leadership positions (Universities Canada, 2019).

Research success is most often measured by the number of citations and publications, and the number of publications an individual has is directly correlated to their ability to attain an academic position (Fisher et al, 2019). Studies have found links between a research team's diversity (institutional, disciplinary, ethnicity, gender) and citation impact (Stvilia et al., 2010, Adams, 2013, Freeman & Huang, 2014, AlShebli et al., 2018). AlShebli *et al.* analyzed over 9 million papers and 6 million scientists to evaluate "research impact" (number of citations within 5 years of publication) and its relationship to 5 classes of diversity: ethnicity, discipline, gender, affiliation, academic age (AlShebli et al., 2018). While discipline and affiliation were the least correlated with impact, ethnic diversity resulted in an impact gain of 10.63% for papers and 47.67% for scientists. Notably, women and minority students that felt accepted, had clearly articulated expectations, and felt well prepared for measures of success as defined by their graduate departments, experienced lower levels of emotional distress and published at higher rates (Fisher et al, 2019). Inclusive research lab practices that work to celebrate diversity and improve mentorship can reduce negative experiences from underrepresented groups (Ahmad et al., 2019).

Strategies to improve diversity, inclusion, and retention in academic research labs include but are not limited to:

i. Identifying implicit biases and making efforts to reduce behavioral manifestations of them,

ii. Attending training programs and diversity-related events to learn barriers faced by under-represented groups and evidence-based strategies to support and advocate for them,

iii. Creating space for social supports, peer mentorship, and professional development (e.g., co-authorship in publications, attending conferences),

iv. Taking an active role in mentorship,

v. Promoting and teaching best practice in assessing scientific outputs (e.g., following DORA, TARA),

vi. Engaging in and promoting inclusive behaviour.

Little is known about the impact of diversity in research labs beyond publication impact. Further, there is a lack of awareness on practices that increase inclusion and retention in academia. The continuation of this LEAP project aims to correlate trainee success in research labs to overall lab diversity and better identify practices that can increase inclusivity in diverse groups. In collaboration with others across Canada, I hope to gain insights through focus groups and a survey to correlate lab diversity across a range of departments and faculties to several measures of academic impact, individual measures of success, and factors and experiences that can impact measures of success. Better understanding of how values and experiences differ for minority groups will help identify practices that can impact their retention in research. The data collected can be utilized to implement policy change and development that can contribute to equity and reduced disparities.

KAREN HO

"I joined WISE Planet because I want to be in the leading position of removing systemic barriers, creating a true inclusive teaching and learning community."

I choose to promote authentic real-life learning and assessment in my classroom.

BIOGRAPHY

Dr. Karen Ho is a Laboratory Instructor in the Department of Chemistry and Physics at Mount Royal University (MRU). She has taught lectures, labs, and tutorials in various Chemistry and Education courses. Karen was born and raised in Hong Kong, China. She immigrated with her parents when she was eleven years old. She holds a BSc in Chemistry and an MSc in Biochemistry. Since then, she has been employed at MRU as an instructor. As a professional educator, Karen noticed that every student learns differently. This cultivated her interest in continuing her doctoral studies to understand how people learn in order to support her students in their learning. Karen recently obtained her EdD at the University of Calgary.

WEBSITE

Website: https://karen-ho.weebly.com/

LEAP PROJECT

Lessons in Chemistry: Learning through Storytelling

Many students perceive chemistry as a subject involving procedures and symbolic language, which can make it seem unemotional and impersonal. The need for chemistry competency, logical thinking, and contexts can create barriers to engagement and belonging. A sense of belonging is vital for university students because they must connect to particular identities, attributes, and characteristics within their learning community. Using an active and discovery-based learning approach, storytelling as a teaching tool and assessment can bridge this gap. Over the 2023-24 semesters, the General Chemistry I course has used storytelling to assess how students achieve the curriculum expectations. Students were tasked to write four stories using everyday language to convey their ideas. Each story was 400-500 words in length, using chemistry concepts from specific pairs of laboratory lessons. Based on students' feedback, storytelling can positively contribute to their learning and cultivate their chemistry identities. This is reflected in students' attendance rates and course grades. Furthermore, I observed the class climate formed a greater sense of team cohesion. Students organically and actively engage in storytelling because it mirrors real-world development experiences.

1. Students see the connection and relevancy of course concepts learned in their lives.
The academic and social elements of studenthood sometimes take work to disentangle. Storytelling helps students connect course concepts learned in the classroom and their everyday lives. Students actively position themselves as chemists to gain scientific knowledge.

2. Students recognize the importance of self-directed learning while writing their stories.
According to Knowles, self-directed learning is a process in which individuals generate ideas by diagnosing their learning needs, formulating their learning goals, gathering information, and organizing their ideas through drafting, editing, and proofreading. Storytelling can build students' self-awareness regarding how they interact within and outside the classroom to shape their chemist identities.

3. Students are more motivated to discuss concepts they learned in class with family and friends.
The personal and non-technical language used in storytelling supported students' understanding of course concepts. Students have developed a deeper understanding of and a positive effect on the ideas, such that they are more willing to share their science perspective with family, friends, and the broader community.

This LEAP project was disseminated in the following areas:

Ho, K., Luong, Y. Sherwood, C. & Clark, D. B. (2024). Widening university participation in learning using students' contextualised storytelling in General Chemistry. *Chemistry Education Research and Practice*, 25, 908-919. https://doi.org/10.1039.D4RP00084F

Ho, K. (2024, September 13). Lessons in Chemistry: Widening university students' participation through storytelling. *Times Higher Education*. https://www.timeshighereducation.com/campus/lessons-chemistry-widening-university-students-participation-through-storytelling

Ho, K., Luong, Y., Sherwood, C., & Clark, D. B. (2024). *Widening university participation in learning using students' contextualized storytelling in General Chemistry* [Oral presentation]. Presented at the 2024 Canadian Chemistry Conference and Exhibition, Winnipeg, MB.

Ho, K. and O'Farrell, J. (2024). *Widening university participation in learning using students' contextualized storytelling in General Chemistry* [Poster presentation]. Presented at the 2024 Symposium for Scholarship of Teaching and Learning, Banff, AB.

Next step:

While working on this LEAP project, I met a group of like-minded individuals internationally and created the Storytelling Pedagogy Research International Group (SPRIG). The website is https://sprig-storytelling.weebly.com/. My goal is to collaborate with other scholars internationally on storytelling.

KATHRYN LANGLEY

"I joined WISE Planet to enhance my leadership skills and support our team's growth within our organization."

I choose to embrace new learning opportunities, drive positive change, and foster an inclusive and safe environment.

BIOGRAPHY

Kathryn Langley is a Project Manager in the Pipeline Project Development team at Pembina Pipeline Corporation, where she has been contributing her expertise since 2022. In her role, Kathryn works closely with various business and service units within the organization to evaluate new opportunities and complete the front-end work necessary to prepare the projects for execution.

Prior to joining Pembina, Kathryn worked as a mechanical engineer, contributing to various infrastructure projects in Alberta and British Columbia. Her academic credentials include a Master of Engineering degree and a Bachelor of Science degree (both in mechanical engineering) from the University of Calgary.

Outside of her professional endeavors, Kathryn enjoys spending quality time with her son, partner, and their beloved fur babies—two dogs and a cat.

Over the past year, she has enjoyed working with the WISE Planet Cohort 4 to develop a pilot mentorship program, aimed at supporting engineers-in-training and women in technical roles, promoting their development within the organization. Following the pilot program, she hopes that the program will be expanded to include the entire organization, creating a more inclusive and supportive environment that empowers participants to thrive in their careers.

LINKEDIN

http://www.linkedin.com/in/kdlangley

LEAP PROJECT

Employee Attraction, Retention and Progression through Peer Mentorship

The proposed mentorship program at Pembina aims to address career growth and development as an area for improvement based on the 2023 WISE Planet Cohort Survey. The program will be integrated into the Pembina Women Inclusion Network's roles and responsibilities, with the pilot implementation timeline of Q1 2025. The program will offer a mentor list, allowing mentees to select their mentors. The program will include a pilot phase and feature networking events for mentors and mentees to meet in person, primarily during lunch hours. Initially, the program will be piloted for Women in STEM fields and Engineers-in-training, with plans to expand to the entire organization in the second phase.

The mentorship program offers significant benefits for both mentors and mentees. For mentors, it can be incorporated into their Individual Development Plan and leadership development plan, providing a structured approach to accountability and tracking. Mentees will gain access to experienced individuals, fostering a sense of community and belonging. The organization will benefit from improved succession planning, knowledge transfer, and employee retention.

The program also addresses equity, diversity, and inclusion (EDI) by increasing inclusivity through networking and connecting diverse groups within Pembina. Networking events will be held at various Pembina locations to reach a broad audience. Currently in the Preparation phase, the project aims to move the pilot program into the Execution Phase by Q1 2025.

LAURA DUNCAN-TOTH

"I joined WISE Planet because I was looking forward to meeting other change makers in Diversity, Inclusion, & Equity"

I choose to foster diversity in the workplace by embracing neurodiversity and focusing on the unique strengths each individual brings. By appreciating diverse perspectives and talents, we create an opportunity for innovation and positive change.

BIOGRAPHY

Laura Duncan-Toth is a Senior Estimating Engineer at Enmax, bringing a strong foundation in process engineering and piping estimating. She is dedicated to promoting diversity, inclusion, and equity within the workplace. Currently, she is the co-chair of Enmax's Accessibility and Neurodiversity Employee Resource Group and has played an integral role in organizing Diversity, Equity, and Inclusion (DE&I) events in a previous position. Laura holds a Master of Engineering in Industrial Engineering and a Bachelor of Engineering in Chemical Engineering. In her personal time, she enjoys glassblowing, pottery, and traveling with her wife and their two-year-old son.

LINKEDIN

https://ca.linkedin.com/in/laura-duncan-toth-p-eng-91b87958

LEAP PROJECT

Neurodiversity in the Workplace

My LEAP Project was centered around improving the retention of neurodiverse employees, fostering a community of neurodiverse individuals and allies, and creating a supportive environment for open discussions and increased awareness.

As part of my LEAP project, this year I became a Co-chair of and assisted with establishing a Neurodiversity and Accessibility (AND) Employee Resource Group (ERG) as one of Enmax's six ERGs. These ERGs have successfully launched and are actively supported by Executive Sponsors and Enmax's HR team.

To date, we have recruited approximately 50 members for the AND ERG. We held a meeting where employees had the opportunity to discuss various challenges and accessibility requirements they may encounter in the workplace. A subsequent group meeting was conducted to survey members regarding their expectations and preferences for the group. In 2025, we plan to organize coffee networking sessions, speaker series, and panel discussions.

The goals and objectives of the AND ERG are summarized below:

1. **Advocate** for the needs and rights of employees with accessibility and neurodiverse needs, ensuring their voices are heard in organizational decisions.

2. **Educate and Create** awareness and understanding of accessibility and neurodiversity among all employees, helping to create a more inclusive culture.

3. **Influence** the development and implementation of policies that support accessibility and inclusion.

4. **Provide** resources and support for disabled and/or neuroatypical employees (and their loved ones), including information on accommodations and assistive technologies.

MANIZHEH GHAEMIDIZAJI

"I joined WISE Planet because I was excited to improve my place of work with likeminded women."

I choose to be a changemaker rather than merely an observer by surrounding myself with approachable and supportive leaders in an environment that fosters collaboration.

BIOGRAPHY

I am a data scientist and a computer engineer with a bachelor's and master's in computer science and a Ph.D. in computer engineering. I have done many transdisciplinary projects with a shared mission of designing efficient solutions at the lowest cost. My main focus is on optimization in broad topics from robotics and data mining to climate change, data bias, and health-related projects. As a woman and an engineer, I am very passionate about promoting female skills in engineering practice and helping them speak out about their fantastic achievements. I have been privileged to be surrounded by powerful women leaders who care about equity, diversity, and inclusion. I believe that being informed about the inequalities is not enough and we need to take action even a small one.

LINKEDIN

https://www.linkedin.com/in/manizheh-ghaemidizaji-188a3b90/

LEAP PROJECT

Make the Data Speak about Gender Differences in Misinformation on Climate Change

With rapid technological advancements, data scarcity is no longer a significant issue in many fields. However, the demand for efficient data analysis tools remains ever-present. My work focuses on uncovering hidden trends in data through various data visualization techniques, with a particular emphasis on highlighting gender differences. By assessing data on climate change—the most pressing sustainability challenge—I assist scientists and policymakers in identifying and understanding misinformation on the topic. Using diverse data modalities, I have conducted a range of data analyses and visualizations, as outlined below.

Social media text data analysis: One effective way to gauge public opinion on climate change is by analyzing trends in social media data. Twitter serves as a valuable platform for exploring people's perspectives on this topic. I visualized this data interactively to highlight the key topics and subtopics, enabling policymakers and scientists to track trends over time and take proactive measures before misinformation spreads widely. A complementary area of research involves examining groups that are more susceptible to misinformation, particularly assessing their societal influence. I analyzed survey data collected in Canada to identify misinformed individuals, focusing on gender differences to provide deeper insights into this critical issue

Climate Change survey data analysis: The survey on climate change misinformation was conducted in Canada in 2021 and included data on various demographics, such as gender, education, income, and family size. The analysis revealed that women are generally more informed about climate change compared to men. The "other" gender category also showed higher levels of awareness, although the limited data available made it challenging to draw strong conclusions. Additionally, individuals with higher education, higher incomes, and fewer children were found to be better informed on this issue. Visualizing these findings through targeted infographics can aid in crafting policies that address the needs of specific demographic groups.

Combining these two data analyses emphasizes the responsibility of engineers to uncover deficiencies and overlooked aspects of daily life through data-driven insights. Topic modeling of social media text data serves as one such method, offering a way to identify and interpret emerging trends like misinformation. However, it is crucial to remain mindful of the individuals and groups affected by these trends. Ultimately, if we are passionate about contributing to the solution of the climate change problem, we must prioritize including more informed groups in the process. Based on my analysis, this changemaking group appears to include more women than men.

MEG STEWART

I choose to have a positive impact on the world.

"I joined WISE Planet because I am passionate about equity, diversity, inclusion, and accessibility, and I want to contribute to a more inclusive culture in STEM fields."

BIOGRAPHY

Meg Stewart is an Assistant Professor of Geology at Mount Royal University in Calgary. Her research focuses on the relationship between plate tectonics, crustal-scale structures, and magmatic-hydrothermal mineralizing systems in modern and ancient arc-backarc settings. She participates in scientific research cruises and remote field work, and her current research areas are the Lau Basin of the SW Pacific Ocean, the Stikine Terrane of NW British Columbia, and the Flin Flon Belt of central Manitoba. She has a BSc Honours in Earth Sciences with a minor in Mathematics from Carleton University, a PhD in Mineral Deposits and Precambrian Geology from Laurentian University, and she completed a postdoctoral fellowship at the University of Ottawa.

WEBSITE

https://www.mtroyal.ca/ProgramsCourses/FacultiesSchoolsCentres/ScienceTechnology/Departments/EarthEnvironmentalSciences/Faculty/meg-stewart-bio.htm

LEAP PROJECT

Improving Access to Undergraduate Research Opportunities in STEM fields

Undergraduate research opportunities at postsecondary institutions are often not widely publicized and are typically conveyed by word of mouth. This limits access to these opportunities to a small group of students and disproportionately advantages students who are comfortable approaching researchers to ask about opportunities and/or students who have developed a personal rapport with their instructors. The goal of my LEAP project is to identify ways to improve equitable access to undergraduate research opportunities in the Faculty of Science and Technology (FST) at Mount Royal University (MRU). This work builds on the LEAP project of WISE Planet Cohort 3 participant Chelsey Schafer, who lay the groundwork to identify and create awareness around this issue.

In collaboration with FST Inclusion, Diversity, Equity, and Accessibility (IDEA) Committee, my LEAP project has focused on the development of a central research opportunities website for FST at Mount Royal University. Key information required for this website has been identified, including a list of the different types of undergraduate research opportunities that may be available at MRU. A major focus of this LEAP project was to develop a sustainable structure for website management, as it is important for the website to be maintained and updated at least once per semester in order to be effective. The next step is to compile researcher profiles for the website and determine how best to manage the collection and distribution of research opportunities. This work is ongoing, with the goal of releasing an FST research opportunities website by September 2025.

MINJI JEONG

"I joined WISE Planet because it offers a great opportunity to develop leadership skills and learn meaningful values alongside like-minded people."

I choose each day to be open-minded and give people the benefit of the doubt without judgment. I believe this mindset helps everyone, including myself, feel more comfortable being themselves and safe to share their ideas and thoughts.

BIOGRAPHY

I am Minji, an R&D engineer specializing in physical design within IPG at Synopsys. I began my career with Synopsys as a co-op student in my current team, and over the past four years, I have embraced its challenging work and grown alongside my team.

In my free time, I enjoy hiking in nature and playing badminton. Staying physically active helps me balance the time I spend working and studying in the office. I believe passion for life and work comes from maintaining both mental and physical well-being.

I am grateful for the opportunity to be part of the WISE Planet program. This experience has encouraged me to think about values beyond career success and personal achievement. In particular, I have reflected on the importance of creating safe spaces where individuals can share ideas, learn from mistakes, and grow together.

LINKEDIN

https://www.linkedin.com/in/jeongm1/

LEAP PROJECT

Coffee Connections – Fostering Growth and Retention for Early-Career Employees

Early-career engineers, especially those who joined during or after the COVID-19 pandemic, have faced unique challenges in building meaningful connections at work. Remote and hybrid environments have limited in-person interactions, and many early-career engineers may not take the initiative or make the effort to connect with their peers, making it harder for them to feel included, adapt to workplace culture, and build confidence in their roles.

This project, titled "Coffee Connections," aims to address these challenges by creating opportunities for early-career employees to build relationships, collaborate, and grow professionally. By focusing on in-person engagement, the program fosters a sense of belonging and support, helping participants feel more connected and motivated to contribute to the organization.

Currently in the planning stage, the project will launch as a pilot in early 2025 at the Mississauga and Markham offices. Weekly 30-minute engagement sessions will include team-building activities, small group discussions, and communication exercises designed to help participants bond and share experiences. These sessions provide a structured yet light commitment that respects participants' busy schedules while ensuring meaningful engagement.

The long-term vision for "Coffee Connections" is for the program to be sustained by the interest and need of its participants. As early-career employees benefit from the program, they will naturally take on leadership roles to continue the project. This approach ensures the program remains relevant and meaningful to future participants. Over time, the initiative can expand to other locations within Amanda's organization and potentially across IPG, offering a scalable model for fostering connection and growth among early-career employees.

Leading this project has been a valuable experience, offering insights into the importance of understanding employee needs and creating initiatives that balance personal connection and professional growth. The next steps include launching the pilot program, gathering feedback through surveys, and refining the approach based on participant input. Metrics such as participation rates, employee satisfaction, and retention rates will measure the program's impact and guide its growth.

"Coffee Connections" stands out for its focus on in-person engagement and peer-driven growth. In a world increasingly reliant on digital tools, this program highlights the value of face-to-face interaction in building trust and fostering meaningful relationships. By addressing the unique challenges faced by early-career employees, it sets the foundation for a supportive and inclusive workplace where everyone can thrive.

MUBARAKA NUSRI (HUSAIN)

"I joined WISE Planet to connect and collaborate with like-minded women, finding it both inspiring and invigorating."

I choose to be kind, spread compassion, and make the world a little brighter for those around me.

BIOGRAPHY

I am Mubaraka Nusri (Husain), proudly serving as a Category Manager at Rümi, a trailblazing brand within ATCO. My journey began in India, where I was born and raised, and led me to Canada in pursuit of higher education. Along the way, I overcame cultural, academic, and financial challenges that forged my resilience and work ethic. Transitioning from engineering to business development, I became Rümi's second employee, embracing a dynamic role that allows me to actively contribute to building an innovative company from the ground up.

Working in a startup environment is both challenging and rewarding, offering opportunities to push boundaries, foster creativity, and witness ideas transform into tangible results. My role goes beyond managing categories; it's about shaping a narrative of growth and innovation in real-time.

Outside of work, I'm a wife and a mom, finding joy in balancing family life with my personal and professional growth. I love diving into a good book, exploring Canada's vibrant cultural scene, and getting outside whenever I can.

LINKEDIN

https://www.linkedin.com/in/mubaraka-husain/

LEAP PROJECT

Redesigning Inclusive Workspaces

My LEAP Project focused on reimagining office spaces to prioritize diversity, equity, and inclusion (DEI) in both their physical layout and cultural practices. It addresses the common deficiencies in traditional office designs, which often fail to accommodate the diverse needs of employees, leading to reduced productivity, engagement, and overall satisfaction. Without intentional design changes, organizations risk alienating parts of their workforce and missing opportunities to fully utilize their talent.

The project vision is to create a workplace that actively supports diversity and addresses inclusivity, from the start, redefining office design as a strategic asset for promoting innovation and collaboration and supporting the well-being and productivity of all employees.

Project Goals: The primary goals of the project include:

1. **Redesigning the Physical Workspace**: Creating flexible environments that support various work styles, integrating accessibility features for individuals with disabilities, and incorporating private spaces for reflection, focus, or cultural practices.

2. **Fostering a Culture of Belonging**: Embedding DEI principles into workplace culture to ensure that all employees feel valued, respected, and included.

3. **Enhancing Engagement and Retention**: Aligning the physical and cultural aspects of the workspace to better support employee well-being, which in turn improves satisfaction, innovation, and retention.

Approach: To achieve these goals, the project adopted a multi-faceted strategy:

- **Employee-Centric Design**: Engaging employees through surveys, workshops, and interviews to gather insights on their needs and preferences

- **Collaboration with Experts**: Partnering with architects, designers, and other specialists to ensure the space reflects best practices in inclusive design,

- **Transparent Communication**: Using accessible channels such as newsletters and interactive sessions to keep employees informed and engaged in the process.

Outcomes and Impacts

Immediate project outcomes include developing an inclusive office design and gathering actionable employee feedback. Long-term impacts involve improved employee satisfaction, increased engagement, and enhanced retention, which will be measured through Employee engagement surveys focusing on DEI-related questions, Retention rates across diverse employee groups, Participation in cultural and DEI initiatives, and ongoing qualitative feedback through focus groups and interviews.

This LEAP project will serve as guidance for any ATCO groups undergoing office relocations, offering a framework for engaging employees effectively to gather their feedback and implement office design changes. By adopting these practices, organizations within ATCO can enhance employee retention, drive innovation, and create a workplace culture that fosters inclusion and belonging.

NISHA RANI AGARWAL

"I joined WISE Planet primarily because of my previous interactions with Dr. Laleh. She brought in a sense of belonging and shared similar values. This sense of community provided emotional support, encouragement, and a platform for collective action. It offered a complete package into personal and professional growth opportunities. It helped me engage with a diverse group of stakeholders that led to new perspectives, skill development, and (in the literal sense) career advancement."

I choose to be observant and try to bring in positive changes wherever and whenever possible.

BIOGRAPHY

I am an Associate Professor in the Physics and Materials Science programs at Ontario Tech University in Oshawa, Ontario. Personally, I am a wife and a mother to my daughter and my dog. I am also a first generation Canadian after living for 29 years of life in different countries around the globe, thus experiencing varied cultures. This experience has given me a diverse cultural upbringing and a sense of accepting and integrating most realms of thoughts.

Currently, I am the only female physicist at the faculty level at my University and, hence, the discrepancies in achieving equity, diversity and inclusion in my discipline are very evident to me. Hence, my present efforts are dedicated to being a part of hiring committees at my faculty, understanding the process, and suggesting changes at every step to make it more inclusive.

LINKEDIN

https://www.linkedin.com/in/nanonisha/

LEAP PROJECT

Bridging the Gap between Cultural Attitudes and Tenure Policies Regarding Maternity Leave in Academia

In the academic landscape, the intersection of maternity leave policies and tenure evaluation often reveals a significant disconnect between formal policy and the prevailing cultural attitudes within institutions. Despite well-structured maternity leave policies designed to support faculty during critical life events, the interpretation and implementation of these policies can vary widely, leading to potential biases in tenure assessments. Research has shown that faculty members who take maternity leave may face implicit biases that question their commitment to their academic roles, thereby affecting their career progression (Mason et al., 2013; Ward & Wolf-Wendel, 2012).

To address these discrepancies, it is essential for institutions to engage in comprehensive advocacy efforts aimed at clarifying maternity leave policies and fostering a culture that genuinely supports work-life balance. Suggestions for improvement include the establishment of clear guidelines that explicitly state how maternity leave will be factored into tenure evaluations, as well as the provision of training for tenure committees to mitigate biases. Additionally, institutions should promote mentorship programs that connect new parents with senior faculty who have successfully navigated similar challenges, thereby creating a supportive network that reinforces the value of diverse life experiences in academia.

PLACIDA DASSANAYAKE

"I joined WISE Planet to enhance my leadership skills and connect with a network of inspiring women committed to driving innovation and positive change in science and engineering."

I choose to inspire and guide the next generation of students to realize their potential as thoughtful leaders and engaged citizens.

BIOGRAPHY

Placida is an Assistant Professor in the Department of Mathematics and Statistics at the University of Calgary. A passionate educator in the fields of data science and statistics, Placida is committed to continuously improving teaching approaches to ensure that students are fully engaged and enjoy the learning process, while also gaining a deep understanding of the material. By incorporating real-world context into lessons, Placida encourages comprehension over memorization. Currently, she is working on a research grant focused on contextualizing mathematics and engineering education and plans to collaborate with K-12 educators to bridge gaps in learners' transition to post-secondary education. Outside of academia, Placida enjoys traveling the world and spending quality time with her family.

LINKEDIN

https://www.linkedin.com/in/placida-dassanayake/

LEAP PROJECT

Navigating Course Coordination: A Practical Handbook for Mathematics and Statistics Educators

The Department of Mathematics and Statistics manages several high-enrollment courses that necessitate effective course coordination due to the requirement for multiple sections each term. To ensure consistency in learning outcomes and assessments, it is essential that all learners are treated equally and fairly across these sections. This responsibility falls to a designated Course Coordinator, who not only ensures equity and fairness for students but also provides mentorship to instructors—particularly new faculty members joining the teaching team. Additionally, the Course Coordinator handles various administrative tasks, including exam deferrals, teaching assistant assignments, and processing documentation related to the course.

The department has previously utilized multiple versions of course coordinator handbooks, prompting the need for a comprehensive review. The primary goal of this project was to assess these past versions and engage with current coordinators to gather their experiences. The outcome is a newly compiled Course Coordinator Handbook that clearly defines the role of a Course Coordinator across all coordinated courses.

By incorporating principles of Equity, Diversity, Inclusion, and Accessibility (EDIA), the handbook promotes a supportive and inclusive environment, emphasizing the importance of diversity and accessibility considerations in course coordination endeavors. This fosters a culture of equity and belonging within the department. Furthermore, the handbook was developed with a strategic focus on longevity and usability, ensuring its continued relevance and practicality over time. By incorporating a flexible framework and prioritizing clarity, organization, and accessibility of content, the handbook maximizes usability for coordinators. This approach enhances the document's longevity, enabling it to remain a valuable resource for future course coordinators as academic environments evolve, thus supporting ongoing success in course coordination efforts.

POORNIMA JAYASINGHE

I choose to dream big and embrace positivity.

"I joined WISE Planet to strengthen my leadership abilities and actively drive meaningful change towards a more sustainable and thriving world."

BIOGRAPHY

My name is Poornima, and I am an Assistant Professor (Teaching) in the Sustainable Systems Engineering program at the University of Calgary. I was born and raised on the beautiful island of Sri Lanka, where I witnessed firsthand how human activities have significantly harmed ecosystems for short-term gain. This experience deeply shaped my passion for sustainability and fueled my determination to make a positive change. I pursued my graduate degrees in Environmental Engineering at the University of Calgary, where I developed a strong belief that education is a powerful tool in creating lasting change. Today, I am fortunate to have the privilege of teaching and mentoring the next generation of leaders, equipping them with the knowledge and skills they need to build a more sustainable future for our planet.

LEAP PROJECT

Elevating the Sustainable Systems Engineering Program

The newly launched Sustainable Systems Engineering program (SUSE) at the University of Calgary is focused on growth, with one of its challenges being its evolution into a standalone department within the Schulich School of Engineering. To address this, the program requires a compelling and comprehensive definition, as well as a pitch to attract prospective students, internal academics, industry and community collaborators, and the university leadership team.

The first objective of my LEAP project was to conduct a gap analysis in collaboration with various focus groups to understand their expectations, identify gaps in existing offerings, and uncover opportunities for improvement. This was supported by an extensive literature review that examined similar programs worldwide, allowing us to gain insights into existing definitions and frameworks in sustainable systems engineering. The second objective was to draft a clear definition of sustainable systems engineering, capturing its essence and incorporating insights from the gap analysis and literature review. The third objective was to develop a compelling pitch for SUSE that clearly articulates the program's goals, values, and the transformative role it will play in the future of sustainable engineering education. This pitch will emphasize the program's commitment to developing well-rounded engineers who can address the complex sustainability challenges of tomorrow. It will highlight SUSE's unique selling points, including its innovative curriculum, faculty expertise, and strong industry connections. The pitch will be tailored for different audiences—prospective students, industry partners, and other stakeholders—ensuring that each group recognizes the value and potential of the program. Finally, I focused on marketing and outreach efforts to raise awareness of the program, engage the broader community, and increase visibility. Through these comprehensive efforts, SUSE is poised to become a world-class program that will shape the future of sustainable engineering and empower students to make a lasting impact on the world.

SARA HASSANPOUR TAMRIN

"I joined WISE Planet because I want to learn and grow as a leader who drives positive change in engineering research for inclusive solutions that empower people."

I choose to lead the change in shaping a brighter tomorrow, rather than waiting for it to unfold.

BIOGRAPHY

I am a researcher in nanotechnology and bioscience with a Ph.D. in Biomedical Engineering (BME) from UCalgary. My research focuses on advancing and translating health technologies to improve quality of life and deliver impactful, patient-oriented solutions. In addition to my research, I am passionate about teaching and have had the privilege of educating a diverse group of students at both the high school and university levels. As a woman of color who has studied abroad, navigating the intersections of marginalized identities has shaped my educational journey and fueled my commitment to promoting Equity, Diversity, and Inclusion (EDI) in engineering. This passion has led me to take on leadership roles such as Vice-Chair of EDI in UCalgary's Labour Relations Committee, labor union steward in the BME department, and EDI representative for graduate students and postdocs on the BME EDI Committee. In my free time, I enjoy sewing and painting, and I am also a tea lover who finds joy in the art of tea brewing.

LINKEDIN

https://www.linkedin.com/in/sara-tamrin/

LEAP PROJECT

Equity, Diversity, Inclusion, and Accessibility Laboratory in Engineering Research

A diverse array of interconnected concerns (e.g., climate change, energy security, environmental degradation, social equity, and policy governance) raises a fundamental question for technological innovation stemming from academic research in engineering: "How can we evolve a holistic attitude towards engineering research in academia?" This evolution should emphasize that engineering solutions are not solely about technology, but also about people, with equity, diversity, inclusion, and accessibility (EDIA) at the core.

Championing EDIA in engineering research can catalyze a profound transformation in academic research projects, fostering collaboration, inclusivity, and equitable outcomes for all stakeholders. This transformation paves the way for a meaningful shift in attitudes towards engineering research in academia. However, a critical gap remains due to the lack of a structured, tailored framework for students and researchers to practically integrate EDIA values into their research projects, considering both technological advancements and the socio-cultural dimensions of their work.

Recognizing this need, my LEAP project aims to bridge this critical gap by developing practical modules and guidelines in the form of a toolkit, “EDIA Lab in Engineering”. This toolkit will provide researchers and students with the resources and guidance needed to integrate EDIA values at every stage of the research process.

It aims to help engineering students and researchers

(i) develop a deep understanding of EDIA principles in the context of engineering,

(ii) adopt holistic perspectives by actively involving all stakeholders, including communities, in their research,

(iii) communicate their findings through knowledge-mobilization strategies informed by an EDIA lens and UNESCO Open Science, and

(iv) evaluate the impact of their research using an interactive framework informed by the San Francisco Declaration on Research Assessment.

The “EDIA Lab in Engineering” envisions a future where engineering solutions focus not only on technological innovation but also on the people they serve. This project has received $5K in funding from the Canada First Research Excellence Fund and was featured in UCalgary News (Oct. 2024). I was also invited by the Canadian Federation of Engineering Students to speak at the Conference on Diversity in Engineering (Western University, Nov. 2024), where I shared progress on this initiative. Initially, this work will be released as a comprehensive toolkit, and I am excited to expand its implementation and develop a dedicated training course for graduate students in the Department of Chemical and Petroleum Engineering at UCalgary. This project highlights UCalgary’s commitment to advancing research excellence by integrating EDIA values into engineering. It also aligns with Engineers Canada's Strategy for Diversity in Engineering, supports the principles of the San Francisco Declaration on Research Assessment and UNESCO Recommendation on Open Science, and contributes to the United Nations' Sustainable Development Goals, showcasing its dedication to inclusive research practices and societal progress.

SARA J. SMITH

"I joined WISE Planet because justice, equity, diversity, and inclusion are such important principles to consider as we train the next generation of STEM professionals and I wanted to ensure I was as informed and intentional as possible."

I choose to bring the JEDI principles that we developed in WISE Planet to my teaching and research to give everyone the access to STEM opportunities.

BIOGRAPHY

I am an Assistant Professor of Ecology at Mount Royal University in Calgary, Alberta. My research interests lie in the ecology and evolution of behaviour, population genomics, bioinformatic pipeline development, coevolutionary arms races, thermal biology of ectotherms, and the impact of changing environments. I have a not-so-secret love of jellyfish and nudibranchs, and a particular fondness for the Pacific Northwest.

WEBSITE

https://sarajaynesmith.weebly.com/

LEAP PROJECT

Gender-Biased Workload in Academia

The lack of diversity in STEM fields is typically attributed to a 'leaky pipeline' where women (and other historically excluded or underrepresented communities) fall out of STEM careers and pathways as their career progresses. However, when women do attain senior roles in academic environments, they either make up the majority of non-tenure-track faculty or, as women in tenure-track roles, they receive more calls to perform service roles and report more time spent on teaching than men in similar positions.

My Leadership Equity Action Plan project, in collaboration with fellow WISE Planet member Dr. Beth Richardson, aimed to quantify research, teaching, and service allocations for tenure-track faculty through the i) distribution of research students to faculty mentors, ii) distribution of teaching in introductory and senior level courses, and iii) distribution of service roles. Through this program and project, I have worked with a diverse learning community and have engaged in more EDI-informed actions and disruptions, focusing on transforming the STEM communities I work in to be more equitable.

SEIRAN HESHAMI

"I joined WISE Planet because I've always been driven to reduce inequalities and create sustainable change. WISE Planet gives me the support and tools to lead impactful initiatives that advance environmental justice on both local and global levels"

I choose to dedicate my work to building a fairer and more sustainable future.

BIOGRAPHY

I am an Assistant Professor in the Sustainable Systems Engineering Program at the University of Calgary. Previously, I served as a Research Associate in the NSERC-CREATE program on Integrated Infrastructure for Sustainable Cities and as a Mitacs Elevate Postdoctoral Fellow, also at the University of Calgary. I hold MSc and PhD degrees in Transportation Engineering from the University of Calgary, along with an MSc in Executive Management and a BSc in Civil Engineering. With over 10 years of industry experience, I have contributed to more than 50 infrastructure projects, covering the design, optimization, and operation of urban infrastructure systems. As an entrepreneur, I founded and led a consulting engineering firm in Iran, breaking barriers and paving the way for women in engineering leadership. My research bridges disciplines to advance the sustainability, equity, and resilience of urban infrastructure. I focus on developing innovative models for self-organizing and automated systems while embedding equity and fairness into infrastructure management. Through a holistic approach, my work aims to address urban sustainability challenges and contribute to the United Nations Sustainable Development Goals across theory, practice, and policy.

LINKEDIN

https://www.linkedin.com/in/seiran-heshami-phd-peng-mba-2127b549/

LEAP PROJECT

Campus Pathways to Climate Justice

This project envisions the university as a leader in climate justice, building a model of sustainability that's not only environmentally sound but also fair and inclusive for everyone. Climate change affects people and communities in different ways, often making existing inequalities worse. That's why our work focuses on making sure our campus sustainability initiatives benefit all members of our community, leaving no one unfairly burdened. We want to ensure that as we take steps to protect the planet, we're also protecting and supporting the people who call this campus home.

The project takes a deep dive into the university's current sustainability practices to understand how they impact different groups on campus. By comparing these practices with demographic data, we can pinpoint where there are gaps or disparities and find ways to address them. At the same time, we're working on creating tools and metrics to measure how these initiatives impact both the environment and the people in our community. It's about finding that balance, tackling the big environmental challenges while also making sure we're being fair and equitable in the process. We've organized the project around five key areas: policy and governance, education and awareness, community engagement, equity and access, and tools for measuring impact. Each of these areas comes with its own set of challenges. For example, policies often miss the mark when they don't fully reflect the needs and voices of marginalized groups. Education campaigns sometimes don't reach everyone, leaving some community members without the information they need. Community engagement can also fall short if it doesn't account for the differing schedules, interests, and needs of diverse groups. Even access to benefits like green spaces, sustainable transportation, or energy-efficient housing can be uneven, with financial or physical barriers standing in the way for some. And finally, many tools for measuring sustainability focus only on environmental outcomes, without considering who's truly benefiting and who might be left out. We aim to work closely with university governance, the Office of Sustainability, and other campus partners to better understand these challenges and identify ways to address them. This collaboration is key in shaping our approach and highlighting the need for more inclusive practices and better ways to measure both environmental and social impacts.

As we move forward, the next step is to turn what we've learned into action. We'll be piloting new strategies to make our policies more inclusive, designing awareness campaigns that reach everyone, and developing tools that combine environmental and equity-focused metrics. Ultimately, this project demonstrates that sustainability is not just about protecting the planet. It's about creating a fairer, more inclusive future for everyone. By transforming our campus into a living model of climate justice, we hope to inspire broader societal change, proving that environmental and social equity can go hand in hand.

SHABNAM VATANPOUR

"I joined WISE Planet to advance my leadership skills for driving positive change and create an impact."

I choose to take actions, even small ones, knowing that they can build momentum and drive meaningful, lasting change.

BIOGRAPHY

I am a statistician at the Cumming School of Medicine, University of Calgary. My vision is to advance personalized medicine, improve healthcare practices, and create impactful solutions by developing and applying innovative data science and statistical methods in clinical trials and health outcomes research. I collaborate with clinician scientists in various health research to tackle real-world healthcare gaps while generating evidence that matters.

When I am not crunching numbers, you will find me hiking, seeking adventures in nature, traveling and immersing myself in new cultures. I am also passionate about cooking, creating art from recycled materials, and cherishing quality time with loved ones. Add in music, DIY projects, and learning new skills, and you've got the full picture!

LEAP PROJECT

Advancing Equity in Health Research

Health research has historically overlooked the critical role that sex and gender play in shaping health outcomes. My LEAP project focused on developing a structured Sex- and Gender-Based Analysis (SGBA) Framework to address disparities, promote equity, and ensure that research designs, methods, and interpretations are inclusive and representative. Based on a review of published resources and expert consultations along with my experience in health research and data analysis, I provided practical recommendations for clinician-scientists. By embedding sex- and gender-based considerations throughout the research process, this project offers actions to enhance the quality, relevance, and impact of health research, ultimately contributing to improved health outcomes for diverse populations.

1. Defining Inclusive Research Objectives

The SGBA framework explicitly addresses sex and gender in research questions. For example, w*hat sex-based differences exist in treatment access and health outcomes, and how gender affects caregiving roles, recovery, or healthcare decision-making.* This identifies significant gaps in health research, such as the underrepresentation of women and gender-diverse individuals in clinical trials and the lack of data on sociocultural barriers to care.

2. Designing Studies with SGBA Integration: The SGBA emphasizes designing studies that are inclusive and capable of effectively addressing sex and gender differences.

- **Recruitment and Representation:** Stratified sampling ensured diversity among participants, and inclusion criteria avoided inadvertently excluding women or gender-diverse individuals
- **Comprehensive Variable Definitions:** Both biological and sociocultural factors were measured using validated tools like the WHO Gender Assessment Tool.
- **Digital Health Integration:** Wearables and remote monitoring tools captured real-time data such as physical activity, heart rate, and patient-reported outcomes (e.g., quality of life and mental health).

3. Data Analysis: Advanced analytical methods were used to detect disparities and ensure equity in findings.

- **Disaggregated Analysis:** Data on outcomes, treatment responses, and baseline characteristics were stratified by sex and gender.
- **Multivariable Models:** Interaction terms (e.g., *Sex* × *Age*, *Gender* × *Income*) were included to explore subgroup-specific outcomes.
- **Machine Learning (ML):** ML algorithms incorporated sex, gender, and social determinants of health to identify nonlinear relationships and detect hidden disparities.
- **Sensitivity Analyses:** Subgroup analyses tested the robustness of results across different populations.

4. Knowledge Translation and Practical Recommendations: Findings were translated into actions

- **Develop Inclusive Guidelines:** Create clinical protocols and health initiatives that consider sex and gender.
- **Promote Gender-Aware Recruitment:** Advocate for diversity in clinical trial enrollment
- **Disseminate Findings:** Use policy briefs, infographics, and other accessible formats to share results with stakeholders, healthcare providers, and the public.

5. Resources for SGBA Integration: Researchers can access several tools and guidelines to implement SGBA.

- **Health Canada GBA+ Framework**: Comprehensive guidance and GBA Plus training course for integrating gender-based analysis into health research and policymaking.
- **WHO Gender Assessment Tool**: A resource for assessing gender influences on health.
- **NIH Policy on Sex as a Biological Variable (SABV) Guidelines**: Guidance for incorporating sex into preclinical and clinical studies.
- **CIHR Institute of Gender and Health**: Offers training materials, tools, and funding for sex- and gender-based research.

SHANSHAN YAO

"I joined WISE Planet because I am passionate about creating inclusive and equitable opportunities in energy engineering, a field rooted in tradition but undergoing a transformative shift toward sustainability and innovation."

I choose to lead initiatives that integrate equity and sustainability into engineering education, empowering future engineers to navigate the evolving energy landscape responsibly.

BIOGRAPHY

Dr. Shanshan Yao is an Assistant Teaching Professor in Petroleum Engineering at the University of Alberta. With a PhD in Petroleum Systems Engineering from the University of Regina, her expertise spans unconventional reservoir engineering, hydraulic fracturing, and advanced drilling technologies. She has mentored graduate students and contributed to the field through dozens of publications. Dr. Yao is dedicated to fostering experiential learning through lectures and hands-on lab courses that incorporate cutting-edge practices and sustainability principles.

Beyond academia, Dr. Yao is passionate about advancing Equity, Diversity, and Inclusion (EDI) in STEM. She actively creates inclusive learning environments and develops innovative mentorship initiatives to support underrepresented groups in petroleum engineering.

Dr. Yao's dedication to bridging academia and industry reflects her vision of building sustainable and inclusive pathways in engineering education and the energy sector.

WEBSITE

https://scholar.google.ca/citations?user=wJVQ4DwAAAAJ&hl=en

LEAP PROJECT

Enhancing Diversity and Sustainability in Petroleum Engineering Education

The energy sector is undergoing a transformative shift, and engineering education must adapt to reflect these changes. My LEAP project aims to addresses two interconnected challenges: the decline in enrollment and the underrepresentation of female students in the University of Alberta's BSc Petroleum Engineering program.

The project's primary goal is to create an inclusive mentorship program that supports underrepresented groups, particularly women, in the field of petroleum engineering. This mentorship initiative aims to foster a sense of belonging, provide academic and professional guidance, and inspire students to pursue and thrive in the energy sector. In addition, sustainability principles are embedded into the program by integrating low-emission and responsible resource development themes into teaching and public outreach activities.

Over the past year, I have collaborated with faculty, industry partners, and diverse student groups to design the mentorship framework and identify effective strategies for its implementation. Key achievements include establishing connections with industry leaders willing to provide mentorship and developing teaching modules that highlight the role of sustainability in petroleum engineering. These efforts have not only advanced the project but also strengthened the community's awareness of the value of diversity and sustainability in engineering education.

Moving forward, the next steps include piloting the mentorship program with incoming students and gathering feedback to refine its structure and effectiveness. I will also work on scaling up sustainability-focused modules to incorporate broader perspectives on environmental stewardship and technological advancements in the energy sector.

This project reflects my willingness to create a more inclusive, diverse, and sustainable future in petroleum engineering, ensuring that the next generation of engineers is equipped to tackle the challenges of an evolving energy landscape.

TANILLE BUTLER

"I joined WISE Planet to expand my network and gain valuable support and feedback for launching the IDEAS Journal Club (LEAP Project).

I choose to embrace growth, challenge the status quo, and inspire others to do the same.

BIOGRAPHY

Tanille Butler recently completed her Ph.D. in biophysical chemistry at the University of Calgary, where her research focused on protein-small molecule interactions for biosensor development, with an emphasis on improving diagnostic methods for crystal arthropathies. With over seven years of student leadership experience, she served as a two-term President of the Graduate Students' Association and held senior roles with the Residence Education Team.

Originally from central Alberta, Tanille began her academic journey with a Bachelor of Science (Honours) in biochemistry at UCalgary. Since completing her doctoral studies, she has joined UCalgary's Faculty of Science as Associate Director of Development, where she continues to bring her passion for leadership and community building.

Outside of academia, Tanille enjoys outdoor adventures with her husband, Connor, and their pup, Odin, often spending time hiking, camping, skiing, and exploring new activities in nature.

LINKEDIN

https://www.linkedin.com/in/tanillebutler/

LEAP PROJECT

Inclusivity, Diversity, Equity, and Accessibility in Science (IDEAS) Journal Club

I.D.E.A.S.
Inclusivity, Diversity, Equity, & Accessibility in Science
Journal Club

The IDEAS (Inclusivity, Diversity, Equity, Accessibility in Science) Journal Club addresses a critical gap in the education of early-career scientists, particularly graduate students and postdoctoral scholars, by fostering awareness and understanding of equity, diversity, inclusion, and accessibility (EDIA) within the scientific community. This initiative provides a structured platform for learning and dialogue through monthly meetings featuring curated resources, such as academic papers and videos, that highlight contemporary EDIA challenges. The sessions are designed to cultivate an inclusive mindset and spark meaningful conversations about overcoming systemic barriers in science.

Initially piloted within the Department of Chemistry in 2022, the IDEAS Journal Club received enthusiastic feedback, showcasing its potential for broader impact. As a result, the initiative was expanded to include the entire Faculty of Science, welcoming faculty members, staff, postdoctoral scholars, graduate, and undergraduate students. The club's activities included resource-based discussions and open forums to address community-specific EDIA challenges. In 2024, we hosted nine sessions, engaging nearly 200 participants, highlighting the growing interest and impact of the initiative within the Faculty of Science.

Aligned with ongoing efforts to promote equity and diversity in academia, the IDEAS Journal Club aims to address the unique challenges faced by underrepresented groups in science. By equipping participants with the knowledge and tools to recognize and address these issues, the club seeks to create a ripple effect, empowering future leaders to foster more equitable and inclusive academic environments.

For more information, visit https://www.ucalgarycide.org/ideas-journal-club.

VICTORIA SAWCHYN

"I joined WISE Planet because I wanted to learn and develop career skills and build confidence as a young professional."

I choose to learn and develop personally and professionally.

BIOGRAPHY

I am a second year EIT at ATCO Gas & Pipelines, working in the Pipeline Integrity Team on the Transmission network. I graduated from the University of Alberta with Bsc. Mechanical Engineering in 2023 and have been developing professional and project management experience ever since.

I am in the Pipeline Integrity division at ATCO. In this group, I am able to tremendously develop my project management skills and interpersonal skills, as well as having endless opportunity to delve into the technical aspects of pipeline maintenance. My role is able to offer me a unique blend of routine and learning curves, which I find makes my work days exciting and challenging.

In my free time, I love to snowboard, crochet and sew, as well as spend time with friends and family. I am also a fan of travelling and recently had the privilege of touring Europe and visiting Japan.

LEAP PROJECT

Women & Allies Informal Snack Sessions at ATCO
Internship Committee Onboarding Training Initiative

The intent of this LEAP project is to unite the Women and Allies within ATCO and provide great networking/mentorship opportunities for young professionals and co-op students. Although a small addition to the already bustling DE&I committee, adding any opportunity for Women to bond and collaborate will continue to strengthen and reinforce the community within the organization.

I was able to join ATCO's Women and Allies Subcommittee, where I proposed and implemented the Women & Allies snack and chat sessions. We launched our first session this year and hope to continue hosting these sessions in 2025. For the first session, discussion and agenda was left to be very informal, however I am excited to further refine the sessions as we continue to plan them.

In addition to the snack and chat session planning, I joined ATCO's Internship Committee, which was established to standardize Co-op student recruitment and onboarding across the company. I worked in the Onboarding division, where I made progress towards centralizing training resources for easy access to new students. Additionally, this helped identify gaps in training that can be captured in the future. This work is still ongoing and should continue in 2025.

Specifically, I helped develop a general training checklist that will further be refined and categorized by engineering groups and am working to centralize training videos and PowerPoints from across many Gas/Pipelines engineering groups. The end goal is for students to have useful and easy to find information to help get them familiarized with processes and systems at ATCO as well as create efficiency for Engineers in being able to refer to trainings rather than rehash instructions numerous times across different co-ops.

WISE Planet Team

Dr. Laleh Behjat

Laleh Behjat, PhD, is a professor at the University of Calgary and the NSERC Chair for Women in Science and Engineering (Prairies). She is an advocate for women in science and engineering and is passionate about removing systematic barriers to their advancement. Dr. Behjat received several awards including the 2015 Association of Professional Engineers and Geoscientists of Alberta (APEGA) Women in Engineering Champion Award and the 2017 ASTech Leadership Excellence in Science and Technology Public Awareness Award.

Jennifer van Zelm

Jennifer van Zelm has a master's in electrical engineering and has worked the last 19 years in strategy, advisory and leadership roles related to tech and innovation. Her experience includes working at a not-for-profit ICT research consortium, contracting for the Schulich School of Engineering to launch its diversity strategies, and being CEO of an e-health start-up. She is currently performing program management, network outreach and content development for WISE Planet.

Dr. Stacia Thompson McCoy

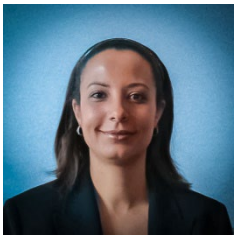
Stacia McCoy earned her PhD in Civil and Environmental Engineering and Engineering and Public Policy from Carnegie Mellon University and her BSE in Civil and Environmental Engineering from Princeton University. Her experience includes microbial laboratory research to assess drinking water quality standards and consulting for the UNESCO Engineering Initiative to develop policy recommendations to address barriers for women engineers. She currently serves as the Program Developer for the WISE Planet program.

Erika Lieu

Erika Lieu is a PhD student of the Industrial/Organizational Psychology program at the University of Calgary, and former management consultant and leader in the engineering sector. Her research interests are rooted in equity, diversity, inclusion, and accessibility. Currently, Erika's research focuses on neurodiverse team functioning, specifically, supportive team leader and team member behaviours that maximize autistic team member performance. On a personal level, Erika's experiences have been at the intersection of race, gender, and disability. Further, her research and work experience include team conflict, multi-team systems, leadership, and strategic planning.

Dr. Lorena Solis

Lorena Solis is an Assistant Professor in the Department of Psychological Sciences at the University of Connecticut. She received her PhD in Industrial and Organizational Psychology from the University of Calgary. Her research interest is in diversity, equity, and inclusion (DEI), specifically focusing on understanding how inequality manifests in hiring, retention, and career advancement practices for historically marginalized groups.



Anne Ndegwa

Anne Ndegwa has a BASc from University of Waterloo and an MSc from University of Calgary, both in Civil Engineering. She was a Water/Wastewater Process Engineer for nearly 20 years working on municipal, water reuse/reclamation, and industrial projects. The majority of Anne's project work was with municipalities and consulting firms working on full-service water/wastewater projects across Canada.

ALISON BARRETT

Alison Barrett has a Bachelor of Arts in Psychology from the University of Victoria. As the Manager of Community and Social Impact at the Schulich School of Engineering, Alison is passionate about fostering an inclusive space in engineering for students, staff, and faculty. In particular, Alison enjoys working with current and prospective students to help inspire the next generation of change leaders in engineering.

DR. EMILY MARASCO

Emily Marasco is the Schulich Associate Dean – Equity, Diversity, Inclusion and Accessibility and the SSE Teaching Chair in Engineering Education Innovation – Digital Transformation. She is an active science communicator and outreach speaker in the local education community. She has been recognized as the 2018 ASTech Outstanding Leader of Tomorrow, and as one of Calgary's 2019 Top 40 Under 40 recipients.

JENNIFER BEKKER

Jennifer Bekker is the Associate Director of Development at the Schulich School of Engineering. She enjoys working with the community to find meaningful partnerships that support student success. Jen has a Bachelor of Commerce from the Haskayne School of Business at the University of Calgary and has worked with non-profit and social service agencies in Calgary. Jen has received the City of Calgary's Signature Award for her philanthropic work.

CRAIG MELTON

Craig Melton is Director of Development for the Schulich School of Engineering at the University of Calgary. In this role he engages alumni, corporations and foundations in order to encourage community partnerships and philanthropic support to enhance research and broaden student learning opportunities. Prior to joining the University of Calgary, Craig enjoyed a career in the Calgary energy industry as a Business Development professional for a local geophysical company. In the community, he volunteers his time and talent through roles with Inn from the Cold, YWCA, Alberta Cancer Foundation and as a head coach with community basketball.

BRIAN MURRAY

Brian has a bachelor's in Mechanical Engineering from the University of Calgary. He is a science, technology, engineering and math (STEM) enthusiast with an aptitude for learning new technologies. With over ten years of experience delivering educational content, Brian analyzes and shares information succinctly. Brian adds value to the WISE Planet team by coordinating program EDI initiatives, project planning and execution, event coordination, and technical writing.

MAZDAK DARVISHI

Mazdak Darvishi is currently an undergraduate student at McGill University with a projected double major in Computer Science and Linguistics. He is passionate about working within his community as an executive member of the Gay-Straight Alliances at his previous high school, where he was the leader, and now at McGill. Within the WISE Planet team, Mazdak is enthusiastic about bringing topics of intersectionality and gender discrimination to the forefront of discussions on EDI.

Advisory Board

The WISE Planet Advisory Board helps shape and strengthen our program. Comprised of dedicated volunteers from across the Prairies, our advisory board brings diverse expertise, mentorship, and guidance to support WISE Planet's mission.

MATINA KALCOUNIS-RUEPPELL

University of Alberta, College of Natural and Applied Sciences
College Dean and Vice Provost

NANNETTE HO-COVERNTON

Spartan Controls
Sustainability Leader

COLIN JACKSON

The ATCO Group of Companies
Senior Vice President, Finance;
Treasury & Sustainability Chair, Diversity, Equity & Inclusion Council

JANA MOSLEY

ENMAX Power
Past President

JACQUELINE OTTMANN

First Nations University of Canada
President

MALINDA SMITH

University of Calgary
Associate Vice President Research - Equity, Diversity and Inclusion

QIAO SUN

Schulich School of Engineering
Professor and Head, Department of Mechanical and Manufacturing Engineering

"I believe the WISE Planet Program is an important step in the right direction to improve EDIA in science, it is led by an inspiring team that are all role-models for excellence in teaching, and I am certain that they are helping many early career women scientists become the leaders of tomorrow…While I was impressed by the program structure and resources provided…, I think that this [WISE Planet] program truly shines through the community it builds and the positive and inclusive environment it fosters."

Dr. Ariane Cantin
WISE Planet Cohort 2 Participant
Assistant Professor (Teaching), Biological Sciences, University of Calgary

"Promoting careers for women in the natural sciences and engineering is a priority for NSERC. We are committed to creating a more equitable, diverse and inclusive community by increasing the number of women in these fields and supporting programs like the WISE Planet Early Career Fellows that will nurture training and mentorship opportunities for women to become change leaders in STEM."

Alejandro Adem
President, Natural Sciences and Engineering Research Council of Canada

Change is ~~hard~~ COMING

North Star Award

Just as the North Star has guided travellers for centuries, the WISE Planet North Star Award recognizes those whose work shines brightly, illuminating the path toward a more sustainable, just, and equitable world. With courage, wisdom, and unwavering dedication, they lead the way, proving that even amidst challenges, we can navigate toward a future where everyone can thrive.

This year marks the **first presentation** of the North Star Award, and it is with immense pride and gratitude that we honour **Nannette Ho-Covernton** as the **WISE Planet North Star 2025 Award** recipient.

"If not now, when? If not me, who?"
Nannette Ho-Covernton
Sustainability Leader, Spartan Controls

Nannette Ho-Covernton has been a trailblazer in sustainability, equity, and diversity in engineering throughout her remarkable career. Recently retired from Spartan Controls as their Sustainability Leader, Nannette's unwavering commitment to building a better world has left an indelible mark on both industry and community.

She has been a steadfast champion of WISE Planet since its inception, offering her leadership, insights, and mentorship to help shape a more inclusive and sustainable future. Her courage to challenge the status quo and dedication to fostering change serve as an inspiration to us all.

As a beacon of hope, Nannette's generosity and leadership remind us all of the power of bold action and compassionate advocacy. Her efforts have not only transformed organizations but have also paved the way for the next generation of changemakers in engineering and beyond.

Your impact will continue to guide and inspire us for years to come. **Congratulations on this well-earned recognition!**

Nannette, your leadership, wisdom, and courage light the way toward a more just, sustainable, and inclusive world. As you step into this new chapter of life, we celebrate the incredible career that has defined your journey—one marked by dedication, impact, and excellence. Your contributions have left a lasting legacy, and your leadership has inspired those around you.

May this next phase be filled with joy, fulfillment, and new adventures. WISE Planet extends our warmest wishes for this well-earned and exciting new chapter!

PROGRAM SPONSORS

NSERC CRSNG

UNIVERSITY OF CALGARY
SCHULICH School of Engineering

UNIVERSITY OF CALGARY FACULTY OF SCIENCE

UNIVERSITY OF CALGARY

ATCO

INFORMED OPINIONS

SYNOPSYS®

ENMAX

CALGARY PUBLIC LIBRARY

MOUNT ROYAL UNIVERSITY 1910

SPARTAN CONTROLS

PLATFORM calgary

AWSN

UNIVERSITY OF ALBERTA

TELUS Spark SCIENCE CENTRE

Capital Power

AU Canada's Online University

INDIGENOUS ENGINEERING INCLUSION INC

cenovus ENERGY

PEMBINA


WISE Planet