



WISE Planet

Cohort 3 | Class of 2023



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CONGRATULATIONS



“We need to break the silence, and remind ourselves that we are worthy of freedom, worthy of dreams and the simple grace of a normal existence.”

I believe in Woman, Life, Freedom.

We have shared a remarkable journey over the past year. Together, we have championed a mission to empower underrepresented voices in science, technology, engineering, and mathematics (STEM) and brought to light diverse perspectives. We have laid the groundwork for a society that stands on the pillars of inclusivity and justice.

In a year marked by disruptions, it is crucial to acknowledge the unwavering courage displayed by women and men standing up against tyranny and oppression. In these challenging times, we have come to understand the value of courage and the importance of championing truth. Within the WISE Planet program, we have embraced this spirit and delved into change leadership skills, system analysis, design for disruptive technology, and sustainable development to navigate life's transformations.

This training has been designed to impart knowledge and equip you with the skills and network connections needed to emerge as global leaders shaping an equitable and inclusive future. Your Leadership Equity Action Plan (LEAP) projects, aimed at advancing the recruitment and retention of underrepresented groups within your communities, embody our collective story. In a system that has often pushed us to the margins, attempting to silence our voices, your LEAP projects manifest creativity and power—a potent counter-narrative.

In essence, we have become the creators of our story, refusing to be relegated to the role of present-day Cassandras. Your projects have illuminated our journey, showcasing the challenges, resilience, creativity, and determination that define us. They serve as a beacon, challenging the narrative that has sought to sideline women in science and engineering. Your actions are not confined to individual projects; collectively, they create an inclusive space where voices, particularly those of women scientists and engineers, are heard and celebrated. Your endeavours are changing the narrative, ensuring that our collective voice is integral to the conversation.

Being part of this transformative journey with you has been an honour. Together, as drivers of change, we are rewriting our own stories and reshaping the broader narrative toward a future defined by creativity, inclusivity, and kindness.

With all my love and in solidarity,

A handwritten signature in black ink that reads "Laleh Behjat". The signature is fluid and cursive.

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

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 believe that genuine connections are more important than ever.

Third time's a charm?? The running of the 2023 program marked the first time we got to essentially repeat, with only minor tweaks, a year-long template we are now getting much smoother at running. This gave me the space to be more present and observant of this cohort.

What I got to witness was truly inspiring: frank, respectful conversations; determination - but space for mistakes and breaks. While the world continues to grapple with the necessary discomfort of cultural change, I feel assured that the right, compassionate paths will ultimately be found thanks to people like those in Cohort 3.

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 3, 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, support one another, and always speak up!

Jennifer van Zelm, MSc
WISE Planet Program Manager



I believe that kindness and courage will take us farther than we can imagine.

Warmest congratulations to our third cohort of WISE Planet Change Leaders! The program has changed and grown a lot in its first three years, but our live sessions continue to be a highlight for me. In these discussions and interactions, we challenge one another to delve deeper, so that together we can amplify the program impact.

Being a part of the WISE Planet team continues to bring me joy and it has been an honor to work with such an amazing group of individuals. Your Leadership Equity Action Plan (LEAP) projects, which tackled issues such as increasing inclusivity of family leave programs, equitable recruitment of engineering graduate students, and creating safe, brave spaces for classroom dialogue reminded me that we all can change the world if we start with our corner of influence.

It has been a privilege to support and guide you as you've grown as change leaders in your organizations. We're always here to provide advice, resources, and inspiration, so please don't be a stranger. We're confident in your leadership abilities and we can't wait to see what you will do next!

Stacia Thompson McCoy, PhD
WISE Planet Program Developer



Women in Science and Engineering for a Sustainable Planet

The WISE Planet program began in February 2021 and to date has enrolled 85 participants (in three cohorts) nominated from industry, non-profit organizations, and universities across Canada. Over the last three 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 showcase 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 training women and other historically
underrepresented groups in STEM to be change
leaders equipped to implement strategies and
innovations that will build that society.

Email:

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Website:

<https://www.ucalgary.ca/wise-planet>

LinkedIn:

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

YouTube:

<https://www.youtube.com/@wiseplanet>

ABOUT WISE PLANET

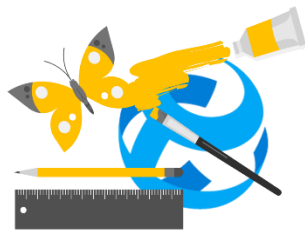


Personal Leadership

The goal of this module is to explore implicit bias and its effect on leadership, value based leadership, conflict management style, and leadership style. The module also explores 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 plan better 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 undertook a Leadership Equity Action Plan (LEAP) project as part of their WISE Planet training. These projects aimed 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.



Jennifer Adams
University of Calgary



Firas Ali
Worley



Anne Benneker
University of Calgary



Paula Berton
University of Calgary;
CalAgua Innovations Corp.



Alicia Bjarnason
CCWESTT



Debbie Burke
Xtreme Teams Inc.



Laura Curiel
University of Calgary



Glenn Dolphin
University of Calgary



Kirsten Eeuwes
EPCOR



Jill Hager
Garmin Canada



Nathan Helder
BluEarth Renewables



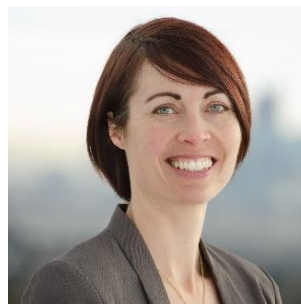
Heather Herring
Make it So Inc.



Chimene Kabriel
Worley



Sandy Kennedy
Hexagon Autonomy and
Positioning



Kelly Krahulic
FortyTwo Innovations



Ana Carolina Lima
University of Calgary

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



Janice Miller-Young
University of Alberta



Laura Mislan
Enhance Energy Inc.



Latha Nachiyamai
Garmin Canada



Deirdre Norman
Imperial Oil



Melanie Rathburn
Mount Royal University



Najmus Saltanat
ENMAX Power



Jamal Seede
Canem Systems



Ghada Sfeir
University of Calgary



Shuchita Singh
Synopsis



Sarah Stewart
ENMAX Power



Jonathan Withey
Mount Royal University



Serene Yew
Pixeltree Inc.

ALEX LUSH



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

I believe that change is always possible.

BIOGRAPHY

I am an operations engineer at Pembina, and I’ve worked in operations for the past 4 years. Prior to that, I was a project engineer and manager. I graduated from the University of British Columbia in Chemical Engineering. A huge part of my career has involved technical skills paired with non-technical communication, and I’ve found that the people aspect has made up some of the most enjoyable parts of my career so far. I’m looking forward to continuing my career at Pembina, especially after creating new connections through the WISE Planet program. Outside of work, I have a baby girl, who was born during this program. I’m the daughter of two engineers, and I hope that if my daughter also ends up in science and engineering, it’ll be an even better, more accepting place than it is now.

LINKEDIN

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LEAP PROJECT

Inclusive Leave of Absence

Our LEAP project on inclusive leave of absence focused on understanding how Pembina's Leave of Absence policy is perceived within the company and identifying areas of improvement to increase inclusiveness. We began by gathering information through a voluntary company-wide survey of perspectives on the current leave of absence policy. After analyzing the survey data, we conducted focus groups with Pembina personnel. Leaning on these findings, as well as other published information sources, we developed nine recommendations for Pembina leadership consideration:

1. Creating eLearn module for employees on the applicability and provisions of leaves. Promoting the policy and its location.
2. Creating mandatory training for leaders that will provide the required information and skills to support employees before, during, and after their leaves. Leaders in this context include employees with direct reports.
3. Internal showcases of successful parental leaves to help dissipate stereotypes; including men taking parental leave and women who have unique leave stories.
4. Creating opportunities for connections between personnel who are parents.
5. Increasing pay top-up for Canadian parental leave to be competitive with industry peers.
6. Ensuring availability and accessibility of back-fill coverage to allow for employees to disconnect during their leave of absence.
7. Ensuring availability of voluntary training while on leave to help maintain a sense of connection, particularly during parental leave.
8. Providing improved and consistent pumping facilities for mothers returning to work who are breastfeeding.
9. Developing a company partnership with childcare providers to allow parents to return to work when they want to.

Attraction, Retention & Progression of Females in Science, Engineering & Technology

Our LEAP project on attraction, retention & progression (ARP) of females in science, engineering, and technology (SET) focused on listening to Pembina female SET personnel experiences and collecting feedback on how to improve. Like the other project, we started by gathering information through a voluntary company-wide survey. After analyzing the data from the survey, we conducted focus groups with Pembina personnel. Along with the recommendations from the survey and focus groups, published sources of information were heavily relied on to develop recommendations for Pembina leadership consideration, as follows:

1. Increasing and improving university recruitment.
2. Improving the flexible work standard to include job sharing and clarity on part-time work.
3. Increasing partnerships with organizations that focus on improving female representation and experience in SET.
4. Ensuring recognition is more inclusive and aligned with how individuals want to be recognized.
5. Improving leader allyship for females in SET.
6. Creation of a Talent Specialist role to assist with rotating internal expertise, ensuring internal candidates are aware of vacancies they are qualified for, developing a training list tailored to various roles, supporting EIT rotation, internship, and summer student programs.
7. Acknowledge the importance of glue work by incorporating the topic into EDI modules and performance review evaluations. Glue work includes tasks that add value to the organization, but do not fall within anyone's job description such as setting up meetings, taking meeting minutes, and improving team processes.
8. Improving inclusivity of team building activities.
9. Completing a third-party compensation review to ensure gender pay equity as well as improving transparency of compensation determination and gender pay equity.
10. Creating a company-wide mentorship program.

ANN BARCOMB



“I joined WISE Planet because in my informal conversations with Laleh, I saw that we shared similar concerns about the future, but where I was only pessimistic, she had optimism about our ability to shape society and systems.”

I believe it is difficult to change anything, but it is better to try than to not try.

BIOGRAPHY

Dr. Ann Barcomb is an assistant professor at the Schulich School of Engineering, University of Calgary. Her previous post was at Friedrich-Alexander University Erlangen-Nuremberg, Germany. Dr. Barcomb received her **PhD** from the University of Limerick, Ireland, in 2019, with a specialization in software engineering, and a **master's** in information systems from Maastricht University, The Netherlands. In the course of her industry career, she worked as a software developer for multiple firms and as a community manager for RIPE NCC. From the beginning, she has been active in free/libre/open source software, organizing events, speaking at practitioner conferences, and writing for practitioner outlets. Her research is characterized by a desire to understand and generalize processes and practices within free/libre/open source software communities, and to facilitate the exchange of knowledge between practitioners.

LINKEDIN

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LEAP PROJECT

Developing Student Technical Literacy Competencies

Incoming software engineering students come from a wide variety of backgrounds. Some students have been able to take introductory programming courses in high school, while others have worked extensively with computers to complete their other coursework. Other students have far less exposure to computers and have primarily accessed content and completed work using mobile phones. To build software, students need to understand aspects of the underlying system, which are abstracted away in phones, such as directory structure. It is primarily first-generation, low income, rural, and refugee students who have less exposure to computers and are therefore disadvantaged by entering programs where this knowledge is an assumed prerequisite. Additionally, with the recent rapid evolution of AI tools to support software development, students who do not already possess the expertise in using them are at risk of being left behind - but students who understand the use without the ethical implications may go on to develop biased software, which exacerbates inequalities.

Working with a colleague and students, a web-based computer literacy course, which has been trialed on incoming students, was developed in summer 2023. We are currently creating an AI literacy course with \$15,000 funding from an Engineering Education Innovation Award from the Schulich School of Engineering. Dissemination beyond the university is one of the key aspects of our plan, and, to this end, we have submitted publications to engineering education outlets. We also expect to release the material for public use once it has been trialed and revised. With this material, we hope to ensure that students are prepared to face software engineering courses with core competencies, which might not be explicitly stated by educators.

AZADEH MEYSAMI



“I joined WISE Planet because it provided me with an opportunity to contribute to equity, diversity, inclusion, and innovation and with an opportunity to grow my network and develop my leadership skills.”

I believe in having a diverse team that feels included and a sense of belonging within the company.

BIOGRAPHY

Azadeh Meysami a Senior Application Engineer at ENMAX Power, completed her bachelor’s degree in Electrical Engineering. Additionally, she received her Master’s in Project Management. She is supporting the Advanced Distribution Management System, specifically the transmission Energy Management System (EMS). Azadeh works cross-functionally on OT capital development, EMS configuration, system reliability, safety, and compliance. This work ensures the safety and reliability of the electrical system and requires cross-functional collaboration.

LEAP PROJECT

Exploring and Researching a High School Apprenticeship Program

Our project, completed jointly by Najda Dupanovic and me, was a comprehensive initiative aimed at increasing diversity and exploring alternative recruitment strategies within the Field Services department of ENMAX Power. The primary objective was to research and explore what is required to implement a high school apprenticeship program.

We sought to understand the benefits these programs offer to both the students and the organizations that implement them. Our research revealed that early apprenticeship programs provide students with valuable hands-on experience, helping them to acquire practical and interpersonal skills.

To gain an extensive understanding of what it would take to implement such a program, we conducted an analysis of the resources required, safety requirements, and activities in which the student can participate.

In addition to our research, we engaged in dialogue with other organizations that have successfully implemented early apprenticeship programs. These conversations provided us with valuable insights into the challenges and rewards associated with these programs. We learned about best practices for implementation and what it takes to have a successful program.

Through our research, we aimed to inform that increasing trade interest at the high school level is a viable and beneficial strategy for enhancing diversity and recruitment. By investing in the education and development of young talent, organizations can cultivate a workforce that is not only skilled and competent but also diverse and innovative.

In conclusion, through our research and discussions with other organizations, we are exploring the potential of an early apprenticeship initiative which could lead to a more diverse workforce.

BRITTANY KEYTE



“I joined WISE Planet because I wanted to improve my leadership skills and help improve the experience for females in STEM.”

I believe that all people should be able to live their lives without judgment.

BIOGRAPHY

I am a Process Engineer at Pembina and a graduate of the University of Calgary with a BSc in Chemical Engineering. Throughout my experience at Pembina, I have been challenged through various roles across the business and continue to learn and grow with the help of my wonderful colleagues and mentors. I have been passionate about science since I went to the Calgary Science School (Grade 4-9), where along with sparking my passion, I also experienced the challenge of being a female in STEM; I was 1 of 20 girls in a class of 100 students. During my time there I also struggled with math. Thanks to a phenomenal teacher, I gained the skills and confidence to thrive in math, which showed me that there is truly nothing I can't do if I put my mind to it! I learned the importance of inquiry-based learning, eventually leading to my interest in pursuing engineering in university. I am passionate about reducing the stigma for females in STEM, and about being a changemaker in the industry!

LINKEDIN

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LEAP PROJECT

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8. Improving inclusivity of team building activities.
9. Completing a third-party compensation review to ensure gender pay equity as well as improving transparency of compensation determination and gender pay equity.
10. Creating a company-wide mentorship program.

CHELSEY SCHAFER



“I joined WISE Planet to collaborate with and be a part of a diverse network of academic and industry professionals working towards change, by not only understanding the problems but working on solutions.”

I believe that everyone has something to learn and something to teach.

BIOGRAPHY

Undergraduate Academic Advisor to Science & Technology Students | Dedicated to Student Communication, Experience, and Engagement | Status Quo Disruptor | Debunker of Assumptions | Social Justice Advocate & Accomplice

I am a partner and a daughter, cat mom and a fierce friend. I am a lifelong student, teacher, advocate, and fierce ally, personally and professionally. I believe that our personal and professional lives are not meant to be separate, and that a respect for human-ness and all its messy-ness is crucial for a workplace to be supportive and enjoyable; you should not have to lock your true self in a box when you clock-in just to survive, thrive, and not get fired. Doing things as they have always been done does not mean that is how they should be done. This had led me to work on making space for all voices and ensure I am not taking up space with my privilege.

LINKEDIN

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LEAP PROJECT

IDEA (Inclusion, Diversity, Equity, and Accessibility) in Undergraduate STEM Research Opportunities

The focus of my LEAP is to acknowledge the lack of IDEA (inclusion, diversity, equity, and accessibility) in undergraduate research opportunities, research and collaborate with faculty and students on solutions, and put solutions into action in meaningful and sustainable ways.

When presented with the opportunity to participate in WISE Planet, my goals were as outlined below:

- grow in my knowledge of project development and management, in terms of time and task management and delegation, along with understanding how to project/predict, measure, and communicate project outcomes and impact across the community
- make meaning out of data
- build in my relationship and collaboration with faculty and students
- continue to learn how to amplify voices, work, and ideas of those who have been historically dismissed, while including and inspiring those who do not understand their place in IDEA to grow and learn towards positive change
- learn how to not only point out what is wrong/needs to be changed/the problem, but to create and provide tangible solutions and put them into action with others.

I am proud to look back and say I have met these goals and exceeded each in rewarding and surprising ways. While my project is still very much in development, I continue to watch the evolution of the seeds I have planted over the past year with the help of WISE Planet and I am excited to see what the future holds!

EMILY GRISÉ



“I joined WISE Planet to acquire the knowledge and strategic insight to create an impact.”

I believe that I can make an impact.

BIOGRAPHY

Dr. Grisé is an Assistant Professor in the School of Urban and Regional Planning at the University of Alberta. She has research experience in topics including transportation equity, electrification of public transit systems, local and regional transport and land use planning and modeling, and public transit planning and operations. Dr. Grisé’s research agenda is grounded and strengthened by her emphasis on collaboration between academia and the transport profession and her drive for real-world impact. Her work has involved partnerships with local and regional transport agencies and the private sector, including Edmonton Transit Service, TransLink, and TransitApp. Her forward-thinking research program has demonstrated how to effectively bridge the gap between theory and practice, effectively utilizing her transport expertise to inform and enhance the strategies of these agencies.

LEAP PROJECT

A Better Return to Work

My LEAP project aimed to explore and identify opportunities to support faculty members in their transition back to work after parental leave. A faculty member returning from pregnancy, adoption, or parental leave is likely to face a myriad of challenges in this new adjustment to their work/life balance. Challenges managing this work/life balance can have immediate effects on the faculty member's quality of life and ability to meaningfully participate in all aspects of work – teaching, research, mentorship, and service to the university and academic community – as well as impose long-term challenges related to career trajectory and growth as a researcher, which can impact access to merit-based annual salary adjustments. With that said, in my LEAP project, I began by exploring public-facing documentation of Canadian institutions that stated any policies about support for a faculty member returning from pregnancy, adoption, or parental leave, such as a reduction in annual teaching responsibilities. This was complemented by informal conversations with leadership in my institution to consider opportunities to foster an environment of support for faculty members experiencing this transitional time in their career. This project ideally began an ongoing dialogue about how academic institutions can be a leader in promoting a workplace culture that accommodates and supports all faculty members during significant life events and ideally contributes to long-term career advancement, employee retention, and a space for meaningful and valuable research.

EMMA TOWLSON



“I joined WISE Planet because of the opportunity to connect and do meaningful work with an inspirational and diverse group of leaders under the conviction that we are not the problem: the current system is.”

I believe there is strength in vulnerability, and authentic, collaborative, value-driven leadership is the only option for a sustainable and equitable future.

BIOGRAPHY

I am an Assistant Professor at the University of Calgary, and my academic home is in the Computer Science Department. I am also part of the Department of Physics and Astronomy, the Hotchkiss Brain Institute (HBI), Alberta Children's Hospital Research Institute (ACHRI), the Complexity Science Group, and the Computational Neuroscience Platform. I trained at the Center for Complex Network Research (Postdoc, 2020), the University of Cambridge (PhD, 2015), and the University of Warwick (MMathPhys, 2011). I am a network (neuro)scientist who believes complex systems science is at the heart of understanding our interconnected world, and the organisms that share it. My research takes transdisciplinary approaches to contribute to our understanding of how behaviours emerge from complex circuitry across species, especially those associated with brain diseases, disorders, and mental illnesses. I adventure in my own mind and out in nature through endurance running, with one ultramarathon under my belt so far. I am also a new mama to a beautiful baby girl who inspires me every day to make the world a better place for her.

WEBSITE

<https://emmatowlson.github.io/>

LEAP PROJECT

Decolonizing the Syllabus at Scale

Biases in the University setting begin right away for new students, when their classes all unwittingly continue to perpetuate them. When our courses only teach the contributions of white men of Western origin, we are telling our students that these are the only contributions that matter. The contributions of women and other historically marginalised groups are frequently overlooked. Academia, and, certainly, the University of Calgary, is starting to realise the importance of equitable representation and taking strides to improve things – whose voice is at the table, and whose is missing? Yet, the task of overhauling course content and syllabi is left to the discretion of individual faculty. This is no small feat – to identify the academic contributions that are not usually recognised, and redesign courses to reflect this. With the ever-increasing demands on a faculty member's time, few actually manage to implement changes to their classes, even with the best of intentions. Efforts currently might look like special topic lectures added at the end to show women developed the field, too. Or in the graduate class I teach on Network Science, students complete a review of a publication in the area, and I require that the first and/or last author is from an underrepresented group in the sciences. I am collating these papers into a database to give more visibility to these authors and their contributions.

My LEAP project sets out to “decolonise the syllabus” for a number of courses. With my position between departments, I am starting with courses selected from interested and willing faculty in Computer Science, Physics, and Neuroscience. I plan to recruit a small number of students to aid efforts to: (i) Systematically review and quantify the demographics of scientists represented in the course material; (ii) Conduct a thorough literature review to identify contributions from a more representative sample; (iii) Liaise with community members and subject matter experts from historically marginalized groups for their input; (iv) Design new educational materials. This pilot project will also inform the design of a model to decolonize a course syllabus in a streamlined and maximally effective manner. Ultimately, this workflow can then be leveraged to scale efforts up and support and remove barriers for faculty to work on their own courses. There is no reason that every course offered across the University of Calgary should not examine what implicit biases are being communicated to the student body. Representation matters, and this project will work to show all students and community members that we want all voices at the table.

FARZANEH SADRI



“I joined WISE Planet because I was seeking connections with like-minded individuals who shared akin concerns and apprehensions.”

I believe fostering effective collaborations and engaging in open dialogues serve as potent remedies for alleviating stress while contributing to the cultivation of resilient, successful, and empowered characters in all individuals.

BIOGRAPHY

I am an Assistant Professor in the Robert M. Buchan Department of Mining Engineering at Queen’s University. Previously, I held the position of Assistant Professor in the Chemical and Materials Engineering Department at the University of Alberta from September 2022 to October 2023.

My vision is to create a central hub for cutting-edge research in my field, focusing on the chemical extraction, separation, and purification of critical metals and advancing knowledge in hydrometallurgy and environmentally conscious extraction processes.

As a working mom, I’ve personally navigated the challenges that many women encounter while juggling professional and personal responsibilities. There have been times when these demands may have left me feeling inadequate in both roles or lacking the focus I desire. Such experiences can undoubtedly impact one’s self-confidence. Yet, my time in this program has been transformative. Connecting with numerous successful women who have faced similar difficulties and shared similar feelings has been incredibly motivating. The support we’ve cultivated within the program is invaluable. This network has played a pivotal role in boosting my performance, perseverance, and self-confidence, empowering me to be successful in both my personal and professional roles.

LINKEDIN

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LEAP PROJECT

Diversity in Mining: Addressing Gender Disparities for Inclusive Excellence

The underrepresentation of women in STEM fields, particularly in mining and minerals processing, remains a pressing concern. This gender disparity not only deprives the industry of diverse perspectives and talents but can also adversely affect workplace efficiency. Being a minority in a male-dominated field can lead to feelings of isolation and an unwelcoming work environment, prompting some women to consider leaving their jobs. It is imperative to address this issue by actively promoting diversity and inclusion within the mining sector. Encouraging women to pursue careers in mining through educational outreach, mentorship programs, and networking opportunities is crucial. Additionally, implementing family-friendly policies and flexible work arrangements can contribute to the retention of female talent. The benefits of a more gender-inclusive mining society are multifaceted, ranging from increased innovation and problem-solving diversity to improved company reputation and enhanced overall industry performance. By fostering an environment that welcomes and supports women in mining, we not only promote gender equality but also ensure a thriving and sustainable future for the industry. The responsibility for fostering a more inclusive environment should not solely rest on the shoulders of women. Male allies play a crucial role in championing gender diversity within the mining industry. Research has consistently shown that male allies can significantly influence the success of women in their early careers. It is imperative that male allies are aware of their pivotal role in creating a diverse working environment and retaining their female colleagues. By actively advocating for equal opportunities, providing mentorship, and challenging gender biases, men can contribute significantly to dismantling barriers that hinder women's progress in the field. Collaborative efforts from both women and men are essential for cultivating a workplace where everyone can thrive, irrespective of gender.

My impact in this project is intended to be continuous, and in my role as a group leader and mentor, I am committed to establishing a diverse research group. My goal is to offer effective mentorship that nurtures the development of both male and female Highly Qualified Personnel (HQP) to contribute meaningfully to the Mining industry. Recognizing the dynamic nature of the field, I understand the importance of continually learning and implementing new strategies. This approach allows me to build on successful initiatives from previous years, ensuring that my leadership remains adaptive and responsive to the evolving needs of the team and the industry. Through these efforts, I aim to create a collaborative and inclusive environment that fosters innovation and excellence among all team members.

JAYME ROEMER & NAVREET KOONER



“We joined WISE Planet to grow our network, actively engage with women in STEM roles and learn about ways to initiate change within our organizations.”

I believe ... you can't be what you can't see.

BIOGRAPHY

Jayme Roemer – I am the Plant Mechanical Engineer at the ENMAX Shepard Energy Center. I graduated from the University of Calgary and worked in Oil and Gas for about 7 years before coming to ENMAX in 2020. My goal in joining this WISE Planet program was to be an active participant in my company's and my personal initiative to help develop a more diverse and inclusive workforce that encourages and celebrates women and other under-represented groups.

Navreet Kooner – I am a Program Lead for Substations and Transmission with the Project Delivery team at ENMAX. I graduated from the University of Alberta in Electrical Engineering and have worked in the utility industry for the past 19 years. My goal in joining this program was to grow my network and learn more about change leadership techniques that can be applied in my career journey going forward.

LEAP PROJECT

ENMAX STEM Outreach Initiative

Our LEAP project this year focused on a longer-term goal of improving workforce diversity within ENMAX and the utility industry overall. To accomplish this, we collaborated with TELUS Spark, an existing ENMAX community partner, to actively engage in STEM focused community outreach through their Operation Minerva Program. Operation Minerva is an annual multi-day conference for Calgary area grade 8-9 students who identify as girls or gender diverse, to learn more about careers in science, technology, engineering, art and mathematics from actual STEM professionals. The goal is to create a platform for knowledge sharing through the active participation of ENMAX mentors in this annual program.

The general idea behind Operation Minerva, is that ‘you can’t be what you can’t see’. Most young girls think of STEM roles – engineers, scientists, astronauts and they typically picture a man fulfilling these roles as that’s what they have historically been exposed to. People need to see themselves in these roles in order to succeed and feel capable and confident in pursuing them. Many girls at this stage are unaware of the variety of STEM roles available to them or what educational path could prepare them for these roles. This initiative aids in inspiring young girls at a pivotal age in their career mapping journey to begin or continue in a STEM related education or career path.

As part of our initiative, we recruited and coordinated a group of inspiring ENMAX mentors from diverse areas of the business to participate in the program and share their personal STEM career journeys. We aim to build a connection between students and mentors, longer term; recruiting mentors with a passion for empowerment to help inspire these young girls to enter the STEM fields in the future.

Upon completion of the 2023 WISE Planet program year, we have completed the first of three Operation Minerva workshops. The event was well attended and very well received by both the students and ENMAX mentors. We are currently preparing for the second event, which will be a job shadowing experience for the students at an ENMAX facility. From a sustainability perspective, we intend to provide ongoing support to Operation Minerva on behalf of ENMAX. We aim to maintain annual engagement with TELUS Spark and build an active mentorship pool to support future years.

JEANIE CHIN



“I joined WISE Planet because of the opportunity for growth and to advance female leadership”.

I believe that through the conversations and learnings from this program, I am forging a path for myself and creating a map of possibility for others who may follow me.

BIOGRAPHY

Jeanie is a professional engineer, who's worked in Alberta's utilities industry for 18 years, with a demonstrated passion for advancing the adoption and integration of clean energy resources. This includes implementing clean energy strategies and projects from concept to funding to installation, and leading initiatives ranging from solar PV, battery energy storage systems, HVDC & FACTS and medium- and high-voltage sectors.

LEAP PROJECT

Improving ATCO Employee Engagement

This LEAP project was completed by the two ATCO WISE Planet participants, Margaret Munro and me. Our goal was to better understand what drives employee workplace engagement and how it varies across the organization. ATCO has several different business units. Margaret and I each represent a different engineering division within the organization; I'm from the Electric business, and Margaret is from the Gas and Pipelines business. Through our LEAP project, our goal was to identify similarities and differences in employee engagement across the organization with the ultimate goal of increasing inclusivity and building an engaged workforce.

Through the completion of an all-employee engagement survey, Margaret and I were able to filter out the results for our specific engineering divisions. In comparing the two, the majority of the survey showed overlapping results. From this, we were able to conclude that employee engagement from the two engineering divisions is generally similar. This means that engagement across the engineering divisions, despite differences in management, is largely consistent.

Items that showed the largest amount of disparity were areas that were the highest scored topics in each division. In reading into this data, it's important to note that these weren't areas that were low scoring in either division, but rather areas that outperformed when compared to one another. This showed an interesting correlation into the focus of each division over the past several years, and how that played into the overall engagement score in that area.

Moving forward, this LEAP project can be used to help guide management on areas of focus for their specific division or team. Being able to compare and contrast results across the organization, showed how applying efforts into a specific engagement topic has an impact on the employee engagement in that area.

JENNIFER NAFZIGER



“I joined WISE Planet because I wanted to grow my skills in leadership of Equity, Diversity, and Inclusion activities and be a agent for positive change at my university.”

I believe that Engineers make or influence many important decisions that shape our resources, our cities, and our technologies. I believe that there is space around that decision-making table for all kinds of people and that our civilization will be better off for it.

BIOGRAPHY

Jennifer is an Assistant Professor in the Department of Civil and Environmental Engineering at the University of Alberta. Her research focuses on winter river environments in cold regions including ice jam flooding, flood forecasting, and remote sensing. Prior to joining the University, Jennifer worked as an operational flood forecaster in the Alberta Public Service. Jennifer lives in Edmonton with her husband and two children. Jennifer particularly enjoyed the guest speakers and meeting all the participants of the WISE Planet program.

LEAP PROJECT

Northern-Based First Year Transfer Engineering Program

For my LEAP, I was interested in investigating the pre-feasibility of facilitating the development of a First Year Transfer Program at Yukon University. Currently, the majority of Indigenous engineering students at the U of A come from First Year Transfer programs. Therefore, situating such a program in the North, in close proximity to many Indigenous communities may provide an opportunity for Indigenous and Northern students to enter an Engineering program; particularly if moving to a southern city like Edmonton has been a barrier for these students. I have learned about how large a project this would be and the many moving parts it would take.

KHOSRO SALMANI



“I joined WISE Planet because it aligns with my values, providing an opportunity to learn from diverse perspectives and cultivate a more inclusive environment.”

I believe together we can make a better tomorrow!

BIOGRAPHY

Khosro is an Assistant Professor in the Department of Mathematics and Computing at Mount Royal University. He received his Ph.D. degree in Computer Science from the University of Calgary in 2020 and his MSc from the Iran University of Science and Technology in 2011. Before starting his Ph.D. in 2016, he was a university lecturer for more than five years. His current research interests involve several areas in data privacy, including preserving the privacy of the outsourced personal data in cloud servers, big data privacy, data privacy and security in the Internet of Things (IoT), data privacy in health care systems, and useable privacy. In addition to his role as an Assistant Professor at Mount Royal University, he is fervently dedicated to expanding Equity, Diversity, and Inclusion (EDI) principles in both research and classes he teaches.

WEBSITE

https://www.mtroyal.ca/ProgramsCourses/FacultiesSchoolsCentres/ScienceTechnology/Departments/MathematicsComputing/Faculty/bio_ksalmani.htm

LEAP PROJECT

Cultural Inclusivity Initiative: Breaking Down Barriers at the University

My LEAP project focused on identifying and mitigating cultural obstacles within our organization. These barriers can impede individuals from fully integrating into various campus activities, including social events, work, and educational pursuits. Factors such as religion, ethnicity, generation, and gender identity frequently contribute to cultural challenges.

The research aimed to identify and document cultural obstacles at the university, focusing on factors like religion, ethnicity, generation, and gender identity. Engaging students, staff, and faculty, it seeks to raise awareness of cultural inclusivity. The project envisions a constant monitoring process with ongoing adjustments. Immediate changes may manifest in heightened awareness, while the long-term impact aims to improve social dynamics, collaboration among diverse individuals, and potentially enhance job satisfaction and overall happiness.

KRISTI MCGUIRE, DREW RYAN, EMILY GRIFFIN & MEGAN PLEAU



“We joined WISE Planet because we want to become change leaders to positively impact our organization.”

We believe that continuing to diversify our culture will help drive success.

BIOGRAPHY

Kristi McGuire: I graduated from the University of Alberta with a Bachelor of Chemical Engineering in April 2018. I was in the co-op program and worked in various fields. The first being with CT & Associates Engineering, which is a geotechnical and environmental engineering firm in Edmonton. I also held a research co-op position at the University of Alberta studying the metal-insulator transition in nanoscale strings with different metals for intended use in smart windows. My last co-op was at Rogers Sugar in both Vancouver and Taber as a Process Engineering Student where I learned the different processing of cane and beet sugar. I started with Spartan Controls in July 2018 after I graduated where I continue to work as an Application Specialist on the Control team.

Drew Ryan: In 2017, I moved from Newfoundland to attend the Northern Alberta Institute of Technology (NAIT) where I studied Instrumentation Engineering Technology. While completing my diploma, I held a co-op position at Imperial Oil with their Instrumentation Maintenance department. After graduating from the NAIT program in 2019, I joined Spartan Controls as an Instrumentation Technician working on both our Control and Isolation products. Since then, I have transitioned to an Inside Sales role in our Direct Controls division, which focuses on our contractor and supply store customer base.

Emily Griffin: I graduated from Memorial University of Newfoundland in April 2020, with a Bachelor of Mechanical Engineering. During my degree, I completed three work terms at Husky Energy (now Cenovus Energy) in St. John’s, NL, working with the Integrity Team and Operations Team for the SeaRose Floating Production, Storage, and Offloading vessel, and then completed three work terms with Syncrude in Fort McMurray, AB with the static equipment reliability group. After graduation, I worked as a Reliability Engineer-in-Training at Syncrude for two years. I then joined Spartan in December 2021 as an Application Specialist for Isolation products, and still hold this role.

Megan Pleau: I graduated from the University of Alberta with a Bachelor of Chemical Engineering in April 2022. I completed two co-op terms during my degree. The first was with Precision Engineering, which is an EPC company in Edmonton where I held the title of Project Assistant. My last co-op was with Chemtrade Logistics where I worked as a Process Engineering Student at their Prince George, BC site. I joined Spartan Controls right after my degree in May 2022, and have been working as an Application Specialist on the Control team.

LEAP PROJECT

Spartan Supporting Women (SSW) Network

Prior to starting the WISE Planet Program in January 2023, the four of us didn't really know one another on a personal level. After a couple of months in the program, we quickly realized that this program brought us together in a way we didn't expect. We are all from different departments, with diverse backgrounds, and we appreciated the strong connection we quickly formed. The program has helped us build a tight connection. Now we bounce ideas off of each other and collaborate on a work and personal level. We thought that we could expand our awesome opportunity to our colleagues (Spartans) by starting a network focused on connections for women and allies, which we named the Spartan Supporting Women (SSW) Network.

The purpose of the SSW Network is to provide mentorship, education, and connection to women and allies at Spartan. We plan to host quarterly events based on topics suggested from Spartans including mentorship, guest speakers, and coffee chats.

Our career mentors will be experienced Spartans that can provide guidance and support to newer Spartans to help them achieve their career goals. Mentoring circles will allow for a group of Spartans to get together and discuss topics of interest to help guide them through their individual journeys. Guest speakers will keep Spartans engaged and will educate them on various topics such as diversity and inclusion, leadership skills, and women empowerment. Additionally, we will host quarterly events and have a media platform for the network to connect outside of our formal events.

Based on our successful pilot project event in the Edmonton office on December 5th, 2023, and excellent support from the Spartan management team, our next steps will require us to reach out to all of our regional offices in January 2024 to form a core team with local leads. We are aiming to launch the SSW to all Spartan locations on International Women's Day 2024.

We hope that our network will be regenerative going forward. Our goal is to have Spartans join the network at early stages in their career to be mentored by experienced Spartans, and as they progress in their careers, they will become mentors to newer Spartans. We hope to provide a platform for all Spartans to have the chance to connect, chat about topics that may not typically come up, and see all the opportunities available to them in our organization. We are really excited that we could build a network from the ground up and want to keep the momentum going for future success!



LEANNE DAWSON



“I joined WISE Planet to share ideas with other participants.”

I believe everyone has the potential to reach their dreams.

BIOGRAPHY

Dr. Leanne Dawson is an Assistant Professor (teaching stream) in Software Engineering at the University of Calgary and a leading advocate for women and marginalized voices in engineering. She received her BSc, MSc, and PhD in Electrical Engineering from the University of Calgary, with a specialization in Energy and Environment. She has led multiple diversity and inclusion initiatives at the university—planning and leading four trips for engineering students to the annual Grace Hopper Celebration for Women in Computing in the U.S. and developing a Female Leadership Program for graduate students in STEM fields. During her graduate studies, she received the Vanier Canada Graduate Scholarship, in recognition for her leadership and research contributions. Currently, she is the IEEE Women in Engineering (WIE) chair for the Southern Alberta section and the young professionals representative for the IEEE Women in Engineering Committee.

LINKEDIN

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LEAP PROJECT

Student Professional Development

Building upon her previous experience, the goal of this LEAP project was to create additional opportunities for student professional development within engineering, for both undergraduate and graduate students. The purpose of these opportunities is to help students build confidence and gain the professional skills needed to be successful in the workplace. The first part of this LEAP project was to apply to host the 2024 IEEE Women in Engineering (WIE) International Leadership Summit (ILS) in Calgary, which was successful. This summit will give participants the opportunity to network with industry and academia, and to attend inspiring sessions and skill-building workshops. Some of the sessions and workshops might be translated into future activities outside of the summit.

IEEE Women in Engineering International Leadership Summits (ILS) provide regional opportunities to foster networking, mentorship, and collaboration. With the leadership and creativity of IEEE WIE volunteers, WIE Summits have been extremely successful and have made an outstanding impact on communities around the globe!

2024 WIE ILS Locations

Region 6

- Richland, Washington, USA

Region 7

- Calgary, Canada

Region 8

- Dubai, UAE

Region 9

- Guatemala City, Guatemala

Region 10

- Islamabad, Pakistan
- Chennai, India
- Delhi/NCR, India
- Ahmedabad, India



MARGARET MUNRO



“I joined WISE Planet because I wanted to broaden my perspective in the DEI space”.

I believe that nothing changes if nothing changes. We need to actively work to shift the status quo in order to make forward progress.

BIOGRAPHY

I am an Engineer working for ATCO Pipelines in the natural gas industry. I graduated from the University of Calgary with a Bachelor of Science in Mechanical Engineering with a minor in Petroleum Engineering. In my personal life, I am a wife, dog mom, sister, daughter, friend and first generation Canadian. Being a woman in a STEM leadership role has allowed me to see the importance of the little decisions we make each day, and the implicit bias we have engrained in our society. I am passionate about creating a fair and equitable space for all to succeed and thrive.

LINKEDIN

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LEAP PROJECT

Understanding Employee Engagement

This LEAP project was completed by the two ATCO WISE Planet participants, Jeanie Chin and me. Our goal was to better understand what drives employee workplace engagement and how it varies across the organization. ATCO has several different business units, and Jeanie and I each represent a different engineering division of the organization; Jeanie being from the Electric business, and I am from the Gas and Pipelines business. Through our LEAP project, our goal was to identify similarities and differences in employee engagement across the organization with the ultimate goal of increasing inclusivity and building an engaged workforce.

Through the completion of an all-employee engagement survey, Jeanie and I were able to filter out the results for our specific engineering divisions. In comparing the two, the majority of the survey showed overlapping results. From this, we were able to conclude that employee engagement from the two engineering divisions is generally similar. This means that engagement across the engineering divisions, despite differences in management, is largely consistent.

Items that showed the largest amount of disparity were areas that were the highest scored topics in each division. In reading into this data, it's important to note that these weren't areas that were low scoring in either division, but rather areas that outperformed when compared to one another. This showed an interesting correlation into the focus of each division over the past several years, and how that played into the overall engagement score in that area.

Moving forward, this LEAP project can be used to help guide management on areas of focus for their specific division or team. Being able to compare and contrast results across the organization, showed how applying efforts into a specific engagement topic has an impact on the employee engagement in that area.

MEGAN BELKE



“I joined WISE Planet to network with other like-minded female STEM professionals and build up my tool chest with new skills for the future we will create.”

I believe women should be able to unapologetically pursue their dreams.

BIOGRAPHY

I graduated from the University of Alberta with a Chemical Engineering degree with Computer Process Control. After graduation, I returned to Grande Prairie and am the 3rd generation in my family to live and work in the area. I am currently working as an Operations Engineer for Pembina at the Hythe and Steeprock gas plants. I love the continued challenge and collaboration required to support operating a large natural gas facility.

I am grateful for everything the Grande Prairie area has provided for my family and I, and I am passionate about ensuring the area continues to train, attract and retain talented professionals. I believe that diversity is a big part of that equation. I'm currently on the Program Advisory Committee for Northwestern Polytechnic for the 1st year engineering university transfer program and I hope to use some of the skills I've learned this year to have a positive impact within the community. In my downtime, I also enjoy downhill skiing, dog agility, and cooking and baking at home.

LEAP PROJECT

Inclusive Leave of Absence

Our LEAP project on inclusive leave of absence focused on understanding how Pembina's Leave of Absence policy is perceived within the company and identifying areas of improvement to increase inclusiveness. We began by gathering information through a voluntary company-wide survey of perspectives on the current leave of absence policy. After analyzing the survey data, we conducted focus groups with Pembina personnel. Leaning on these findings, as well as other published information sources, we developed nine recommendations for Pembina leadership consideration:

1. Creating eLearn module for employees on the applicability and provisions of leaves. Promoting the policy and its location.
2. Creating mandatory training for leaders that will provide the required information and skills to support employees before, during, and after their leaves. Leaders in this context include employees with direct reports.
3. Internal showcases of successful parental leaves to help dissipate stereotypes; including men taking parental leave and women who have unique leave stories.
4. Creating opportunities for connections between personnel who are parents.
5. Increasing pay top-up for Canadian parental leave to be competitive with industry peers.
6. Ensuring availability and accessibility of back-fill coverage to allow for employees to disconnect during their leave of absence.
7. Ensuring availability of voluntary training while on leave to help maintain a sense of connection, particularly during parental leave.
8. Providing improved and consistent pumping facilities for mothers returning to work who are breastfeeding.
9. Developing a company partnership with childcare providers to allow parents to return to work when they want to.

Attraction, Retention & Progression of Females in Science, Engineering & Technology

Our LEAP project on attraction, retention & progression (ARP) of females in science, engineering, and technology (SET) focused on listening to Pembina female SET personnel experiences and collecting feedback on how to improve. Like the other project, we started by gathering information through a voluntary company-wide survey. After analyzing the data from the survey, we conducted focus groups with Pembina personnel. Along with the recommendations from the survey and focus groups, published sources of information were heavily relied on to develop recommendations for Pembina leadership consideration, as follows:

1. Increasing and improving university recruitment.
2. Improving the flexible work standard to include job sharing and clarity on part-time work.
3. Increasing partnerships with organizations that focus on improving female representation and experience in SET.
4. Ensuring recognition is more inclusive and aligned with how individuals want to be recognized.
5. Improving leader allyship for females in SET.
6. Creation of a Talent Specialist role to assist with rotating internal expertise, ensuring internal candidates are aware of vacancies they are qualified for, developing a training list tailored to various roles, supporting EIT rotation, internship, and summer student programs.
7. Acknowledge the importance of glue work by incorporating the topic into EDI modules and performance review evaluations. Glue work includes tasks that add value to the organization, but do not fall within anyone's job description such as setting up meetings, taking meeting minutes, and improving team processes.
8. Improving inclusivity of team building activities.
9. Completing a third-party compensation review to ensure gender pay equity as well as improving transparency of compensation determination and gender pay equity.
10. Creating a company-wide mentorship program.

NAJDA DUPANOVIC



“I joined WISE Planet because it was a great opportunity to contribute, interact with diverse individuals and learn from them.”

I believe in working with diverse teams as it provides an abundant learning environment and leads the way for better solutions.

BIOGRAPHY

Najda Dupanovic, an Asset Performance Management Specialist at ENMAX Power, holds a B.Sc. in Applied Mathematics and a B.A. in Economics. She has proven experience in contributing to accurate and reliable projects that others depend on. Her professional goal is to create tools and models that are not only useful but also reliable and trusted.

LINKEDIN

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LEAP PROJECT

Exploring and Researching a High School Apprenticeship Program

Our project, completed jointly by Azadeh Meysami and me, was a comprehensive initiative aimed at increasing diversity and exploring alternative recruitment strategies within the Field Services department at ENMAX Power. The primary objective was to research and explore what is required to implement a high school apprenticeship program.

We sought to understand the benefits these programs offer to both the students and the organizations that implement them. Our research revealed that early apprenticeship programs provide students with valuable hands-on experience, helping them to acquire practical and interpersonal skills.

To gain an extensive understanding of what it would take to implement such a program, we conducted an analysis of the resources required, safety requirements, and activities in which the student can participate.

In addition to our research, we engaged in dialogue with other organizations that have successfully implemented early apprenticeship programs. These conversations provided us with valuable insights into the challenges and rewards associated with these programs. We learned about best practices for implementation and what it takes to have a successful program.

Through our research, we aimed to inform that increasing trade interest at the high school level is a viable and beneficial strategy for enhancing diversity and recruitment. By investing in the education and development of young talent, organizations can cultivate a workforce that is not only skilled and competent but also diverse and innovative.

In conclusion, through our research and discussions with other organizations, we are exploring the potential of an early apprenticeship initiative which could lead to a more diverse workforce.

NAUSHEEN SADIQ



“I joined WISE Planet because change is coming, but first we need everyone to opt-in!”

I believe the future is bright when we acknowledge, accept, and encourage one another's differences!

BIOGRAPHY

Nausheen's journey began at 5.5 lbs in Lahore, Pakistan. Being a future globe trotter, she celebrated her first birthday in Saudi Arabia and her second in Calgary, Canada, her new home!

She obtained her BSc.H. and her Ph.D. in Chemistry from Queen's University in Kingston, Ontario. After telling everyone to “wash your rice”, she did a postdoctoral fellowship at McGill University in Montreal, Quebec. Here she studied fruits, vegetables, herbs and spices. After a year of trying to find the island's best poutine and almond croissant, Nausheen went to Seattle, WA and joined the R&D team at Brooks Applied Labs (BAL). Nausheen developed new methods to conduct food, water, soil and pharmaceutical testing at the elemental level to ensure safety and risk mitigation.

In 2021, Nausheen was thrilled to come back to Calgary as an Assistant Professor at Mount Royal University and share her love and passion for all things analytical!

In her spare time, you will find Nausheen enjoying the great outdoors, trying new foods and sharing deep belly laughs with friends and family!

LINKEDIN

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LEAP PROJECT

Kernel 4 Change

Over the course of the program year, I have worked to build a LEAP project that would allow for more dialogue in the classroom, providing both students and educators with resources to be able to have difficult conversations, take part in training and have the knowledge that students are protected and should be able to voice any concerns (and be heard) before the end of semester evaluations. It is important to understand and recognize that students do not have power in the classroom and as such we must work harder to ensure we provide a safe space wherein they can learn, grow and prosper!

Thank you for letting your community know that critical thinking is best done in a constructive and respectful environment that values everyone's emotional safety

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<p style="font-weight: bold; color: white; font-size: 18px;">Submit</p>		

PRABHA RUPASINGHE



“I joined WISE Planet because I wanted to stretch my boundaries and engage in a broader, global community.”

I believe in a future where nobody has to endure the bitterness of discrimination.

BIOGRAPHY

I am an Ecologist with a background in landscape ecology, botany, environmental monitoring, Geographic Information Systems (GIS), and Remote Sensing. Currently, I work as a Research Associate in the Department of Biological Sciences, University of Calgary. Originally from Sri Lanka, I earned my Bachelor of Science degree with a major in Botany from the University of Peradeniya. Subsequently, I pursued a Master of Science in GIS and Remote Sensing from the same university before embarking on my academic journey in the United States. There, I attained a Master of Science in Geology from Bowling Green State University, OH, and eventually migrated to Canada in 2016. In 2021, I completed my Doctor of Philosophy in Biology from McMaster University, Canada.

Beyond academia, I find solace in nature, appreciating quiet moments in a forest, away from the chaos of human interactions. Painting, music, and baking are my passions, adding vibrant hues to my life. In addition to being an ecologist, I am a devoted wife, sister, and daughter surrounded by the warmth of a loving family.

LINKEDIN

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LEAP PROJECT

Support Initiative for International Graduate Students

My LEAP project is rooted in both my journey as an international graduate student and years of dedicated support for newcomers entering Canadian universities. Having experienced the challenges firsthand, I understand the complexities faced by international students pursuing graduate studies in a foreign country.

International students beginning their graduate studies in Canada face a range of challenges, from finding affordable housing and essential supplies to navigating transportation, means of communication, banking, and many more. They also need to obtain crucial documents like the Social Insurance Number (SIN) and health insurance. Beyond settling logistics, students grapple with university-specific tasks such as setting up accounts, dealing with tax forms, undergoing laboratory safety training, and meeting many other program-specific requirements. Overall, the initial hurdles are diverse and complex. Negotiating these seemingly routine challenges becomes significantly daunting for immigrants adapting to a new culture, background, and system. On top of all these, students face cultural shock, feelings of isolation, and the yearning for family and the familiar life they are accustomed to.

Recognizing this struggle, my project aims to establish a community of senior graduate student volunteers dedicated to assisting newcomers during their initial settlement. The initiative unfolds through a series of steps:

1. Distributing informative brochures to new students, offering essential details for their settlement before arriving in Canada.
2. Pairing volunteer senior students with incoming students, providing answers to questions before their arrival and ongoing support post-migration.

Conducting information sessions to guide students through settlement processes and academic-related activities, fostering a supportive environment for their transition.

SARAH KHAN



“I joined WISE Planet because I wanted to learn from women who are not afraid to challenge the status quo.”

I believe we have an incredible opportunity to positively impact our shared future.

BIOGRAPHY

I am a Greenhouse Gas (GHG) and Air Emissions Advisor at Pembina Pipelines with a background in mechanical engineering. Responsibilities of this role include quantifying the GHG and air emissions for current operations and future projects to ensure regulatory compliance and strategic alignment with organizational goals. The focus on finding opportunities to reduce or eliminate emissions and working with multidisciplinary teams is both engaging and fulfilling.

I am also a sister, daughter, wife, friend, volunteer, and WISE Planet alumni! I have volunteered with Girl Guides of Canada for twelve years; leading Sparks and Embers brings me joy because of the girl’s infectious energy and satisfaction of watching them learn new skills and build confidence. I am also a Board Member for the Northwest Wilderness Society which is responsible for the environmental stewardship and community building of my favorite place in the world. When I need to recharge, I opt to spend time with friends and family back-country skiing, camping, or hiking. I thoroughly enjoyed the ideas gathered and connections made through the WISE Planet Program.

LEAP PROJECT

Inclusive Leave of Absence

Our LEAP project on inclusive leave of absence focused on understanding how Pembina's Leave of Absence policy is perceived within the company and identifying areas of improvement to increase inclusiveness. We began by gathering information through a voluntary company-wide survey of perspectives on the current leave of absence policy. After analyzing the survey data, we conducted focus groups with Pembina personnel. Leaning on these findings, as well as other published information sources, we developed nine recommendations for Pembina leadership consideration:

1. Creating eLearn module for employees on the applicability and provisions of leaves. Promoting the policy and its location.
2. Creating mandatory training for leaders that will provide the required information and skills to support employees before, during, and after their leaves. Leaders in this context include employees with direct reports.
3. Internal showcases of successful parental leaves to help dissipate stereotypes; including men taking parental leave and women who have unique leave stories.
4. Creating opportunities for connections between personnel who are parents.
5. Increasing pay top-up for Canadian parental leave to be competitive with industry peers.
6. Ensuring availability and accessibility of back-fill coverage to allow for employees to disconnect during their leave of absence.
7. Ensuring availability of voluntary training while on leave to help maintain a sense of connection, particularly during parental leave.
8. Providing improved and consistent pumping facilities for mothers returning to work who are breastfeeding.
9. Developing a company partnership with childcare providers to allow parents to return to work when they want to.

Attraction, Retention & Progression of Females in Science, Engineering & Technology

Our LEAP project on attraction, retention & progression (ARP) of females in science, engineering, and technology (SET) focused on listening to Pembina female SET personnel experiences and collecting feedback on how to improve. Like the other project, we started by gathering information through a voluntary company-wide survey. After analyzing the data from the survey, we conducted focus groups with Pembina personnel. Along with the recommendations from the survey and focus groups, published sources of information were heavily relied on to develop recommendations for Pembina leadership consideration, as follows:

1. Increasing and improving university recruitment.
2. Improving the flexible work standard to include job sharing and clarity on part-time work.
3. Increasing partnerships with organizations that focus on improving female representation and experience in SET.
4. Ensuring recognition is more inclusive and aligned with how individuals want to be recognized.
5. Improving leader allyship for females in SET.
6. Creation of a Talent Specialist role to assist with rotating internal expertise, ensuring internal candidates are aware of vacancies they are qualified for, developing a training list tailored to various roles, supporting EIT rotation, internship, and summer student programs.
7. Acknowledge the importance of glue work by incorporating the topic into EDI modules and performance review evaluations. Glue work includes tasks that add value to the organization, but do not fall within anyone's job description such as setting up meetings, taking meeting minutes, and improving team processes.
8. Improving inclusivity of team building activities.
9. Completing a third-party compensation review to ensure gender pay equity as well as improving transparency of compensation determination and gender pay equity.
10. Creating a company-wide mentorship program.

SHIVA MOHAJERNIA



“I joined WISE Planet because I wanted to learn how I can effectively incorporate the principles of Equity, Diversity, and Inclusion (EDI) in diverse aspects of my professional endeavors. This includes research pursuits, student recruitment, and other areas that may benefit from EDI practices.”

I believe that having a higher representation of women in leadership roles holds immense potential for advancing Equity, Diversity, and Inclusion within an organization. This is rooted in the acknowledgment that diversity in leadership brings a broader range of perspectives, experiences, and approaches to decision-making processes.

BIOGRAPHY

Shiva Mohajernia is an Assistant Professor of Chemical and Materials Engineering at the University of Alberta, Canada. Prior to joining U of A, she worked as a catalysis group leader at the Chemistry & Structure of Novel Materials Institute in Germany. In 2020, she earned her Ph.D. in Material Science and Engineering from the University of Erlangen-Nuremberg, also in Germany. She was a visiting scholar at the Nanomaterial Catalysts for Sustainable Energy Technologies research group at McMaster University, Canada. Dr. Mohajernia completed her Master's and Bachelor's degrees in Materials Science and Engineering from the University of Tehran and Ferdowsi University of Mashhad in Iran, respectively.

WEBSITE & LINKEDIN

<https://apps.ualberta.ca/directory/person/mohajern>

<https://www.linkedin.com/in/shivamohajernia/>

LEAP PROJECT

Empowering Women in Engineering Leadership

The project is dedicated to addressing the gender inequality predominant in leadership roles within the field of engineering. Acknowledging the traditionally male-dominated nature of the engineering sector, this initiative aims to create a shift by actively involving women already in leadership positions to mentor and guide emerging female professionals. The project is driven by a commitment to fostering gender diversity and inclusivity in leadership, recognizing the invaluable contributions that women can make to engineering disciplines. The primary strategy involves establishing a structured mentorship program wherein experienced women leaders will mentor and support aspiring women professionals at various stages of their careers. Through this LEAP project, we hope to achieve solid outcomes, including an increased representation of women in leadership roles, breaking down existing barriers, and creating a more supportive and inclusive environment within the engineering community. By leveraging the wisdom and experiences of accomplished women leaders, we seek to inspire and empower the next generation of female engineers, ultimately contributing to a more equitable and diverse landscape in engineering leadership.

VINCENT McFARLANE



“I joined WISE Planet because I wanted to learn how to make meaningful change to support the success of women in STEM fields.”

I believe that it is my responsibility to use my voice to be an advocate and supporter for women in STEM.

BIOGRAPHY

I am an Assistant Professor in Water Resources Engineering and part of the River Ice Research Group at the University of Alberta. I was born and raised in Edmonton, Alberta and completed my B.Sc., M.Sc., and Ph.D. studies at the U of A. Following a two-year Natural Sciences and Engineering Research Council of Canada (NSERC) Postdoctoral Fellowship and a brief spell working in the consulting industry, I joined the Civil Engineering team at the U of A in my current role.

My research is primarily focused on ice formation and river freeze-up processes. Even though it is cold work, I am at my happiest when I am standing in a freezing river surrounded by ice, listening to the sounds of the flowing water and the crunching and grinding of ice floes passing downstream. I am also a passionate teacher and enjoy sharing the wonders of water resources engineering with students of all ages.

WEBSITE

<https://www.vincentmcfarlane.ca/>

LEAP PROJECT

Equitable Recruitment of Engineering Graduate Students – Strategies for Professors

Engineering is a profession that has historically involved a much greater number of men than women or those who identify as other genders. This gender imbalance begins at the undergraduate level and carries on through graduate school as well. The most recent report from Engineers Canada (2020) on enrollment trends in engineering programs at Canadian institutions reports that only 24.2% of undergraduate and 27.4% of graduate students identified as female in 2020.

At the graduate student level, this imbalance can be heavily influenced by the actions of individual faculty members since graduate student hiring decisions are largely left to individual professors. This introduces a lot of variability in the grad student hiring process, and makes it easy for issues such as implicit bias to influence hiring decisions as 83% of engineering professors in Canada identified as men in 2020 (Engineers Canada, 2020). Therefore, biases such as affinity bias may serve to entrench the gender disparity in engineering graduate students as male professors may be more likely to hire graduate students who are similar to themselves.

Professors, especially new professors who are just beginning to develop their research programs and recruit students, have a unique opportunity to help rectify this gender imbalance at the graduate level through equitable hiring practices. Ideally, a diverse group of candidates would be considered for every MSc or PhD position, with the ultimate goal being to assemble a research team with a gender makeup that more closely resembles that of society as a whole, rather than the male-dominated profession. However, the vast majority of students who contact professors to inquire about graduate school are male. The purpose of this LEAP project was to develop practical guidelines and strategies that could be used by faculty members to advertise their research opportunities, generate interest in graduate school amongst a diverse group of prospective students, and implement equitable hiring practices for interviewing and evaluating potential candidates. This includes strategies such as speaking to undergraduate classes, creating a research website, advertising specific graduate student opportunities both locally and internationally, providing a “graduate studies FAQ” to address common questions and concerns about graduate school, and developing standard interview questions and scoring criteria.

Now that I have begun to prepare these strategies, it’s time to spread the word! I am currently working to present the results of my LEAP project within my Department and Faculty at the U of A. The ultimate goal is to increase the recruitment and retention of engineering graduate students who identify as women or other genders, and to develop new graduate student recruitment policies and training for professors at the U of A.

References:

Engineers Canada, 2020. Canadian Engineers for Tomorrow: Trends in Engineering Enrolment and Degrees Awarded 2020.

ZAHRA NAZARI



“I joined WISE Planet because I want to be at the forefront of dismantling systemic barriers, championing true equality, and fostering innovation in STEM as a trained change leader, ready to create inclusive systems that reflect our diverse 21st-century society.”

I believe in equity, diversity, and inclusion. I hold that the empowerment of women leaders is our strongest strategy to dismantle gender inequality and cultivate a society rooted in equality.

BIOGRAPHY

Zahra is a Postdoctoral Fellow at the University of Alberta's Department of Electrical and Computer Engineering and also serves as Director of Women in Tech Afghanistan and the IEEE Afghanistan Subsection. She earned her Ph.D. as a Mitsubishi Corporation scholar from the University of the Ryukyus, Japan, in 2018, specializing in interdisciplinary intelligent systems engineering. Her expertise lies in artificial intelligence, statistical data analysis, and AI applications in education. In October 2023, she was selected as a finalist for the prestigious Women in AI Awards North America 2023 in the category “AI for Good—DEI AI Leader of the Year.” In January 2024, she was honored to be accepted into the prestigious EDSAFE Women in AI Fellowship Program, which supports exceptional and impact-minded individuals by providing an outstanding platform to learn and work on questions of AI in education. Her career progressed as an Assistant Professor at Kabul Polytechnic University, Director of Digital Skills Development at MCIT, and an Executive Board Member at the ATRA in Afghanistan. Zahra influenced national digital strategies, skills development, and telecom sector reforms. Currently, as an Ambassador for Women in Data Science Worldwide, she champions Afghan women’s engagement in data science, underscoring her commitment to technological inclusivity and gender equity in a transformative digital era.

LINKEDIN

<https://www.linkedin.com/in/zahra-a-nazari/>

LEAP PROJECT

Empowering Immigrant and Marginalized Women Through Digital Skills: Bridging Communities for a Better Future

Aiming to empower marginalized and immigrant women through digital skills, my project focuses on providing the necessary training to secure gainful employment, thereby boosting family incomes and enhancing life prospects. Leveraging my experience, I initiated Women in Tech Afghanistan, and our efforts are designed to uplift Afghan immigrant and marginalized women in the tech industry, advance online education, and enable remote work opportunities that surmount societal barriers, thus spurring innovation and economic growth.

Women in Tech Afghanistan is dedicated to promoting gender equality and diversity in the tech sector. In line with the United Nations' Sustainable Development Goal of gender equality, our organization is committed to offering educational and employment opportunities in technology to narrow the gender gap. We support marginalized Afghan women inside the country, as well as those who have emigrated since 2021, by providing them with vital digital skills for today's technology-centric economy. Our programs strive to remove obstacles to women's participation in tech, creating a supportive community for their success. Together with our partners, we are building a community of capable women poised to lead and innovate in Afghanistan's tech industry and make meaningful contributions to the global tech scene.

We offer a variety of programs across four main categories: long- and short-term courses concentrated on STEM, mentorship programs, monthly webinars and workshops focusing on digital and soft skills, and scholarship opportunities. Since our inception, we have engaged with more than 1,500 Afghan women from various parts of the world, and this number is rapidly increasing. We are also in the process of creating a "digital platform," which, though recently started and currently under development, is envisioned as a central hub for resources, networking, education, and mentorship. This platform is designed to overcome barriers by providing accessible technology education and community support, fostering growth, and opening opportunities for Afghan women in the tech industry. Empowering immigrant or marginalized women with digital skills is crucial for economic growth and enables them to access previously unreachable educational and job opportunities. Additionally, by equipping them with the necessary tech knowledge and resources, we support Afghan women's continued education online, despite physical and societal hurdles. The tech sector presents numerous opportunities for remote work and entrepreneurship, allowing women to establish their own online businesses or work for global companies, irrespective of location. We equip them with the necessary tools to navigate obstacles and realize their full potential.

To enhance and expand this initiative, securing local and governmental support is essential. Such backing would not only bolster our service offerings but also broaden our reach, enabling us to connect with a wider audience. By forging strong partnerships with local leaders and obtaining government endorsement, we can create a more robust infrastructure for our programs. This support is critical in facilitating access to necessary resources, ensuring the sustainability of our "digital platform," and further empowering immigrant and marginalized women to become integral players in the global tech industry. With this collaborative effort, we can amplify our impact, driving significant strides toward inclusive technological advancement and gender parity in tech.

WISE PLANET TEAM



DR. LALEH BEHJAT

Laleh Behjat, PhD, is a professor in 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 15 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 work experience includes projects on drinking water quality, bioremediation of contaminated river sediments, water reuse classification, life cycle assessment of new technologies, and policy recommendations to address barriers for women engineers. She served as a consultant for the UNESCO Engineering Initiative.



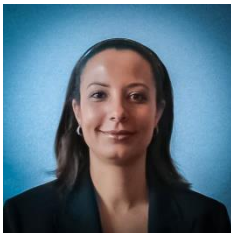
ERIKA LIEU

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 BSc 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.



“If not now, when? If not me, who?”

Nannette Ho-Covernton
Sustainability Leader, Spartan Controls

“I never thought of myself as a leader, and this journey has shown me that the inner strength to have a voice about what you are passionate about can lead you to places never imagined before ... I have learned that leadership is not about a job, a role, or status. It is about having something you believe in and using it to inspire others while creating the environment for them to grow individually but, more importantly, together.”

Dr. Ana Carolina Lima
WISE Planet Cohort 1 Participant
Research Associate and Sessional Instructor, 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}

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