

JUNE 2023

THE VOICE

OF ONTARIO'S ENGINEERS

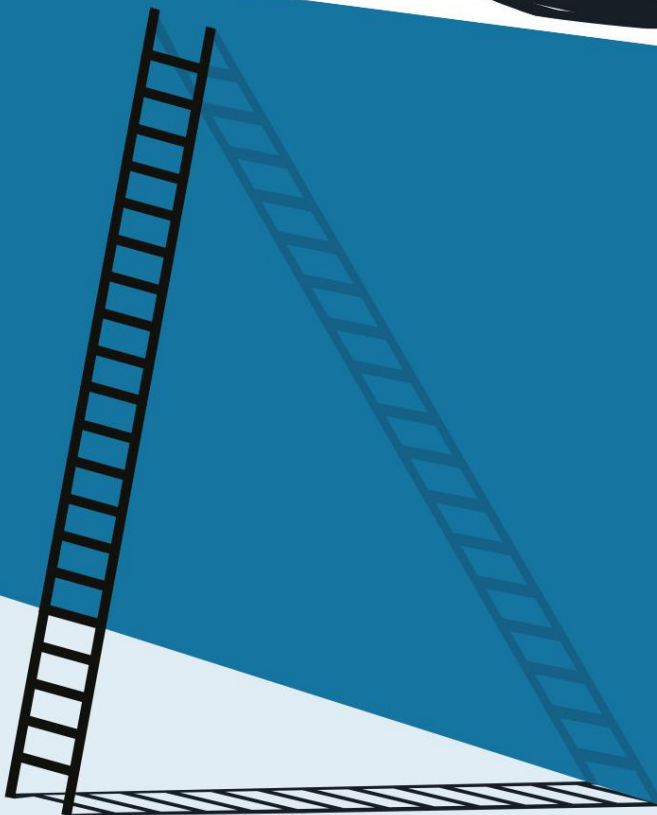
Beyond the Binary: Queering
Technology for Inclusive Facial
Recognition

Using Public Procurement to
Reinforce Equity, Diversity, and
Inclusion

National Engineering Month
2023: In Review

Engineering Employment in Ontario:

2021 Census Confirms the Need for Change





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Assumptions:

^{1,2} 6% annual gross growth rate and mid-year annual lump sum contributions are assumed. Ontario HST is applied.

¹ Management Expense Ratio MER (%) based on the average Canadian equity mutual funds from Morningstar.

² Investment Management Fee IMF (%) based on the JF Canadian Equity fund.

The above example is for illustrative purposes only. Situations will vary according to specific circumstances.

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THE VOICE

OF ONTARIO'S ENGINEERS

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Dear OSPE Members,

This is my first opportunity to address you and I want to begin by saying I am very excited and humbled to be your Board Chair for 2023-24. Thank you again to Dr. Marilyn Powers, P.Eng., for another successful year leading this proud organization.

As I reflect on my career and how I have come to this moment, I want to share a little about myself and what I hope we can achieve together as an organization over the coming year.

For those who don't know me, I am a licensed chemical engineer, a child of educators who has always excelled in math and science. Professionally, I was drawn to the hands-on nature and the scale of the steel sector, where I could apply my engineering acumen towards greater efficiency and environmental performance. That was probably not the path foreseen for me by my mentors at the University of Waterloo, but I have always been eager to follow my passion over convention.

Building on that training, I have also successfully completed a Master of Business Administration in Innovation. I needed to learn the language of business to be effective as an engineer, and I urge all of you to continually expand your skills in ways that continue to create opportunities for growth.

By now you are probably aware of the new continuing professional development requirements from Professional Engineers Ontario (PEO). I suggest you consider this change as an opportunity, rather than a requirement. Engineers, with our ability to problem solve, need to be on the front lines figuring out how we are going to thrive in a world of 8 billion people, and we are not going to get there without innovation, collaboration, and technology. We need to continue to advance our skills and knowledge, and be held accountable as we progress into the future.

In that vein, I am eager to get more active in working with PEO to ensure our regulator stays on task and on target. At our recent Annual General Meeting, there were questions about the working relationship between OSPE and PEO. The simple truth is that we have a very positive working relationship, with a unique dynamic of encouraging our regulator to be ever more focused on the tasks and activities that will enable Ontario to have the most robust and diverse engineering community in Canada, and to be a model globally.

Speaking of diversity, I am very pleased to continue helping OSPE's leadership create the most accepting and inclusive engineering community possible. The path forward needs contributions from all of us, and I am committed to making sure that OSPE is a significant voice for future change. So look for me front and centre as we continue to push for Sustainable Procurement and Qualifications-Based Selection. I hope you will be there with me.

Being the Chair of an organization with more than 10,000 members spread across geography as large as Ontario is no easy task. I share that to encourage you all to be more active with OSPE and in your community in the year to come. Our energy and activity will be what moves our association and the province forward.

Your Chair,



Stephanie Holko, P.Eng., MBA

President and Chair

Ontario Society of Professional Engineers



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\$375 (early bird rate for non-members)

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Non-Member Rate after Sept. 7th: **\$475**

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Working Towards Your P.Eng.? OSPE is Your Home.



As of May 15, 2023, Professional Engineers Ontario will no longer offer the Engineering Intern (EIT) designation to new applicants. In light of this change, OSPE will continue to provide a home for engineering students and graduates working towards their P.Eng. designation.

OSPE supports members pursuing licensure by offering the following programs and benefits:

Journey to P.Eng. Programming

OSPE offers member-exclusive pricing on National Professional Practice Exam prep courses and Experience Record coaching.

Mentorship

Members can receive personalized guidance on licensing and job-hunting from experienced engineers.

Job Board Access

OSPE's job board features openings from Ontario's top engineering employers.

Job Search Workshops

Members get access to free workshops on resume building, interviewing, using LinkedIn, and more.

Compensation Survey

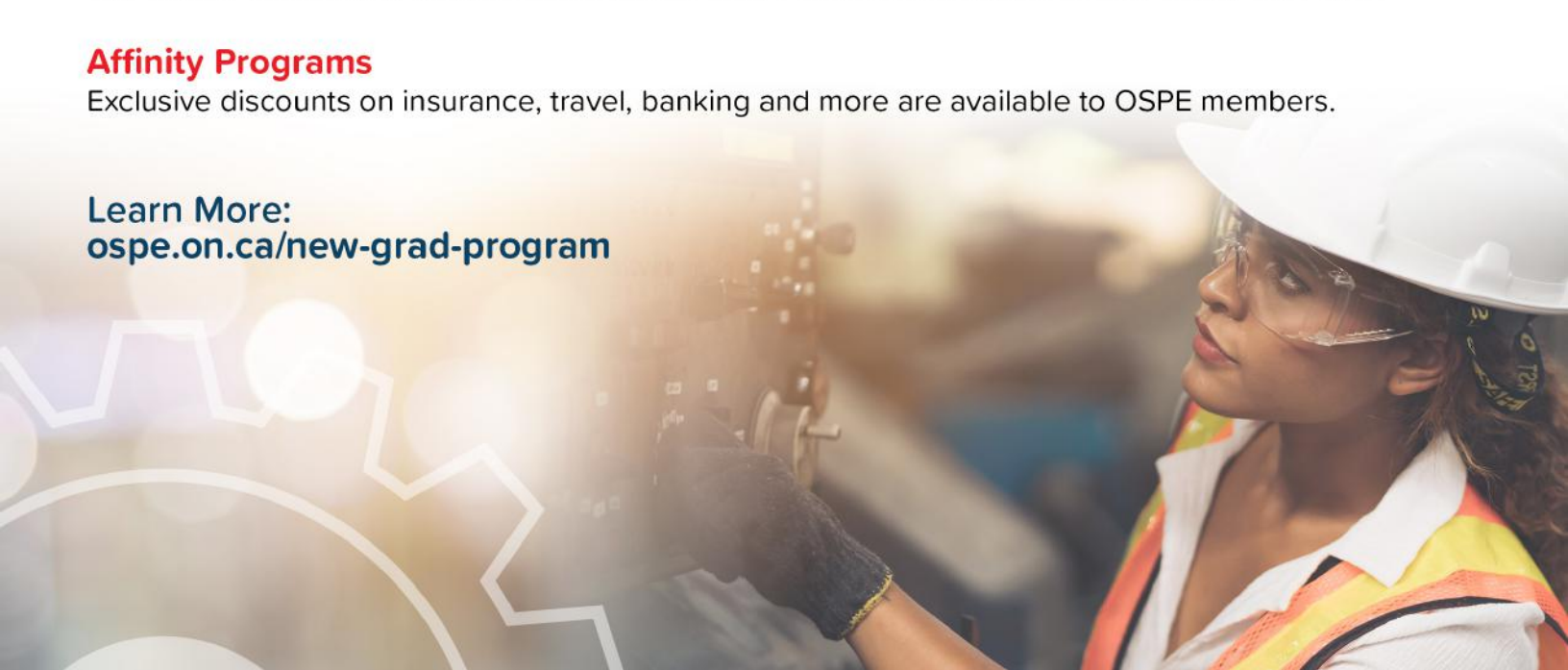
Our annual salary study helps those pursuing the P.Eng. licence ensure they're being paid fairly.

Affinity Programs

Exclusive discounts on insurance, travel, banking and more are available to OSPE members.

Learn More:

ospe.on.ca/new-grad-program



NEWS FROM THE FRONT

Through the second quarter of 2023, OSPE's staff and volunteers have continued to engage elected officials and advocate for a cleaner, safer Ontario. We recently achieved two major policy wins.

Ontario's NDP Introduces Bill to Protect Against Airborne Pandemics



Joseph Fox, P.Eng. (IAQ Advisory Group Chair, second from left) and Sara Mehraban (OSPE Policy Analyst, second from right) join MPP Kristyn Wong-Tam (centre) to announce the bill.

Ontario's elected officials are taking action on our Indoor Air Quality recommendations. On March 27, Toronto Centre MPP **Kristyn Wong-Tam** (NDP) introduced the **Advisory Committee to Protect Ontario's People and Economy from Airborne Pandemics Act**. This bill calls for the establishment of an official committee to recommend infrastructure improvements, regulations, and standards to enhance indoor air quality across the province and protect Ontarians from airborne pandemics.

Much of this bill's content is informed by OSPE's [Indoor Air Quality \(IAQ\) reports](#), published in December 2022. These reports were authored by **OSPE's IAQ Advisory Group**, a multi-disciplinary panel of experts assembled to provide evidence-based guidance around indoor air quality and COVID-19 transmission. The three reports outline clear steps to protect the public from airborne diseases.

OSPE has worked diligently to share these reports with government officials and the public, and we are pleased to see the results of our work reflected in this new bill. IAQ Advisory Group Chair Joseph Fox, P.Eng., and OSPE Policy Analyst Sara Mehraban were invited to join MPP Wong-Tam at the press conference announcing the bill.

We are optimistic that this bill will become a regulation in the near future. By implementing our indoor air quality recommendations, Ontario can proactively protect its citizens and economy from the potential harms of airborne pandemics.

Read our [Indoor Air Quality Reports](#).

Ontario Government Launches Ultra-Low Overnight Electricity Price Plan



(L-R): Stephen Pepper, P.Eng. (Chair, OSPE Energy Task Force), Anthony Haines (President and CEO, Toronto Hydro), Hon. Todd Smith (Minister of Energy), and Paul Acchione, P.Eng. (Subject Matter Expert, OSPE Energy Task Force) are all smiles at the announcement of the ultra-low price plan.

Thanks to OSPE's advocacy efforts, consumers across Ontario can now enjoy ultra-low hydro prices. On April 11, **Energy Minister Todd Smith** announced the launch of Ontario's new **Ultra-Low Overnight Electricity Price Plan**. This optional plan became available to customers of seven energy distributors across Ontario on **May 1**, and all utilities across the province are required to offer the same option by **November 1**.

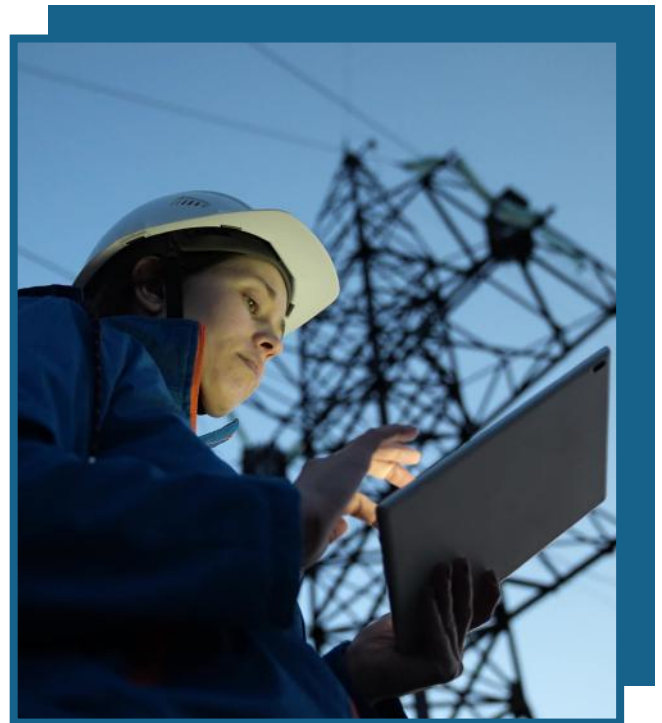
The ultra-low price plan gives consumers more control over their energy bills by offering lower electricity rates during off-peak hours. The new rate of 2.4 cents / kWh, available between 11 p.m. and 7 a.m., is **67 per cent lower** than the current off-peak rate. Customers can schedule

energy-intensive tasks, such as laundry and dishwashing, for overnight hours when prices are much lower.

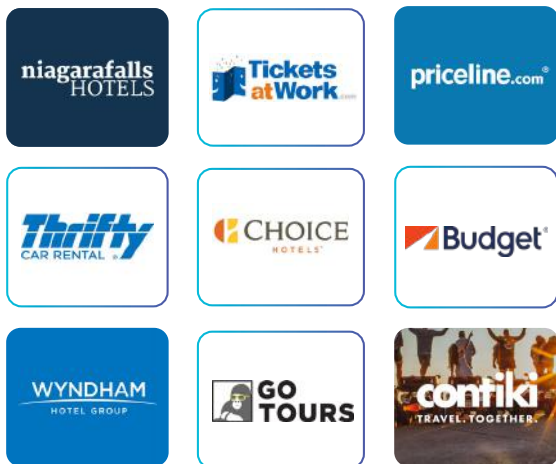
This plan also supports Ontario’s progress towards a greener future. Incentivizing energy use during off-peak hours reduces strain on the electricity grid and encourages energy use at times when electricity is generated from low-carbon sources.

During the announcement, Minister Smith recognized **OSPE’s Energy Task Force** for their advocacy and expertise in the development of this new plan. “[OSPE] put this in my head probably six years ago, how we could use our excess power overnight to provide a more efficient grid,” said the minister.

We have indeed advocated for this option for several years through reports, submissions, and meetings with ministry staff. We commend the Ministry of Energy on the launch of this plan, and will continue helping the government make smart policy decisions for a cleaner future.



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Using Public Procurement to Reinforce Equity, Diversity, and Inclusion



OSPE is dedicated to the advancement of the engineering profession. This includes creating a future where any and all marginalized groups are able to make a contribution.

Promoting equity, diversity, and inclusion requires those throughout the value chain to make changes. OSPE has conducted research to identify what changes will make the greatest impact, and our findings show that the most promising approach is to modernize **public procurement practices**.

As purchasers of engineering services, public sector organizations are in a unique position to influence **sustainable procurement practices**. OSPE has prepared a primer on what sustainable procurement is and how organizations can put its principles into action. For more resources, and to learn more about implementing sustainable procurement practices in your organization, contact advocacy@ospe.on.ca and book an appointment with our team.

OSPE's sustainable procurement work is funded by Women and Gender Equality Canada.



Women and Gender
Equality Canada

Femmes et Égalité
des genres Canada

<https://ospe.on.ca/sustainable-procurement/>

SUSTAINABLE PROCUREMENT is the integration of Corporate Social Responsibility principles into an organization’s procurement processes and decisions.

Four Pillars of Sustainable Procurement



Environmental: Sustainable Procurement considers how the project will impact the environment, modifying it where necessary to reduce ecosystem disruption.



Social: Sustainable Procurement examines processes to ensure they have lasting positive societal benefits, such as fair wages and employment for equity-seeking groups.



Indigenous: Sustainable Procurement ensures that projects are respectful of Indigenous peoples, their lands, and existing treaties and agreements.



Ethical: Sustainable Procurement requires that decision-making is ethical in nature, adhering to appropriate oversight.

Where to Include EDI Principles in Your Sustainable Procurement Process



Benefits of Sustainable Procurement for Public Sector Purchasers

- Supporting your internal EDI objectives and goals
- Demonstrating your commitment to diversity and inclusion
- Increasing the pool of candidates for consideration
- Producing more inclusive products and projects
- Creating a more supportive, collaborative, and creative workplace
- Fostering innovation and productivity
- Expanding perspectives to maximize problem-solving and troubleshooting

<https://ospe.on.ca/sustainable-procurement/>

Ontario's 2023 Budget

What Engineers Need to Know

On March 23, Ontario's Minister of Finance, the Honourable Peter Bethlenfalvy, released [Ontario's 2023 Budget: Building a Strong Ontario](#). OSPE was invited to participate in the pre-budget consultation process, and is pleased to report that many of our recommendations were included in the final product.

We have identified the following areas of the budget that are of greatest interest to our membership:

INFRASTRUCTURE

Ontario has committed over **\$184 billion** to infrastructure spending over the next 10 years. This includes **\$27.9 billion** to support highway expansion and rehabilitation projects, and **\$70.5 billion** for transit development.

OSPE acknowledges the importance of infrastructure spending, but we also emphasize the need for responsible allocation of resources, a clear and transparent framework for infrastructure projects, public procurement practices that promote diversity and inclusion, the adoption of a **Qualifications-Based Selection (QBS)** framework, and the consideration of life-cycle costing for all projects. Additionally, we restate our opposition to proposed **Greenbelt Plan** amendments and the construction of **Highway 413** and the **Bradford Bypass**.

CLIMATE CRISIS AND ENERGY

Ontario is advancing its **Critical Minerals Strategy** with the aim of supporting electric vehicle (EV) and battery manufacturing, attracting investment, and creating jobs. The province has also launched a voluntary clean energy credit registry to encourage businesses to use clean energy sources.

OSPE applauds these investments and encourages further action to protect our resources and economy from the effects of the climate crisis. Specifically, the province should invest in an **Excess Soil Aggregates Framework**,



engage with climate experts and Indigenous leaders, and subsidize the purchase and installation of EV charging stations.

JOB CREATION

The province has committed funds to numerous job creation and workforce development initiatives. These include expanding training centers, enhancing the **Ontario Immigrant Nominee Program** to attract skilled workers, expanding the **Ontario Bridge Training Program** for internationally trained immigrants, and offering dual credit opportunities to students.

OSPE is pleased to see investment in these critical programs, and also urges the government to invest in programs that support neurodiverse students and professionals in STEM.

RESEARCH AND INNOVATION

The Ontario government is investing in research and innovation across multiple sectors. This support will drive job creation and improve quality of life for Ontarians. Specifically, these investments include:

- **\$2 billion** to support the **Ontario Innovation Tax Credit** (encouraging investment in research and development)
- **\$140 million** to support the **Ontario Research Fund** (accelerating progress in health, advanced manufacturing, clean technology, and other critical areas)
- **\$50 million** to support made-in-Ontario advanced manufacturing technologies
- **\$7.5 million** to support artificial intelligence and quantum computing

prepare the province for future disease outbreaks. (Earlier this year, Ontario's NDP introduced the **Advisory Committee to Protect Ontario's People and Economy from Airborne Pandemics Act**, which calls on the government to establish an official indoor air quality advisory committee.)

Our [full statement](#) on the 2023 provincial budget is available online.

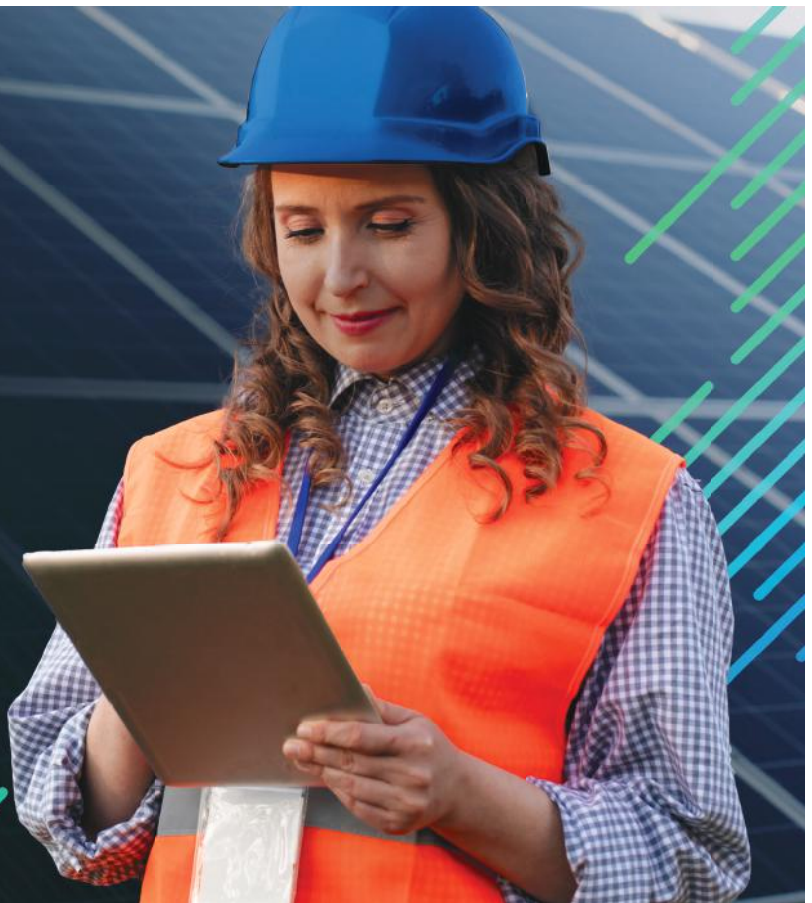
RECOVERY AFTER COVID-19

The budget includes a range of measures to support the province's recovery from COVID-19 and build a more resilient economy. However, it does not specifically address airborne disease transmission. It is important to prioritize indoor air quality improvement measures including ventilation, filtration, ultraviolet germicidal irradiation, and public education. These measures will support the health and well-being of Ontarians and



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Canada's 2023 Budget

What Engineers Need to Know

On March 28, Canada's Minister of Finance, the Honourable Chrystia Freeland, released the 2023 federal budget: [A Made-in-Canada Plan: Strong Middle Class, Affordable Economy, Healthy Future](#).

OSPE has identified the following areas of the budget that are of greatest interest to our membership:

INFRASTRUCTURE

The federal government is investing over **\$33 billion** in public infrastructure projects across the country, with provinces and territories submitting proposals for review. The government will also launch a new round of the **Smart Cities Challenge** in 2023, an initiative that rewards communities who use innovative technological approaches to improve climate resiliency. This funding will create jobs for engineers and drive innovation and technology development.

Similar to our feedback on the Ontario budget, OSPE emphasizes the need for responsible allocation of resources, a clear and transparent framework for infrastructure projects, public procurement practices that promote diversity and inclusion, the adoption of a QBS framework, and consideration of life-cycle costing for all projects.

INDIGENOUS COMMUNITIES AND INFRASTRUCTURE

The budget allocates **\$19.4 million** over five years to increase participation of Indigenous Peoples and other Northerners in environmental and regulatory assessments of major projects. Additionally, **\$1.6 million** is allocated over two years to increase capacity for environmental assessments and Indigenous consultation on major projects in the territories.

This funding will bolster Indigenous participation in local engineering projects and foster more sustainable, socially responsible development. OSPE also encourages the



government to invest in **engineering pathway programs** for members of Indigenous communities; this will help expand the workforce and add Indigenous perspectives to infrastructure planning.

CLIMATE CRISIS AND ENERGY

The 2023 budget proposes significant investments in clean power and green infrastructure, as well as incentives to boost private investment in clean technology manufacturing, critical minerals projects, and clean hydrogen development. This funding will create opportunities for engineering firms involved in developing major infrastructure and clean technology projects.

The budget also proposes **\$40.4 million** to help establish the **NATO Climate Change and Security Centre of Excellence** in Montreal. This will provide a platform for Canadian engineers to collaborate with international experts on developing innovative solutions to climate change challenges.

ENVIRONMENT

The Canadian government has implemented various measures to address environmental concerns, including pollution pricing, ecological conservation strategies, encouraging the use of zero-emission vehicles, supporting climate change adaptation, and banning

single-use plastics. These efforts aim to reduce the impact of climate change, protect the environment, and promote sustainability.

Engineers will play a crucial role in building sustainable infrastructure, designing electric vehicles, and developing renewable energy systems across the country.

RESEARCH AND INNOVATION

The federal government has allocated significant funding towards modernizing Canada's research ecosystem, including billions of dollars for research and science organizations, genomics and artificial intelligence strategies, and life sciences research. The 2023 budget also commits significant funds to the **Canadian Space Agency**; this investment allows continued participation in the International Space Station (until 2030), funds lunar utility vehicle development, and supports Canadian science on the Lunar Gateway station.

These measures are expected to provide engineers with new opportunities to advance their skills and contribute

to Canada's economic growth across a range of sectors.

EQUITY AND DIVERSITY

The 2023 budget includes measures to enhance community security, support women's organizations, address barriers facing persons with disabilities, and invest in workforce development. These investments can create opportunities for engineers; the expanded **Communities at Risk** program may involve the design and construction of new security infrastructure, and support for disability organizations may involve engineering new accessibility solutions.

Amidst all of this, OSPE encourages the federal government to adopt a strategy of sustainable procurement and use public procurement to build a more equitable, diverse, and inclusive Canada.

Our [full statement](#) on the 2023 federal budget is available online.

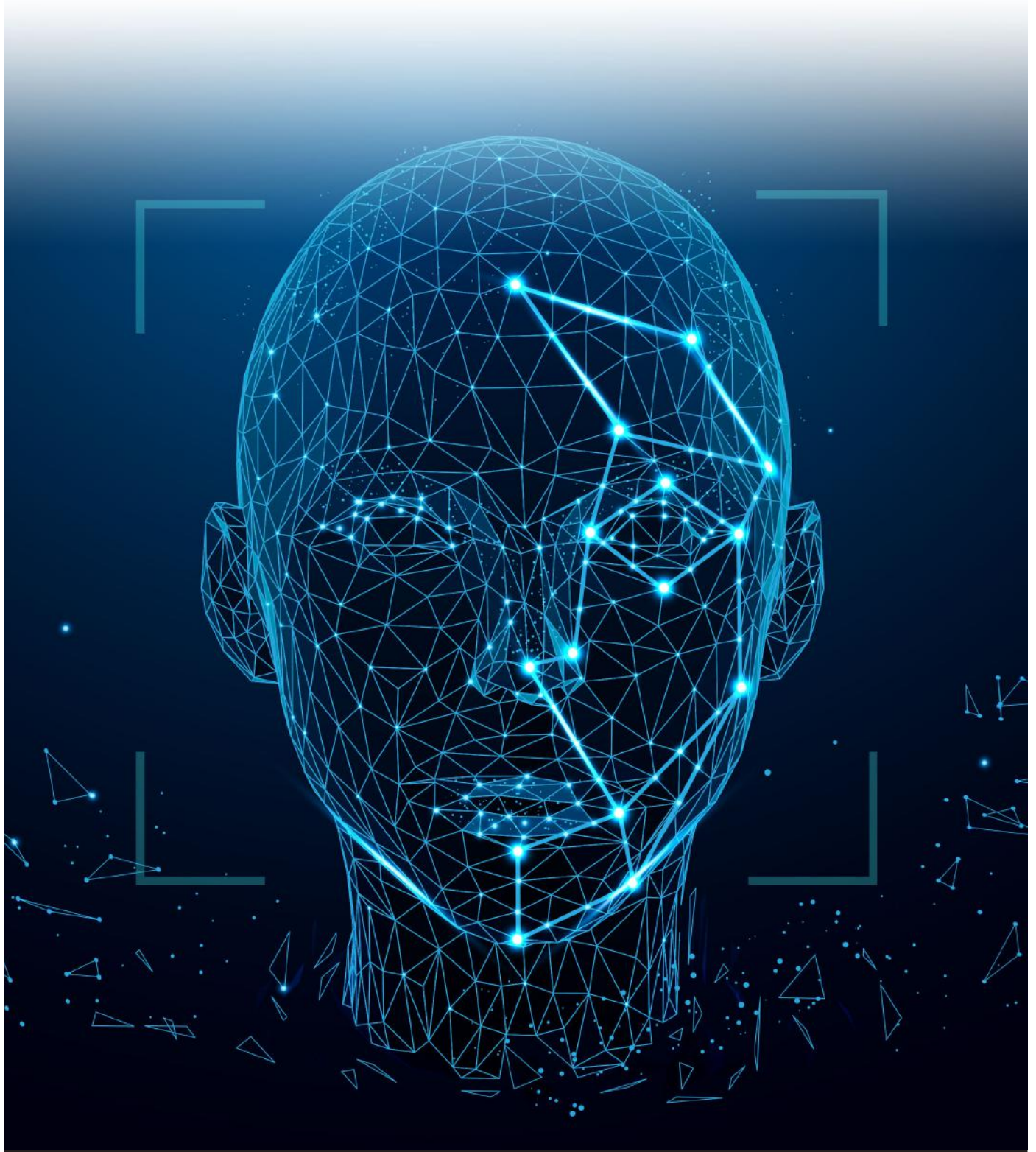
Today's engineering students will design the world of tomorrow – please donate!

The Foundation for Education supports 106 engineering undergraduates in Ontario annually by providing \$159,000 in scholarship funding



Beyond the Binary: Queering Technology for Inclusive Facial Recognition

Kimberley Paradis & Shivani Nathoo, EIT



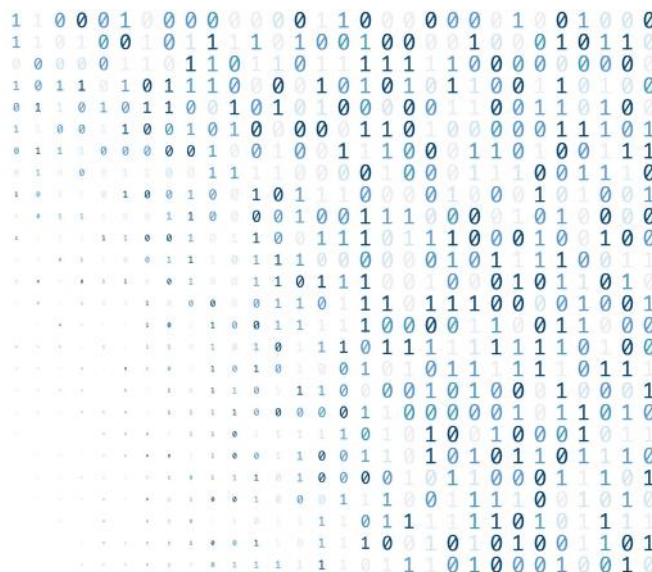
Since the dawn of computing, machines have been characterized by their capacity to process binary code—1s and 0s, symbolizing a binary world. As our reliance on technology has increased, our identities have been captured through the binary in databases and code underlying software such as facial recognition.

However, as society evolves towards greater fluidity and inclusivity, this creates issues. When same-sex marriage was legalized in the United States, many databases had to be redesigned as they were originally programmed to allow only marriages between men and women.¹ A similar issue arises when looking at gender, which has traditionally been captured in binary, representing men and women. It is crucial to reevaluate our technological approach to reflect the society around us. Queering technology offers a pioneering perspective that transcends the binary framework, empowering us to create technology that genuinely represents the vast spectrum of human identity while challenging conventional norms.

“Queering” signifies the disruption of traditional norms and expectations surrounding gender, sexuality, and identity. When applied to technology, this concept aims to establish more inclusive and diverse systems that accommodate a wide range of human experiences. Facial recognition, a technology prevalent in security systems, smartphones, and numerous applications, presents a significant opportunity for queering technology. This technology has faced criticism for its shortcomings in accurately recognizing and categorizing individuals outside conventional gender norms and those with diverse gender expressions.²

Governments and industry groups have begun implementing progressive policies that recognize diversity in gender identity and expression; see, for example, the Ontario government’s decision to allow an “X” gender classification on drivers’ licenses.³ However, the tech industry has lagged behind and must endeavor to queer facial recognition by transcending binary thinking and adopting a more inclusive approach to catch up with the rest of society.

To achieve this, developers and engineers must prioritize inclusivity, taking both race and gender into account when designing and training facial recognition algorithms.



Traditional systems often depend on binary classification, dividing individuals into male or female categories. This method neglects non-binary, transgender, and gender non-conforming individuals whose identities don’t align with these binary classifications. Furthermore, datasets often lack diverse data, disregarding the intersectionality of race and gender, and leading to incorrect classifications for racialized women who are frequently misidentified as men due to biased data and algorithms.⁴

Joy Buolamwini, a Ghanaian-American computer scientist and digital activist, has played a crucial role in unmasking biases in facial recognition technology. During her time at the MIT Media Lab, she led the Gender Shades project, which assessed three commercial facial recognition systems—IBM, Microsoft, and Face++—and their efficacy in recognizing individuals with diverse skin tones and gender expressions. Buolamwini’s research revealed higher error rates in identifying women of colour, particularly dark-skinned women and those with diverse gender expressions.⁵ This disparity highlights the inherent biases in the technology and the need for diverse training datasets. Buolamwini’s research emphasizes the significance of challenging binary thinking and incorporating a variety of gender expressions, skin tones, and facial features into facial recognition training data. Her work has motivated the tech industry to prioritize inclusivity and aim for queered facial recognition technology.

Queering technology has the potential to transform our digital landscape, particularly in the realm of facial recognition. Following the norms set by other industries, the tech industry can also break free from binary limitations and embrace the full spectrum of human identity. By embedding inclusivity into the core of facial recognition algorithms, we can shape a digital environment that not only respects, but celebrates our diverse experiences.

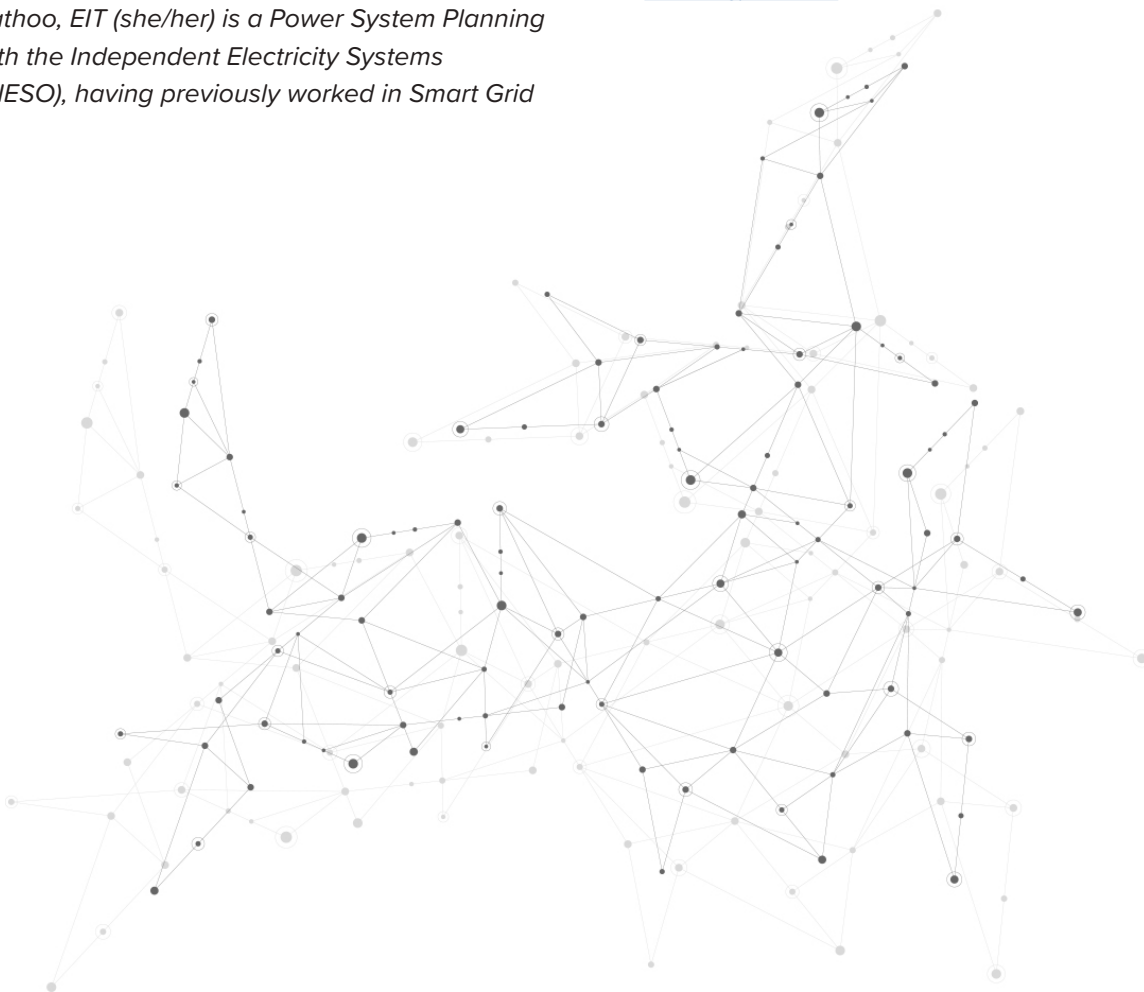
Kimberley Paradis (she/her/elle) is a computer engineering graduate currently pursuing a Juris Doctor at the University of Ottawa's Faculty of Law. She is a program officer for the AI + Society Initiative at the Centre for Law, Technology and Society, as well as a Technship Fellow with the Human-centric Cybersecurity Partnership under the guidance of Professor Florian Martin-Bariteau. Additionally, Kimberley serves as a member of OSPE's EDIA Task Force and Second Associate Chair of the Research and Innovation Task Force.

Shivani Nathoo, EIT (she/her) is a Power System Planning Analyst with the Independent Electricity Systems Operator (IESO), having previously worked in Smart Grid

and Asset Management for Hatch Ltd. She graduated from the University of Toronto in 2019, where she studied Energy Systems Engineering and served as President of the Engineering Society. Shivani long has been passionate about promoting equity broadly and within engineering. She is currently involved with OSPE (as a member of the EDIA Task Force) and Engineers Canada, and previously served on the U of T Faculty of Applied Science and Engineering's Faculty Council and the Decanal Task Force on Mental Health.

Works Cited

1. <https://slate.com/technology/2019/10/gender-binary-nonbinary-code-databases-values.html>
2. <https://www.theregview.org/2021/03/20/saturday-seminar-facing-bias-in-facial-recognition-technology/>
3. <https://news.ontario.ca/en/bulletin/44018/new-x-gender-option-now-available-on-ontario-drivers-licences>
4. <https://slate.com/technology/2019/10/gender-binary-nonbinary-code-databases-values.html>
5. <https://www.nytimes.com/2018/06/21/opinion/facial-analysis-technology-bias.html>



THOUGHT LEADERSHIP THURSDAYS



EVERY THURSDAY (12:00 – 1:00 PM)

Keep your mind sharp this summer. Throughout June and July, OSPE is hosting one-hour webinars with leading experts on current engineering topics. Registration is **free** for OSPE members, and guests can count attendance toward their continuing professional development requirements.



June 15

Communication for Engineers
with Karlis Jansons, P.Eng.

- June 22** Quantum Computing – A Gentle Introduction
- June 29** How Does Engineering Affect Transit Operations in Brownfields?
- July 6** Transforming Industrial Maintenance with AI and IIoT
- July 13** The Myth of Neutrality and Objectivity in Engineering Standards & Professional Norms
- July 20** Presentations for Engineers Do NOT Begin with PowerPoint
- July 27** Use of Solid-State LiDAR in Pavement Evaluation and Construction

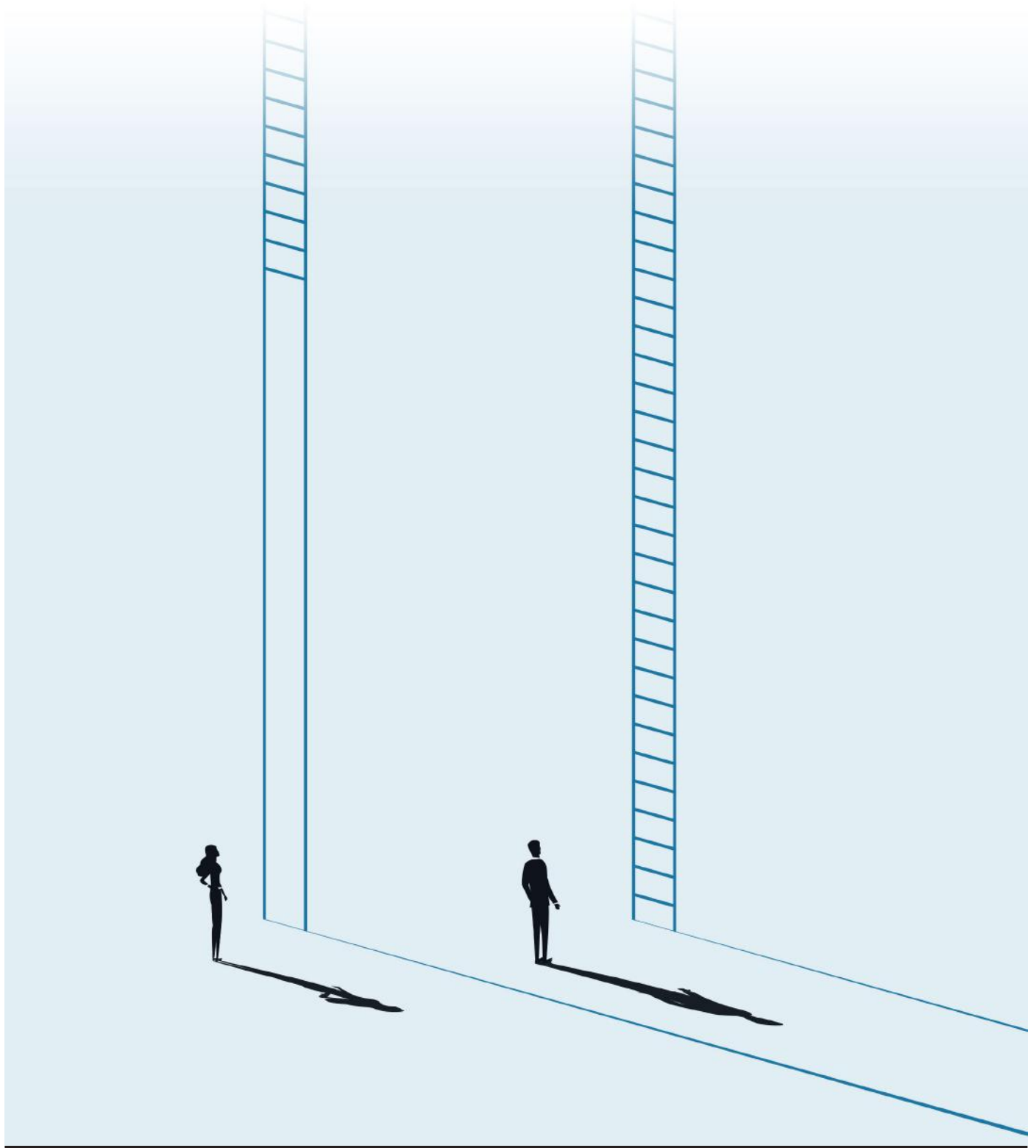
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Engineering Employment in Ontario: 2021 Census Confirms the Need for Change

Lee Weissling, Ph.D.



Every five years, Canada produces a Census and OSPE reviews this data to see how our engineering community is changing. The great thing about the Census is that it provides reams of quantitative data, and because of its history, we are able to see meaningful trends develop over time.

The downside is that there is no qualitative report; so as we review changes to the engineering community and workforce, we must use insights from other sources (including the personal experiences of engineering graduates) to tell the story of what this data means.

Our review of the 2021 Census attempts to tell the story both of the numbers and the many factors behind them. This is just the first in a series of articles stemming from this review.

WHAT ARE WE LOOKING FOR?

OSPE has four objectives in analyzing 2021 Census data:

1. Determine how many Ontarians with engineering degrees work in each of five employment categories:
 - Working in Engineering
 - Working in Other STEM Fields
 - Other Professionals
 - Non-Engineering Professionals
 - Underemployed
2. Compare the proportions of men and women working in these categories;
3. Determine if these ratios have changed meaningfully over time, and;
4. Examine differences in employment type between International Engineering Graduates (IEGs) and Ontarians with Canadian engineering degrees.

See definitions below.

Our analysis is limited to individuals aged 25-64 years who were employed at the time of the 2021 Census. Also, note that Census data does not distinguish between licensed engineers and non-licensed engineering graduates; therefore, all findings are based solely on individuals having a bachelor's degree (or higher) in engineering.

Working in Engineering: Those working as an engineer or engineering manager (excluding software engineers).

Working in Other STEM Fields: Those working in other STEM professions (including software engineering).

Other Professionals: Those working in non-STEM jobs normally requiring a university degree.

Non-Engineering Professionals: Those working in non-engineering STEM professions or other professions normally requiring a university degree. (This is a combination of categories 2 and 3.)

Underemployed: Those working in jobs that do not necessarily require a university degree, including engineering technologists.

It must be noted that the "underemployed" classification does not reflect whether the occupation is lower-paying, lower-status, or not a bona-fide profession. For example: engineering technologist positions do not normally require a university degree. A college diploma qualifies one to work in the profession, and thus, a graduate with an engineering degree working as an engineering technologist is deemed underemployed. Engineering technologists are certainly viewed as professionals by OSPE. On the other hand, underemployment also includes retail salespeople, construction workers, and taxi drivers, amongst many others.

EMPLOYMENT TRENDS FOR ENGINEERING GRADUATES

Table 1: Employment Categories - Ontario Residents with Engineering Degrees (2021)

ONTARIO ENGINEERING DEGREE HOLDERS	NUMBER	PROPORTION TO TOTAL
Total	259,615	100%
Men	205,580	79%
Women	54,015	21%
Working in Engineering	75,115	29%
Men	63,020	31%
Women	12,090	22%
Other STEM Fields	55,595	21%
Men	43,270	21%
Women	12,330	23%
Total Engineering/STEM	130,710	50%
Men	106,290	52%
Women	24,420	45%
Other Professionals	32,075	12%
Men	23,125	52%
Women	8,950	17%
Non-Engineering Professionals	87,670	34%
Men	66,395	32%
Women	21,280	39%
Underemployed	96,830	37%
Men	76,165	32%
Women	20,645	38%

Data Source: 2021 Canada Census

Key Observations

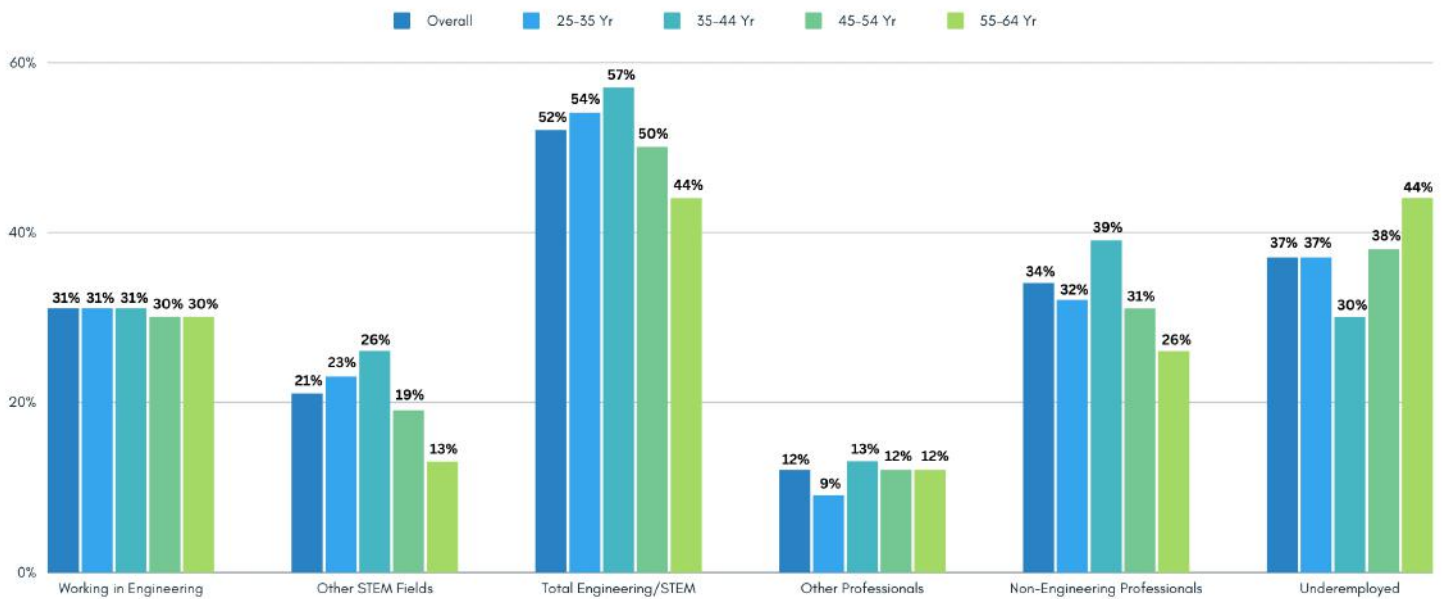
Of the 259,615 Ontario residents with engineering degrees...

- **Less than one-third are working in engineering.**
 - » This is fascinating, since industry partners often tell OSPE there is a high demand for engineers.
- **Nearly 50 per cent are working in STEM fields (including engineering).**
- **Degree holders are more likely to work in non-engineering professional jobs than in engineering.**

These findings invite us to explore what systemic changes might increase the proportion of engineering graduates working in engineering.

COMPARING MALE AND FEMALE ENGINEERING GRADUATES

Figure 1: Proportion of Men Working in Different Employment Categories (2021)



Data Source: 2021 Canada Census

Key Observations

- The proportion of men who work in engineering is stable across all age ranges.
- Over 50 per cent of men aged 25-44 with engineering degrees work in STEM fields (including engineering).

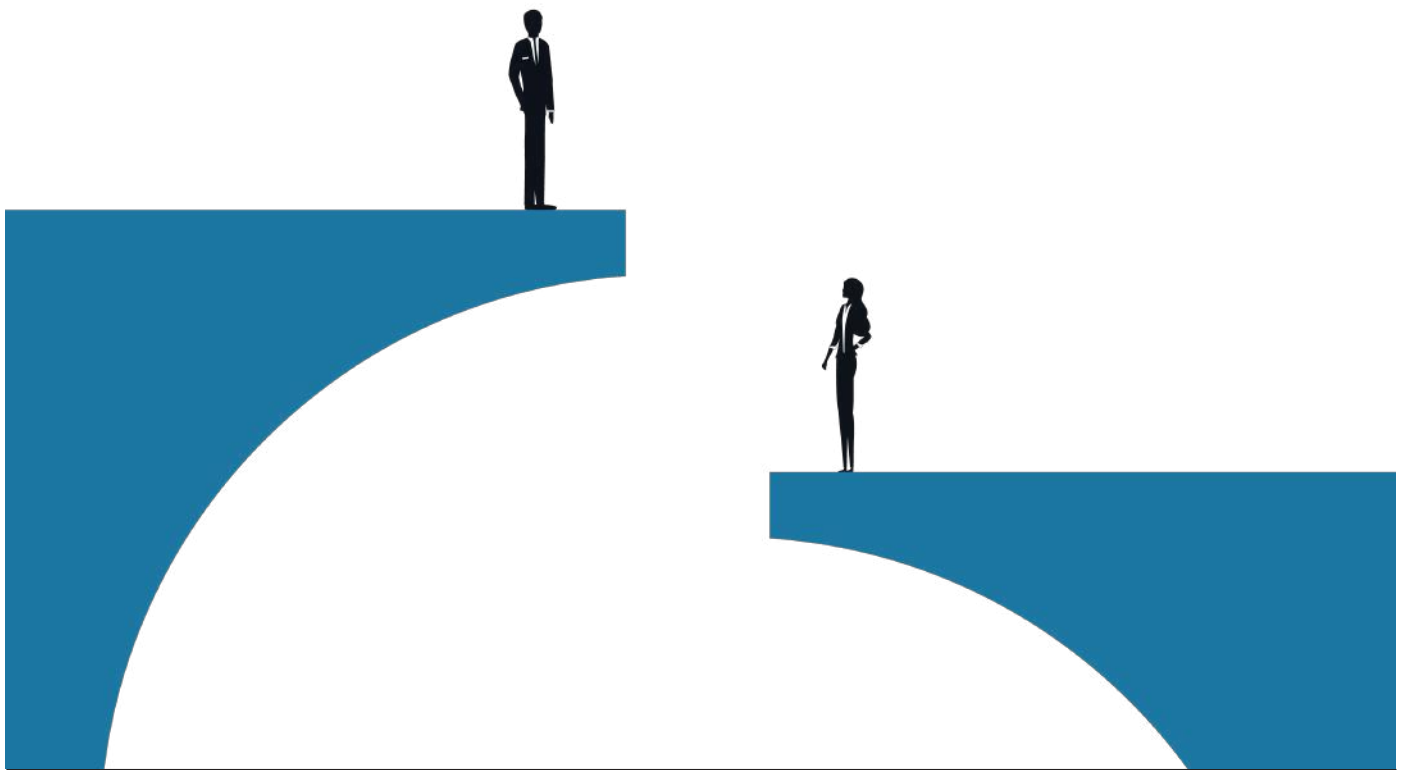
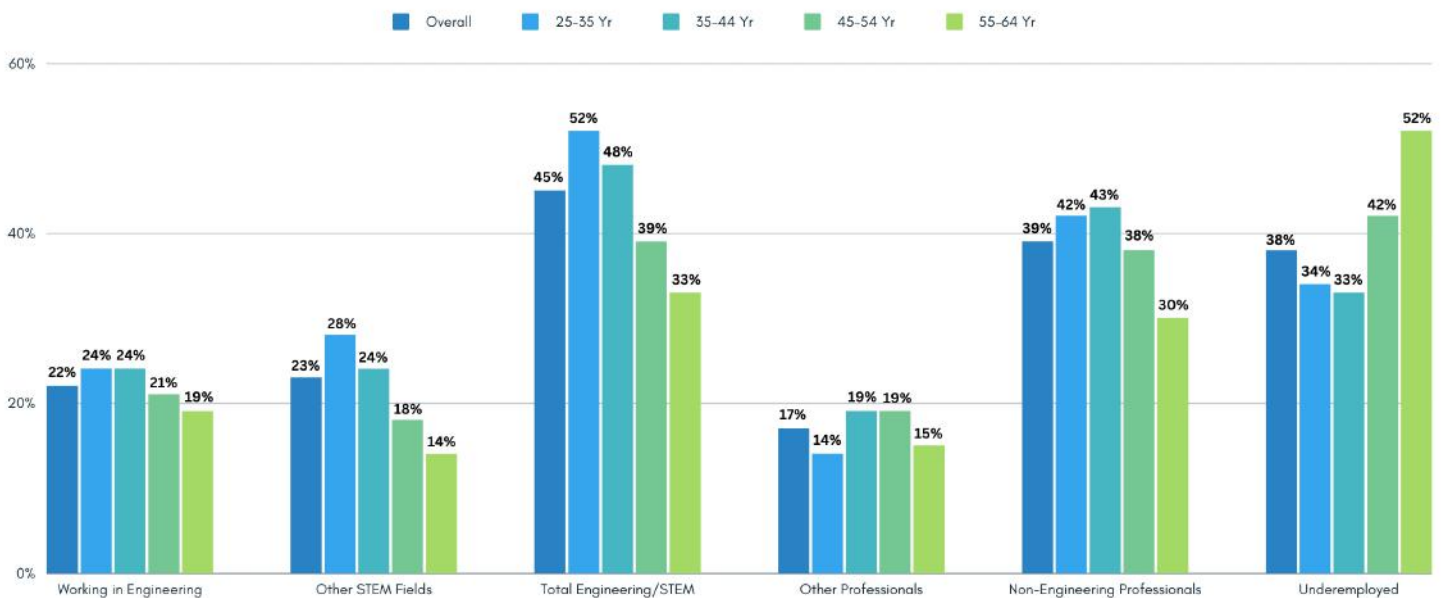


Figure 2: Proportion of Women Working in Different Employment Categories (2021)



Data Source: 2021 Canada Census

Key Observations

There is good and bad news for women with engineering degrees. First, the good news:

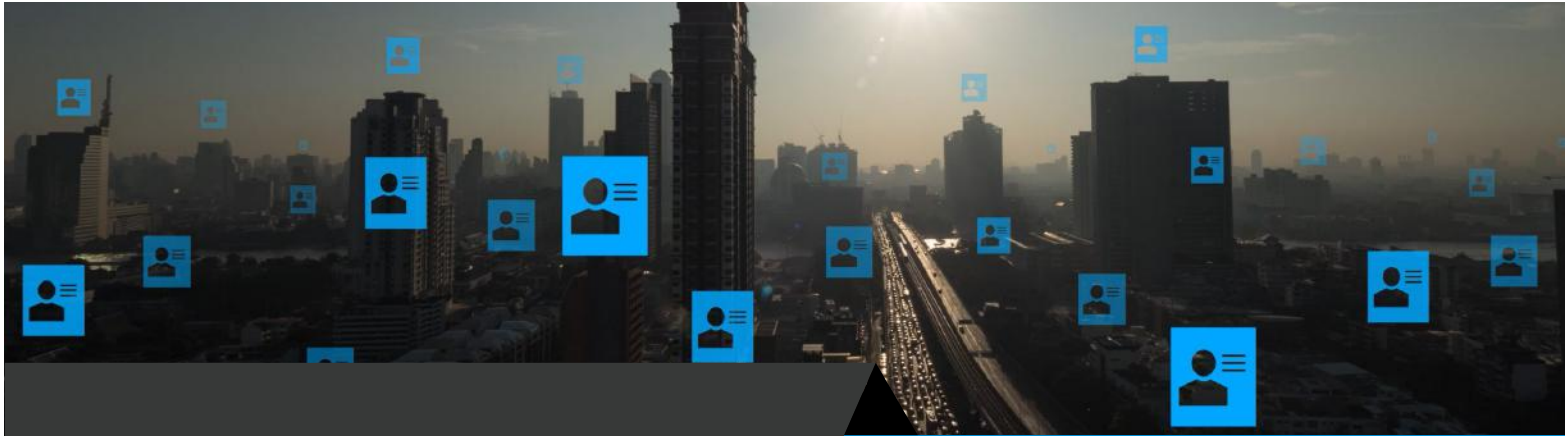
- **More women aged 25-44 with engineering degrees work in a STEM field than are underemployed.**
 - » This indicates that some of the barriers facing women in STEM are being broken.
- **Among women aged 25-34 with engineering degrees, 53 per cent work in a STEM field.**
 - » This implies that younger women are finding opportunities in target sectors.

Also of note:

- **More women aged 25-34 with engineering degrees work in non-engineering STEM positions than in engineering.**
 - » This trend is unique to this age bracket and may indicate that more young women view all STEM professions as attractive career choices, especially early in their careers. Alternately, it could also indicate that non-engineering STEM positions are more welcoming of women than those strictly in engineering.

The bad news concerns women later in their careers:

- **42 per cent of women with engineering degrees aged 45-54 are underemployed.**
- **52 per cent of women with engineering degrees aged 55-64 are underemployed**
 - » Underemployment is the most common employment category for women aged 45-64; these women are actually more likely to be underemployed than to work in STEM or another professional field.



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- Mohamed El Daly, P.Eng., Director of Outreach and Product Services at APEGA

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COMPARING 2016 AND 2021

The circumstances of the 2021 Census were unique, as data was gathered in May 2021 amidst widespread COVID-19 lockdowns (the effects of which are very hard to determine).

Table 2: Changes in Overall Numbers of Ontarians with Engineering Degrees (2016-2021)

ONTARIO ENGINEERING DEGREE HOLDERS	OVERALL 2016 #	OVERALL 2021 #	% CHANGE
Total	222,630	259,595	17%
Men	179,275	205,580	15%
Women	43,355	54,015	25%
Working in Engineering	67,585	75,110	11%
Men	57,890	63,020	9%
Women	9,695	12,090	25%
Other STEM Fields	33,625	55,600	65%
Men	26,930	43,270	61%
Women	6,695	12,330	84%
Total Engineering/STEM	101,210	130,710	29%
Men	84,820	106,290	25%
Women	16,390	24,420	49%
Other Professionals	48,925	32,075	-34%
Men	38,410	23,125	-40%
Women	10,515	8,950	-15%
Non-Engineering Professionals	82,550	87,675	6%
Men	65,340	66,395	2%
Women	17,210	21,280	24%
Underemployed	72,495	96,810	34%
Men	56,045	76,165	36%
Women	16,450	20,645	26%

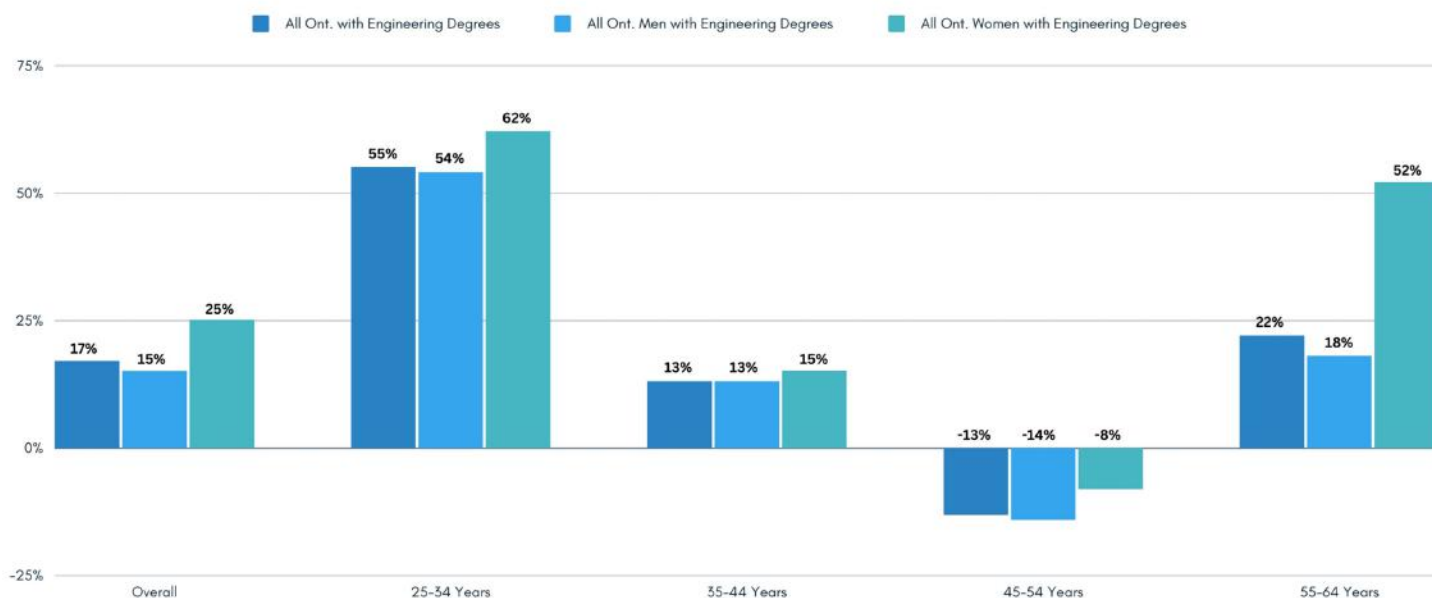
Data Source: 2021 Canada Census

Key Observations

Between 2016 and 2021...

- The total number of Ontarians with engineering degrees increased by 11 per cent.
- The number of women with engineering degrees and those working in engineering both increased by 25 per cent.
- The number of women in non-engineering STEM positions increased by 84 per cent.

Figure 3: Per Cent Change in Age Ranges of Engineering Graduates (2016-2021)



Data Source: 2021 Canada Census

- The number of 25-34 year old Ontarians with engineering degrees increased by 55 per cent.
 - » This trend is even more pronounced for 25-34 year old women (62 per cent increase). These figures clearly indicate that women are showing an increased interest in engineering.

INTERNATIONAL ENGINEERING GRADUATES

The picture of the engineering community is complicated when we compare Ontarians who earned their engineering degrees in Canada to International Engineering Graduates (IEGs). Those who earned degrees outside the country are usually immigrants to Canada, and Census data shows that the overwhelming majority of these immigrants are not working as engineers.

OSPE has been aware of this trend for some time, and it is one of the many reasons we have advocated for changes to the licensure program; more specifically, for the elimination of the Canadian experience requirement. (Encouragingly, PEO eliminated this requirement from their licence application criteria in May 2023, becoming Ontario's first professional regulator to do so.)

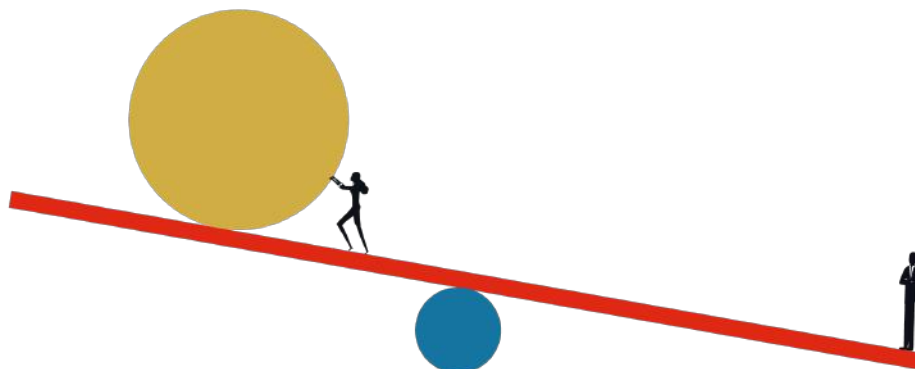


Table 3: Employment Categories and Origin of Engineering Degree

ONTARIO ENGINEERING DEGREE HOLDERS	DEGREE INSIDE CANADA	PROPORTION	DEGREE OUTSIDE CANADA	PROPORTION
Total	126,335	100%	133,285	100%
Men	103,520	82%	102,075	77%
Women	22,815	18%	31,210	23%
Working in Engineering	50,665	40%	24,450	18%
Men	42,565	41%	20,460	20%
Women	8,095	35%	3,995	13%
Other STEM Fields	25,410	20%	30,190	23%
Men	20,860	20%	22,400	22%
Women	4,550	20%	7,785	25%
Total Engineering/STEM	75,075	60%	54,640	41%
Men	63,425	61%	42,860	42%
Women	12,645	55%	11,780	38%
Other Professionals	18,570	15%	13,520	10%
Men	14,090	14%	9,035	9%
Women	4,475	20%	4,485	14%
Non-Engineering Professionals	43,980	35%	43,710	33%
Men	34,950	34%	31,435	31%
Women	9,025	40%	12,270	39%
Underemployed	31,685	25%	65,135	49%
Men	25,975	25%	50,180	49%
Women	5,690	25%	14,975	48%

Data Source: 2021 Canada Census

Key Observations

Table 3 compares all Ontarians with engineering degrees by their employment category and where they obtained their highest degree.

- IEGs actually outnumber Ontarians with Canadian engineering degrees (133,285 vs 126,335).
- However, the proportion of Canadian degree holders working as engineers is more than twice as large as IEGs (40 per cent to 18 per cent).
 - » As noted above, PEO removed the Canadian experience requirement from their licence application criteria this past May. It will be interesting to observe if this change helps increase the number of IEGs working as engineers in Ontario.
- Likewise, the proportion of underemployed IEGs is nearly double that of Canadian degree holders (49 per cent to 25 per cent).

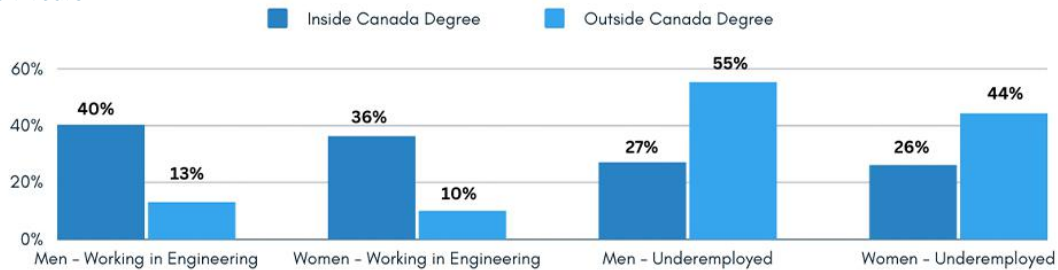
It is worth noting that many IEGs do work in non-engineering STEM fields, especially information technology. Other notable trends for IEGs include the following:

- **Twice the proportion of IEGs (8 per cent) work in engineering technology positions, compared to Canadian degree holders (4 per cent).**
 - » This is considered as working in a related field, although these positions don't necessarily require an engineering degree.
- **12 per cent of male IEGs and 16 per cent of female IEGs work in retail sales and service (compared to only 6 per cent of Canadian degree holders).**

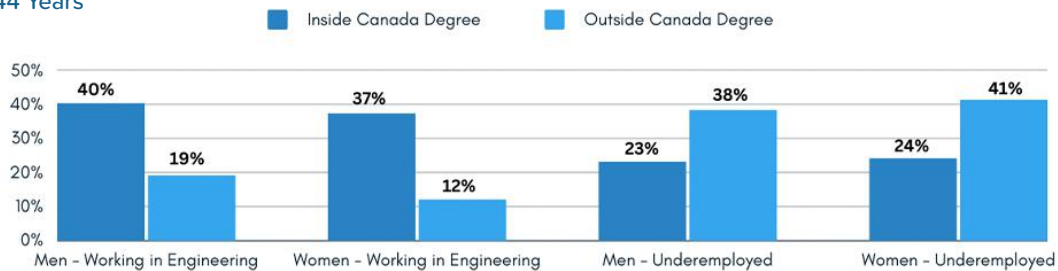
To further illustrate the employment discrepancies between these groups, consider the following tables:

Figure 4: Contrast Between IEGs and Canadian Degree Holders (By Age Range)

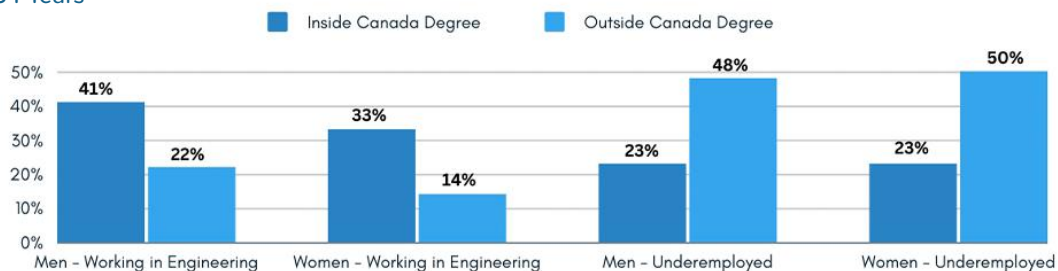
25 - 34 Years



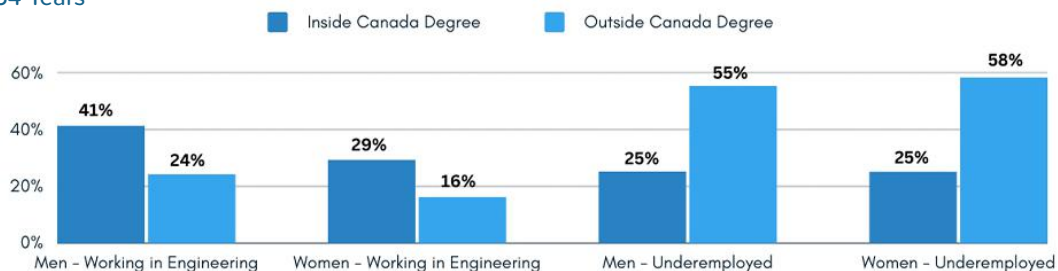
35 - 44 Years



45 - 54 Years



55 - 64 Years



Data Source: 2021 Canada Census

These charts illustrate some harsh truths about employment rates for IEGs:

- **For IEGs aged 25-34, only 13 per cent of men and 10 per cent of women work in engineering.**
 - » This may be due to lack of experience prior to immigrating to Canada. Conditions improve over time for IEG men, increasing to 24 per cent by ages 55-64. Conditions for women also improve (albeit at a lower rate), rising to 16 per cent by ages 55-64.
- **Over half of male IEGs aged 25-34 are underemployed (55 per cent).**
 - » Conversely, underemployment is lowest for IEGs aged 35-44 – but their underemployment numbers are still much higher than those of Canadian degree holders.
- **58 per cent of female IEGs aged 55-64 are underemployed.**
 - » This is the highest underemployment rate of any group identified in the illustrations above. This is reflected in the proportion of women in this age group who work in retail sales and service (17 per cent).

What do these statistics say about the state of engineering employment for immigrants to Canada? It is hard to say, because this is a very diverse group. However, many IEGs who have taken OSPE's training courses share that they are surprised by the difficulty of finding engineering jobs. They were under the impression that it would not be hard to find meaningful work; in fact, many were encouraged to immigrate due to a perceived shortage of engineers in Canada.

With that said – the state of engineering licensure and employment in Ontario has continued to change since the Census was taken in 2021. We have already noted that PEO removed the Canadian experience requirement from their licensing criteria this past May. OSPE is eager to see how this and other developments will impact the future of Ontario's engineering workforce.

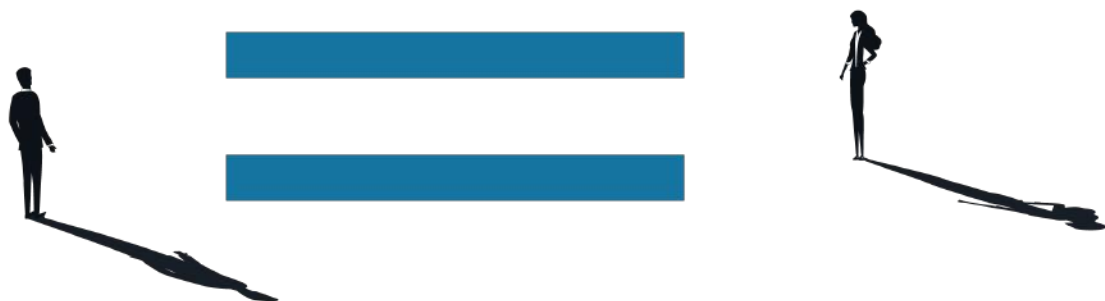
FINAL THOUGHTS

There are many conclusions that can be drawn from the 2021 Census data, and further analysis continues at OSPE.

It is encouraging to see higher numbers of engineering graduates since 2016, and especially gratifying to see increases amongst women. OSPE's advocacy efforts and promotion of the engineering profession could be a factor in these trends.

However, the profession is still troubled by high numbers of engineering graduates who work in jobs that don't necessarily require an engineering degree. This is particularly pronounced amongst International Engineering Graduates.

All this data indicates that as things change, there are still significant barriers at play. OSPE will continue to report Census findings and identify how we can help engineering graduates trained in Ontario and internationally find meaningful work in their fields. The simple fact is that we need them; to drive innovation and remain globally competitive, Ontario's leaders must leverage the full range of engineering talent available in our province.





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LEARNING AND DEVELOPMENT AT THE ENGINEERING CONFERENCE

November 2, 2023 | Metro Toronto Convention Centre

The Engineering Conference gathers leading experts from industry, government, and academia to discuss the critical challenges facing our profession and our province, and identify how Ontario's engineers can respond.

The #EngCon programming lineup includes the following learning sessions, with more content still being added.

All learning sessions can be counted towards continuing professional development requirements for engineers.



Tags:

AI: Expert insights on the development and implementation of Artificial Intelligence.

Climate Crisis: Discussing the urgent threat of climate change and how engineers can respond.

EDI: Making the engineering profession equitable, diverse, and inclusive.

Energy: The latest in electricity production and distribution.

Engineering Profession: Regulation, licensing, practice rights, and more.

Innovation: Cutting-edge research and development news from across Ontario.

Sustainability: Insights from the journey towards a cleaner, greener Ontario.

Sustainable Cities: Making new and existing infrastructure greener and more efficient.

The Career Journey of the 21st Century Engineer



*Cindy Rottmann, P.Eng.
(University of Toronto)*



*Emily Moore, P.Eng.
(University of Toronto)*

A recent study by Troost ILead at the University of Toronto examined the career paths of engineers across Canada. The study found a broad range of careers beyond the “typical” engineering career path, and also provided valuable insights about equity, diversity, and inclusion across the various paths. This session features a panel discussion with engineers pursuing the five different career paths identified in the study (technical specialist, managerial, interdepartmental integrator, entrepreneur, and engineers in non-traditional industries). It will explore workplace realities, leadership opportunities, and implications for engineering education, professional development, and certification.

Tags: **EDI** | Engineering Profession

Engineering and the SDGs: Are We On Track?



*Brian Harrigan, P.Eng., MBA
(Engineers Without Borders)*



*Natalie Smith
(Engineers Without Borders)*

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. The creativity, know-how, technology, and financial resources from all of society - engineers included - are necessary to achieve the SDGs. This session will explore how engineers have contributed to achieving the SDGs, how realistic the goals are today, and how we can measure success.

Tags: **Climate Crisis** | Engineering Profession | **Sustainability**

Engineers' Ethical, Professional, and Human Rights Obligations as Technology Creators



*Michelle Liu, P.Eng., Ph.D. Candidate
(OSPE EDIA Task Force)*

Observers around the world have identified ethical issues with emerging technologies, such as algorithmic bias in AI surveillance software. But less attention has been paid to potential inequities present in fundamental forms of technology, including our physical infrastructure. This session will encourage engineers from all disciplines to consider their ethical, professional, and human rights obligations. The presentation will describe these obligations, identify their sources in Ontario, and explore inequities that can arise from failure to meet these obligations. Guests will understand how meeting these obligations can help reduce bias and inequity in the technology that engineers create.

Tags: **EDI** | Engineering Profession | Innovation

Evolving Climate-Ready Resiliency in the Energy Sector



*Asta Wallace
(Ontario Power Generation)*



*Erin Jaggard
(Hydro One)*

Ontario is at a crossroads in our fight to mitigate the impacts of the climate crisis. Achieving net-zero goals in diverse economic sectors depends on reliable, affordable net-zero energy. This panel outlines the challenges and opportunities of building a net-zero Ontario. It will cover the current climate crisis and its impact on the energy sector, review existing plans, explore the expectations outlined in regulations, highlight what is missing, identify the skill sets needed to meet this challenge, and issue a call to action for engineers and other professionals.

Tags: Climate Crisis | Energy | Sustainability | Sustainable Cities

Inside Brampton's Zero Energy Bio-Regenerative Food Shed



*Phil Fung, P.Eng.
(SRS Consulting Engineers Inc.)*

This presentation will provide an inside look at the City of Brampton's zero energy bio-regenerative Food Shed, an innovative container farm that combines cutting-edge engineering design with organic vertical agricultural methods to provide food sovereignty – food security, safety, and diversity – to communities. The Food Shed contains its own ecosystems (energy, food, and waste), and uses a combination of soil-based, hydroponics, and aquaponics growing systems to grow edible organic vegetables and edible fish. The shed is zero-waste, carbon-negative, powered by solar energy, and it is built to withstand harsh winters using passive house design methodology.

Tags: [Climate Crisis](#) | [Energy](#) | [Innovation](#) | [Sustainability](#) | [Sustainable Cities](#)

Moving the Dial on Diversity & Inclusion in Engineering



*Jasmine Shaw,
P.Eng., MSc
(OSPE EDIA Task Force)*



*Shivani Nathoo,
EIT, BSc
(OSPE EDIA Task Force)*



*Kimberley Paradis
(OSPE EDIA Task Force)*



*Tiffany Joseph,
CAPM
(OSPE EDIA Task Force)*



*Michelle Liu, P.Eng.,
Ph.D. Candidate
(OSPE EDIA Task Force)*

Equity, Diversity, and Inclusion (EDI) has been a priority in the corporate world for several years, with a particular focus on supporting women in engineering. However, progress has been slower than anticipated. One of the greatest challenges is bridging the gap between knowing “what to do” and “how to do it.” In this session, members of OSPE's EDIA Task Force will discuss the progress our profession has made on the EDI front, identify gaps that remain, and suggest pathways to progress. Panelists will also share their experiences as the next generation of women engineers and explore the barriers facing them and their colleagues. The panel will provide a fresh perspective on EDI that is accessible, engaging, and tangible, especially for engineers.

Tags: [EDI](#) | [Engineering Profession](#)

Nature-Based Solutions for City Resilience: The Global Sponge Cities Snapshot



*Charles Ormsby, P.Eng.
(Arup Consulting)*



*Nick Copeland, C.Eng., MICE
(Arup Consulting)*

Arup's Sponge City analyses have provided unprecedented data to help cities assess their "sponginess" and prepare for flood events and climate change. The initial snapshot analyzed eight major cities across the globe, and successive analyses have examined major African cities and Montreal (the snapshot's northernmost city). This presentation will highlight which cities are among the world's most "sponge-like," with the ability to absorb rainfall and mitigate the type of flooding that has become more common with climate change. Comparing Montreal (and potentially Toronto) with other cities around the world, this presentation will draw out overall themes, lessons learned for cold climates, and the need for action to improve stormwater management, biodiversity, and human wellbeing.

Tags: [Climate Crisis](#) | [Sustainability](#) | Sustainable Cities

Net-Zero 2035: The Impact of Supply Mix Choices on Ontario's Electricity Grid



*Paul Acchione, P.Eng., FCAE
(MIDAC)*

This presentation will explore several electricity system supply mix options to achieve net-zero emissions by 2035 without compromising reliability and resiliency. It will also present the forecasted electricity prices, the amount of surplus zero-emission electricity that will be curtailed (unused), and the amount of nameplate capacity overbuild that will result from each supply mix choice.

Tags: [Climate Crisis](#) | [Energy](#) | [Sustainability](#) | Sustainable Cities

The New Data Economy: Innovation & Governance



*Beatrice Sze, P.Eng., J.D.
(OSPE Research & Innovation
Task Force)*



*Chloe Richard, BEng
(OSPE Cleantech Working
Group)*



*Ryder Leblanc, MEng
(OSPE Data Working Group)*

Innovation is occurring faster than regulation in the new data economy; therefore, data practitioners like engineers have an opportunity to lead the discussion on what responsible data governance means. This presentation will gather artificial intelligence, cybersecurity, and data ethics practitioners for a discussion on the future of the engineering profession in this space, including opportunities to be seized and risks to be managed. This informed discussion between experts will equip policy makers and business leaders to understand the key tech principles that inform policy decisions in this space.

Tags: **AI** | Engineering Profession | Innovation

Ontario's Energy Transition: The Electricity Sector's Role in a Sustainable Future



*Robby Sohi, P.Eng.
(IESO)*

This is a pivotal time in the energy sector; the electricity system will play a key role in supporting Ontario's net-zero goals. This session will provide an overview of Ontario's electricity sector, how it will evolve to support the energy transition, and the role of engineers in this process. With one of the cleanest energy supply mixes in North America, Ontario has an advantage that will help drive broad emission reductions in the system, as other sectors of the economy decarbonize. Collaboration and action will be fundamental to our success in working towards a more sustainable future.

Tags: Climate Crisis | Energy | Sustainability | Sustainable Cities

Transforming Industrial Maintenance with AI and IIoT



*Arun Gowtham, P.Eng., CRE, CMRP
(Owtrun Reliability Inc.)*

Artificial Intelligence (AI) has the potential to significantly change manufacturing business and operations. Asset maintenance is a significant expense for manufacturers, and optimizing maintenance is one of the direct applications of AI. Together with the Industrial Internet of Things (IIoT), AI can empower practitioners to change how maintenance work is done. This presentation will explore how to successfully transform an organization's maintenance program with AI and IIoT, outlining overall strategy, planning, and execution.

Tags: **AI** | Innovation

Using AI for Image and Video Processing: Risks and Opportunities



*Emanuel Corthay, P.Eng.
(Invision AI)*

The market is saturated with solutions that claim to use Artificial Intelligence (AI) to solve multiple image and video processing problems. This session will present the basics of AI applied to process multiple video streams, and explain the difference between off-the-shelf solutions and state-of-the-art solutions. Through practical examples based on Invision AI's Highway Monitoring product, the session will showcase the multisensor, 3D localized detection and tracking solution used to track and detect hazards, and outline how to apply these technologies to road intersections for Smart City applications. Finally, the session will explore the opportunities and limitations of these technologies, and equip guests to understand their risk profile and best practices for public deployment.

Tags: **AI** | Innovation

WHISTLE-BLOWER COVERAGE:

NOW INCLUDED IN OSPE SECONDARY PROFESSIONAL LIABILITY INSURANCE

As an engineer, you have a duty to abide by the engineering laws and ethics as set forth by the PEO. Ethical practice supports relationship building and trust with your peers and clients, leading to greater overall achievement and satisfaction in your career. It is also an integral part of engineering best practices and due diligence that allows you to deliver your projects and services with greater success and fewer potential concerns. But what happens when fulfilling your ethical duty leads to potentially unfavourable or damaging circumstances?

What is Whistleblowing?

Whistleblowing, also known as the duty to report, is raising a concern with someone in authority - either within the workplace, primarily, or externally (such as a regulator) - about a danger, risk, malpractice, or wrongdoing that affects others. When poor engineering practices occur, it can tarnish the reputation of the profession, or in some circumstances, may cause actual harm or danger to the public.

It's unlikely that you would find yourself in a situation with unethical behaviour or incompetence of others, which would require you to take drastic action, but you should always be prepared to voice concerns in a circumstance, where necessary.

According to the PEO Engineering practice guidelines, Section 9.1, "Duty to Warn Involving Safety":

"Sometimes professional engineers find their advice is not accepted and that the client or employer has no intention of correcting the situation. If the engineer firmly believes that, after exhausting all internal resources, the health and safety of any person is being, or is imminently, endangered, it may be necessary to report these concerns to some external authority, such as a designated regulatory body, a government ministry or ombudsperson. Only in exceptionally rare cases would going directly to the media or a private watchdog agency be justified. Because professional engineers have obligations both to clients and employers, they must exercise discretion in bringing situations to the attention of people outside the business of their employers or clients.

As many people know, this is a risky proposition since the whistleblower is violating moral and legal obligations owed to the employer or client. No one should take this step without seriously considering whether it is necessary. If an engineer has reported the situation through the entire internal management chain, most people would agree that he or she has fulfilled the duty to report. But like civil disobedience, whistleblowing is sometimes the morally correct response to a intolerable situation, especially if people are in danger.

Any engineer faced with this decision may also contact PEO for guidance. The association can provide advice to a professional engineer who is dealing with an uncooperative or wilfully negligent client or employer."^[1]

Secondary Professional Liability Insurance

One of the benefits of being an OSPE member is that you automatically have access to Secondary Professional Liability Insurance (PLI), which now includes whistle-blower coverage.

What has changed?

Secondary PLI now includes whistle-blower coverage, including:

- Reimbursement for reasonable legal expenses related to consultations associated with activities as a whistle-blower, subject to a sub-limit.
- Coverage for costs that you may become legally obligated to pay as damages because of claims covered under this section of the policy, subject to a sub-limit.
- Lost income replacement needed if your employment is terminated due to your activities as a whistle-blower, subject to a sub-limit.
- Reimbursement for costs to hire a company to assist you in seeking new employment as a result of your current employment being terminated, subject to a sub-limit.

There are many benefits to being a member of the Ontario Society of Professional Engineers (OSPE). The enhancements made to the Secondary PLI policies for OSPE members is one of the ways that OSPE continues to enhance value to members.

For more information regarding both Primary PLI and Secondary PLI, please visit the BMS Canada Risk Services website or contact a BMS broker today.

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Bringing Engineering into Politics



Engineers have the knowledge and skills to solve complex problems – and when they bring this expertise into the political realm, they can help meet today’s greatest challenges and move our society forward.

To celebrate National Engineering Month, OSPE’s Equity, Diversity, Inclusion, and Accessibility (EDIA) Task Force hosted a virtual panel discussion on March 27: *Bringing Engineering into Politics*. This live discussion invited political leaders with engineering backgrounds to discuss their political journeys and talk about why engineers belong at the decision-making table. By getting involved in politics and advocacy, engineers can help to ensure that their work is aligned with the needs and values of the communities they serve.

Watch the [video recording](#) on YouTube or read our highlights below.

How has your training as an engineer shaped your time in politics?



Hon. Omar Alghabra, P.Eng.
MP (Mississauga Centre) and Minister of Transport

Minister Alghabra is a mechanical engineer by trade and was previously a distinguished fellow in the Faculty of Engineering and Architectural Science at Toronto Metropolitan University.

The set of skills that I learned as an engineer, whether in school or in the profession, have helped me a lot in navigating the complicated world of politics and government. One of those is troubleshooting. Sometimes, in the messy world of politics, people forget what problem we’re trying to solve. I rely significantly on my ability to hone in on “Help me first understand the problem, and then let’s try to find a solution that solves the problem.”

How did you first get involved in politics?



Gabrielle Bouchard, BEng
Action Canada Fellow and Creator / Host of *Gabby on Government* YouTube Series

Gabrielle is an engineer and public sector consultant, currently serving as Senior Manager for Colliers Infrastructure Advisory Group.

At one point, I took a stint at the University of Oxford as their director of engineering outreach...At the time, I thought STEM education was the gold standard; if you can get a STEM education, you can lift yourself up. But I started to see this idea that I had wasn’t completely true. Things like stress levels in the home, access to transportation, access to nutrition – all of these things that have nothing to do with education are actually the biggest factors in how successful a young person can be in achieving their potential. This is what put the nugget in my head of “Okay, there’s something more than education at play here.” And that’s what really got me interested in civics, in politics, and in government.

What are some of the strengths engineers bring to the table as policy-makers?



Deepak Anand
MPP (Mississauga Malton) and Parliamentary Assistant to the Minister of Labour, Immigration, Training and Skills Development

MPP Anand is a chemical engineer by trade.

I truly believe that we need all different types of people to serve the country and serve the world. If we have all lawyers who think the same way – it doesn't mean that's the best way. Or having all economists, or having all engineers. So having a place on the table adds up by having a diversity of thoughts and experiences. That's what I truly believe is the best way forward. I don't see many engineers on that table – and in my opinion, that's bad. That's one reason, when I was running for politics, I felt I could bring something to the table which is probably somewhat missing.



Dr. Shefaza Esmail, EIT
2022 MPP Candidate (Waterloo), Green Party of Ontario

Dr. Esmail has a background in environmental engineering, and currently works with Mohawk College's applied research division to help small and medium-sized businesses meet their sustainability goals.

When you think about engineering in any discipline, we're not only looking at whatever system we're working with – we're also going to be thinking about how this system connects to another system...So if you have an engineer at the municipal level, that person will not just be thinking about "how do we effectively optimize transportation" within municipal regions, but how do we also connect it so that it goes seamlessly with what the province is doing, and with what the federal government is doing?



Dirka Prout, P.Eng.
2019 and 2021 MP Candidate (London North Centre), NDP

Dirka is a consulting civil engineer with over 25 years of experience in geotechnical engineering. Outside of her engineering work, she is an active volunteer and leader with Unity Project London, London Regional Social Forum, and Spelling Bee of Canada (London Chapter).

One of the strengths of engineers is that we're trained to deal with complex problems. Even if they're ill-defined by a client, we produce solutions...We're trained to provide solutions that are also time-bound, and for an agreed-upon cost and scope. So we can understand the budgetary demands of a country or a province or a municipality, and also the time constraints...We try to present the facts as-is and work within those boundaries, without embellishment. And I think to have that sort of critical eye – and having more of a long-term view – is what we need more of in politics, rather than personal ideology or looking to the next electoral cycle.

This event was organized and moderated by Jasmine Shaw, P.Eng., a member of OSPE's EDIA Task Force. To learn more about how you can support the EDIA Task Force, please email advocacy@ospe.on.ca.

Getting to Know OSPE's Task Forces

To celebrate National Engineering Month this past March, OSPE CEO Sandro Perruzza and President and Chair Dr. Marilyn Powers, P.Eng., hosted virtual “fireside chats” with leaders from three of our task forces. These unique events provided a forum to discuss the challenges facing our province and share how OSPE’s task forces are working towards solutions.

Read highlights from each event below:

Energy Task Force with Paul Acchione, P.Eng. (Subject Matter Expert)



Tell us what motivated you to volunteer with OSPE's Energy Task Force.

One of the problems we had for a number of years was that electricity rates were going up much faster than inflation because of poor energy policy. So I thought that by contributing some of my expertise, we can convince the government that there’s “a better way to run a railroad.” They have incorporated a lot of our recommendations over the years, and as you can see, now the electricity rates in Ontario are not so bad, and we’re making better use of [clean energy] when it’s available.

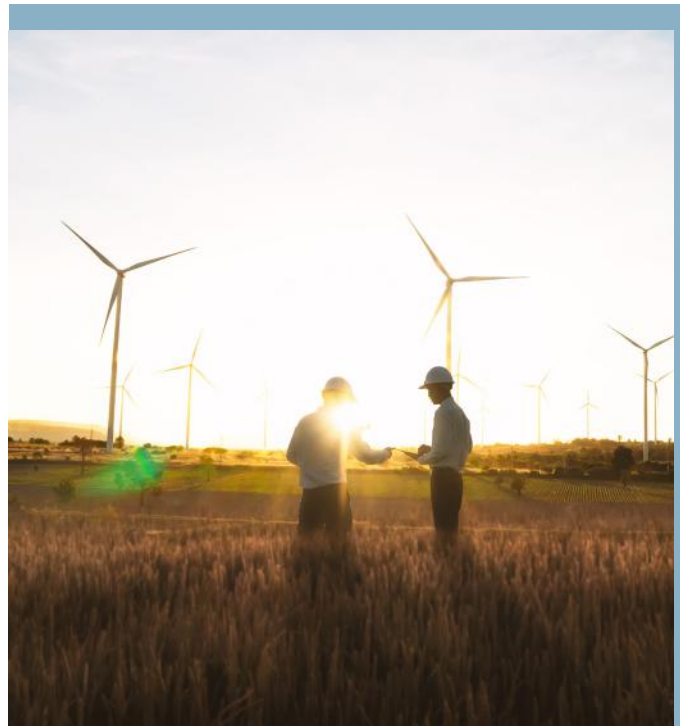
How do you select the task force initiatives, and what is the task force working on right now?

We get together once a month over Zoom and discuss issues that we individually think are important, and then collectively decide which issues to move forward. Last year we were pushing the low overnight rate – and now that the government is rolling out that program, we’re

encouraging them to fine-tune the numbers a bit. Going forward, we’re going to start focusing on what net-zero looks like in the future. We just issued a [report](#) on what energy would cost in the future if we used different supply mixes to achieve net-zero – and the Minister of Energy was quite interested in those results.

What is OSPE's position on small modular reactors (SMRs), and where do you see them as part of our energy solution in the future?

SMRs are currently in the development phase. I think we’re going to go through two or three phases of development – where the easy ones get licensed first, but they’re not fuel-sustainable. Then we’ll get to more sustainable cycles with less radioactive waste and better use of fuel. The other thing is, if we design them to be relatively passively safe – which means they will not release major radioactive releases to the environment – then you can move these small modular reactors close to industrial parks and commercial parks. If we can get the thermal energy from these small modular reactors close enough to urban areas to supply hot water and space heating, it would make it so much easier to decarbonize buildings in urban areas.



Research and Innovation Task Force with Beatrice Sze, P.Eng., J.D. (Chair)



Tell us what motivated you to chair the Research and Innovation Task Force.

I think that so much of what's needed at public policy tables is what engineers have in spades: a high standard of ethics, creativity in solving problems, the ability to understand complex data, and also the ability to accurately flip between low-level data and high-level systems context. So I see this role as an opportunity to serve my community and the province of Ontario by helping engineers find their voice and ensuring that voice is heard.

Why is it important that engineers have a seat at the table when it comes to government-centred policy and regulation?

It comes to that age-old adage: "the devil's in the details"...Responsible innovation means considering the unintentional consequences and crafting hedging against those risks. Engineers, as very competent technical people, naturally bring that level of analysis and detail to the table. That technical competence, coupled with our clear communication style and the mechanism you've built here at OSPE, is incredibly important.

How do you select the task force initiatives, and what is the task force working on right now?

Last year, OSPE ran series of town hall consultations regarding the relevance of green energy, clean technology, and the climate crisis. The resounding feedback we got was that OSPE members want to see greater action on how engineers can provide solutions to this climate crisis and the shifting of our infrastructure. So as a result, in 2023, we are creating a new working group that will highlight cleantech innovation from engineers.



Climate Crisis Task Force

with Geoff Sheffrin, P.Eng. (Chair)



Tell us how you got involved with the Climate Crisis Task Force.

In the summer of 2021, OSPE asked for some EngTalks. So I threw my hat in the ring – and lo and behold, delivered a couple of EngTalks, which led to some blogs, it led to a couple of editorial pages in *The Voice*, and it allowed me to start ranting and raving about the fact that we’re running out of time. Soon enough, I was chairing the task force.

How do you select the task force initiatives, and what is the task force working on right now?

My agenda selection is relatively straightforward; it is those things we must be doing in Ontario to mitigate the effects of the climate crisis. We get involved with small modular reactors, we get involved with the grid, we get involved with electric vehicles, we get involved with the mining of rare minerals, we get involved with nuclear, and we also get involved with hydrogen. So our task is to put together information that allows OSPE to help direct our political leadership in Ontario to move the needle forward in favour of climate change mitigation. It’s a fascinating field, and I love the fact that I’ve got some great volunteers who roll up their sleeves and start digging into some detail.

One initiative I’m pushing – which isn’t that high on our agenda just yet, but I think it’s critical within Ontario – is the infrastructure of the electrical grid capacity. If we’re going to go to electric vehicles, if we’re going to make green hydrogen (which chews up a lot of electricity), we need to make sure our nuclear is up to speed. We need to make sure we have twice the electrical generating capacity that we currently have in Canada. And then we need to make sure that it can be distributed; our current

grid does not have the capacity and the infrastructure strength.

If climate change projects involve political influence and decisions, has your team made presentations to political leaders?

Not only have we made presentations, but we were actually at Queen’s Park on February 28. That was a terrific way of meshing with politicians, hearing firsthand where they are, and giving OSPE the opportunity to put the platforms on the table. A small group of us met with Mike Schreiner, the head of the Green Party. Mike is very keen on hearing more about OSPE initiatives, because he’s the only sitting member in the Ontario legislature from the Green Party. He has the ability to put things forward, and he’s very much an ally on the green page.

Are you interested in getting involved with OSPE’s Task Forces? Email advocacy@ospe.on.ca to learn how you can help us build a better Ontario.





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¹ Premium rates have been reduced by 75% for new or additional Member Term Life and Spouse Term Life coverage. Premium rates will increase on April 1, 2024. Please see manulife.ca/Celebrate75 for further details. The premium rate reduction does not apply to existing Term Life coverage.

² To be eligible for the offer of \$50,000 of additional Term Life coverage at no extra cost for up to two years, Members must meet the Engineers Canada-sponsored Term Life eligibility requirements: be aged 18 to 65; be applying for Engineers Canada-sponsored Term Life Insurance for the first time without having previously been declined for Term Life coverage by Manulife; be applying and approved for \$25,000 of Term Life coverage or more. Available to Members only (not available on Spousal coverage). For complete details, see manulife.ca/newmember.

³ Odds of winning depend upon the number of eligible Entries received. Limit one (1) Entry per entrant. Total of twelve (12) Prizes available. Winner(s) will receive an Apple® Gift Card valued at approximately CAD \$750. Correctly answered skill-testing question required. No purchase necessary. Contest closes February 29th, 2024 at 11:59 PM Eastern Time (ET). See full contest rules at manulife.ca/rules75.

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CERTIFICATE PROGRAMS

Project Management Essentials for Engineers



Dates: Tuesdays & Thursdays
October 18 – October 27, 2023

Price: \$695

ONLINE

OSPE's Project Management Essentials certificate program introduces the tools and techniques of modern project management and equips you to lead successful projects in your workplace.

Taught by engineering and project management expert Darya Duma, P.Eng., PMP, this hands-on course prepares learners to:

- develop a complete project management plan
- set a project's scope, schedule, and budget
- prepare for risks and respond to changes
- manage resources and apply lessons from previous projects

Tech Stewardship Practice Program

(in collaboration with Engineering Change Lab)



Dates: Self-Directed
August 1 – December 31, 2023

Price: \$80

ONLINE

Technology is transforming our world – for better and for worse. The Tech Stewardship Practice Program comprises reflective exercises that help you integrate socio-ethical considerations into your work, navigate the competing priorities you face in your career, and bend the arc of tech towards good.

Requiring 12 hours to complete, this self-facilitated program fits easily around your other commitments and delivers a sought-after micro-credential.

Writing that Sells: Technical Proposals and Pitches



Dates: On-Demand

Price: \$225

ONLINE

Learn how to set your proposal apart. This program equips you to deliver impressive proposals, build strong relationships, and win over potential clients. Developed for working professionals, the course lets you learn independently and provides opportunities to interact with your instructor through discussion boards and assignments.



JOURNEY TO P.ENG.

ospe.on.ca/oea/journey-to-p-eng

PE301 - Preparing Your PEO Experience Record

Dates:

September 23, 2023 (Saturday)
November 17, 2023 (Friday)

Price:

\$195

ONLINE

This one-day interactive session provides participants with the knowledge and skills to develop their Experience Record, which is an absolute requirement for P.Eng. licensing in Ontario. It introduces the five criteria by which PEO assesses experience, outlines a six-step process for completing your experience record, and equips you to effectively communicate your “engineering stories.”

As a follow-up to the course, participants are invited to discuss their Experience Record content in a follow-up coaching conference call three weeks after the workshop. Optional individual programs will also be made available.

Preparatory Course for the National Professional Practice Exam (NPPE)

Dates:

Tuesdays
July 25 – August 29, 2023
September 26 – October 24, 2023

Price:

\$350

ONLINE

OSPE’s most popular course equips you to pass PEO’s National Professional Practice Exam (NPPE). Taught by an experienced instructor, this course prepares students for the topics covered in the exam and includes a detailed review of sample exam questions. Students also enjoy on-demand access to pre-recorded prep videos.

This course is backed by the OSPE Guarantee: if you do not pass the exam on your first attempt after taking the NPPE prep course, you can retake the course within one year at no cost.

Upcoming Examination Dates:

September 11-13, 2023

November 6-8, 2023



ospe.on.ca/oea/journey-to-p-eng

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On **Monday, May 8**, members from across Ontario gathered virtually for OSPE's 2023 Annual General Meeting (AGM). This meeting provided a forum for OSPE's members and leadership to celebrate the association's successful 2022, recognize incoming and outgoing Board Directors, and conduct official Society business. Read our recap here, or watch the full recording on [YouTube](#).

INTRODUCTION

The AGM opened with remarks from OSPE President and Chair **Dr. Marilyn Powers, P.Eng.** Dr. Powers offered a land acknowledgment for the evening's proceedings and thanked OSPE's Annual Partners and the 2022-2023 Board Directors. Following these introductory statements, the members voted to approve the minutes of the 2022 AGM.

REPORT FROM THE CHAIR AND CEO

OSPE CEO **Sandro Perruzza** then joined Dr. Powers to review the association's highlights from the previous year. 2022 marked the introduction of OSPE's new strategic plan, which outlines the society's four pillars: equipping engineers to **Lead, Grow, Care, and Prosper**. Key accomplishments from 2022 included:

- Releasing leading research reports on **Indoor Air Quality, Data Governance**, and other current topics.
- Delivering **certificate programs** and **P.Eng. prep courses** to hundreds of learners.
- Hosting the **2023 Engineering Conference** in Ottawa, OSPE's first in-person conference since 2019.
- Working with **Women and Gender Equality Canada**

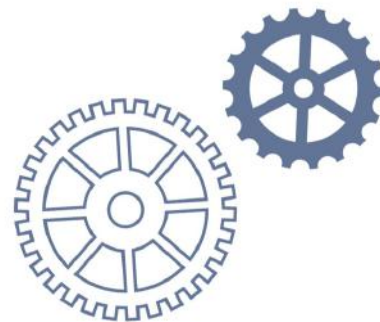
to explore how sustainable procurement policies can support employment opportunities for equity-seeking groups.

- Welcoming over 800 job seekers to our **Virtual Engineering Employment Events**.
- Engaging **elected officials** to ensure engineers have a spot at the decision-making table.
- Publishing **Ontario's Engineering Community in Transition**, a study exploring how different sectors of Ontario's engineering community view the profession.

A complete review of OSPE's 2022 accomplishments is available in our [2022 Annual Report](#).

*"I would like to thank all of you – OSPE's dedicated members and ambassadors – who contribute your time and expertise...We have **a lot** going on at OSPE, and we hope you'll continue to be engaged by sharing your voice."*

Dr. Marilyn Powers, P.Eng.



REPORT OF THE NOMINATIONS COMMITTEE

The next item of business was the report of OSPE's 2023 Nominations Committee, delivered by Committee Chair **Stephen Pepper, P.Eng.** Stephen announced that the following members were elected to three-year terms:

- David Carnegie, P.Eng.
- Mark Emmanuel, P.Eng.
- Meggen Janes, P.Eng.
- Caroline Wojtyla, P.Eng.

These four Board Directors commenced their terms immediately upon the conclusion of the AGM.

"I want to say thank you to all the candidates who took time out of their busy schedules to run in this year's election. Your dedication and commitment to your profession is truly appreciated."

Stephen Pepper, P.Eng.

REPORT OF THE TREASURER

The Chair then invited OSPE Treasurer **Nicholas Burgwin, P.Eng.**, to present OSPE's 2022 financial statements. Nicholas delivered a summary of revenue and expenses from 2022, and members voted to appoint BDO Canada, LLP, as the Society's auditors for 2023.

"The investments we made in 2022 and the investments we will continue to make over the next few years are all aimed at bringing value to our members."

Nicholas Burgwin, P.Eng.

MEMBERS' QUESTIONS

Following the Treasurer's report, the Chair and CEO took questions from OSPE members, including:

- What is OSPE doing to strengthen its relationship with PEO?
- What are OSPE's plans to provide continuing professional development (CPD) for P.Eng. licence holders?
- What can OSPE do to further lobby and inform industry and government bodies on the instrumental role engineers hold in climate change mitigation?
- What is OSPE doing to advocate for the value of

the P.Eng. licence and exclusive rights to practice, such as engineers taking accountability with other qualified professionals for carbon calculations?

- How many OSPE members are there?
- Does OSPE have mobility agreements with other provincial professional engineering associations?
- Do we have a recent survey / statistics of unemployed and employed professional engineers in Ontario?
- What percentage of professional engineers are members of OSPE, and what action is being taken to strengthen OSPE and increase its membership?
- Is there anything that OSPE might consider to assist in educating and potentially promoting limited licensees?
- Are OSPE's professional development courses free to OSPE members, or do members need to pay a fee?

This list is edited for conciseness; for a complete account of questions and answers, consult the [AGM video recording](#).

NATIONAL ENGINEERING MONTH – UNIVERSITY STUDENT CHALLENGE

Following member questions, the Chair announced the winners of the **2023 University Student Challenge**. This annual challenge, sponsored by OSPE, takes place every March during **National Engineering Month**. Teams of up to five engineering students from across Ontario work together to host public outreach events in their communities.

The following teams took home top honours for their events:

FIRST PLACE

University of Ottawa (Team Lead: Leah Kristufek)

SECOND PLACE

University of Ottawa (Team Lead: Didem Cicek Simsek)

THIRD PLACE

McMaster University (Team Leads: Olivia Wiper, Joseph D'Angelo, Jonathan Sukhu, Abdul Basith Siddiqui, Oluwadayomi Kehinde)

ACKNOWLEDGING OUTGOING BOARD DIRECTORS AND WELCOMING STEPHANIE HOLKO

The Chair then thanked OSPE's outgoing board directors (Réjeanne Aimey, P.Eng., Nick Burgwin, P.Eng., and Mark Frayne, P.Eng.) for their service. As the last item of business, Dr. Powers introduced OSPE's Vice Chair and incoming President and Chair, Stephanie Holko, P.Eng., MBA. Vice Chair Holko thanked Dr. Powers for her strong leadership over the past year.

"Behind every successful member association there is an extraordinary volunteer team. On behalf of OSPE, I thank you – Réjeanne, Nick, and Mark – for contributing so much of your time, energy, and efforts to the engineering community. It has been my pleasure to work with each of you".

Dr. Marilyn Powers, P.Eng.

NEW OSPE EXECUTIVE COMMITTEE

Following the conclusion of the AGM, the 2023-2024 Board of Directors held their inaugural meeting and elected the following members to the Executive Committee:

- President and Chair - Stephanie Holko, P.Eng., MBA
- Vice Chair - David Carnegie, P.Eng.
- Treasurer - Stephen Pepper, P.Eng.
- Secretary - Meggen Janes, P.Eng.
- Past Chair - Dr. Marilyn Powers, P.Eng.



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OSPE CLASSIC GOLF TOURNAMENT MAY 2023

On May 31, OSPE members and partners gathered at Angus Glen Golf Club for the **2023 OSPE Classic Golf Tournament**. In addition to a round of golf on a world-class course, the event featured a silent auction, helicopter ball drop, and mulligan sale that raised over \$15,000 for the **Ontario Professional Engineers Foundation for Education**. OSPE is already hard at work planning the 2024 tournament. Stay tuned to our digital channels for updates on all upcoming events.



(L-R) Arthur Sinclair, P.Eng., Sandra Ausma, P.Eng., Réjeanne Aimey, P.Eng., and Nicholas Burgwin, P.Eng.



(L-R) Johnny Zuccon, P.Eng., Dave Carnegie, P.Eng., Ray Mantha, P.Eng., and Louis DiPalma.



(L-R) Chris Crozier, P.Eng., Grant Beeler, P.Eng., Nick Mocan, P.Eng., and Matt Hartfiel.



(L-R) Sandra Ausma, P.Eng., and Annette Bergeron, P.Eng.



(L-R) Sylvain Fauchon and Olga Dragas.



OSPE President and Chair Stephanie Holko, P.Eng., MBA



Golfers await the 50/50 helicopter ball drop.



Cheryl Farrow wins the 50/50 draw.



(L-R): Stephanie Holko, P.Eng., MBA, Dan Patram, Neil Rooplal, Sunil Haricharan, Dave Ramsumair, and OSPE CEO Sandro Perruzza.



OSPE staff and volunteers are all smiles at the registration desk.

Share Your Expertise!

OSPE is seeking qualified members of the engineering community to join our task forces.



Use your skills and expertise to advocate on important issues and help develop the policies that will allow Ontario to compete and move our province forward.

Task Forces

- Climate Crisis
- Research and Innovation
- Energy
- Sustainable Cities
- Equity, Diversity, Inclusion and Accessibility (EDIA)

For more information, email advocacy@ospe.on.ca.





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¹ Internal statistics of The Personal: Approximate number of policyholders who renewed their policies when their policy came up for renewal from January 1, 2022, to July 31, 2022. The rate does not include mid-year term cancellations and terminations.