

FALL 2024

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2024 APEGNB MEMBER SURVEY RESULTS

We asked, you answered. APEGNB shares a summary of the results of our 2024 member survey.

APEGNB BRANCHES

Taking a closer look at the relationship between the Association and its Branches.



DUTY TO REPORT


Examining the ethical duty for professionals to report incidents and complaints



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Message from the President

As we enter the Fall season I'm encouraged by the accomplishments we have made together this year. From enhancing our professional development offerings, to engaging in meaningful outreach within our communities, and our continued commitment to the principles that guide us as engineers and geoscientists, APEGNB has continued to thrive thanks to your dedication and active participation. Our obligation to public safety, ethical practice, and lifelong learning remains at the forefront of everything we do.

Beginning October 1, members are reminded to complete their annual renewal process for the following year. If applicable to you, CPD, updated information, annual declaration and payments must be completed by December 31. Watch for reminders from the Association during this period.

October will also mark the second year of our APEGNB Connections Program. The Program helped participating young professional members to benefit from the experience, guidance and ideas willingly shared by our professional mentors. The program's new features, including competency-based filtering, will provide even more value to our members. I encourage those of you who wish to give back to your profession to consider becoming a mentor within the program and for any MITs to register as mentees to take advantage of this unique opportunity for mentorship and growth. Please watch for reminders from APEGNB on how to participate.

As we look to the future, I'm excited about the initiatives we have planned for the coming months. Our focus on professional development will continue to expand, with new programs designed to help you stay ahead in a rapidly changing industry. We're also enhancing our outreach efforts, as well as improving our registration processes to better meet the needs of current and prospective applicants.

None of our achievements would have been possible without the hard work and dedication of our members. I want to extend my thanks to each of you for your ongoing contributions to the association and to the engineering and geoscience professions in New Brunswick. Your expertise, and commitment are what drive us forward!



Holly Young, P.Eng., FEC
105th President, APEGNB

Let's continue to support each other, share our knowledge, and strive for excellence in all that we do. Together, we can ensure that APEGNB remains a trusted and integral regulatory body in our province.

Wishing you a productive and inspiring Fall season.

With gratitude,

Holly Young

HOLLY YOUNG, P.ENG., FEC

President, APEGNB

president@apegnb.com

p.s. - If you want to make a difference, please volunteer with your Association. Feel free to send me an email to find out more.

Message from the CEO & Registrar

In Spring 2024, APEGNB issued our annual member survey to help identify the issues facing our registrants. The survey aimed to identify the most pressing issues impacting the profession today, allowing us to proactively address these challenges and ensure that our regulatory practices remain relevant and effective. Several significant themes surfaced from this year's responses, and I would like to take a moment to address them.

Key Issue #1: Application Processing Time

The processing timeline for applications was identified as an issue by many. APEGNB recognizes the need to reduce the wait time for applications and has highlighted the need for clear communication around the application requirements and expectations. As part of the 2023-26 Strategic Plan, APEGNB has undertaken a project to improve our registration process and work is in progress to reduce these timelines. Targets have been set, additional staff have been hired and a 'tracking' tool is being investigated to assist applicants who wish to know where they are in the queue for processing.

Over time, we anticipate that applications will be processed more quickly, and information will be more readily available to applicants on the website and application portal, in order to reduce the number of phone calls and follow-up emails.

Key Issue #2: Responses to enquiries

APEGNB staff receive numerous phone calls and emails related to applications or simply ask questions about the registration process. These enquiries are addressed as they are received despite much of the information is available on the APEGNB website. Additional staffing will help with addressing enquiries and the website is being reviewed to clarify requirements.

Key Issue #3: CPD Requirements

Respondents indicated that APEGNB should prioritize offering professional development opportunities. Currently the APEGNB Annual General Meeting provides several sessions that are recorded and made available following the meeting for several weeks. In addition, APEGNB will also be introducing Regulatory and Ethical learning modules in the Fall and other resources are noted on the APEGNB website and will be promoted regularly through the monthly Regulatory Matters email.

Several members provided feedback about the CPD portal and how to make entries easier. APEGNB is reviewing these requests with our developer to determine what is possible.



Lia Daborn, CAE, ICD.D

Other comments about the program were related to the annual requirements. Registrants are reminded that the program changed in January 1, 2024, and that the requirements have been adjusted to be more flexible for registrants who do not work full time, or who find it difficult to obtain specific types of education. [The revised CPD Guideline is available on our website.](#)

Key Issue #4: Lack of Qualified Practitioners

Workforce concerns were raised a number of times by many respondents. The concerns ranged from individuals performing engineering or geoscience work while being unregistered (or unqualified), and challenges finding and retaining qualified practitioners. It's important to recognize that allowing non-professionals to perform engineering work could elevate safety risks and potentially undermine the long-term viability of New Brunswick's engineering/geoscience sector. Addressing this issue demands continuous promotion of engineering as a rewarding career and the active involvement of members in fulfilling their ethical duty as part of a self-regulated profession. This includes reporting any unlicensed practitioners to APEGNB through the Complaints process as outlined in the Act.

Other Feedback

Respondents provided input on a number of other topics, including branch activities, regulatory concerns, emerging disciplines and existing priorities.

Message from the CEO & Registrar

Interestingly, other points that were mentioned by registrants indicated that they were seeking information on compensation rates and “recommended pay” guidelines for consulting companies and employers. APEGNB’s Atlantic salary survey results will be available later this Fall.

As well, there were several comments on the Limited License category which was introduced in 2024 and noted that this was leading to dilution of the professions. As of August 2024, two limited licenses have been granted. A total of five applications have been received.

The final results of the member survey were shared with Council at the recent planning retreat and will continue to inform future activities of the organization.

In summary, respondents have challenged APEGNB to strike the right balance between protecting the public by ensuring only qualified professionals practice, while not imposing unnecessary restrictions on current practitioners or applicants. This is a challenge we are committed to meeting. Our staff and volunteers will continue to maintain a rigorous registration process, ensuring that registrants are competent and fulfill their responsibilities as self-regulated professionals under the Act and by-laws. Thank you for your on-going engagement with your regulator!



LIA DABORN, CEO & REGISTRAR

lia@apegnb.com



**IN 2025
APEGNB CELEBRATES**

25 years of regulating the
geoscience profession in
New Brunswick

*Watch for communications in the
coming months on how we will be
celebrating this significant milestone.*



INSIGHTS FROM THE 2024 APEGNB MEMBER SURVEY

In the summer of 2024, APEGNB conducted a member satisfaction survey to gain insight into various aspects of the organization's performance and member engagement. The survey results provide valuable feedback on how the association is perceived and highlight areas for improvement.

This year, 444 active members participated, marking an 11% engagement rate, slightly down from 12% in 2023. Of those responses, 7.8% of respondents are considered "internationally educated" (Bachelors Degree from outside of Canada).

By examining these results, we can identify key areas for improvement and set actionable goals to enhance member engagement and inclusivity.

Member Satisfaction Overview

The survey assessed member satisfaction across several key areas. Respondents rated their overall satisfaction with APEGNB's efforts to advance engineering and geoscience within New Brunswick, enforce against illegal practice, protect the public, promote diversity, and recognize professional achievements. The results indicated that members generally hold a positive view of APEGNB's efforts.

Contact and Resolution

In the past year, a significant portion of respondents interacted with various APEGNB departments. Registration and finance departments were the most contacted, with 27.12% and 23.24% of respondents, respectively. Overall, 91.72% of members reported that their issues were satisfactorily resolved when they contacted APEGNB, indicating strong performance in member support and issue resolution.

APEGNB Initiatives

When prioritizing APEGNB initiatives, members placed the highest importance on offering professional development opportunities, followed by promotion of engineering and geoscience in K-12 schools. These results emphasize the importance of continued focus on professional growth and educational outreach.

Member Portal and Communication

The survey revealed a generally positive experience with the *myAPEGNB* member portal. Entering CPD information and updating personal details received satisfactory ratings. However, general navigation and the renewal process scored lower, indicating potential areas for enhancement. Notably, 74% of respondents did not encounter difficulties using the portal, but improvements could further ease member interactions.

Conclusion

The feedback from the APEGNB member satisfaction survey is instrumental in guiding the association's future initiatives and enhancing member services. The results demonstrate a positive reception of APEGNB's efforts while also identifying areas for improvement, particularly in event diversity, member portal usability, and professional development opportunities.

We thank everyone who participated in the survey and look forward to leveraging these insights to better serve our membership.

NEW BRUNSWICK LABOUR MARKET

We also asked APEGNB registrants, as part of the overall 2024 member survey to gain insights into the current state of the labor force and employment landscape, as well as to understand the experiences, challenges, and perspectives of professionals within various industries and sectors.

Current Employment Landscape

The latest survey conducted by APEGNB reveals a comprehensive snapshot of the current employment status among engineering and geoscience professionals in New Brunswick. A significant majority, 88.05%, of respondents are engaged in full-time employment. Part-time employment accounts for 4.19% of the responses, while a small fraction, 0.46%, are either unemployed or in transition. Retirees represent 5.32% of the respondents, indicating a stable, yet aging workforce. Additionally, 0.46% are on parental or medical leave, and 5.30% fall under other categories.

Professional Workload Analysis

Members were asked to rate their current professional workload. The findings indicate a predominantly high workload among respondents, with 46% reporting an above-average workload. Another 43.53% describe their workload as average, while a small portion, 4.18%, report a below-average workload. This data underscores the demanding nature of the professions within the engineering and geoscience sectors.

Regulatory Challenges

According to recent survey responses, the most pressing regulatory challenges impacting the engineering and geoscience professions in New Brunswick include issues with continuing professional development (CPD) requirements and the recognition of international qualifications. Many long-time Professional Engineers are dropping their P.Eng status because they struggle to find the time to complete the CPD requirements. Additionally, there is also a significant challenge in the smooth and swift registration process for internationally trained engineers and geoscientists, with many advocating for a more efficient system to evaluate and recognize foreign credentials.

However there is agreement on maintaining a high level of practice and ensuring public safety which remains paramount.

Lastly, the adoption of technological advancements, like artificial intelligence, and staying current with evolving environmental standards are seen as critical areas that need attention to keep the professions relevant and effective.

Future Workload and Staffing Projections

Anticipating the future, members shared their perspectives on how their workload and staffing needs might evolve over the coming year. A notable 23.7% of respondents expect an increase in workload due to upcoming projects or contracts. Similarly, 24.14% predict a need for additional staff to manage growing project demands. Workforce planning remains a critical focus, with 20.09% acknowledging the need for proactive strategies to address potential retirements or leaves. Moreover, 5.09% are assessing the impact of remote work policies on staffing and workflow management, while 7.16% emphasize the importance of maintaining a flexible staffing model. Interestingly, 16.53% of respondents did not align with any of these specific projections.

Recruitment and Retention Challenges

The survey also highlighted significant challenges in recruiting and retaining qualified staff. Many respondents cited difficulties in finding experienced professionals, particularly in specialized fields. Geographic factors also play a role, with several professionals indicating a reluctance among candidates to work in remote areas of the province. The retention of young engineers poses an ongoing challenge as they often seek better opportunities or change careers frequently. Furthermore, the competitive landscape, particularly concerning compensation and remote work options, has intensified the struggle to attract and keep talent.

Summary

The anticipation of increased workloads and the need for additional staff highlight the growing demands within these sectors. As APEGNB moves forward, addressing these challenges through strategic planning and proactive workforce management will be essential in contributing to a robust and resilient professional community.

EMPOWERING EXCELLENCE: VOLUNTEERS' IMPACT ON REGULATION

By Lauren Nicholson, Director of Communications, APEGNB

Volunteers are the unsung heroes of engineering and geoscience regulatory bodies, contributing their time, expertise, and passion to uphold standards, promote professionalism, and ensure public safety. If you have ever thought about volunteering with your regulatory body, there are a number of ways that you could get involved.

- Volunteers play a crucial role in developing and reviewing standards that govern engineering and geoscience practices. Committees comprised of industry professionals and subject matter experts volunteer their time to draft technical guidelines and best practices that shape regulatory frameworks and promote excellence in the field. For example, volunteers within a regulatory body might collaborate to develop guidelines for sustainable water management practices in environmental projects.
- Engineering and geoscience regulatory bodies rely on volunteers to identify continuing education programs, seminars, and workshops for professionals in the field. These initiatives help volunteers stay abreast of industry advancements, regulatory changes, and emerging trends.
- APEGNB has a robust licensing process which requires a stringent process to ensure that registrants uphold their professional standards. Complaints and disciplinary committees within regulatory bodies investigate complaints of misconduct or negligence. These volunteers play a vital role in ensuring accountability, fairness, and integrity within the profession by adjudicating disciplinary cases and enforcing codes of conduct. In the engineering and geoscience fields, volunteers on these committees might review cases involving conflicts of interest or allegations of professional incompetence.
- Volunteers contribute to outreach initiatives and public engagement efforts aimed at raising awareness about the importance of engineering and geoscience regulations and fostering public trust in the professions. Branch members volunteer their time and represent APEGNB at community events, schools, and industry conferences, where they share information about regulatory requirements, career opportunities, and the societal impact of engineering and geoscience practices.

For example, volunteers might organize a public lecture series on renewable energy technologies or participate in STEM outreach programs to inspire the next generation of engineers and geoscientists.

In conclusion, volunteers are indispensable members of engineering and geoscience regulatory bodies, driving innovation, professionalism, and accountability in the field. Their selfless dedication and tireless efforts contribute to the advancement of regulatory standards, the enhancement of professional development opportunities, and the promotion of public safety and welfare.



Are you a Professional or professional-in-training interested in volunteering with APEGNB?

Email questions@apegnb.com to find out how you can contribute your expertise on one of our many volunteer based committees.

Current Geological Survey of Canada research projects in New Brunswick

Nicolas Pinet and colleague Virginia Brake from the Geological Survey of Canada (GSC), Quebec division, were in New Brunswick this June to begin field work on a project to study sediment-hosted stratabound copper mineralization (SSC) in the Late Devonian - Permian Maritimes Basin in New Brunswick and Nova Scotia as part of a Critical Mineral Geoscience and Data Research initiative. The GSC researchers were taken on a field trip to see some of the better-known SSC occurrences in southeastern part of the Maritimes Basin by Sue Johnson of the New Brunswick Geological Survey (Sussex). The SSC potential of the Maritimes Basin, along with other critical metals such as U, Zn, Li, Cs, and REEs, was identified as a key knowledge gap in a presentation given by the New Brunswick Geological Survey during the Pan-Canadian Geoscience Strategy workshop held in Halifax in May 2023. The aim of the research is to fill this knowledge gap by integrating what is currently known about SSC mineralization with recent models of basin evolution and to apply new approaches and methods to provide the basis for a preliminary conceptual paleohydrologic model of metal-transporting fluids, ultimately, for a modern assessment of SSC potential in eastern Canada.

Other GSC researchers working throughout the province include: Dr. Neil Rogers, who is investigating depositional conditions of the manganese mineralization throughout the province with assistance from Dustin Dahn; Dr. James Kidder, who is leading a water



Visiting GSC research scientist Nicolas Pinet on an outcrop of Shepody Formation at Peck's Point south of Rockport in New Brunswick.

geochemistry project in the Bathurst Mining Camp with assistance from Michael Parkhill; Dr. Alex Voinot and Dr. Aleksandra Mloszewski, who are working on a national-scale lithium isotope project with assistance from Steven Rossiter; Dr. Pavel Kabanov, who is evaluating salt for gas storage and critical mineral potential in consultation with Susan Johnson; and Dr. Ian Honsberger, who will be investigating gold mineralization in northern New Brunswick in collaboration with Aaron Bustard.

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Lorraine, P.Geo.

★★★★★

*Photograph shown is for illustrative purposes only.

WHAT IS A COMPETENCY-BASED ASSESSMENT?

By Natascha Toedter, Manager of Registration APEGNB

As part of the national standard toward changing how work experience is documented for engineering and geoscience regulatory bodies, APEGNB has moved to the Competency-Based Assessment (CBA) for all new applicants. Some of you may remember the Logbook program and this has replaced that process and is now the only method accepted for documenting work experience.

The Competency-Based Assessment was created by Engineers Geoscientists British Columbia and is used by many other regulators across Canada. APEGNB adopted the CBA method in 2022 and has since seen individuals receive their P.Eng. and P.Geo. designations through the use of this program.

CBA offers many advantages over previous methods, including increased transparency and objectivity in assessment. Competencies are observable and measurable skills, knowledge, abilities, motivations or traits required for professional registration that are demonstrated through the actions and behaviours of the applicant.

Additionally, CBA covers a broad range of 34 competencies across 7 competency categories (for Engineering); 29 competencies across 4 competency categories (for Geoscience). This method ensures that applicants have thorough experience before becoming licensed to practice.

New applicants will create an account on the CBA website before creating entries about their work experience. Each entry corresponds to one competency and it is up to the applicant to demonstrate how they have adequately met each competency during the course of their work experience.

Once complete, an applicant's submission is reviewed by their supervisor and other professional references, known as "validators".



Scan here for more information about the CBA program.

Finally, the applicant's submission and the validators' feedback are reviewed by TWO APEGNB professional volunteers, known as an "assessor", who provides a final decision as to whether the applicant has met the CBA criteria. If accepted, the applicant's submission is forwarded to the Board of Admissions as part of the P.Eng. or P.Geo. application approval process.

Even though the process for documenting work experience has been updated, the scope and diversity of the experience needed to meet licensure requirements remain unchanged. APEGNB contributes to upholding high standards for acceptable work experience prior to granting licensure.

Engineering Competencies

1. Technical competence [10 competencies]
2. Communication [3 competencies]
3. Project and financial management [5 competencies]
4. Team effectiveness [2 competencies]
5. Professional accountability [6 competencies]
6. Social, economic, environmental and sustainability [5 competencies]
7. Personal continuing professional development (CPD) [3 competencies]

Geoscience Competencies

1. Professional Competencies [7 competencies]
2. Competencies in Scientific Method [5 competencies]
3. Competencies in Area of Geoscience [7 competencies]
4. Complementary Competencies [10 competencies]

How the Board of Admissions Works Alongside Its Committees

By David Kozak, P.Eng.
Chair of APEGNB Board of Admissions Committee

The Board of Admissions at APEGNB is responsible for ensuring that all applicants meet the criteria established in the *Engineering and Geoscience Professions Act* and By-Laws. This rigorous process is designed to maintain high standards for licensure. While the Board makes the final admissions rulings, APEGNB's Council acts as the Appeal Body, providing an additional layer of oversight.

It's important to note that when an individual first applies for licensure with APEGNB through the online application system, their application undergoes a thorough review by APEGNB staff.

This initial review process ensures that all submitted documentation is accurate, complete, and up to date. By checking references and verifying details, APEGNB registration staff ensure that each application meets the necessary criteria before it is forwarded to the appropriate committee for further evaluation.

To effectively carry out its duties, the Board has established several committees:

- Examinations Committee
- Experience Review Committee (ERC)
- Internship

The following paragraphs detail the purpose of each and how it works with the Board of Admissions.

- **Examinations Committee**

- This committee reviews and assesses the academic credentials of applicants. Its primary focus is on those who have obtained their education outside of Canada or hold unaccredited degrees. The committee investigates these academic credentials to ensure they meet the association's standards. Applicants with CEAB accredited engineering degrees bypass this step and proceed directly to the Admissions process. The familiarity of the committee with the applicant's academic program can expedite the review process.

- **Experience Review Committee (ERC)**

- The ERC assesses the professional work experience of applicants. It plays a crucial role in determining whether experienced applicants can be exempted from confirmatory examinations prescribed by the Examinations Committee. The ERC conducts interviews to evaluate the extent to which applicants have applied engineering or geoscience principles in their work. Based on this assessment, the ERC can recommend waiving further testing of the applicant's knowledge. The ERC's recommendation is based solely on the interview responses, emphasizing the importance of thorough and accurate representation of one's professional experience during the interview.

- **Internship Committee**

- This committee reviews and assesses the work experience logs of Members-in-Training (MITs) and applicants. It manages the Competency-Based Assessment (CBA) process, ensuring that the work experience aligns with the standards required for licensure.

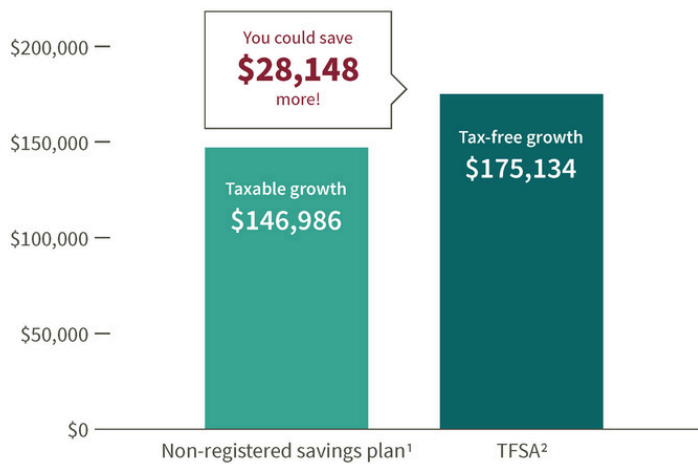
APEGNB Council is responsible for appointing members to these committees, including retired members or subject matter experts, if applicable. Typically, a member from the Board of Admissions is part of each committee to act as a liaison, although this is not a requirement.

In specific cases, such as when an applicant's qualifications are under review, the Examinations Committee may refer the file to the Experience Review Committee (ERC) for further assessment.

Through this structured approach, the Board of Admissions along with APEGNB Registration staff, ensures that all applicants meet the high standards of the engineering and geoscience professions, maintaining the integrity and quality of the profession within APEGNB.

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Assumptions:
¹ 6% annual gross growth rate and mid-year annual lump sum contributions are assumed. Ontario HST is applied.
² Management Expense Ratio MER (%) based on the average Canadian equity mutual funds from Morningstar.
³ 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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Want some advice? Connect with your personal Canada Life health and wealth consultant online when it's convenient for you at all steps of your financial journey.



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Duty to Report: Upholding the Integrity of the Engineering and Geoscience Professions

Stéphanie Doucet-Landry, P.Eng., FEC
Director of Professional Affairs, APEGNB



Professional engineers and geoscientists bear a significant responsibility not only to their clients and employers but also to the public and the environment. One of the cornerstones of maintaining this responsibility is the "duty to report," a critical component of professional practice that ensures adherence to the highest ethical standards. For members of APEGNB, this duty is clearly outlined in the Code of Ethics under the Code of Conduct, section 2.5.

Understanding the Duty to Report

The duty to report requires professionals to take appropriate action when they become aware of situations that may endanger public safety, welfare, or the environment. This obligation is not merely a suggestion but a fundamental ethical duty that underscores the trust placed in engineers and geoscientists by society. It mandates that professionals report any observed unethical practices, violations of laws, or standards of practice that could compromise the safety, health, and welfare of the public.

The Role of the Code of Ethics

APEGNB's Code of Ethics provides a clear framework for ethical professional conduct. Section 2.5 of the Code of Conduct specifically addresses the duty to report, emphasizing that members must act with integrity and hold paramount the safety, health, and welfare of the public. This section highlights that when a professional becomes aware of any situation that might pose a threat, they are ethically obliged to report it to the appropriate authorities or regulatory bodies.

Why Adhering to the Code of Ethics Matters

Adherence to the Code of Ethics is paramount for several reasons:

- 1. Public Trust:** The public relies on the expertise and integrity of professional engineers and geoscientists. By adhering to the duty to report, professionals maintain and enhance public trust in the profession.
- 2. Professional Integrity:** Upholding ethical standards is essential for maintaining the integrity of the profession. Reporting unethical behavior or dangerous practices ensures that the profession remains reputable and trustworthy.
- 3. Legal Compliance:** The duty to report aligns with legal obligations and regulatory requirements. Failing to report can result in severe consequences, including legal action against the professional or their employer.
- 4. Protecting Public Safety:** The primary goal of the duty to report is to protect the public. By identifying and addressing potential hazards or unethical practices, professionals contribute to the safety and well-being of the community.

The Process of Reporting

APEGNB maintains a rigorous complaints process which is outlined in the *Engineering and Geoscience Professions Act* to ensure public protection by addressing professional misconduct or incompetence among its registrants. When a professional identifies a situation that requires reporting, it is crucial to follow a structured process:

1. Gather and document all relevant information and evidence related to the concern. Clear and concise documentation is essential for substantiating the report or complaint.
2. The Complaints process begins when a written allegation is received against a member, licensee, or holder of a Certificate of Authorization.
3. Per our Act (section 12), the proper process for submitting a complaint requests that any complaint, allegation or report be issued in writing and signed by the complainant (the person alleging the complaint). Following the correct procedure ensures that the concern is addressed promptly and effectively.
4. The APEGNB Complaints Committee will investigate and consider this matter further to determine the next steps of this process.

Conclusion

The duty to report is a critical aspect of professional ethics for engineers and geoscientists. By adhering to this duty, professionals uphold the integrity of their professions, protect public safety, and maintain the trust placed in them by society.

APEGNB's Code of Ethics provides a clear guideline for this responsibility, ensuring that members act with integrity and prioritize the welfare of the public in all their professional activities.

As the regulatory body for the Engineering and Geoscience professions in New Brunswick, APEGNB administers the professions in accordance with the Engineering and Geoscience Professions Act. Inquiries about regulatory or enforcement issues can be directed to Stéphanie Doucet-Landry, P.Eng., FEC, Director of Professional Affairs, at stephanie.doucet@apegnb.com

PROMOTING DIVERSITY & EXCELLENCE

University of Moncton's Commitment to Diversity and Innovation

In its commitment to promoting diversity in engineering, the University of Moncton's Faculty of Engineering, supported by the Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB), maintains an active outreach program. This program is led by outreach coordinator Imène Bouguelia, and aims to inspire a new generation of professionals.

Among the key initiatives at the Faculty of Engineering on the Moncton campus are the "GoEng Girls" program, which encourages young girls to explore STEM (science, technology, engineering, and mathematics) fields, and a science and engineering camp that offers participants the opportunity to engage in over 12 workshops covering topics such as robotics, programming, civil engineering, and various sciences.

Another key initiative of the Faculty is to support Engineers Canada's 30 by 30 initiative to achieve 30% of females among newly licensed engineers by 2030. To support this, various activities have been organized at the faculty and local francophone middle and high schools, reaching students from grades 6 to 11 through presentations and interactive classroom workshops.

The university's commitment to its students is also reflected in the increasing enrollment, which is now 394 full-time students, with females identifying as 29%. The faculty also hosts 46 Masters and Doctoral students. Various programs and activities are in place to improve retention and create a dynamic and inclusive academic community.

The faculty's clubs and committees have excelled this year as well. Eight students participated in the Atlantic Engineering Competition, and four attended the Engineering Leadership Summit at UNB Saint John. Three students represented U de M at the Canadian Engineering Leadership Conference in Newfoundland. They won four out of seven awards at the Quebec Engineering Games, and the concrete canoe group placed 9th in the national competition at Laval University, winning the award for most improved team of the year.

Research remains a fundamental pillar of the faculty, supported by two research centers chairs (the Wind Energy Engineering Centre and the Energy Conversion Research Centre) and two research laboratories (Dynamium and R.E.I. 4.0). These facilities enable applied research and the training of engineers ready to meet tomorrow's challenges.

The University of Moncton stands out as the only institution outside Quebec to offer an accredited engineering program in French. Its commitment to academic excellence and innovation paves the way for a bright future for the next generation of engineers.

*Submitted by Imène Bouguelia
Outreach Coordinator, Faculty of Engineering*

APEGNB DIRECTOR OF REGISTRATION

WELCOME CAROLYN!

APEGNB welcomes Carolyn Lorden to the team as Director of Registration. You can connect with her at carolyn@apegnb.com.



HIGHLIGHTS FROM 2024: INNOVATIONS AND ACHIEVEMENTS AT UNB'S FACULTY OF ENGINEERING

The Faculty of Engineering at the University of New Brunswick has had a remarkable 2024, marked by a series of innovative projects, groundbreaking research, and notable achievements. From pioneering new technologies to enhancing educational opportunities, UNB's engineering community has continued to make significant strides in various fields. This collection of highlights showcases some of the most impactful and inspiring moments from the past several months, reflecting the faculty's ongoing commitment to excellence and innovation.

January

Expanding Access to Education

In response to the critical shortage of land surveyors in Canada, UNB's Geodesy and Geomatics Engineering (GGE) department launched the GGE Remote program in January 2024. This hybrid learning initiative aims to make specialized education more accessible to working professionals and international students by offering remote training and courses. This program represents a significant step toward addressing industry needs while providing flexible learning opportunities.

April

UNB Engineers Showcase Excellence in Education, Innovation, and Student Achievement

April continued the momentum with educational initiatives and student showcases. Researchers engaged 15 provincial schools in studying the effects of the April 8th solar eclipse, combining scientific research with hands-on learning for students. The 10th annual Engineering Design Symposium provided a platform for 181 students to present innovative capstone projects, demonstrating their readiness to address real-world challenges. Additionally, UNB students excelled at the 2024 Canadian Engineering Competition, while a tour of the Point Lepreau Nuclear Generating Station offered nuclear engineering students a deeper understanding of the field.



February

Honoring Excellence

Dr. Kevin Englehart, a distinguished professor at UNB, was honored in February 2024 as an IEEE Fellow for his pioneering contributions to myoelectric signal processing in rehabilitation engineering. His work, particularly in improving upper limb prosthetics, has had a profound impact on enhancing the quality of life for individuals relying on these technologies. Dr. Englehart's recognition underscores UNB's commitment to advancing research that makes a difference.

May

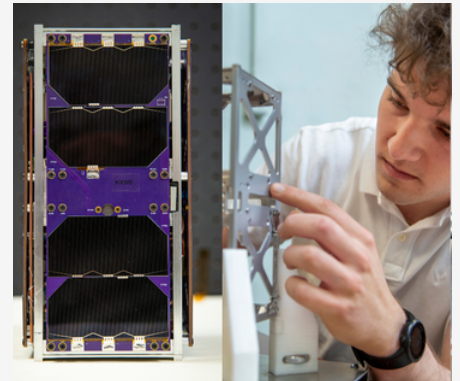
Advancing Research and Empowering Advocacy

Dr. Erik Scheme, an associate professor at UNB, was nominated for a University Research Award, acknowledging his pioneering work in biomedical engineering, particularly in the fields of prosthetics, human-machine interaction, and aging in place. His dedication to student mentorship and academic collaboration further highlighted his impact on both the university and the broader community. In the same month, UNB alumna Cassandra Pitchford was honored with the Gold Medal Student Award at the Engineers Canada Award Gala. Her tireless advocacy for accessibility, particularly through her work at the New Brunswick Department of Transportation and Infrastructure, has made a profound impact on ensuring public buildings meet the needs of all individuals. Cassandra's recognition reflects the university's commitment to fostering leaders who drive positive change in society.

March

Space Research and Sustainable Technologies

In March, the university made headlines with the launch of CubeSat VIOLET to the International Space Station, a project aimed at studying the sunspot cycle and its effects on Earth's atmosphere. UNB engineering students also developed two groundbreaking technologies: the NanoGrid NEXUS, a smart grid solution for sustainable living, and a force myography device to improve human-machine interaction.



August

Enhancing Transportation Systems

August 2024 saw the launch of a new research lab by Dr. Trevor Hanson, focused on improving community transportation systems. His work addresses the unique challenges faced by New Brunswickers, particularly in areas with limited public transportation options. By exploring innovative solutions, Dr. Hanson is helping to shape a more accessible and efficient transportation network for the province.



www.unb.ca/fredericton/engineering/



www.linkedin.com/in/unb-engineering/

Hatch and NSMTC establishing joint venture to offer Indigenous-led engineering and professional services

Republished with permission from the North Shore Mi'kmaq Tribal Council (NSMTC)

On July 22, 2024, Hatch and the North Shore Mi'kmaq Tribal Council (NSMTC) announced the exploration of a joint venture (JV) opportunity for Canada's clean energy and infrastructure sectors. Unlike other engagements, the NSMTC and Hatch are bringing an Indigenous-led approach to sustainable development for the betterment of the next seven generations.

Hatch and the NSMTC have a long history of working together successfully on various engagements over the past 25 years. This JV would solidify our relationship to provide professional services that leverage our capabilities in:

- Feasibility/front end studies
- Civil site development – geotechnical, design/CAD, site survey, traffic studies, laboratory analysis
- Environmental, sustainability and community engagement services
- Project management
- Business advisory services – market studies and development agreements

The JV, Wellugwet Technical Services, would be underpinned by the responsible development of lands and resources. Wellugwet is a Mi'kmaq word meaning “do good work, do well, or succeed” and was selected through consultation with NSMTC Chiefs, Elders, and leadership.

The NSMTC is interested in building capacity and capability in the energy sector, and this aligns well with Hatch's demonstrated expertise, while providing Hatch with access to new markets and the opportunity to advance reconciliation with the Indigenous Peoples of Canada.

"This intended joint venture will combine Indigenous vision and leadership with technical capacity, leveraging the collective strengths of the NSMTC and Hatch. Our Tribal Council strives to create opportunities for our young people, and we value the chance to collaborate with partners like Hatch. Together, we are embarking on a journey of shared success for the next seven generations."

-Jim Ward – General Manager, North Shore Mi'kmaq Tribal Council



A signing ceremony and celebration took place on July 22, 2024, at the Natoaganeg Band Office Assembly Hall. From left to right: Jim Ward - General Manager, NSMTC; Mario Pieries - Global Director, Nuclear, Hatch

"We are thrilled to announce the intention of establishing a JV which will formalize our longstanding, mutually beneficial relationship with the NSMTC. We believe that plurality of thought creates sustainable outcomes for the communities where we live and work and enhances our ability to deliver reliable, innovative solutions for our clients across Canada."

-Mario Pieries – Global Director, Nuclear, Hatch

The proposed NSMTC-Hatch JV mission statement is “we offer an Indigenous-led approach to engineering, environmental, engagement and advisory services. Our Indigenous and non-Indigenous staff work together in partnership with our clients to develop projects within the clean energy and infrastructure sectors. We provide the opportunity to increase the representation of Indigenous youth in science, technology, engineering, and mathematics (STEM) fields, through Indigenous ownership and Indigenous staffing. We strive to further the economic self-determination of our member communities by providing professional services in the pursuit of responsible and sustainable development of lands and resources.”

The signing of this letter of intent is one of the major milestones on the path to execution of the JV and eventual commercial operation.

APEGNB Branches: Connecting Communities and Strengthening Our Association

*Raphaël Roy, P.Eng., FEC
Past-President, APEGNB*

The Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB) is built on a strong foundation of community, collaboration, and shared professional values. Central to this foundation are the branches that serve as local extensions of our association, connecting members across the province and fostering a sense of belonging.

The Purpose of APEGNB Branches

APEGNB branches play a crucial role in bringing the association's mission and vision to life at the grassroots level. They serve as the primary touchpoint for members in different regions, offering localized support and opportunities for professional development, networking, and community involvement. Each branch, while aligned with the broader objectives of APEGNB, operates with the ability to tailor its activities and initiatives to the unique needs and interests of its members.

It is important to note that APEGNB branches are subsidiaries of the association and are not independent legal entities. This means that while they operate with some autonomy, they are fully integrated into the overall structure of APEGNB and must align their activities with the association's mission to protect the public.

Financial Accountability and Reporting

In line with our commitment to transparency and good governance, all branches are required to report annually on their financials and expenses to the association. This includes detailing any funding received for specific projects undertaken by a branch. This level of scrutiny ensures that all activities are in accordance with our overall mission and that we, as a self-regulated association, maintain the public trust.

Strengthening Ties to the Association

Over the 2022-2023 period, APEGNB Council and Branch leadership worked diligently to update and align the Branch by-laws, clarifying the roles and responsibilities of branches as part of the provincial organization. In April 2023, the revised bylaws were adopted by Council and are now in effect across all five branches, with the previous by-laws repealed. These updates ensure that branches operate consistently and in harmony with the association's broader goals. [The updated by-laws are available here.](#)

APEGNB branches provide valuable insights and feedback to the association, ensuring that the needs and concerns of members from all corners of the province are heard and addressed. This two-way communication between the branches and the central association is vital for the continued relevance and effectiveness of APEGNB.

Building Community and Collaboration

One of the most significant contributions of APEGNB branches is their ability to build a sense of community among members. Engineering and geoscience can sometimes be isolating professions, especially for those working in remote or specialized fields. Branches provide a platform for members to connect with their peers, share experiences, and build lasting professional relationships.

Collaboration is another hallmark of branch activities. By working together on joint projects, volunteering, or simply sharing knowledge, members of different branches contribute to a culture of mutual support and collective growth. This collaborative spirit extends beyond the boundaries of individual branches, strengthening the association as a whole.

Looking to the Future

In a rapidly changing world, the ability to adapt and respond to local needs while staying connected to a broader professional community will be key to the ongoing success of both our association and its members.

By staying engaged with your local branch, you not only contribute to your own professional development but also play a part in shaping the future of our professions in New Brunswick.

Together, we can continue to build a strong, vibrant community that reflects the best of what APEGNB stands for.



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IS THIS PERSON **REALLY** A P.ENG. / P.GEO?

Someone performing a medical procedure must be licensed to practice medicine. Someone auditing a public company must be licensed to practice accounting. Similarly, someone performing professional engineering or geoscience work must be licensed to practice professional engineering and/or professional geoscience.

These regulations exist for a reason. A professional licence tells the public that the practitioner has the required education and knowledge, understands and accepts the profession's legal and ethical responsibilities, is competent to practice, and is regulated by a professional body that maintains the required standards.

In New Brunswick, professional engineering and geoscience is governed under the *Engineering and Geoscience Professions Act*. The process of becoming a professional engineer and/or geoscientist is rigorous, because the public's interest and safety is involved.

Anyone wanting to practice professional engineering in New Brunswick must be licensed by APEGNB. If providing professional engineering services to the public, that person or firm must also hold a Certificate of Authorization from APEGNB.

How can someone find out if a person or company is licensed to practice these professions?

If you suspect that you have been dealing with someone who is NOT a professional engineer or geoscientist, you can confirm if they are registered with APEGNB by checking the Public Registry located on our website.

If you have further questions about verification you can call us toll-free at 1-888-458-8083.



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