

INDIGENOUS AND BLACK ENGINEERING AND TECHNOLOGY (IBET) MOMENTUM FELLOWSHIPS

TERMS OF REFERENCE AND PROCESS GUIDELINES

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PREAMBLE

The Indigenous and Black Engineering and Technology (IBET) Momentum Fellowship is a collaborative effort among the [Indigenous|Black Students in Engineering and Technology \(IBET\) PhD Project](#), the [Experiential Learning in Innovation, Technology, and Entrepreneurship \(ELITE\) Program for Black Youth](#), and the [Faculty of Engineering at the University of Alberta](#) to provide financial support to Indigenous and Black scholars to pursue full-time PhD studies in any engineering discipline at the University of Alberta. Engagement, review, and recruitment of qualified candidates will be led by the Engineering-ELITE Program Nominating Committee, which consists of researchers who train PhD students or who manage administration of PhD programs.

Recipients of the fellowship will receive a \$30,000 stipend per year for four years, which includes funding for tuition and fees, plus \$4,000 over four years to support attendance at technical conferences or workshops where they are encouraged to present their research work. The sources of funding will include the Faculty of Engineering, the proposed PhD research program supervisor in the Faculty of Engineering, and the ELITE Program for Black Youth. Recipients of the fellowship will also participate in the six-week ELITE Program Entrepreneurship Design Series: a series that introduces youth to the rudiments of entrepreneurship, value proposition design, lean start-up concepts, financial and banking strategies for start-ups (e.g., venture capital funding, other private equity, debt equity, debt leveraging), and delivery of pitch presentations.

The impetus for creating this fellowship opportunity is drawn from [2016 National Science Foundation data](#) that shows that less than 1% and less than 5% of undergraduates in engineering identify as Indigenous or Black, respectively. By inference, the number of PhD candidates in these demographic groups is expected to be even lower. It is well-known that a PhD in engineering increases the likelihood of access to participate in innovation ecosystems and be fully prepared for the [future of work](#). [Data evidence](#) shows that innovators tend to be entrepreneurs who create jobs and stimulate the economies of their communities. Currently, Black and Indigenous Canadians are underrepresented among innovators, which creates a barrier to their upward mobility and that of their communities. This Fellowship program hopes to contribute to correcting this imbalance by facilitating participation by qualified Black and Indigenous youth in Faculty of Engineering PhD programs, under the direct supervision of expert researchers, and in the ELITE Program Entrepreneurship Design Series.

DEFINITIONS AND INTERPRETATION

1 In these terms of reference:

- (a) **Associate Chair (Graduate)** is as defined within the [Engineering Faculty Council Appendix D](#) respecting Roles and Responsibilities for Dean, Associate Deans, Department Chairs, Associate Chairs, and Directors;
- (b) **Constitution Act, 1982** is a legislative statute of Canada respecting the Canadian Charter of Rights and Freedoms and the Rights of the Aboriginal Peoples of Canada;
- (c) **Cost-of-Living Adjustments** means “increases in wages at specified intervals during the life of a contract. The increments are subject to adjustments to the increase in the cost of living as measured by the consumer price index (CPI) or inflation”.
- (d) **ELITE Program for Black Youth** means Experiential Learning in Innovation, Technology, and Entrepreneurship Program for Black Youth;
- (e) **Faculty Member** means a Schedule A – Academic Faculty Member under Categories A1.1, A1.5, A1.6, or A1.7 as defined in University of Alberta Policies and Procedures On-Line (UAPPOL) respecting [Recruitment Policy \(Appendix A\) Definition and Categories of Academic Staff, Postdoctoral Fellows, Academic Colleagues and Excluded Academic Staff](#) as “[a]cademic staff that are in, or who may be granted, tenured or continuing appointments established under the Board and AASUA Collective Agreement and funded through operating funds, research operating funds or restricted funds”;
- (f) **Freedom of Information and Protection of Privacy Act** is a legislative statute of Alberta respecting right of access to certain information and disclosure of such information;
- (g) **Immigration and Refugee Protection Act** is a legislative statute respecting immigration to Canada and the granting of refugee protection to persons who are displaced, persecuted or in danger;

- (h) **Momentum Fellowship** means a fellowship as defined in Paragraph 3;
- (i) **PhD** means Doctor of Philosophy and is an academic degree that qualifies the holder to teach or conduct research in their chosen subject at university level or to work in a specialized position in their chosen field. Completion of the degree work ordinarily requires four to five years of study;
- (j) **Recruitment Fellowship** means a fellowship as defined in Paragraph 5; and
- (k) **Research Program Supervisor** is a faculty member as defined in Paragraph 1 (e).

PART 1: FELLOWSHIP FUNDING

Value of the Fellowship

- 1** The value of the fellowship shall be a \$30,000 per annum stipend for a maximum of four years of full-time PhD programming and studies, plus \$4,000 over four years to support attendance at technical conferences or workshops.
- 2** Pursuant to Paragraph 1 and to ensure clarity, the four years of study shall not be mandated to be consecutive where approved leaves of absence are granted by the University of Alberta.
- 3** No cost-of-living adjustments shall be made, except where prescribed by a University of Alberta collective agreement or where made at the discretion of the research program supervisor.

Sources of Fellowship Funding

- 4** The sources of funding for the Momentum Fellowship shall include the:
 - (a) Faculty of Engineering at the University of Alberta at \$25,000 per annum per fellowship;

- (b) Research program supervisor, as defined in Paragraph 1 (k), at \$5,000 per annum per fellowship; and
 - (c) ELITE Program for Black Youth at \$4,000 per fellowship.
- 5 The funding schedule of Paragraph 4 shall be restricted to two (2) fellowships per annum.
- 6 The sources of funding for the Recruitment Fellowship shall include the:
 - (a) Faculty of Engineering at the University of Alberta at \$15,000 per annum per fellowship;
 - (b) Research program supervisor, as defined in Paragraph 1 (k), at \$15,000 per annum per fellowship; and
 - (c) ELITE Program for Black Youth at \$4,000 per fellowship.
- 7 The funding schedule of Paragraph 6 shall be restricted to one (1) fellowship per annum.
- 8 Notwithstanding Paragraphs 5 and 7, any additional fellowships shall be bound by either Paragraphs 4 or 6, to be determined at the discretion of the Dean of the Faculty of Engineering.

Reductions to Fellowship Funding

- 9 Fellowship funding may be reduced, at the discretion of the Dean of the Faculty of Engineering, when:
 - (a) Fellowship recipient receives any scholarships or other financial awards that establishes limits on the total additional funding that the recipient receives per annum from any source, including from University of Alberta sources; or
 - (b) Total dollar amount that fellowship recipient may receive is limited to a maximum amount specified by the University of Alberta, the Faculty of Engineering, the Faculty of Graduate Studies and Research, any other University of Alberta department with jurisdiction over policy and management of PhD student financial awards, or any contractual obligations to which the fellowship recipient may be bound; or
 - (c) Fellowship recipient does not satisfy some requirements prescribed by the University of Alberta, the Faculty of Engineering, the Faculty of Graduate Studies and Research,

the engineering department through which their PhD program will be delivered, or any other University of Alberta unit that manages the administration and delivery of their PhD program; or

- (d) Fellowship recipient changes status to part-time studies.

Revocation of Fellowship Funding

10 Fellowship funding may be revoked, at the discretion of the Dean of the Faculty of Engineering, when:

- (a) Fellowship recipient is no longer enrolled in a PhD program in the Faculty of Engineering at the University of Alberta; or
- (b) Fellowship recipient completes PhD program work in the Faculty of Engineering at the University of Alberta, although still enrolled in the program; or
- (c) Fellowship recipient fails to satisfy academic requirements prescribed by the University of Alberta, the Faculty of Engineering, the Faculty of Graduate Studies and Research, the engineering department through which their PhD program will be delivered, or any other University of Alberta unit that manages the administration and delivery of their PhD program.

PART 2: ELIGIBILITY CRITERIA

Citizenship

11 All recipients of a fellowship shall be citizens, permanent residents, or refugees of Canada, where refugees are as defined by the [*Immigration and Refugee Protection Act, S.C. 2001, c. 27*](#) (as amended).

Race Demographic

12 All recipients shall identify as Indigenous or Black, where Indigenous is as defined in Section 35(2) of the [*Constitution Act, 1982*](#) (as amended) and Black represents persons of African descent or lineage.

Program Admission Criteria

- 13** All recipients shall meet the admission requirements prescribed by the University of Alberta, the Faculty of Engineering, the Faculty of Graduate Studies and Research, the engineering department through which their PhD program will be delivered, and any other University of Alberta unit that manages the administration and delivery of their PhD program.
- 14** Where requirements are in conflict, the Associate Chair (Graduate) of the engineering department through which the PhD program will be delivered shall be consulted for a determination of which requirements prevail and govern.

New PhD Candidates

- 15** The award of fellowships shall be restricted to individuals who are not enrolled in a PhD program at any university, including the University of Alberta, when notice of award is issued.
- 16** Pursuant to Paragraph 14 and to ensure clarity, qualified individuals enrolled in Masters or Bachelors programs at any university, including the University of Alberta, may be awarded fellowships provided that they are not enrolled in a PhD program at any university when notice of award is issued.

PART 3: FELLOWSHIP APPLICATION REQUIREMENTS

Information and Documents Required

- 17** All applicants for a fellowship shall submit:
- (a) Personal information pertaining to:
 - (i) academic background;
 - (ii) scholarships, awards, and honors received; and
 - (iii) academic, research and other relevant work experience;
 - (b) The name of at least one (1) and no more than three (3) potential research program supervisors to be chosen from a list provided by the Engineering-ELITE Program Nominating Committee or the Faculty of Engineering at the University of Alberta. The

list shall include brief research project descriptions from potential research program supervisors; **OR**

- (c) Notwithstanding Paragraph 17 (b), at least one (1) and no more than three (3) potential research program supervisors affiliated with the Faculty of Engineering at the University of Alberta not chosen from a list provided by the Engineering-ELITE Program Nominating Committee or the Faculty of Engineering; **AND**
- (c) A one-page summary of most recent thesis work or project completed or in progress;
- (d) A statement pertaining to research, service, community, leadership, and other relevant activities, not to exceed two pages;
- (e) A current CV or résumé;
- (f) Unofficial transcripts of grades from all post-secondary institutions attended; and
- (g) Two letters of reference.

Submission Method

- 18** All information and documents shall be submitted in a form and on a platform as determined by the Engineering-ELITE Program Nominating Committee or the Faculty of Engineering.

Submission Deadline

- 19** All complete submissions shall be made by 30 January each year, or as determined by the Engineering-ELITE Program Nominating Committee in consultation with the Faculty of Engineering. If the deadline falls on a weekend or a Canadian public holiday, the submission system shall remain open until 11H59 (Mountain) of the next business day.

Protection of Privacy

- 20** All information submitted for the purpose of review and adjudication for a fellowship award shall be protected, stored, used, and disclosed in compliance with the [*Freedom of Information and Protection of Privacy Act, R.S.A. 2000, c. F-25*](#) (as amended) and applicable [*University of Alberta policies*](#).

PART 4: REVIEW AND ADJUDICATION PROCESS

- 21** The Engineering-ELITE Program Nominating Committee shall develop review criteria, a rating guideline, and an instructional rubric to guide reviews and scoring.
- 22** The Engineering-ELITE Program Nominating Committee shall review and score applications for a fellowship based on criteria and the instructional rubric prescribed in the rating guideline. University of Alberta policies and professional rules relating to conflicts of interest shall apply.
- 23** Each application for a fellowship shall be reviewed by a panel comprised of at least three (3) members of the Engineering-ELITE Program Nominating Committee.
- 24** The Engineering-ELITE Program Nominating Committee shall identify and discuss a short-list of candidate applications with the aid of a ranked list based on application scores.
- 25** The Engineering-ELITE Program Nominating Committee shall select the two (2) finalist applicants for the Momentum Fellowship and one (1) finalist applicant for the Recruitment Fellowship at an adjudication meeting to be held at a time to be determined by Chair of the Engineering-ELITE Program Nominating Committee, in consultation with the Committee. Where approved by the Dean of the Faculty of Engineering, the Committee may select more than two finalist applicants for the Momentum Fellowship and more than one finalist applicant for the Recruitment Fellowship.
- 26** The Chair of the Engineering-ELITE Program Nominating Committee shall advise the Dean of the Faculty of Engineering of the finalists for review and approval by the Dean.

PART 5: ENGINEERING-ELITE PROGRAM NOMINATING COMMITTEE MEMBERSHIP AND COMPOSITION

Composition of the Committee

- 27** The Engineering-ELITE Program Nominating Committee shall consist of:
- (a) the Director of the ELITE Program for Black Youth;
 - (b) the Co-Director of the ELITE Program for Black Youth;
 - (c) the Francophone Lead of the ELITE Program for Black Youth;
 - (d) one (1) faculty member, as defined in Paragraph 1 (e), from the following engineering departments at the University of Alberta: Chemical and Materials Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, and Mechanical Engineering; and
 - (e) one (1) faculty member, as defined in Paragraph 1 (e) or equivalent, and in accordance with Paragraph 28, from any research-intensive accredited post-secondary institution.
- 28** All members of the Engineering-ELITE Program Nominating Committee shall hold a doctoral degree in a natural science-based or engineering-based subject and shall manage research programs at an accredited post-secondary institution.
- 29** A simple majority of the members of the Engineering-ELITE Program Nominating Committee shall be faculty members, as defined in Paragraph 1 (e), from a faculty or school of engineering at an accredited post-secondary institution.
- 30** All delegates shall satisfy the member qualifications set out herein.

Member Appointment

- 31** The Dean of the Faculty of Engineering at the University of Alberta shall appoint a chairperson of the Engineering-ELITE Program Nominating Committee pursuant to Paragraph 28.

- 32** The chairperson shall, in consultation with the Dean, appoint and reappoint members of the Engineering-ELITE Program Nominating Committee pursuant to Paragraphs 27 and 28.
- 33** Notwithstanding Paragraph 27, the chairperson shall, in consultation with the Dean, have discretion to appoint no more than one (1) additional member beyond the member limits prescribed in Paragraph 27 to allow for gender, race, academic rank, subject matter, ideation, or geographic diversity on the Engineering-ELITE Program Nominating Committee. The number of members appointed by way of this provision shall not be greater than one (1) at any time.
- 34** The chairperson shall:
- (a) have general responsibility over establishing the framework of the activities, business, and affairs of the Engineering-ELITE Program Nominating Committee and implementing the outcomes, as needed; and
 - (b) chair all meetings of the Engineering-ELITE Program Nominating Committee and shall be present either in person or by way of telephonic or other communication facility.

Term of Membership

- 35** The term of membership of the Director, Co-Director, and Francophone Lead of the ELITE Program for Black Youth shall be for their respective terms of appointment.
- 36** For members, other than the Director, Co-Director, and Francophone Lead of the ELITE Program for Black Youth, the term of membership shall be three (3) years, or the effective term of these Terms of Reference, whichever is earlier.

Termination, Removal of Members, and Vacancies

- 37** A member ceases to be a member of the Engineering-ELITE Program Nominating Committee and a vacancy exists when:
- (a) a member resigns by way of written notice to the chairperson;

- (b) the member ceases to meet any applicable qualification for membership as provisioned in Paragraph 28;
- (c) a member is removed by way of:
 - (i) the Dean of the Faculty of Engineering at the University of Alberta and the chairperson for such reasons, including, but not limited to, wilful dereliction of duty, violation(s) of applicable code(s) of ethics, or discipline penalty of suspension or dismissal as decided by the Provost or the University of Alberta, as the case may be, pursuant to Section 7 of the [Collective Agreement between The Governors of the University of Alberta and The Association of the Academic Staff of the University of Alberta, 2020 - 2024](#), as amended; or
- (d) the member's term ends.

PART 6: GENERAL

Preamble and Schedules

- 38** The preamble and the schedules that are attached hereto and incorporated by reference shall be deemed to form an integral part of these terms of reference.

Special Member Duties

- 39** The chairperson may, from time to time, assign special duties to the members of the Engineering-ELITE Program Nominating Committee. Acceptance of special duties will not be mandatory.

Confidential Information

- 40** All information received by members of the Engineering-ELITE Program Nominating Committee shall be treated as confidential and shall not be disclosed publicly without the written approval of the Dean of the Faculty of Engineering at the University of Alberta or the chairperson and the written consent of the owner of such confidential information, as the case may be.

Terms of Reference Amendments

- 41** The Terms of Reference may be amended by a resolution passed by a simple majority of the votes cast by the members of the Engineering-ELITE Program Nominating Committee.
- 42** The chairperson and the Engineering-ELITE Program Nominating Committee shall conduct a review of the Terms of Reference from time to time as they determine to be proper.

SCHEDULE A: LIST OF ENGINEERING-ELITE PROGRAM NOMINATING COMMITTEE MEMBERS, 2021 – 2023

[Professor André McDonald](#), Committee Chair, ELITE Program Director, Associate Vice President (Strategic Research Initiatives and Performance), Professor of Mechanical Engineering

[Professor Adetola Adesida](#), ELITE Program Co-Director, Professor of Surgery

[Professor Sedami Gnidehou](#), ELITE Program Francophone Lead, Campus St.-Jean Professor of Biology

[Professor Manisha Gupta](#), Associate Dean Graduate Students, Professor of Electrical and Computer Engineering

[Professor James Hogan](#), Professor of Mechanical Engineering

[Professor Kurt Konhauser](#), Professor and Associate Chair of Earth & Atmospheric Sciences

[Professor Juliana Leung](#), Professor of Civil and Environmental Engineering

[Professor Arvind Rajendran](#), Professor of Chemical Engineering

[Professor Mahdi Tavakoli](#), Professor of Electrical and Computer Engineering

[Professor Chris Westbury](#), Professor and Associate Chair of Psychology

[Professor Hao Zhang](#), Associate Dean Graduate Students, Professor of Chemical and Materials Engineering

SCHEDULE B: REVIEW CRITERIA AND RATING GUIDELINE

The Engineering-ELITE Program Nominating Committee shall develop review criteria, an instructional rubric, and a rating guideline to assist adjudication of applications for the PhD Fellowship. The content of the review criteria, instructional rubric, and rating guideline shall be at the discretion of the Engineering-ELITE Program Nominating Committee. The content of the current review criteria, instructional rubric, and rating guideline is available [HERE](#), and is subject to change.