ANNUAL REPORT

2026

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2026 AGM Agenda

THE ANNUAL GENERAL MEETING OF

The Canadian Society for Agricultural and Biosystems Engineering

La Société canadienne de génie agroalimentaire et des biosystèmes

Date: July 20, 2026, at noon CST

Meeting Formalities

1. Greetings and call to order by the President
2. Attendance sign-up
3. Appointment of Chairman & Secretary of the meeting
4. Verification of Notice of the Meeting (requirement is 14 days)
5. Verification of Quorum (25 members, including at least 5 Council members)
6. Additions to the Agenda

Agenda

1. Approval of Agenda
2. Approval of Minutes of the previous Meeting on July 14, 2025
3. Unfinished Business
    a. Journal restructuring and Editor-in-Chief search
4. New business:
    a. Approval of 2026 Council Member Annual Reports and Treasurer Report
    b. Approval of 2025-2026 Budget
    c. Approval of Nominating Committee Report and introduction of Council Members
    d. Appointment of Signing Authorities
    e. Appointment of Auditor (Thornton & Co, Winnipeg, MB) for 2026 Financial Statements
5. Announcements:
    a. Social media posting
    b. CSABE/SCGAB Foundation
    c. 2027 CSABE Meeting in Newfoundland
6. Closing Remarks (President Godbout passing the Gavel to President-Elect Meda)
7. Adjournment

2025 AGM Minutes

MINUTES OF THE ANNUAL GENERAL MEETING OF MEMBERS OF

The Canadian Society for Agricultural and Biosystems Engineering

La Société canadienne de génie agroalimentaire et des biosystèmes

Held July 14, 2025 – 12:15 to 12:45 pm EDT

Greetings and call to order (President Esau).

Attendance sheets circulated and signed by the membership.

CHAIR AND SECRETARY OF THE MEETING

Upon motion made (Stéphane Godbout) and duly seconded (Nicholas Lefebvre), it was unanimously resolved to appoint President Esau and Sébastien Fournel as chairman and secretary of the meeting. **Approved.**

NOTICE OF MEETING

The Notice of Meeting requirement (14 days) was met.

QUORUM

The quorum requirements were met.

ADDITIONS TO THE AGENDA

None.

APPROVAL OF AGENDA

Upon motion made (Ashutosh Singh) and duly seconded (Fuji Jian), the agenda was approved.

APPROVAL OF MINUTES OF PREVIOUS MEETING

Upon motion made (Valérie Orsat) and duly seconded (Grant Clark), it was unanimously resolved to accept the minutes as distributed. **Approved.**

ANNUAL REPORT

An Annual Report document (compilation of Council members' Annual reports) was provided to members in advance via the newsletter. The Annual Report included the Agenda, the 2024 AGM Minutes, the proposed 2025-2026 Budget and Statement of Revenues, Expenditures and Holdings. It

was moved (Valérie Orsat), duly seconded (Nicholas Lefebvre), and **Carried** that the Annual Report be approved as distributed.

UNFINISHED BUSINESS

a) Society name change process: The Society name change is now completed.

NEW BUSINESS

a) The President introduces the new Editor-In-Chief (Qiang Zhang) and his Journal restructuring plan. They involve modifications to the Bylaws, as described by the Society Manager. Upon motion made (Ashutosh Singh) and duly seconded (Stéphane Godbout), it was unanimously resolved to accept the Bylaws modifications as presented. **Approved.**
b) 2025 Council Member Annual Reports are included in the Annual Report. The Treasurer, Senthilkumar Thiruppati, presented CSABE's financial situation. Investments performed well, thereby offsetting the deficits from management expenses.
c) The budget for 2025-2026 was also given by the Treasurer. Upon motion made (Valérie Orsat) and duly seconded (Nicholas Lefebvre), it was unanimously resolved to accept the 2025-2026 budget as distributed. **Approved.**
d) The President introduced new Council members. Upon motion made (Valérie Orsat) and duly seconded (Nicholas Lefebvre), it was unanimously resolved to accept the Nominating Committee Report as included in the Annual Report. **Approved.**
e) Upon motion made (Grant Clark) and duly seconded (Valérie Orsat), it was unanimously resolved that Sébastien Fournel and Senthilkumar Thiruppathi be the signing authorities until the 2026 Annual Meeting. **Approved.**
f) Upon motion made (Ashutosh Singh) and duly seconded (Chandra Madramootoo), it was unanimously resolved to reappoint Thornton & Co. as auditors for the 2025 financial activities. **Approved.**

ANNOUNCEMENTS

a) CIGR President-Elect is CSABE President-Elect, Stéphane Godbout.
b) The President introduced the location of the 2026 CSABE Meeting AGM in Saskatoon (July 19-22).
c) Sébastien Fournel reminded members to consider donating to the Foundation at the time of membership renewal. Last year, the Foundation supported 2 Quarter-Scale Tractor Teams (McGill & Laval) and 6 Scholarships (totalling $ 2,300). With almost $500 in administration fees, **expenses nearly exceeded donations** ($2,000).

CLOSING REMARKS

The President passed the Gavel to the President-Elect (Travis Esau to Stéphane Godbout).

ADJOURNMENT

President Godbout thanked all participants at the AGM, called for adjournment at 12:45 pm **EDT**, and the meeting was adjourned (motion = Shiv Prasher; seconded = Nicholas Lefebvre).

Minutes recorded by:
Sébastien Fournel, Society Manager, Date of approval: July 20, 2026.

2026 Treasurer Report

The following is the treasurer's report for fiscal 2025, based on the year-end audit compiled by Thornton and Co.

Expenditures, Revenues and Budgets

Expenditures, revenues, and budgets are shown in Table 1 for this and the previous years. The shaded column in Table 1 is the actuals for 2025. There was a surplus of $10,792 for the year. This compares to a surplus of $24,782 for the previous year. The surplus is mainly due to our investment gaining $31,061, or about 14% of its value. Through this period (Jan 1, 2025, to Dec 31, 2025), both the Canadian and American stock markets performed well.

Projected Budgets

At our July 2025 AGM, we budgeted a $17,050 deficit in expenses over revenue for the year, but we received $10,792 in excess revenue.

Net Assets

Table 2 shows CSABE's Assets and Liabilities for the past 2 years, as reported by the auditor. At the end of 2025, net assets stood at $257,518, including the BMO operating account, the Nesbitt Burns long-term investment account, accounts receivable, and prepaid expenses. This is an increase of $10,792 over the previous year, or about 4%.

Bank and Investment Accounts

Table 3 shows a breakdown of cash and investment assets at year-end compared with the previous 4 years. Throughout the year, long-term investments increased, mirroring the stock market's uptick. We are expecting a tough 2026.

Summary

CSABE has sufficient investments to prudently carry on in the near term. However, membership revenue is either down or flat, and conference revenue is down as well, which is a concern going forward. Revenue from the CSABE journal has also decreased slightly.

Table 1. Statement of Revenue, Expenses and Budgets for 2025.

Revenue	2024 Budget	2024 Actuals	2025 Budget	2025 Actuals	2026 Budget	2027 Budget
Membership fees	$16,000	$19,717	$18,000	$20,719	$20,000	$20,000
Annual Gen Meeting (AGM)	$80,000	$84,886	$80,000	$6,956	$80,000	$80,000
Canadian Bio Systems Journal	$8,000	$4,651	$10,000	$3430	$10,000	$10,000
Advertising	$0	$0	$0	$0	$0	$0
Expense recoveries (rebates)	$0	$2,678	$0	$5,375	$0	$0
Investment income	$2,000	$39,649	$2000	$31,061	$2,000	$2,000
Unrealized capital gains	$4,000		$8,000		$8,000	$8,000
Total Revenue	**$110,000**	**$151,581**	**$118,000**	**$67,541**	**$120,000**	**$120,000**
Expenditure						
Annual General Meeting (AGM)	$70,000	$75,089	$75,000	$6,078	$75,000	$75,000
President's travel to ASABE	$3,500	$4,006	$2,000	-	$4,000	$4,000
CDN Bio systems Journal	$2,000	$587	$2,100	$1,093	$1500	$1500
Journal reviewer's incentives	$1,500		$1,500			
Journal Translation	$600		$600			
CIGR /ASABE Dues	$1,100	$845	$1,100	$805	$1,000	$1,000
EIC dues, directors' insurance	$2,200	$4,058	$2,200	$4,143	$4,100	$4,100
EIC project	$0		$750			
General and student awards	$9,000	$9,550	$8,000	$5,430	$9,500	$9,500
Grad student dues	$1,500	$373	$1,500	-		
Insurance	$900		$900			
Interest, bank /credit charges	$400	$296	$400	$95	$400	$400
CSABE manager honorarium	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000
CSABE manager office	$3,750	$154	$1,000	$49	$1,000	$1,000
Professional audit, CRA filing	$3,750	$4,257	$4,000	$3,603	$4,500	$4,500
Reg'l membership recruitment	$7,000	$800	$7,000	$2,956	$7,000	$7,000
Travel to AGM	$5,000		$4,000	$9,188		
Contributions and donations	$1,000	$5,091	$1,000	$5,890	$1,000	$1,000
Manager/president travel	$4,000	$2,065	$4,000		$2,500	$2,500
Web site	$800		$1,000			
Webmaster honorarium	$1,250	$7,628	$5,000	$5,420	$8,000	$8,000
TOTAL EXPENDITURE	**$131,250**	**$126,799**	**$135,050**	**$56,749**	**$131,500**	**$131,500**
Revenues over (under) expenses	**($21,250)**	**$24,782**	**($17,050)**	**$10,792**	**($23,500)**	**($23,500)**

Table 2. Statement of Financial Position from Thornton & Co., 2025, Audit.

	2025	2024
ASSETS		
CURRENT		
Cash	**$ 6,632**	$ 8,913
Accounts receivable	**10,124**	11,145
Prepaid expenses	**892**	-
	17,648	20,058
LONG TERM INVESTMENTS *(Note 7)*	**244,624**	229,953
	$ 262,272	$ 250,011
LIABILITIES AND NET ASSETS		
CURRENT		
Accounts payable	**$ 3,754**	$ 3,285
Deferred income	**1,000**	-
	4,754	3,285
NET ASSETS	**257,518**	246,726
	$ 262,272	$ 250,011

Table 3. Bank and Investment Accounts as of Year End.

	2025	2024	2023	2022	2021
Investments at Nesbitt Burns					
Cash/short term	$1,814	$1,923	$2,232	$1,707	$1,555
Fixed income	$38,403	$29,080	$28,178	$30,014	$28,052
Equities	$206,221	$200,873	$163,834	$141921	$163,561
Total of investments	$246,438	$231,876	$194,245	$171,935	$193,168
Cash at BMO	$4,818	$6,990	$74,578	$8736	$37,859
Total bank/investment accounts	**$251,256**	**$238,866**	**$268,823**	**$180,671**	**$231,027**

2026-2027 Council

Nominating Committee Report

Position	Name	Term length	Term start	Term end
Executive Members				
President-Elect	Aitazaz Farooque	1	2026	2027
President	Venkatesh Meda	1	2026	2027
Past President	Stéphane Godbout	1	2026	2027
Past-Past President	Travis Esau	1	2026	2027
Vice-President Technical	Manickavasagan Annamalai	3	2022	2028
Vice-President Regional	Pradeep Goel	3	2022	2028
Vice-President Membership	Ashutosh Singh	3	2025	2028
Vice-President Industry	Garson Law	3	2023	2029
Regional Director Atlantic	Travis Esau	3	2026	2029
Regional Director QC	Nicholas Lefebvre	3	2022	2028
Regional Director ON	Prasad Daggupati	3	2023	2029
Regional Director MB	Fuji Juan	3	2022	2028
Regional Director SK	Bishnu Acharya	3	2025	2028
Regional Director AB	Chandra Singh	3	2022	2028
Regional Director BC	Shahab Sokhansanj	3	2023	2029
Appointed Council Members or Representatives				
Secretary Manager	Sébastien Fournel	5	2022	2027
Treasurer	Senthilkumar Thiruppathi	3	2023	2029
Webmaster	René Morissette	3	2008	2028
Editor-In-Chief	Qiang Chang	2	2024	2026
Managing Editor	Ramanathan Sri Ranjan	3	2023	2029
Social Media Manager	Claudiane Ouellet-Plamondon	1	2026	2027
Foundation Representative	Shiv Prasher	3	2024	2027
EIC Representative	Travis Esau	3	2025	2028
CIGR Representative	Stéphane Godbout	3	2017	2028
Fellows Committee				
Chair	Ramesh Rudra	3	2020	2028
Vice Chair	Yves Choinière	3	2020	2028
Member	Suzelle Barrington	3	2020	2028
Member	Qiang Zhang	3	2020	2028
Member	Shiv Prasher	3	2026	2029
Awards Committee				
Chair	Anthony Lau	3	2021	2027
Member	Erin Cortus	3	2020	2028
Member	Michael Ngadi	3	2020	2028
Member	Qamar Zaman	3	2019	2028
Member	Nazim Cicek	3	2020	2028
Past President	Stéphane Godbout	1	2026	2027
Nominating Committee				
Chair (Past President)	Stéphane Godbout	1	2026	2027
Past-Past President	Travis Esau	1	2026	2027
President	Venkatesh Meda	1	2026	2027
President-Elect	Aitazaz Farooque	1	2026	2027
Member-at-large	Pradeep Goel	3	2019	2028

Meeting Committee				
Chair (VP Technical)	Manickavasagan Annamalai	3	2022	2028
Past LAC Chair	Venkatesh Meda	1	2026	2027
President-Elect	Aitazaz Farooque	1	2026	2027
President	Venkatesh Meda	1	2026	2027

Council Member Reports

Stéphane Godbout – President

During 2025-2026, I carried out the following activities:

- Led CSABE council meetings;
- Liaised with ASABE, including participation on their Board of Trustees;
- Put in place an agreement to share the CBE journal database with the ASABE new project;
- Presented at NABEC on the impact of agricultural engineers since the 1920s;
- In January, I shared the CSABE's mission with students at the 8th Conference on Sustainability in Engineering held in Trois-Rivières (Quebec). This event brought together highly qualified personnel interested in sustainable engineering practices across Canada and was ideal to present the Society to a broader audience;
- Delivered a speech at the Canadian Food Engineering Congress in Guelph (Ontario), where I addressed the benefits and challenges related to AI;
- Led the creation of the new National Graduate Student Award to give more prestige to this prize;
- Began work to set up a committee aimed at increasing membership, primarily focused on the participation of women engineers;
- Led the creation of the Social Media Committee.

Ahutosh Singh – Vice-President, Membership

Source and membership summary:

The analysis uses the Member Roster dated February 24, 2026. The current roster contains 927 membership records. Of these, 615 are regular members (including both faculty and graduate students), and 312 are student members (undergraduates). Student members, therefore, represent 33.7% of the current roster. Canadian members account for 718 records, or 77.5% of the roster. Non-Canadian or international members account for 209 records, or 22.5%. The largest non-Canadian country groups are the United States (105), India (21), Nigeria (17), and Ghana (13).

Current provincial membership breakdown:

AB: 38 members (5.3% of Canadian membership)
BC: 18 members (2.5% of Canadian membership)
MB: 207 members (28.8% of Canadian membership)
NB: 2 members (0.3% of Canadian membership)
NL: 3 members (0.4% of Canadian membership)
NS: 46 members (6.4% of Canadian membership)
PE: 20 members (2.8% of Canadian membership)
ON: 113 members (15.7% of Canadian membership)
QC: 199 members (27.7% of Canadian membership)

SK: 72 members (10.0% of Canadian membership)

Comparing the 2025 annual report's Canadian membership total of 612 with the February 2026 roster count of 718, Canadian membership appears to have increased by 106 or 17.3%:

The Canadian membership is concentrated in Manitoba, Quebec, Ontario, and Saskatchewan. Manitoba has the largest provincial roster with 207 members, followed by Quebec with 199, Ontario with 113, and Saskatchewan with 72. Together, these four provinces account for 591 of 718 Canadian members, or 82.3% of the total membership. Smaller provincial groups are present in New Brunswick and Newfoundland and Labrador, suggesting clear opportunities for targeted regional rebuilding.

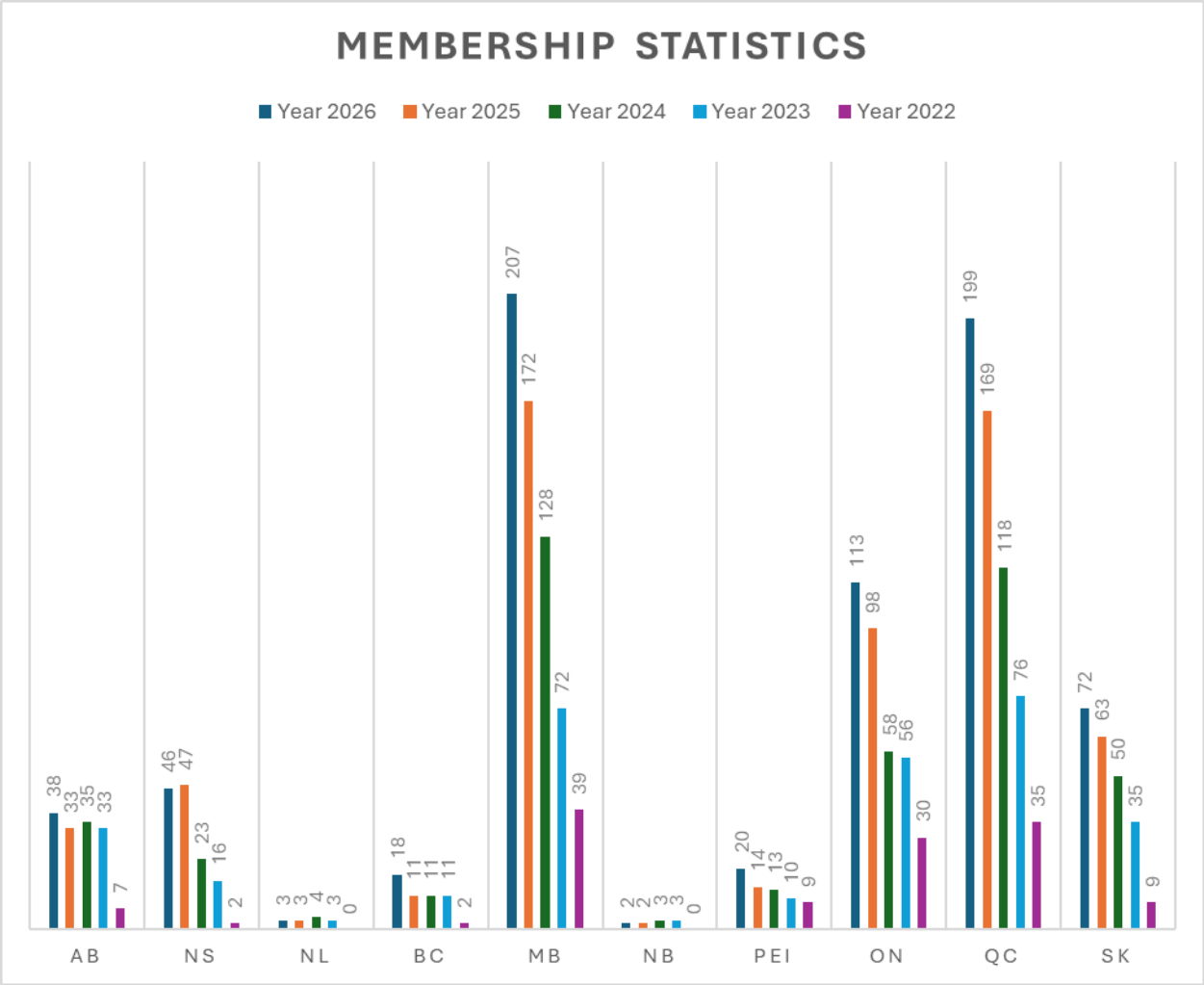


Figure 1. Membership count by province.

Future initiatives to improve membership:

- Regional recruitment targets: Set province-specific annual targets, with special attention to NB, NL, BC, PEI, AB, and NS. The past annual report shows that regional activity can produce measurable gains; this model should be extended to underrepresented provinces.

- Student-to-professional conversion pathway: Student members are a major part of society. A structured conversion campaign should contact graduating students before membership expiry, offer a first-year professional discount, and pair new graduates with regional mentors.

- Industry-value membership package: Build a clearer value proposition for industry members around AgTech validation, networking with researchers, student recruitment, webinars, and sponsorship visibility.

The Council encourages all Regional Directors to continue their valuable efforts in the membership drive by organizing networking and outreach events supported by the society, with the aim of further expanding our membership base.

We extend our sincere gratitude to all members for their continued support and contribution to the growth and success of our society.

Garson Law – Vice-President, Industry

The last year has seen much activity and growth in the agtech. There has been a significant rise in interest in agriculture from the technology sector, and in particular from post-secondary institutions and companies traditionally outside of agriculture. The ingenuity and amount of innovation and activity of Canadian researchers and startups remain impressive across all commodities and there continues to exist many opportunities for technical expertise in robotics, engineering, mechatronics, computer vision and remote sensing, IoT devices, AI systems and more. These technologies are now touch all aspects of Canadian agriculture, including large acres of cereal crops, high value orchards and vineyards, livestock, dairy, greenhouse and Controlled Environment Agriculture.

As new innovations continue to mature, an increasing area of interest and need is on-farm validation, whether it be through programs such as CAAIN's Agtech Validation Program, through partnerships with smart farms and smart farm networks, or directly between innovators and producers. This activity is crucial to demonstrate not just the specifications of new technologies but also in how these innovations can be integrated into existing farm and ranch operations.

At the same time, researchers in agriculture are strongly encouraged to attend local and national events to better understand agriculture operations and their unique concerns that will determine the future direction of innovation.

Shahab Sokhansanj – Regional Director, British Columbia

The current membership of CSABE is 12, with addresses mostly in the Lower Mainland Vancouver area. Agricultural, food, and bioenergy engineering activities in BC are primarily carried out by the following educational institutions.

University of British Columbia (UBC): The primary engine for advanced research. Through the Faculty of Land and Food Systems (LFS) and the Department of Chemical and Biological Engineering (CHBE), UBC leads in food process engineering (e.g., non-thermal processing, thermal pasteurization), biomass supply chain modelling, densification (pelleting), and precision agriculture fluid dynamics.

Simon Fraser University (SFU): Focuses on mechatronics and automation. It anchors the B.C. Centre for Agritech Innovation (BCCAI), which fast-tracks the commercialization of precision farming, robotics, and Controlled Environment Agriculture (CEA).

University of the Fraser Valley (UFV): Located in B.C.'s agricultural hub, its Food and Agriculture Institute (FAI) specializes in applied research on cellular agriculture, indoor vertical farming, and the economic viability of agtech.

Kwantlen Polytechnic University (KPU): Combines hands-on field operations with organic agro-ecosystem management, training personnel in regional food safety and sustainable farm systems.

BC has established a highly integrated bioenergy Research and Development (R&D) program, largely driven by its extensive forestry sector, carbon-reduction mandates, and proactive academic-industry partnerships. Research in the province heavily prioritizes the conversion of forest and agricultural residues into low-carbon drop-in fuels, synthesis gas (syngas), and advanced biomaterials.

Bishnu Acharya – Regional Director, Saskatchewan

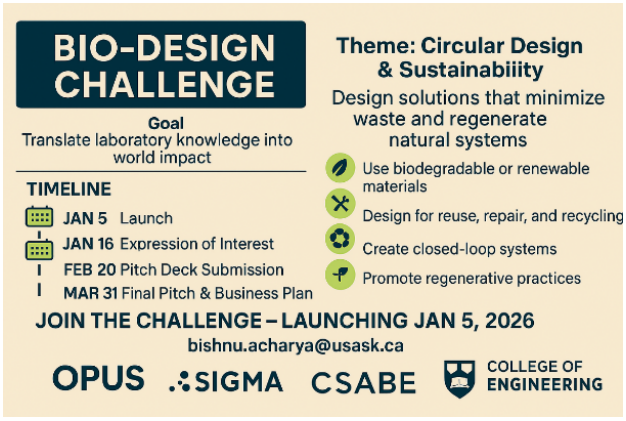
I began my role as the regional director of Saskatchewan in April 2026. This is my first term serving the CSABE as a reginal director of Saskatchewan. We organized following events:

a) Bio-design Challenge:

Bio-Design Challenge, a program designed to inspire students to view entrepreneurship as an accessible and meaningful career pathway. This year's theme, "Circular Design and Sustainability," challenged participants to create solutions that reduce waste, extend material life cycles, and restore natural systems, bridging innovative design with real-world environmental impact.

In its inaugural year, the challenge saw strong engagement, with 11 teams comprising 30 participants (1 PDF, 9 PhD, 8 MSc, 8 undergraduate students, and 4 research associates). Working in interdisciplinary teams, participants blended scientific insight, engineering skills, and

entrepreneurial creativity to develop compelling business concepts. Throughout the program, students gained hands-on experience with core entrepreneurship competencies, including ideation, opportunity assessment, business model development, and pitching. Specialized workshops supported their learning, such as sessions on pitch-deck preparation and using AI tools for business development, helping teams transform early ideas into feasible, market-oriented solutions. The Bio-Design Challenge has already had a measurable impact by raising awareness of entrepreneurship within the engineering community. Many participants expressed increased interest in pursuing entrepreneurial careers or incorporating entrepreneurial thinking into their future research and professional paths. The challenge effectively created a space where creativity, technical expertise, and commercialization intersect, strengthening the pipeline from academic innovation to industry application. Top 5 teams will be awarded during the CSABE Gala Dinner.



b) Supported 3-minute thesis competition: We support the 3-minute thesis competition organized by the USask – Engineering Graduate Committee. During this event, we spoke about the organization and encouraged attendees to become members.

c) Supported creating student chapters: We have an active CSABE-USask Student Chapter.

d) Involvement in the organization of the CSABE Annual Technical Conference.

Cohort of Bio-Design Challenge - 2026

EGCC – 3 Minute Thesis Competition

Fuji Jian – Regional Director, Manitoba

I began my role as the regional director of Manitoba in July 2022. This is my second term servicing the CSABE as a regional director of Manitoba (I was the regional director from 2019 to 2020). To encourage more people to join CSABE, I mainly focused over the past year on encouraging former members to renew their memberships and introducing CSABE to our current undergraduate and graduate students, because they will be our future members. I mainly did the following works: 1) organized one in-person event to discuss the CSABE, such as the society's mission, potential career opportunities, and other activities, such as the newsletter writing and student award evaluation; 2) conducted two presentations to introduce CSABE at the meetings of

the student association; and 3) promoted CSABE annual meetings. The Department of Biosystems at the University of Manitoba will rent a bus to transport undergraduate and graduate students to the 2026 annual meeting.

René Morissette – Webmaster

CSABE web activities increased significantly over the last year, where our main website reached out to more than 18,000 users worldwide (50% increase), and more than 16,000 users accessed our online technical library (200 % increase). Our social media pages were also quite active and we expect this to continue with our new Social Media team chaired by Claudiane Ouellet-Plamondon, Yulin Hu, and Emily Younghans. Only 2 newsletters were sent out last year (Fall, Winter).

I've supported the local organization committee of the Saskatoon AGM by sending several communications to our members, and in setting up a portal for the event on the CSABE website along with the online abstract submission and registration system.

Qiang Zhang – Editor-In-Chief (CBE)

Manuscripts

- There are 20 manuscripts at various stages in our submission system, of which 16 were submitted in 2025-2026 (since June 2025); 9 manuscripts are currently in review, 4 in revision, and 7 in copyediting
- Manuscript processing time:
    - review time: medium 64 days (from 34 to 260 days)
    - revision time: medium 65 days (from 25 to 252 days)
    - decision time: medium 13 days (from 2 to 34 days)
    - total time from submission to acceptance: medium 154 days (92-365 days)
    - copyediting time: no stats

Editorial Board

An Editorial Board has been established, consisting of Editor-in-Chief (EIC), Managing Editor (ME), and Members of the Editorial Board (EBM). 34 EBMs have been appointed, with a goal of 40.

Claudiane Ouellet-Plamondon – Social Media Committee Lead

Two procedures for posting on social media were established: one directly from members and regional directors, and one through the members of the social media committee. Examples of posts were written and presented at the annual meeting. Members are encouraged to add picture links to the relevant websites. The regional director can also post online activities and projects happening in their region. There is a CSABE group on LinkedIn, only for approved members. There is also a Facebook page. Members can consider posting directly on social media and

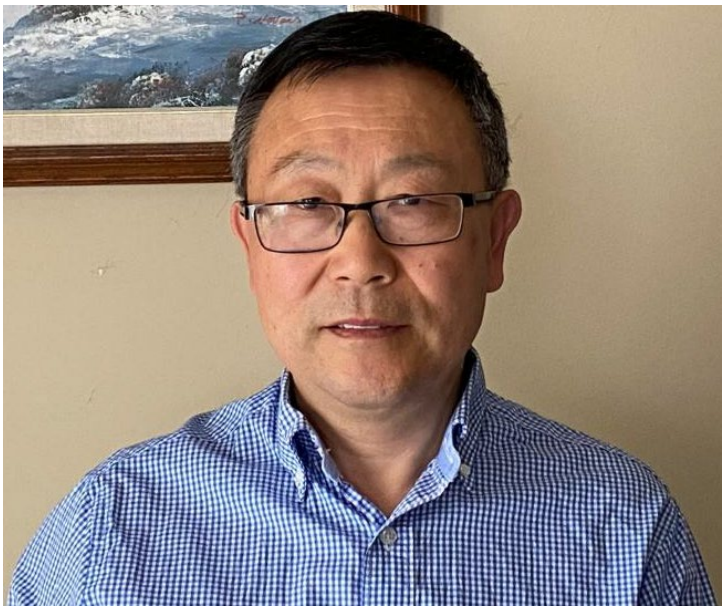
adding the #CSABE hashtag, as well as hashtags from the relevant organization. The social media committee members prefer to increase participation among members rather than have only committee members posting on social media.

2026 Member Fellows and Awards

CSABE/SCGAB FELLOWS

The designation of Fellow has honorary status to which members of distinction may be elected, but for which they may not apply. A Fellow shall be a member of outstanding and extraordinary qualifications and experience in the field of agricultural, food or biological engineering. A Fellow shall have been a member of the Society for ten years and have twenty years of active practice in the profession.

As a faculty member at the University of Saskatchewan for the past 26 years, Dr. **Huiqing Guo** has developed a strong research and student training program in the area of controlled environments for greenhouses and livestock operations. She is a nationally and internationally recognized researcher and well-respected educator. She developed the odour setback distance model OFFSET for livestock operations, set odour guidelines for the Province of Saskatchewan, and proposed a comprehensive indoor air quality index for animal barns. Her research group also developed technologies for greenhouse energy saving and dehumidification. She was awarded the John Turnbull Award by CSABE-SCGAB in 2020 for her outstanding teaching and research contributions in agricultural building systems and waste management. Dr. Guo has been an active CSABE-SCGAB member since 1998 and has served the Society in various roles, including Chair of the Awards Committee; member of the 2006 and Chair of the 2010 ASABE/CSABE North-Central Conference Committee; and member of the Editorial Board of Canadian Biosystems Engineering (CBE). She is a regular manuscript reviewer for ASABE journals and a frequent contributor to CBE.



Dr. **Fuji Jian** has been an active member of CSABE for the last 11 years and has served as CSABE Regional Director (Manitoba) since 2018, attending the CSABE annual meetings without interruption. Fuji has served as an organizing committee member and a member of the panel of judges at several CSABE annual meetings. Fuji taught 2 to 4 courses every year, and supervised or co-supervised 24 BSc, 15 summer, 11 M.Eng, 15 MSc, and 12 PhD students. He supervised 9 visiting scholars (professors). After the end of 2021, he received more than $1 million as a solo PI or leading PI. His average number of peer-reviewed journal publications per year is more than 10. Fuji's team published 132 peer-reviewed papers, 30 conference proceeding papers, 5 book chapters, and one book, in which he is the solo or leading author of 72 peer-reviewed journal papers. His team conducts pioneering research in 6 areas, and the most significant contributions are: 1) concept development and conduct pioneering study; 2) challenged traditional mathematical modelling methods and developed novel models; 3) measured grain storage parameters; 4) developed innovative methods used for the grain industry; and 5) developed guidelines for the grain industry. Due to these significant contributions, he was invited as a keynote speaker in 6 international conferences and invited as an expert to discuss his study in Canada or in other countries. He received 2 research awards and was interviewed by different media. Fuji is the editor board member and academic or guest editor of 3 journals, the associate editor of Biosystems Engineering, the editor of the Journal of Stored Products Research, and the editor of two international conferences.

MAPLE LEAF AWARD

The Maple Leaf Award is given to honour members of the CSABE/SCGAB who have distinguished themselves as leaders in the profession. It is the highest award made by the Society in recognition of leadership in the profession. The award is given for outstanding personal qualities, society activities, and professional abilities. The award recipient is selected from nominations from five members of the CSABE/SCGAB and must receive the unanimous consent of the Awards Committee. The recipient must have been a member of the Society for at least ten years.

Dr. **Ramanathan Sri Ranjan**, P.Eng., is being nominated for his contributions to soil and water engineering, his long-standing service to the CSABE-SCGAB and ASABE, and his contributions to teaching, research, extension, and international activities. He has been a professor at the University of Manitoba since 1990. He joined the academic staff in the Department of Biosystems Engineering after earning his BSc (Honours) degree with a Specialization in Agricultural Engineering from the University of Peradeniya, Sri Lanka, in 1981, an MS and a PhD degree in Agricultural Engineering from Colorado State University, Fort Collins, CO, USA, in 1986 and 1989, respectively. His training in Soil and Water Engineering helped establish a robust teaching, research, and extension program in irrigation and drainage, helping farmers see the economic benefits of better water management through controlled drainage. He developed and taught a course in Remediation Engineering, training students in soil and groundwater remediation techniques. He also worked with the environmental consulting industry, developing and testing innovative soil and ground remediation methods using bioremediation and phytoremediation. He has been training 37 graduate students (12 PhD, 25 MSc) and supervised over 70 BSc theses. He has published over 200 papers/posters in refereed journals and at national and international conferences. He has given invited lectures in Canada, the USA, India, Bangladesh, Sri Lanka, and China. He is a pioneer in the use of Technology in Teaching, giving numerous workshops to professors nationally and internationally. Dr. Sri Ranjan serves as a Teaching Mentor, helping new faculty at the university complete their training in the teaching certification program. He serves as the Associate Head (Graduate) in the department managing graduate student affairs.

He was elected a Fellow of the CSABE-SCGAB and awarded the Jim Beamish Award for his contributions to Soil and Water Engineering. He served as the Editor of the Canadian Biosystems Engineering Journal from 2006 to 2018. During that time, he modernized the paper submission to the Open Journal System. Since 2011, he has continued to volunteer his time transforming the accepted manuscripts into print-ready papers for publication. From 2011 to 2014, he was responsible for digitizing and using optical character recognition (OCR) to make the entire journal print collection from 1968 to 2000 freely searchable online.

YOUNG ENGINEER OF THE YEAR AWARD

This award is given to recognize and encourage outstanding work by younger members of the Society. The award is given to members under 40 years of age. It is given for outstanding contributions to agricultural, food and/or biological engineering through design and development, extension and management, or research and teaching.

Dr. **Yulin Hu**'s research focuses on sustainable biomass conversion technologies, addressing global challenges in clean energy and environmental sustainability. In hard-to-decarbonize sectors such as the cement and iron/steel industries, aside from the use of low-carbon fuels, it is important to develop highly efficient CO2 capture technologies. Her work on biocarbon materials that are derived from low-value biomass and organic waste for CO2 capture and emission control, particularly at high temperature application. offering a cost-effective and eco-friendly alternative for industrial emission control.

H2 as an indispensable element to achieve net zero economy. Dr. Hu has advanced green H2 production through both thermochemical and photochemical routes, which diverts from the grey H2 production via steam methane reforming. A significant contribution is the development of a new photocatalyst, which has shown outperformance in H2 production than conventional photocatalysts.

Aside from gaseous fuels, Dr. Hu also contributed to solid and liquid biofuels by different biomass conversion
technologies. Her contributions to biofuels production by pyrolysis and hydrothermal liquefaction have promoted biooil production while minimizing waste generation. Novel pre-treatment approach has been developed to replace energy-intensive conventional methods that help reduce operating costs and alleviate environmental impacts, making biofuel productions more economically feasible and environmentally friendly.

Through collaborations with industry partners, Dr. Hu's research group has been consistently collaborating with local industry partners to translate the technologies developed at the lab into real-world applications, fostering economic growth and sustainable practices. Her contributions significantly impact the transition to a low-carbon economy, providing practical solutions for clean energy and environmental challenges.

JOHN TURNBULL AWARD

This award is given annually to the CSABE/SCGAB member who, in the opinion of the Awards Committee, has produced outstanding work inbuilding systems, or waste management in industry, teaching, research, or extension. Prior to 1993, this award was known as the CSAE/Canadian Sheet Steel Building Institute (CSAE-CSSBI) Award. The award recipient is selected from nominations from at least three members of CSABE/SCGAB and must have been a member of the Society for at least five years.

Dr. **David B. Levin** has been engaged in the world of academia since 1991 when he joined the Department of Biology at the University of Victoria as an Assistant Professor. During the first 15 years of his academic career at the University of Victoria, David progressed to the rank of Associate Professor and held an NSERC Industrial Research Chair in Biotechnology from 1991-1996. In 2006, David was recruited to come home to Winnipeg where he joined the Department of Biosystems Engineering at the University of Manitoba. He achieved his final promotion to the rank of Professor in 2014. Dr. Levin holds a unique role in the Department of Biosystems Engineering given that his university education includes a Bachelor's degree in Environmental Studies (University of Waterloo), an MSc in Entomology (University of Guelph) and a PhD in Virology (McGill University); he is the lone non-engineer in the Department of Biosystems Engineering at the University of Manitoba (and is the logical professor to teach the "*Biology for Engineers*" course). Dr. Levin's research approach integrates microbiology, molecular biology, genome sciences and bioprocess engineering. During his first decade at the University of Manitoba, David's research focus was on the development of new processes for next generation biofuel production with lower input costs. In recent years, his research has transitioned from an emphasis on biofuel production to i) production of renewable biodegradable polymers synthesized by bacteria and ii) microbial degradation and biorecycling of plastics. Professor Levin has an outstanding publication record (over 180 refereed publications), is highly regarded as an expert in the field (78 invited keynote speeches) and has supervised more than 90 research personnel through the continuum from undergraduate student to postdoctoral fellow. Dr. David Levin is a worthy recipient of the John Turnbull Award due to his excellent contributions to waste management during his academic career in the Department of Biosystems Engineering at the University of Manitoba.

GLENN DOWNING AWARD

This award is presented annually to the CSABE/SCGAB member who, in the opinion of the Awards Committee, has produced outstanding work in industry, teaching, research, or extension in the area of machinery systems, or bioenergy systems. The recipient is selected from nominations from at least three members of CSABE/SCGAB. and must have been a member of the Society for at least five years.

No recipient

JIM BEAMISH AWARD

This award is given annually to the CSABE/SCGAB member who, in the opinion of the Awards Committee, has produced outstanding work in industry, teaching, research, or extension in the area of soil and water, or environmental sciences. The recipient is selected from nominations from at least three members of CSABE/SCGAB and must have been a member of the Society for at least five years.

No recipient

JOHN CLARK AWARD

This award, in memory of John Clark, is given annually to the CSABE/SCGAB member who, in the opinion of the Awards Committee, has produced outstanding work in industry, teaching, research, or extension in one or more of the fields of food engineering, or related industry. The award recipient is selected from nominations from at least three members of CSABE/SCGAB and must have been a member of the Society for at five years.

Dr. **Chyngyz Erkinbaev** is an Associate Professor in the Department of Biosystems Engineering. He is a food process engineer by training, and his research focuses on the development and integration of smart sensing technologies for real-time monitoring of food quality and safety with an emphasis on the development of computational tools. He believes that smart technologies will help agri-food systems to be more productive, efficient, and sustainable. His current research includes a multimodal approach for non-destructive and accurate quality assessment of food samples during processing. He has extensive international research and teaching experience in food and biosystems engineering, advanced spectroscopy and imaging, biophotonics and optical sensor design, AI and machine learning, and chemical and 3D microstructural mapping of food matrices. He received the Terry G. Falconer Memorial Rh Institute Foundation Emerging Researcher Award and multiple institutional teaching awards for his outstanding contributions to research and teaching.

JOHN OGILVIE RESEARCH INNOVATION AWARDS

The CSABE/SCGAB John Ogilvie Research Innovation Award is to acknowledge outstanding contributions to research, in any field of research relevant to CSABE/SCGAB, by an individual or team of researchers (which may include graduate or undergraduate students). The Research Innovation Award is not intended to acknowledge the cumulative impact of a career's worth of research contributions; rather, it is intended to recognize the innovation or ingenuity of a single research project.

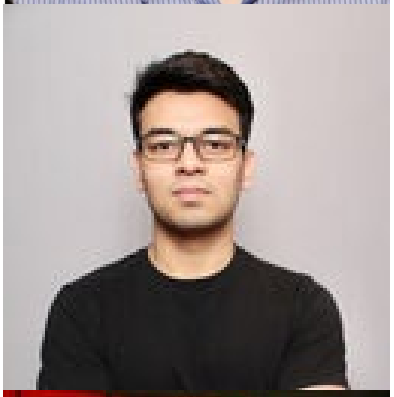
"ProteinProcessIO: A GPU-Accelerated, Experimentally Validated Digital Twin for the Complete Dry Fractionation of Canadian Pulse Crops" by Ebenezer Miezah Kwofie, Emmanuel Amankrah Kwofie, Derrick Allotey, Ibrahim Sabiku & Anthony Iheonye

ProteinProcessIO is the first integrated, physics-based digital twin that predicts the end-to-end performance of the complete dry fractionation chain in a single computational environment. Developed at McGill University in collaboration with NRC Canada under the federal Sustainable Protein Production Program, the platform covers all three interdependent stages — RF dielectric pretreatment, hammer milling, and air classification — and couples them in an automated pipeline where the outlet conditions of each stage feed directly into the inlet of the next. This end-to-end coupling is scientifically critical: a change in pretreatment temperature modifies seed brittleness, which reshapes the milling particle-size distribution, which in turn shifts the air classifier cut-point and protein recovery yield. Stage-isolated models cannot capture this cross-stage sensitivity.

The RF pretreatment module is a full digital twin of the QMTI GP-15 15 kW RF heating system at NRC Canada. It couples ten physics and control sub-models per timestep — including RF field propagation, volumetric dielectric heating, thermal conduction, moisture diffusion, evaporation kinetics, belt kinematics, oscillator circuit dynamics, and full PLC controller logic. The model was calibrated on actual PLC telemetry from a 61 kg NRC Canada production run, simultaneously matching outfeed temperature, anode current trajectory, and electrode gap. It was then blind-validated on an independent 90 kg run, predicting electrode gap within 1.2% (93.0 mm predicted vs. 94.1 mm measured). The milling module reproduces measured D50 to within 0.1 μm at 6,000 RPM using a calibrated Rosin-Rammler breakage function. The air classification module implements Lagrangian particle tracking through 36 fully parameterized equipment components — venturi eductor, zigzag preclassifier, high-speed wheel classifier (to 5,000g), three-stage cyclone cascade, and bag filter — accelerated via NVIDIA Warp GPU kernels.

The platform is released free of charge as a self-contained desktop application for Windows, macOS, and Linux, placing the simulation capacity of a fully equipped pilot plant in the hands of any Canadian research group or processor with a standard laptop.

“Automated Smart Imaging System for Real-Time Canola Seed Quality Detection” by Chyngyz Erkinbaev, Angshuman Thakuria & Thirukumaran Ramesh



Started as a small seed grant of $9,984 funded by the University Research Grant Program (URGP) of the University of Manitoba, Dr. Erkinbaev had proposed the development of a smart imaging sensor for real-time determination of canola seed quality. He was driven by the idea of moving away from the visual inspection of canola seed by trained personnel, which was a labour-intensive, subjective and time-consuming process. Later, this research has grown into a larger initiative with several funded research and infrastructure projects, which aimed to help with quality control of canola from farm-to-fork and provide an intelligent tool for better and more efficient decision making in the canola processing industry. With a team of only one MSc student (Mr. Angshuman Thakuria), a hypothesis was tested by developing detection algorithm of damaged seeds based on image and video recordings coupled with an edge device. They published their research findings and results on achieving higher accuracy, less computational models and faster speed in a peer-reviewed journal in the area of smart agricultural technology. Inspired by the preliminary results from this seed grant, they were excited to expand the project with a focus on industrial application, which resulted in securing the highly competitive Proof-of-Concept Grant ($100,000) from the Research Manitoba and the Manitoba Government ($129,000) for the development of a smart imaging system for real-time canola quality prediction (Mr. Thirukumaran Ramesh). Innovative nature of the project led to expanding the objectives from monitoring of incoming raw canola seeds to prediction of intermediate and final canola oil and meal products resulted in securing two capacity building grants ($316,800) from the Manitoba Sustainable Canadian Agricultural Partnership, Manitoba Government, for development of an online quality control system for canola processing: from single kernel characterization to oil and meal products.

“Sustainable Approaches for Upcycling of Industrial Pea-Starch Waste into Nanomaterials for Potential Agricultural and Food Applications” by Jitendra Paliwal, Mohammad Nadimi & Catherine Findlay

Canada is one of the world’s largest producers and exporters of pulses, with pulse exports valued at approximately $3 billion in 2024. While this export strength has traditionally been built on raw pulse commodities, Canada has a major opportunity to expand further into higher-value plant-protein ingredients and food applications. Realizing this opportunity requires rapid, reliable, and evidence-based tools for assessing protein quality, particularly amino acid composition. However, current amino acid and protein-quality testing methods are often slow, costly, destructive, and difficult to apply in high-throughput quality-control settings.

To address this need, a multidisciplinary collaborative research project was carried out from 2022 to 2026, bringing together researchers from the Department of Biosystems Engineering and the Department of Electrical and Computer Engineering at the University of Manitoba, the Department of Computer Science at the University of Winnipeg, and the National Research Council Canada (NRC). The project focused on evaluating protein quality using protein extracted from field peas (Pisum sativum), a crop central to Canada’s pulse-protein isolate industry. The team, consisting of engineers, chemists, plant breeders, and computer scientists, has developed an integrated platform combining microfluidic lab-on-a-chip sample preparation, surface-enhanced Raman spectroscopy (SERS), bicinchoninic acid assay (BCA), UV-visible spectroscopy, and artificial intelligence-based spectral modelling.

This seminal initiative encompassing two large projects received funding from the Saskatchewan Pulse Growers, Mitacs, NSERC, and NRC, securing $1.8 million over a six-year period. The project has so far resulted in six journal manuscripts, including two published papers, one accepted paper, one manuscript submitted as a revised version following peer review, one manuscript with revisions in preparation for resubmission, and one submitted manuscript, as well as three conference presentations/posters and one invention disclosure currently in process. It has also trained 13 highly qualified personnel, including 7 postdoctoral fellows/research associates, 2 graduate students, and 4 undergraduate students, across engineering, spectroscopy, microfluidics, artificial intelligence, and food/protein analysis.

By demonstrating reliable and rapid cysteine prediction in pea protein using a low-cost, non-destructive microfluidic-SERS-AI platform, the project advances a practical analytical approach for next-generation protein-quality assessment. Its outcomes are relevant to pulse breeding, protein ingredient quality control, and value-added growth in Canada’s plant-protein sector. Some of the highly qualified personnel (HQP) trained through this initiative have progressed to careers in industry and academia, while others remain engaged in the research. The success of our HQP demonstrates the project’s role in building interdisciplinary talent and supporting Canada’s value-added plant-protein sector.

2026 Student Awards

CSABE/SCGAB Foundation Student Team Competition – up to $500

ASABE ¼ Scale Tractor Student Design Competition

Students are challenged to harness the power and torque of a specified stock engine in order to maximize performance during a series of performance challenges.

University of Manitoba Association of Tiny Tractors (UMATT) – Ariel Mesongnik, Nicol Mesongnik, Kevin G. Sim, Robert D. Tully, Adam J. M. Zalevich, Fiona Awan, Rudy Kissel, Ethan Friesen, Bruce J. W. Niemi & Samuel C. Kuxhaus

McGill University, MuTrac Team – Vincent Boa, Catherine Grammond, Olivia M. Giguère, Gabriel Morin, Thomas Brunet, Madeleine C. Hétu, Carley R. Kiiskila, Isabel J. Heger, Marguerite Deseau, Selena Amirzada & Florence Brun

Université Laval, Équipe ULtrac – Simon Dallaire, Alexis Pellerin, Émérick Prince, Lauralie Milette, Antoine Néron, Gabrielle Arel, Frédérick Leclerc, Roxanne Pelletier, Cassandre Séguin & Érika Barbeau

ASABE Robotics Student Design Competition

The competition requires teams to build a robot, which accomplishes a simulated agricultural task. The robots must be fully autonomous and able to complete the task without human intervention.

University of Manitoba, UM-agBOT – Stephane Le Heiget, Krish S. Bhalala, Laraib Mahdi, Arqam Adiyan, Niraaj Ojha, Ben R. Friesen & Isabella A. C. Panduro

CSABE/SCGAB Foundation Undergraduate Scholarship – $400

Recognizes academic excellence among student members of the Society. The Scholarship is awarded each year to the student member of the Society with the highest GPA in the preceding semester.

University of Manitoba – ***Brook Singbeil***

Université Laval, Génie agroenvironnemental – *Thomas Talbot-Lanciault & Christopher Gagné* (ex aequo)

Université Laval, Génie alimentaire – *Livia Bolduc Painchaud*

Dalhousie University – ***Dylan Long***

University of Prince Edward Island – *Courtney Marie McBride*

Undergraduate Awards – $100

Undergraduate Design Project

University of Manitoba – *Amy Dixon, Gerald E. Onwuka, Adam A. Patton, Axcell V. Saqui & Brooke Singbeil* for a design project entitled "Rii Faroosh (Wild Rice) Small Scale Processor" (Advisor: N. Jacobson).

University of Guelph – *Janelle Chan, Ryan Landry, William Rocheleau & Emily A. M. Younghans* for a design project entitled "Identification and Evaluation of Nanoencapsulation Techniques for *A. Nodossum* Seaweed Extracts" (Advisor: A. Singh).

McGill University – *Olivia M. Domingos, Noelle Ciravolo, Lisa El Khazen, Abby Newsham, Sylvio Chamoun* for a project "Automated Wind Farm Site Selection" (Advisor: J. Dhiman).

Université Laval – ***Mégane D'Aoust, Camylle Michaud & Marie Poissant*** for a project "*Serre-étable : évaluation des répercussions de la lumière naturelle et d'une canopée végétale sur le bien-être animal et l'environnement* (Greenhouse Dairy Barn: Assessment of the Impact of Natural Light and a Plant Canopy on Animal Welfare and the Environment)" (Advisor: S. Fournel).

Undergraduate Thesis

University of Manitoba – *Brooke Singbeil* for a thesis entitled "Fate and Distribution Mechanisms of Tebuconazole" (Advisors: A. Brown & W. Blunt).

McGill University – *Aleix Toews, Philippe Charest & Khloe Lu* for a project "Pneumatic Electrical Trigger to Improve Nitrogen Cannons for Avalanche Control" (Advisor: C. A. Madramootoo).

University of Prince Edward Island – *Yuvraj S. Gill* for a thesis entitled "Design and Development of a Dual-Mode Robotic-Human Framework for Spatiotemporal Assessment of Soil Compaction in Agricultural Fields" (Advisors: G. Randhawa & A.A. Farooque).

CSABE/SCGAB National MSc/PhD Thesis Award – $500

MSc Finalists

University of Saskatchewan – *Emmanuel Ezechinyelu* for a thesis entitled "Thermal Environment Modelling, Optimization and Economic Feasibility Analysis of a Double-Roof Chinese Solar Greenhouse in the Canadian Prairies" (Advisor: H. Guo).

University of Manitoba – *Obasi Ukoji* for a thesis entitled "Effects of Chickpea Milling and Pretreatment on the Physical and Microstructural Characteristics of Enriched Bread and Pasta" (Advisor: J. Paliwal).

University of Manitoba – *Thirukumaran Ramesh* for a thesis entitled "An Integrated Storage and Seed Treatment Approach for Improving Oxidative Stability and Oil Quality of Canola Seeds" (Advisor: C. Erkinbaev).

PhD Finalists

University of Saskatchewan – *Pabitra Chandra Das* for a thesis entitled "Postharvest Processing of Cannabis (*Cannabis sativa*) and Valorization of its Stalks" (Advisor: L. G. Tabil).

University of Manitoba – *Abhinav Tiwari* for a thesis entitled "Moisture Isotherm of Oilseeds (Hemp and Canola) and Sub-Zero Temperature Drying and Storage of Canola" (Advisor: F. Jian).

Université Laval – *Andrea Katherín Carranza Díaz* for a thesis "*Évaluation et optimisation des méthodes indirectes pour l'estimation du taux de ventilation servant au calcul des émissions de gaz en élevage de poules pondeuses* (Measurement of Gas Emissions in Laying Hen Housing Systems: Evaluation and Optimization of Indirect Methods for Ventilation Rate Estimation)" (Advisor: S. Fournel).