JULY 1, 2026
CURRICULUM VITAE

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EDUCATION

PhD in Agricultural and Biological Engineering, Purdue University (West Lafayette, Indiana, USA), 08/1998-**08/2000**.
PhD dissertation: Automated mapping of soil pH, potassium and mechanical impedance for site-specific management.

MSc in Agricultural and Biological Engineering, Purdue University (West Lafayette, Indiana, USA), 06/1997-**08/1998**.
MS thesis: Rapid determination of soil pH for site-specific farming.

BSc (Diploma Specialist) in Mechanical Engineering (Agricultural Mechanization), National Agricultural University of Ukraine (National University of Life and Environmental Sciences of Ukraine), Kyiv, Ukraine, 09/1991-**06/1996**. Specialization: Research and Testing of Agricultural Machinery.
Diploma project: A power control system for multicylinder gasoline engines by individual cycle cut-off for trucks used in agricultural transportation (in Ukrainian).

EMPLOYMENT HISTORY

Professor in the Department of Bioresource Engineering, McGill University, Ste-Anne-de-Bellevue, Quebec, Canada, 07/2019-present. **Department Chair** - 08/2018-05/2028**.**

Adjunct Professor in the Department of Biological Systems Engineering, University of Nebraska-Lincoln, Lincoln, Nebraska, USA, 06/2010-05/2025.

Associate Professor in the Department of Bioresource Engineering, McGill University, Ste-Anne-de-Bellevue, Quebec, Canada, 06/2010-06/2019.

Associate Professor and Extension Precision Agriculture Engineer in the Department of Biological Systems Engineering, University of Nebraska-Lincoln, Lincoln, Nebraska, USA, 07/2007-05/2010.

Assistant Professor and Extension Precision Agriculture Engineer in the Department of Biological Systems Engineering, University of Nebraska-Lincoln, Lincoln, Nebraska, USA, 12/2000-06/2007.

Post-Doctoral Assistant in the Department of Agricultural and Biological Engineering, Purdue University, West Lafayette, Indiana, USA, 08/2000-11/2000.

Graduate Research Assistant in the Department of Agricultural and Biological Engineering, Purdue University, West Lafayette, Indiana, USA, 06/1997-08/2000.

Visiting Research Assistant in the Department of Agricultural and Biological Engineering, Purdue University, West Lafayette, Indiana, USA, 10/1996-05/1997.

Assistant to the Rector for International Programs and Co-coordinator of Linkage Project between National Agricultural University of Ukraine, Kyiv, Ukraine and Iowa State University, Ames, Iowa, USA, 09/1995-10/1996.

Project Assistant in the Laboratory of Distance Monitoring, Institute of Plant Physiology and Genetics, National Academy of Science, Kyiv, Ukraine, 10/1993-09/1995.

AREA OF RESEARCH AND OUTREACH

Develop and deploy sensor systems to determine soil and crop attributes, investigate geospatial data acquisition, processing, and interpretation techniques, and implement precision agriculture and other digital technologies to enhance the value, quality, and environmental safety of crop production.

TEACHING EXPERIENCE

McGill University

- BREE 329/FMT4 027, Precision Agriculture, 3 cr., Winter 2011-2017 and 2019-2026
- BREE 504, Instrumentation and Control, 3 cr., Winter 2012, Fall 2013-2016 and 2018-2025
- BREE/ENVB 529, GIS for Natural Resource Management, 3 cr., Fall 2016 and 2018-2025
- BREE/ENVB 430, GIS for Natural Resource Management, 3 cr., Fall 2010-2015
- BREE 490/495, Engineering Design 2 and Engineering Design 3, 3 cr., Winter 2017
- BREE 485/486/651/652/751/752/753/754, Senior Undergraduate and Graduate Seminar, 1 cr., Fall 2011-2013 and Winter 2013-2014
- BREE 315, Design of Machines, 3 cr., Winter 2014
- BREE 412, Machinery Systems Engineering, 3 cr., Fall 2010

University of Nebraska-Lincoln

- BSEN/AGEN 112, Introduction to Problem Solving in Agricultural and Biological Systems Engineering, 2 cr., Spring 2007-2010
- AGRO/MSYM/AGEN 431, Site-Specific Crop Management, 3 cr., Fall 2001-2009
- AGRO 841, Understanding and Managing Spatial Variability in Soils, 2 cr., Spring 2005, 2006, 2008, and 2010 (distance education)
- AGEN 896, Precision Agriculture Advances, 3 cr., Fall 2004
- MSYM 109, Physical Principles in Agriculture, 4 cr., Spring 2000, 2001, and 2006

PROFESSIONAL MEMBERSHIPS

Professional Agricultural Engineer

- **License 100223225**, Professional Engineers Ontario, Canada, 2018-present.
- **License E-10643**, State of Nebraska, USA, 2002-present.

Associate Member of the Center for Intelligent Machines (CIM), McGill University, 2015-present

Engineering Societies:

- American Society of Agricultural and Biological Engineers (ASABE), 1997-present
  - Precision Agriculture Committee (MS-54), 2002-present, **Secretary**, 2004-2006
  - Department Heads Committee (EOPD-210), 2018-present
  - Soil-Plant-Machine Dynamics Committee (MS-45), 2003-present
  - Crop Production Systems, Machinery, and Logistics Committee (MS-49), 2003-present
  - Mechatronics and Robotics Committee (ITSC-318), 2012-present
  - Robotics Competition Committee (P-127), 2008-2016
- Canadian Society for Agricultural and Biosystems Engineering (CSABE), 2011-present
- International Commission of Agricultural and Biosystems Engineering (CIGR), Next leaders event, 2011, Section III: **Plant Production board** member, 2018-2026
- **Club of Bologna**, Strategies for the Development of Agricultural Mechanization, member since 2026.
- Environmental and Engineering Geophysical Society (EEGS), 2009

International Standards:

- Canadian Advisory Committee for the International Organization for Standardization, 2012-present.
- ISO/TC 347 Data-Driven Agrifood Systems, 2024-present. **Chair** of the Mirror Committee, 2026-present.

ISO/TC 347/AHG 7 Enabling actionable insights from field operations data, 2025-present
ISO/TC 347/AGH 8 Digital land usage histories/field passports, 2025-present
ISO/TC 347/AGH 10 Digital representation of field boundaries, 2025-present

ISO/TC23/SC19 Agricultural Electronics, 2002-present

Leadership in ISO/TC23/SC19/WG7 (**ISO 12188**), 2009-2015

Coordinating Committee for OECD Tractor Testing in the USA, 2002-2010

Soil Science Societies:

Canadian Soil Science Society (CSSS), 2012-present

Soil Science Society of America (SSSA), 2008-2011

International Union of Soil Sciences (IUSS) Working Group on Proximal Soil Sensing, 2009-present. **Co-founder** and **vice-chair**, 2009-2013

Precision Agriculture Societies:

International Society of Precision Agriculture (ISPA), 2010-present. **Elected secretary,** 2014-2016 and 2016-2018. Country representative, 2010-2022

CRAAQ Commission Géomantique et Agriculture de Précision, 2010-present

NCERA-180 Precision Technologies for Food, Fiber, and Energy Production Committee, 2001-2012

Nebraska Agricultural Technology Association (NeATA), 2001-2010

Editorial Boards:

Editorial Board of Computers and Electronics in Agriculture Journal, 2009-present

Editorial Board of Precision Agriculture Journal, 2010-present

Associate Editor of Canadian Biosystems Engineering Journal, 2018-present

Guest Editor of three Special Issues of Sensors Journal, 2020-2024

Other Licenses:

Private pilot, since 1998 (USA, inactive since 2004)

Operators (driving) license, since 1994 (Ukraine, USA, Canada), motorcycle endorsement, 1998-2010 (USA)

Certified tractor and farm machinery operator, since 1994 (Ukraine)

Languages: Ukrainian, English, Russian, and French

PROFESSIONAL AWARDS

CSBE/SCGAB Glen Downing Award for outstanding work in industry, teaching, research, or extension in the area of machinery systems, or bioenergy systems, 2019.

ASABE Standard Development Award for ASABE/ISO 12188-2:2012 "Positioning and Guidance in Agriculture - Part 2: Testing satellite-based auto-guidance systems" standard, 2016.

Susan J. Rosowski Professorship in recognition of distinguished scholarship and creative activity, University of Nebraska-Lincoln, 2009-2010.

UNL Extension Excellence in Team Programming Award for “GEAR-TECH-21” non-formal education program, 2009.

ASABE Educational Aids Competition Blue Ribbon Award for “The Nebraska 4-H robotics and GPS/GIS year 1 curriculum” website, 2009.

ASABE Educational Aids Competition Blue Ribbon Award for “GNSS-based auto-guidance in agriculture (SSMG-46)” short publication, 2009.

ASABE Educational Aids Competition Blue Ribbon Award for “Weed targeting herbicide management” extension circular, 2009.

Pierre C. Robert Precision Agriculture Young Scientist Award, Ninth International Conference on Precision Agriculture, Denver, Colorado, 2008.

ASAE Educational Aids Competition Blue Ribbon Award for “On-the-go vehicle-based soil sensors” extension circular, 2003.

Dinsdale Family Faculty Award for outstanding teaching, research and outreach in the Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln, 2002.

ASAE Superior Paper Award for “Application of a strain gauge array to estimate soil mechanical impedance on-the-go” Transactions of the ASAE 44(6):1377-1383, 2002.

The University of Nebraska University-wide Departmental Teaching Award for the 2001-2002 Academic Year, 2002.

MAIN AWARDED GRANTS

1. **Adamchuk, V.** 2026-2029. Réseau québécois d'essais en plein champ utilisant des outils d'agriculture de precision (in French: Quebec network of field trials using precision agriculture tools). Quebec Ministry of Agriculture, Fisheries and Food (MAPAQ) - Prime-Vert, $500,000.
2. **Adamchuk, V.** 2026-2027. Precision and real-time traction models of farm equipment. CNH Industrial Canada Ltd (Saskatoon, Saskatchewan, Canada), $105.000.
3. Lefsrud, M and **V. Adamchuk**. 2026. Monitoring and media selection for microgreen production. Mitacs Accelerate with support from SowYummy Systems, Inc. (North Vancouver, British Columbia, Canada), $90,000 ($30,000 direct control).
4. **Adamvhuk, V.** 2026-2028. Development of decision support infrastructure for optimized nutrient management within forage cropping systems. Natural Sciences and Engineering Research Council of Canada (NSERC) Alliance with support from Mitacs Accelerate and Mon Système Fourrager, $330,000.
5. **Adamchuk, V.** 2023-2028. Integrated proximal sensing of soil and crops. Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery, $295,000.
6. Bouroubi, Y., **V. Adamchuk**, and S. Foucher. 2023-2026. Development of a decision support system to determine the potential for soil organic matter accumulation in Quebec and the practices to achieve it. FRQNT programme de recherche en partenariat - Agriculture durable, $750,000 ($75,000 direct control).
7. **Adamchuk, V.** 2022-2023. Development of an integrated sensor system for automated on-the-spot measurement of physical soil properties. Mitacs Accelerate International with support from Ztractor (Palo Alto, California, USA), $30,000.
8. **Adamchuk, V.** 2022. Wireless subsurface soil sensor network. Mitacs Accelerate with support from NestingSafe (Montreal, QC, Canada), $15,000.
9. **Adamchuk, V.** 2021-2022. Development of crop quality/quantity estimation methods using UAV imagery. AAFC AgriRisk Initiatives Program with support from Drone Des Champs (Laval, Quebec, Canada), $50,000.
10. Leduc, M., **V. Adamchuk**, and K. Chokmani, and S. Homayouni. 2021-2024. AI-driven decision support tools for alfalfa’s winter survival and persistency. Mitacs Accelerate with support from Canadian Forage Grassland Association (Fredericton, NB, Canada) AAFC and MAPAQ, $2,044,298 ($310,900 direct control).
11. **Adamchuk, V.** 2021-2025. Model development for ground-engaging tools using real-time numerical terramechanics and discrete-element method. Mitacs Accelerate with support from CNH Industrial (Saskatoon, SK, Canada), $120,000 (plus $35,000 supplemental, plus $25,507 extended contract).
12. **Adamchuk, V.** 2021-2024. Agricultural multi-layer data fusion to support cloud-based agricultural advisory services. Mitacs Accelerate with support from Telus Communication (Calgary, AB, Canada) and Olds College (Olds, AB, Canada), $120,000.
13. Meldrum, P., M. Leduc, and **V. Adamchuk**. 2021-2022. Toward a more sustainable Macdonald Farm: Assessment and Strategic Planning. McGill Sustainability Project Fund and MAPAQ, $162,504.
14. **Adamchuk, V.** 2020-2021. Agricultural anomaly detection using temporal dynamics of remote sensing data. Mitacs Accelerate with support from horoma AI (Magog, Quebec, Canada), $40,000.

15. **Adamchuk, V.** 2019-2020. Development of an integrated sensor system for automated on-the-spot measurement of physical soil properties. Mitacs Accelerate International with support from Ztractor (Palo Alto, California, USA), $30,000.
16. **Adamchuk, V.** 2019. Development of willow tree yield mapping technology. Natural Sciences and Engineering Research Council of Canada (NSERC) Engage Project with Agro Energie (St-Roch-de-l'Achigan, Quebec), $25,000.
17. **Adamchuk, V.** and Y. Comeau. 2019. Development and validation of a semi-automated in-situ soil sensor using vis-NIR spectroscopy. Mitacs Accelerate with support from ChrysaLabs (Montreal, Quebec), $80,000 ($53,333 direct control).
18. **Adamchuk, V.** 2017. Analysis of complementarity of different spectral analytics to sense soil properties. Natural Sciences and Engineering Research Council of Canada (NSERC) Engage Project with LogiAg, Inc. (Chateauguay, Quebec), $25,000.
19. **Adamchuk, V.** 2017-2023. Integrated proximal sensing of soil and crops. Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery, with Discovery Accelerator Supplement (DAS) for 2017-2020, $366,000.
20. Madramootoo, C. (PI), J. Whalen, **V. Adamchuk** (co-applicant), Z. Qi, A. Akbarzadeh, S. Kulshreshtha, A. Fredeen, E. Yiridoe, and P. Havard. 2017-2022. An integrated socio-economic and biophysical framework for mitigating greenhouse gas emissions under agricultural water management systems in Eastern Canada. Agriculture and Agri-Food Canada (AAFC), Agricultural Greenhouse Gases Program (AGGP), $1,608,712 ($100,000 direct control).
21. Vasseur, E. (PI) and **V. Adamchuk** (collaborator). 2017-2019. Analysis and automation of injury assessment in dairy cattle. Agriculture and Agri-Food Canada (AAFC) Agri-Risk Program, $113,326 (no direct control).
22. **Adamchuk, V**. 2017. Machine vision yield monitor for vegetable crops. Mitacs Accelerate with support from Delfland (Napierville, Quebec), $15,000.
23. Tremblay, N. and **V. Adamchuk** (University subcontract). 2015-2018. Optimization of nitrogen fertilization in response to production system uncertainties such as soils, weather and economics across Canada under 4R stewardship, Fertilizer Canada, Agri-Innovation Program (AIP), $210,452 ($132,394 direct control).
24. **Adamchuk, V.** 2015-2016. Development of a sensor network system for precision apiculture and surface soil imaging using smart phone technology. Bayer Crop Science, $25,000.
25. **Adamchuk, V.** (PI), A. Biswas, P. Raymer, P. Hermans, and S. Prasher. 2015-2018. Development of scale-up sensor-based precision agriculture services in Ontario. Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), New Directions Research Program (NDRP), $200,000 (100% direct control).
26. **Adamchuk, V.** 2014. Computer vision cultivator guidance. Natural Sciences and Engineering Research Council of Canada (NSERC) Engage Project with Agri-Fusion 2000, Inc. (Saint-Polycarpe, Quebec), $25,000.
27. Madramootoo, C. (PI), **V. Adamchuk** (co-applicant), Bronsch, J.J., and Woods S.S. 2013-2016. Application of variable rate irrigation technology for water efficiency and conservation. Natural Sciences and Engineering Research Council of Canada (NSERC) Strategic Project, $244,300 ($100,000 direct control).
28. **Adamchuk, V.** 2012-2014. Zones on-the-go. Deere and Company Corporation, $315,000 (five work orders).
29. **Adamchuk, V.I.** 2011-2017. Integrated proximal sensing of soil and crops. Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery, $124,000.
30. Madramootoo, C. (PI), J. Whalen, **V. Adamchuk** (co-applicant), D. Burton, S. Kulshreshtha, A. Madani, C. Tan, and T. Zhang. 2011-2015. Effects of agricultural water management systems on greenhouse gas emissions in Eastern Canada. Agriculture and Agri-Food

Canada (AAFC), Agricultural Greenhouse Gases Program (AGGP), $1,999,712 ($225,000 direct control).

31. **Adamchuk, V.I.** 2011-2012. Integrated soil sensing technology for optimized management of land resources. Canada Foundation for Innovation (CFI), Leader Opportunity Fund (LOF), $270,000.
32. Yatsenko, V. (PI) and **V. Adamchuk** (Canada collaborator). 2011-2013. New methods for active remote sensing of chemical and biological agents by optical devices. Science and Technology Center in Ukraine (STCU) project #5240, $110,000 (no direct control).
33. **Adamchuk, V.** (PI), S. Ci, D. Martin, H. Shariff, and R. Ferguson. 2009-2011. Optimization of irrigation efficiency of center-pivot systems using spatial and temporal data integration. Nebraska Water, Energy and Agriculture Initiative (WEAI), $115,386 (100% direct control).
34. Hanna, M. (PI), R. Hoy, D. Martin, W. Kranz, **V. Adamchuk** (collaborator). 2009-2011. Evaluation of biofuel driven irrigation pumps and/or electric generators for use during peak electricity demand. Nebraska Water, Energy and Agriculture Initiative (WEAI), $137,000 (no direct control).
35. Barker, B. (PI), Krehbiel, C. Nelson, and **V. Adamchuk** (collaborator). 2009-2010. 4-H robotics: engineering for today and tomorrow. United States Department of Agriculture, 4-H National Headquarters, $400,000 ($10,309 direct control).
36. Kocher, M., D. Keshwani, **V. Adamchuk** (collaborator), and D. Jones. 2009-2010. Logistics and economics of dual harvesting of grain and biomass. CLAAS of Omaha, Inc., $60,000 (no direct control).
37. Barker, B.S. (PI), **V.I. Adamchuk** (co-PI), G.L. Nugent, N. Grandgenett, and B. Chen. 2008-2013. Scale-up: Robotics and GPS/GIS in 4-H: workplace skills for the 21st century. National Science Foundation (NSF), Information Technology Experiences for Students and Teachers (ITEST), $2,498,940 ($120,000 direct control).
38. **Adamchuk, V.I.** (PI), C.A. Shapiro, C.S. Wortmann, R.B. Ferguson, and R. Perrin. 2008-2010. Profitability-oriented site-specific liming for soybean production. Nebraska Soybean Board, $88,520 (100% direct control).
39. Lund, E.B. (PI) and **V.I. Adamchuk** (University collaborator) 2008-2010. Soil core analysis network for in-field measurements of nitrogen and other soil properties. United States Department of Agriculture (USDA), Small Business Innovation Research (SBIR), Phase I, $79,677 ($3,000 direct control).
40. Wortmann, C. (PI), **V. Adamchuk** (collaborator), R. Ferguson, C. Shapiro, J. Hay, D. Varner. 2008-2009. Farmer evaluation and learning of spatial management of soil acidity. University of Nebraska Extension, $7000 (no direct control).
41. **Adamchuk, V.I.** (PI), A. Samal, C. Wortmann, L.K. Soh, and R.B. Ferguson. 2006-2009. Delineation of differentiated management areas within an agricultural field to optimize crop production. University of Nebraska-Lincoln, Channing B. and Katherine W. Baker Fund #3524, $36,000 (100% direct control).
42. Barker, B.S. (PI), **V.I. Adamchuk** (co-PI), G.L. Nugent, and N. Grandgenett. 2006-2009. Robotics and GPS/GIS in 4-H: workplace skills for the 21st century. National Science Foundation (NSF), Information Technology Experiences for Students and Teachers (ITEST), $864,139 ($154,186 direct control).
43. Wortmann, C. (PI), **V. Adamchuk** (collaborator), R. Ferguson, D. Varner, J. Mulliken, and A. Vybiral. 2006-2007. The use of spatial information to manage river valley soils: producer/consultant education. University of Nebraska Extension, $7,500 (no direct control).
44. **Adamchuk, V.** (PI), J. Mulliken, and A. Martin. 2005-2006. Weed targeting herbicide application. University of Nebraska Extension, $7,000 (100% direct control).
45. Lund, E. (PI) and **V. Adamchuk** (University collaborator). 2003-2006. A soil sampling system for on-the-go analysis and mapping of pH and other properties. United states

Department of Agriculture (USDA), Small Business Innovation Research (SBIR), Phase II, $262,325 ($60,654 direct control).

46. **Adamchuk, V.I.** (PI). 2002. Instrumentation system for deep-tillage research. John Deere Product Engineering Center, $14,500.
47. Drummond P. (PI), C. Christy, E. Lund, and **V. Adamchuk** (University collaborator). 2002. A soil sampling mechanism for on-the-go analysis and mapping of pH and other properties United States Department of Agriculture (USDA), Small Business Innovation Research (SBIR), Phase I, $61,888 ($3,300 direct control).
48. Dobermann, A (PI), R. Caldwell, **V. Adamchuk** (co-PI), and R. Ferguson. 2001-2006. Thematic soil mapping and crop-based strategies for site-specific management. United States Department of Agriculture (USDA), Application of Geospatial and Precision Technologies (AGPT), $1,025,000 ($158,682 direct control).
49. **Adamchuk, V.I.** (PI) 2001-2002. Automated mapping of residual soil nitrate. University of Nebraska-Lincoln, Layman Trust Fund, $7,500.

PATENTS

1. **Adamchuk, V.**, A. Biswas, L. Qi, M. Leclerc[1], B. Sudarsan, and W. Ji. 2019. Apparatus for analyzing a sample of granular material. United States Patent No. 10,495,568, Canadian Patent No. 3,003,118.
2. **Adamchuk, V.I.**, A. Pouliot, and T. Stanhope. 2019. Steering wheel adapter for agricultural vehicle vision guidance system. United States Design Patent No. D863,367, Canadian Industrial Design Patent No. 163,371, European Industrial Design Patent EP002938100.
3. **Adamchuk, V.I.**, A. Pouliot, and T. Stanhope. 2018. Guidance system and steering control device for an agricultural vehicle. United States Patent No. 10,104,827.
4. **Adamchuk, V.I.**, N. Dhawale, F. Rene-Laforest, S. Prasher, and A. Pouliot. 2016. Soil analysis apparatus, method, and system having a displaceable blade assembly and sensor. United States Patent No. 9,389,214.
5. **Adamchuk, V.I.**, A.V. Skotnikov, and J.D. Speichinger. 2006. Instrumented deep tillage implement. United States Patent No. 7,028,554, Canadian Patent No. 2,473,368.
6. **Adamchuk V.I.**, M.T. Morgan, and D.R. Ess. 2002. System and method for automated measurement of soil pH. United States Patent No. 6,356,830.

EDITED PUBLICATIONS

1. **Adamchuk, V.** and Mouazen, A.M. 2024. Sensors, Special Issue: Precision Agriculture and Sensor Systems – 2nd Edition, 4 papers. Basel, Switzerland: MDPI.
   https://www.mdpi.com/journal/sensors/special_issues/1P1Y4C6T63
2. **Adamchuk, V.** and Mouazen, A.M. 2022. Sensors, Special Issue: Precision Agriculture and Sensor Systems, 14 papers. Basel, Switzerland: MDPI.
   https://www.mdpi.com/journal/sensors/special_issues/PASS
3. **Adamchuk, V.**, K. Sudduth, and A. Biswas. 2020. *Sensors, Special Issue: Smart Sensing Technologies for Agriculture*, 234 pages. Basel, Switzerland: MDPI.
4. Viscarra Rossel, R.A., **V.I. Adamchuk**, and R. Gebbers. 2015. *European Journal of Soil Science, volume 66(4), Special Issue: Proximal Soil Sensing*. Hoboken, New Jersey: John Wiley and Sons, Inc.
5. **Adamchuk, V.I.** and R.A. Viscarra Rossel. 2013. *Geoderma, volume 199, Special Issue: Proximal Soil Sensing*. Amsterdam, The Netherlands: Elsevier.
6. Barker, B.S., G.L. Nugent, N. Grandgenett, and **V.I. Adamchuk**. 2012. *Robotics in K-12 Education: A New Technology for Learning*, 407 pages. Hershey, Pennsylvania: IGI Global.

[1] Names of supervised students and postdoctoral assistants are underlined.

7. **Adamchuk, V.I.** and R.A. Viscarra Rossel. 2011. *Proceedings of the Second Global Workshop on Proximal Soil Sensing*, Montreal, Quebec, Canada, 15-18 May 2011, 163 pages. Montreal, Quebec, Canada: McGill University.

REFEREED BOOK CHAPTERS

1. Mann, H.S., M. Naeimi, V. Porwal, T.B. Bellete, **V.I. Adamchuk**, P. Daggupati, and A. Biswas. 2025. Image acquisition and processing techniques. In: *Unlocking the Secrets of Soil*. Applying AI and Sensor Technologies for Sustainable Land Use. Chapter 6, 181-201, D.C. Weindorf, S. Chakraborty and B. Li, eds. Amsterdam, Netherlands: Elsevier (https://doi.org/10.1016/B978-0-443-29879-0.00003-4).
2. Irmak, S., J. Aguilar, **V. Adamchuk**, H.H. Huang, S. O'Shaughnessy, M. Kukal, I. Kisekka, D. Porter, M. Andrade-Rodriguez, A. Yari, and C. Madramootoo. Precision Irrigation Management. 2025. The Council for Agricultural Science and Technology (CAST) Publication, November 2025, 20 pages.
3. **Adamchuk, V.**, F.H.S. Karp, and A. Biswas. 2025. Developments in proximal soil sensing for precision agriculture. In: Precision agriculture for Sustainability. Second Edition, Chapter 2, 35-63, J. Stafford, ed. Cambridge, UK: Burleigh Dodds Science Publishing.
4. **Adamchuk, V.I.**, A. Biswas, H.H. Huang, J.E. Holland, J.A. Taylor, B. Stenberg, J. Wetterlind, K. Singh, B. Minasny, C. Fidelis, D. Yinil, T. Sander-son, D. Snoeck, and D.J. Field. 2021. Soil Sensing. In: *Sensing Approaches for Precision Agriculture*, Chapter 4, 93-132, R. Kerry and A. Escola, eds. Cham, Switzerland: Springer.
5. **Adamchuk, V.**, W. Ji, R. Viscarra Rossel, R. Gebbers, and N. Tremblay. 2018. Proximal soil and plant sensing. In: *Precision Agriculture Basics*, Chapter 9, 119-140, D.K. Shannon, D.E. Clay, and N.R. Kitchen, eds. Madison, Wisconsin: ASA-CSSA-SSSA.
6. An, W., D. Wu, S. Ci, H. Luo, **V. Adamchuk**, and Z. Xu. 2017. Agriculture cyber-physical systems. In: *Cyber-Physical Systems - Foundations, Principles and Applications*, Chapter 25, 399-417, H. Song, D.B. Rawat, S. Jeschke and C. Brecher, eds. London, UK: Academic Press.
7. **Adamchuk, V.I.**, B. Allred, J. Doolittle, K. Grote, and R.A. Viscarra Rossel. 2017. Tools for proximal soil sensing. In: *Soil Survey Manual*, Chapter 6, 355-394, USDA Handbook 18, C. Ditzler, K. Scheffe, and H.C. Monger, eds. Washington, DC: Government Printing Office.
8. **Adamchuk, V.I.** 2015. Precision agriculture and food security. In: *Bringing Space Down to Earth* by the World Economic Forum's Global Agenda Council on Space Security, 17-19. Geneva, Switzerland: World Economic Forum.
9. Viscarra Rossel, R.A. and **V.I. Adamchuk**. 2013. Proximal soil sensing. In: *Precision Agriculture for Sustainability and Environmental Protection*, Chapter 6, 99-118, M.A. Oliver, T.F.A. Bishop, and B.P. Marchant, eds. Abingdon, UK: Routledge.
10. **Adamchuk, V.I.**, M.C. Patent Nygren, C.C. Lutz, and K.P. Morgan. 2012. Learning geospatial concepts as part of a non-formal education robotics experience. In: *Robotics in K-12 Education: A New Technology for Learning*, Chapter 14, 284-300, B.S. Barker, G.L. Nugent, N. Grandgenett, and V.I. Adamchuk, eds. Hershey, Pennsylvania: IGI Global.
11. Shiratsuchi, L.S., M.F. Vilela, R.B., Ferguson, J. F. Shanahan, **V.I. Adamchuk**, A.V. Resende, S.C. Hurtado, and E.J. Corazza. 2012. Developing an algorithm for on-the-go nitrogen management in the Brazilian Cerrado (in Portuguese: Desenvolvimento de um algoritmo baseado em sensores ativos de dossel para recomendação da adubação nitrogenada em taxas variáveis). In: *Agricultura de Precisão: Um Novo Olhar*, 184-188, R.Y. Inamasu, J.M. Naime, A.V. Resende, L.H. Bassoi, and A.C.C. Bernardi, eds. São Carlos, São Paulo, Brasil: Embrapa Instrumentação.
12. **Adamchuk, V.I.**, R.A. Viscarra Rossel, K.A. Sudduth, and P. Schulze Lammers. 2011. Sensor fusion for precision agriculture. In: *Sensor Fusion – Foundation and Applications,* Chapter 2, 27-40, C. Thomas, ed. Rijeka, Croatia: InTech.

13. **Adamchuk, V.I.** and R.A. Viscarra Rossel. 2011. Precision agriculture: proximal soil sensing. In: *Encyclopedia of Agrophysics*, 650-656, J. Gliński, J. Horabik, and J. Lipiec, eds. New York, New York: Springer.
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16. **Adamchuk, V.** 2019. Precision agriculture and sensor systems. In: *Proceedings of the 8th Asian-Australasian Conference on Precision Agriculture*, Ludhiana, Punjab, India, 14-17 October 2019, 21-22. Ludhiana, Punjab, India: Punjab Agricultural University.
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50. Dhawale, N.M., **V.I. Adamchuk**, S.O. Prasher, J.K. Whalen, L. Pan and A.S. Mat Su. 2013. Rapid measurement of nitrate ion activity using a direct soil sensing approach. In: *Soil Science: The Centre of It All. Proceedings of CSSS/MSSS/CSAFM Joint Meeting*, Manitoba, Winnipeg, 22-25 July 2013, 99.
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58. **Adamchuk, V.I.** 2011. On-the-go proximal soil sensing for agriculture. In: *Abstract Book of the International Symposium on Sensing in Agriculture*, 21-24 February 2011, 105. Haifa, Israel: Technion – Israel Institute of Technology.
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61. Krienke, B., R. Ferguson, J. Shanahan, **V. Adamchuk**, and L. Shiratsuchi. 2010. Evaluation of algorithm thresholds for crop canopy sensor-based in-season nitrogen application. Abstract No. 316-8, *ASA-SSSA-CSSA International Annual Meeting*, Long Beach, California, 31 October – 4 November 2010. Madison, Wisconsin: ASA-SSSA-CSSA.
62. Shanahan, J., R. Ferguson, **V.I. Adamchuk**, L. Shiratsuchi, and L. Hendrickson. 2009. Crop management zone delineation based on landscape position. Abstract No. 51-1, *ASA-SSSA-CSSA International Annual Meeting*, Pittsburgh, Pennsylvania, 1-5 November 2009. Madison, Wisconsin: ASA-SSSA-CSSA.
63. Shiratsuchi, L.S., **V.I. Adamchuk**, R.B. Ferguson, J.F. Shanahan, and G.P. Slater. 2009. Integrated corn plant height and chlorophyll content measurements to estimate the in-season nitrogen requirement. Abstract No. 100-2, *ASA-SSSA-CSSA International Annual Meeting*, Pittsburgh, Pennsylvania, 1-5 November 2009. Madison, Wisconsin: ASA-SSSA-CSSA.
64. Roberts, D.F., **V.I. Adamchuk**, J.F. Shanahan, R.B. Ferguson, and J.S. Schepers. 2009. Comparison of soil organic matter estimation using a ground-based active sensor and aerial imagery. Abstract No. 217-4, *ASA-SSSA-CSSA International Annual Meeting*, Pittsburgh, Pennsylvania, 1-5 November 2009. Madison, Wisconsin: ASA-SSSA-CSSA.
65. Kitchen, N.R., **V.I. Adamchuk**, and K.A. Sudduth. 2009. Narrowing the soil-sample to fertilizer-application gap using soil sensors. Abstract No. 238-6, *ASA-SSSA-CSSA International Annual Meeting*, Pittsburgh, Pennsylvania, 1-5 November 2009. Madison, Wisconsin: ASA-SSSA-CSSA.
66. **Adamchuk, V.I.**, J. Villa., and R. Serraj. 2009. Application of electromagnetic sensing to delineate spatially variable soil characteristics and drought susceptibility in field-managed screening of rice under rainfed lowland conditions. In: *Proceedings of Pedometrics 2009 Conference*, Beijing, China, 26-28 August 2009, 73. Beijing, China: China Agricultural University (E-proceedings).
67. Mat Su, A., **V. Adamchuk**, and R. Eigenberg. 2009. On-the-go vertical sounding of agricultural fields using EMI sensors. In: *Proceedings of the 22nd Symposium on the Application of Geophysics to Engineering and Environmental Problems*, Fort Worth, Texas, 29 March – 2 April 2009. Denver, Colorado: EEGS (CD publication).
68. Roberts, D., **V. Adamchuk**, J. Shanahan, R. Ferguson, and J.S. Schepers. 2008. Effect of crop canopy sensor density on predictability of nitrogen stress in corn. Abstract No. 588-10,

GSA-SSSA-ASA-CSSA-GCAGS-HGS Joint Annual Meeting, Houston, Texas, 5-9 October 2008. Madison, Wisconsin: ASA-SSSA-CSSA.

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70. **Adamchuk, V.** 1994. A method to determine economic effectiveness of crop production (in Ukrainian: Metodyka vyznachennia ekonomichnoi efectuvnosti vyrobnytstva produktsii roslynnytstva). In: *Tezy Dopovidej Naukovoi Konferentsii Vykladachiv, Naukovyh Spivrobitnykiv ta Aspirantiv, Prysviachenoi 65-richchiu Fakul'teta MSG,* 10. Kyiv, Ukraine: National Agricultural University of Ukraine.

STANDARDS DEVELOPMENT

1. **Adamchuk, V.I.** T.S. Stombaugh, and M. Demmel. 2012. ISO 12188-2. Tractors and machinery for agriculture and forestry – Test procedures for positioning and guidance systems in agriculture – Part 2: Testing of satellite-based auto-guidance systems during straight and level travel. Frankfurt, Germany: DIN.
2. Stombaugh, T.S., **V.I. Adamchuk**, and M. Demmel. 2010. ISO 12188-1. Tractors and machinery for agriculture and forestry – Test procedures for positioning and guidance systems in agriculture – Part 1: Dynamic testing of satellite-based positioning devices. Frankfurt, Germany: DIN.
3. Grisso, R.D. and **V.I. Adamchuk**. 2010. ASAE D497.7 Agricultural machinery management data. Clause 3.3 revision. St. Joseph, Michigan, ASABE.

CONFERENCE CHAIR

1. June 24-27, 2018. 14th International Conference on Precision Agriculture, Montreal, Quebec, Canada (co-chair).
2. January 18-20, 2016. UK-Canada Symposium on Smart Technologies for Agriculture, London, UK (co-chair).
3. July 10-12, 2014. UK-Canada Workshop on Smart Technologies for Agriculture, Montreal, Quebec, Canada.
4. October 5-6, 2012. The Second International Conference on System Approach to Implementing Information and Resource-Preserving Technologies in Crop Production, Varva, Chernihiv Reg., Ukraine.
5. July 8-9, 2011. International Seminar on a System Approach to the Modern Agricultural Production, Varva, Chernihiv Reg., Ukraine.
6. May 15-18, 2011. The Second Global Workshop on Proximal Soil Sensing, Montreal, Quebec, Canada.

INVITED AND KEYNOTE PRESENTATIONS

1. May 27, 2025. Precision agriculture and sensor systems engineering. Webinar for the Institution of Engineers, Malaysia (IEM), Petaling Jaya, Malaysia (over Zoom).
2. February 11, 2025. Apport des technologies des capteurs en agriculture de précision pour le sol et les plantes (in French: Contribution of Sensor Technologies for Soil and Plants in Precision Agriculture). Presented at the 4th Annual Congress of Réseau québécois de recherche en agriculture durable (RQRAD), Quebec, Quebec, Canada (keynote presentation in French).
3. November 22, 2024. System approach to precision agriculture. Presented at the 36th Postgraduate Institute of Agriculture (PGIA) Annual Congress, University of Peradeniya, Sri Lanka (recorded keynote presentation).

4. July 17, 2024. System approach to precision agriculture adoption. Presented at the CropTech Connect: Webinar on AgTech Innovations for Canada (over Zoom).
5. May 20, 2024. System management for digital agriculture using two-level control. Presented at the 6th CIGR International Conference, Jeju, South Korea.
6. November 8, 2022. Systèmes de détection pour le sol et les plantes (in French: Sensing Systems for Soil and Plants). Presented at the CRAAQ precision agriculture webinar, Zoom.
7. September 14, 2022. Agriculture 4.0. Presented at the Innovation, Engineering and Program Delivery (IEPD) Meeting, Woodstock, Ontario, Canada (over Teams).
8. February 18, 2022. Precision agriculture and sensor systems. Presented at the International Seminar on Digital Agriculture, Seoul National University, Seoul, South Korea (over Zoom).
9. October 12, 2021. Agriculture de précision - attentes versus réalités (in French: Precision Agriculture – Anticipation versus Reality). Presented at the CRAAQ precision agriculture webinar, Zoom.
10. August 16, 2021. Soil sensing using integrated sensor platforms. Presented at the Symposium on Applications of Proximal and Remote Sensing Technologies for Soil Investigations, Society of Exploration Geophysicists, Zoom.
11. November 10, 2020. Integration approach to proximal plant sensing. Presented at the 2020 DigiCrop conference, Zoom.
12. December 5, 2019. Innovations in precision agriculture and system approach (in French: Innovations dans l'agriculture de précision et approche système). Presented at Les Journées Horticoles et Grandes Cultures conference, Saint-Remi, Quebec, Canada.
13. October 15, 2019. Precision agriculture and sensor systems. Presented at the 8th Asian-Australasian Conference on Precision Agriculture, Ludhiana, Punjab, India.
14. June 27, 2019. Proximal soil sensing: global perspective. Presented at the Institute for Data Valorization (IVADO) Data Science in Agriculture seminar, Montreal, Quebec Canada.
15. March 21, 2019. Precision agriculture and sensor systems – establishment of smart infrastructure for food production. Presented at the 4 O'Clock Forum Seminar Series, McGill University, Ste-Anne-de-Bellevue, Quebec, Canada.
16. July 24, 2018. Engineering for intelligent food production. Presented at the Canadian Society for Bioengineering Annual General Meeting, Guelph, Ontario, Canada (keynote presentation).
17. March 8, 2018. Using precision agriculture technologies wisely - site-specific management of agricultural inputs - sensors, data, and decisions. Presented at the PEI Soil and Crop Annual Conference, Summerside, PEI, Canada.
18. February 20-21, 2018. Proximal sensing for precision agriculture. Practicing precision agriculture. Presented (two topics) at the 2018 PREGA Conference, Budapest, Hungary (keynote presentation).
19. February 14, 2018. From new sensors to smart tractors. Presented at the Colloquium on Numeric Agriculture and Agricultural Robotics, Drummondville, Québec, Canada.
20. October 12, 2017. Smart technologies for agriculture and natural resource management. Presented as a Cutting-Edge Lectures in Science seminar at McGill University, Montreal, Quebec, Canada.
21. February 1, 2017. Precision soil information & how to use it. Presented at the 4th Precision Agriculture Conference and Trade Show, London, Ontario, Canada.
22. October 4, 2016. Precision agriculture and sensor systems - the state of the art. Presented at 2016 Brazilian Congress on Precision Agriculture, Goiania, Goias, Brazil (keynote presentation).
23. March 29, 2016. The state of the art in agricultural sensors. Presented at the Workshop on Precision Agriculture: Sensors for Agriculture, Santiago, Chile (keynote presentation).
24. October 28, 2015. Smart agriculture: today and tomorrow. Presented at the Conference on Global Food Security, Montreal, Quebec.

25. March 11, 2015. A system approach to modern farming. Presented at the Soil Compaction Workshop, Grand Falls, New Brunswick (keynote presentation).
26. February 10, 2015. Precision agriculture. The world of common sense. Presented at the 16th Annual Eastern Ontario Crop Conference, Kemptville, Ontario.
27. November 25, 2014. Integrated tools for agriculture today and tomorrow. Presented at the CRAAQ Symposium on Fertilization, Precision Agriculture and Agro-Meteorology, Victoriaville, Quebec.
28. November 4, 2014. Precision agriculture. Presented at the special seminar at the National University of Colombia, Bogota, Colombia.
29. February 18, 2014. Proximal soil sensing complimentary to geophysics. Presented at the First Agricultural Geophysics Webinar, on-line.
30. July 5, 2013. Precision agriculture and food security. Presented at the World Economic Forum Workshop on Bringing Space Down to Earth, Montreal, Quebec.
31. May 15, 2013. Sensing technologies and economic benefits. Presented at an International Seminar on Precision Agriculture, Talca, Chile.
32. November 1, 2012. Precision agriculture sensors. Presented at an Agriculture and Agri-Food Canada Seminar, Quebec, Quebec.
33. October 5, 2012. Information technologies in crop production – strategies of development. Presented at the Second International Conference on System Approach to Implementing Information and Resource-Preserving Technologies in Crop Production, Varva, Chernihiv Reg., Ukraine (in Ukrainian).
34. February 23, 2012. Precision agriculture – the world of common sense. Presented at the International Workshop on Opportunities for Precision Agriculture, Truro, Nova Scotia (keynote presentation).
35. September 15, 2011. Sensors to increase soil productivity. Presented at the IdeasLab with McGill University, World Economic Forum Annual Meeting of the New Champions, Dalian, China.
36. July 18, 2011. Systems approach in proximal sensing of soils and crops. Presented at the Second Sino-German Cooperation Symposium, Bonn, Germany (keynote presentation).
37. July 9, 2011. Sensing technologies and precision agriculture. Presented at the International Seminar on a System Approach to the Modern Agricultural Production, Varva, Chernihiv Reg., Ukraine (in Russian).
38. February 21, 2011. On-the-go proximal soil sensing for agriculture. Presented at the International Symposium on Sensing in Agriculture: Agri-Sensing 2011, Haifa, Israel.
39. February 11, 2010. Application of integrated proximal sensing technologies to recognize spatial variability of soils and crop performance. Presented at the Fertilizer and Lime Research Center Workshop “Farming’s Future: Minimizing Footprints and Maximizing Profits”, Palmerstone North, New Zealand (keynote presentation).
40. February 6, 2008. Development of on-the-go soil sensor systems. Presented at the First Global Workshop on High-Resolution Soil Sensing and Digital Soil Mapping, Sydney, Australia (keynote presentation).
41. November 7, 2006. On-the-go sensing technology for improved crop nutrient management. Presented at the 36th North Central Extension-Industry Soil Fertility Conference, Des Moines, Iowa.
42. May 2, 2006. On-the-go soil sensing technology. Presented at the 21st Annual Agricultural Machinery Conference, Cedar Rapids, Iowa.
43. August 5, 2005. The philosophy of on-the-go soil sensing (technology update). Presented at the First Asian Conference on Precision Agriculture, Toyohashi, Japan (keynote presentation).
44. July 19, 2005. Teaching precision agriculture concepts. Presented at the 2005 ASAE Annual International Meeting, Tampa, Florida.

45. May 18, 2004. Fiction and reality of on-the-go soil mapping. Presented at the First Brazilian Congress on Precision Agriculture, Piracicaba, Sao Paulo, Brazil (keynote presentation).
46. February 10, 2003. Using ion-selective electrodes to map soil properties. Presented at the ASAE Agricultural Equipment Technology Conference (AETC) / International Conference on Crop Harvesting and Processing (ICCHP), Louisville, Kentucky.
47. January 10, 2003. Mapping soil properties on-the-go. Presented at the Annual NCR-180 Site-Specific Management Committee Meeting, Davis, California.

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2. Tribune News Service. 2019. Modern farming is the future: Experts. *The Tribune*, October 16, 2019 (on-line).
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3. Kinnard, N. 2019. Invasion of sensors in the fields. (In French: Invasion de capteurs aux champs). *La Terre de chez nous*, September 9, 2019 (on-line).
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4. Kinnard, N. 2019. A robot boat to "scan" the health of lakes. (In French: Un bateau-robot pour «scanner» la santé des lacs). *La Terre de chez nous*, August 20, 2019 (on-line).
   https://www.laterre.ca/du-secteur/formation/un-bateau-robot-pour-scanner-la-sante-des-lacs
5. Kinnard, N. 2019. A tool to fertilize better. (In French: Un outil pour mieux fertiliser). *La Terre de chez nous*, May 21, 2019 (on-line).
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6. International Society for Precision Agriculture. 2019. ISPA forms official definition of 'Precision Agriculture'. *PrecisionAg*, July 11, 2019 (on-line).
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7. Ayers, K. 2018. Sensing your soil's potential. *Better Farming*, September 2018, pp. 25-32.
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8. Hopkins, M. 2018. 25 Best Colleges for Precision Agriculture. *PrecisionAg*, Market Intelligence, March 21, 2018 (on-line)
   https://www.precisionag.com/market-watch/25-best-colleges-for-precision-agriculture/#Tinsel/60708/14
9. Ruen, J. 2016. Sensors drive greater data value. *Corn & Soybean Digest*, October 13, 2016.
   http://www.cornandsoybeandigest.com/input-costs/sensors-drive-greater-data-value
10. King, C. 2016. Sensing soil variations. *Top Crop Manager*, February 2016, pp. 5-8.
11. Bickis, I., 2016. Betting the farm on big data. Lethbridge Herald, February 14, 2016.
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12. Bickis, I. 2016. The family farm is going high-tech. *The Canadian Press*, February 10, 2016.
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13. Rivero-Huguet, M. Smart farming: agriculture for the future. GOV.UK Blogs, July 9, 2015.
    https://agritech.blog.gov.uk/2015/07/09/smart-farming-agriculture-for-the-future
14. Palus, S. 2015. Smart farming. *McGill Headway*, Spring 2015, p. 30.
15. Mesly, N. 2013. New technologies form a new agricultural planet (In French: La technologie façonne une nouvelle planète agricole). *Le Coopérateur Agricole*, 42(7), September 2013.
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17. Mesly, N. 2012. Technology for less polluting agriculture. (In French: La technologie pour une agriculture moins polluante). *Quebec Science* (on-line).
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18. Ruen, J. 2012. New sensor technology is the next management frontier sensored soils boost agronomics. *Corn and Soybean Digest*, October 19, 2012.
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19. Wehrspann, J. and K. McMahon. 2011. 20 technologies changing agriculture. *Farm Industry News*. March 9, 2011.
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21. Klochko, I. 2009. Technologii dlia agroholdingu (In Ukrainian: Technologies for an agroholding). *The Ukrainian Farmer*, August 2009.
22. Vogt, W. 2009. Taking stock of a field's performance. Prairie Farmer, June 2009, p. 18.
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24. Reichenberger, L. 2007. Space age war on weeds. *The Furrow*, March 2007, pp. 22-23.
25. Pocock, J. 2007. Crop Sensor: Q & A. *Apply*, January 2007, p. 22.
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26. Vogt, W. 2006. Pick the biggest payback punch. *Nebraska Farmer*, April 2006, p. 26.
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28. Wnzel, W. 2006. GPS troubleshooting. *Farm Journal*, March 2006, pp. 5-7.
29. Erickson, B. 2006. Precision tech trends. *Precision Ag*. Meister Media Worldwide, March 8, 2006.
30. DeYoung, J. 2005. Soil sensors. New technology would let farmers measure on the go. *Iowa Farmer Today*, July 16, 2005, 21(45): 8.
31. Stalcup, L. 2006. Affordable auto-steer. *The Corn and Soybean Digest*, February 15, 2006, pp. 28j, 28l, 28n.
32. Pocock, J. 2006. Automated farmhands. *The Corn and Soybean Digest*, February 1, 2006, pp. 17-18, 20.
33. Alswager, S.S. 2004. Sensors should reveal soil differences. *Endeavors*. Highlights of University of Nebraska-Lincoln ARD Research, 2004-05, p. 7.
34. Pfeifer, L. 2005. Precision agriculture tools focus of UNL engineer. *Ag Scope (Aurora News Register)*, January 26, 2005, 28(1): 8.
35. Alswager, S.S. 2004. Crop management winter programs provide precision ag training. *Midwest Ag Journal*, November 1, 2004, p. 10-B.
36. Alswager, S.S. 2004. Use soil sensors, improve profits. *Crop Production*, October 2004, p. 26.
37. Alswager, S.S. 2004. On-the-go, vehicle-based sensors map soil characteristics across fields. *Nebraska Research*. University of Nebraska-Lincoln Agricultural Research Division, Fall/Winter 2004, p. 9.
38. Pocock, J. 2004. Pay dirt from pH. Automated soil sensor holds promise for high returns from variable-rate inputs. *The Corn and Soybean Digest*, February 2004, pp. 21-22.
39. Myers, C. 2004. Veris update. Soil conductivity and pH give clues to variable soils. *Farm Industry News*, February 2004, pp. 22-24.
40. Lowenberg-DeBoer, J. 2004. Instant gratification. A new pH sensor makes it possible to sample more, and more efficiently. *Crop Life*, February 2004, pp. 33-34.
41. Nicholls, H. 2003. It's clever, but is it useful? *BioMedNet*, Elsevier Limited, 2 June 2003.
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42. Miller, V. 2002. Mapping on the go. *Nebraska Research*, University of Nebraska-Lincoln Agricultural Research Division, September 2002.

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43. Campbell, D.Q. 2002. Creating an accurate pH map. *Implement and Tractor*, March/April 2002, p. 18.
44. McCabe, D. 2002. Map as you go. Soil sensors pinpoint size, depth of compaction. *Nebraska Farmer*, Second March 2002, p. 20.
45. Liska, J. 2002. Cost/benefit ratio critical in ag. technology. Agriculture: Changing with the time. *Supplement to the Seward County Independent*, February 20, 2002, p. 2.
46. Wilcox, J. 2001. A Precision Ag. Plan. Three Nebraska farmers put high-tech management to the test. Special Bonus Page *Successful Farming*, October 2001.
47. Bechman, T.J. 2001. Moving target. Just how variable is soil pH? *Nebraska Farmer*, April 2001, pp. 28-29.
48. Burchett, A. 2001. pH on the go. *Farm Journal*, Mid-January 2001, pp. 5-6.

VIDEO PRESENTATIONS

1. February 11, 2025. 4th Annual Congress of RQRAD
https://www.youtube.com/watch?v=wqQ0b1aXDM4&list=PLp-PVpJeuCjRM2brCJb9l9EMk64vqjtCV (in French)
2. July 17, 2024. Croptech Connect: Agtech Innovations for Canada Webinar
https://www.youtube.com/watch?v=rpIi3mTUuRI&t=738s
3. November 8, 2022. CRAAQ Precision Agriculture Webinar on Sensor Systems
https://www.youtube.com/watch?v=IKQpHyPVk_k (in English)
https://www.youtube.com/watch?v=gPLFRkeZooY (in French)
4. June 28, 2022. 15th International Conference on Precision Agriculture Plenary Session (member of the panel)
https://ispag.org/About/History
5. October 12, 2021. CRAAQ Precision Agriculture Webinar
https://www.youtube.com/watch?v=MfBclhpHCvs (in English)
https://www.youtube.com/watch?v=O16i6ugjgag (in French)
6. October 20,2020. DigiCrop Conference
https://www.youtube.com/watch?v=RYRa1jZZIcM
7. October 22, 2019. Macdonald Campus Food for Thought Public Event
https://www.facebook.com/McGillMacCampus/videos/1470180003132805/
8. November 21, 2018. CRAAQ Colloquium on Numeric Agriculture and Agricultural Robotics
https://www.youtube.com/watch?v=kAO1sL-9Oag
9. October 12, 2017. Cutting Edge Lecture by TVMTelevision
https://www.youtube.com/watch?v=tcJwpBFQdnw
10. November 3, 2015. Interview by FarmsTV during SmartZone Field Event
https://www.youtube.com/watch?v=fLsY-DoIlUM
11. January 31, 2014. Webinar by AgGeophysics
https://www.youtube.com/watch?v=5kEqisJ_1Sg

CURRENT SUPERVISION

1. Brunet, T. 2026-. BEng in Bioresource Engineering.
2. Carranza Díaz, A.K. 2026-2028. Postdoc in Bioresource Engineering.
3. Etezadi, H. 2026-2028. Postdoc in Bioresource Engineering.
4. Grammond, C. 2026-. BEng in Bioresource Engineering.
5. Tovar, I. 2026-2029. Project Officer.
6. Leblond, P. 2026-. MSc in Bioresource Engineering.
7. Leduc, M. 2020-. Affiliate Member (Mon Système Fourrager).
8. Zhang, J. 2025-2026. Graduate Research Trainee (PhD at Zhejiang University, Hangzhou, Zhejiang, China).

COMPLETED GRADUATE STUDIES SUPERVISION

Doctor of Philosophy (PhD)

1. Etezadi, H. 2026. Development of decision support infrastructure for sustainable crop production. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (RQRAD, Mitacs, NSERC).
2. Karp, F.H.S. 2025. Analysis of multi-layer spatial data to increase the accuracy of thematic soil maps for agriculture. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (Mitacs, Telus).
3. Boily, G. 2024. Application of real-time numerical terramechanics and discrete element method to simulate work of earth-moving equipment. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (Mitacs, CNH).
4. Buelvas, R.M. 2021. Development of vehicle-mounted phenotyping and envirotyping mapping platforms. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (Mitacs, NSERC).
5. Leksono, E. 2020. Development of equipment to characterize soil attributes in different agricultural settings. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Fellowship (Indonesia Endowment Fund for Education).
6. Saifuzzaman, M. 2020. Optimization of geospatial data modelling for crop production by integrating proximal soil sensing and remote sensing data. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (OMAFRA, FRQNT).
7. Huang, H.H. 2017 Leveraging geospatial data to improve soil characterization for precision agriculture. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC).
8. Mat Su, A.S. 2016. Application of proximal soil sensing for environmental characterization of agricultural land. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Malaysian government sponsorship and grant funding (AGGP).
9. Dhawale, N. 2015. Advances in proximal soil sensing through integrated systems approach. *PhD Dissertation*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC, AGGP). Co-supervisor: S. Prasher.
10. Pan, L. 2013. Means to optimize soil water management through monitoring spatial and temporal variability of geophysical soil attributes. *PhD Dissertation*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (WEAS, NSF and NSERC).
11. Sethuramasamyraja, B. 2006. Development of on-the-go soil sensing technology for mapping soil pH, potassium and nitrate contents. *PhD Dissertation*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Grant funding (AGPT).

Master of Science (MSc/MS)

1. Sun, K. 2024. Rapid assessment of stomata density using digital microscopy and machine learning approach. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC).
2. Rello Rincon, A. 2024. Dual image-based deep learning system for predicting soil texture and soil organic matter content. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC).

3. Lan, J. 2024. Development of an automated system for *in situ* measurements of soil health indicators. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (Mitacs, NSERC).
4. Abdalla, K. 2024. Development of subsurface carbon dioxide sensing instrumentation for monitoring soil health indicators. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (Mitacs, NSERC).
5. Jiang, X. 2023. Mapping spinach yield using UAV-based multispectral imagery data. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (AgriRisk). Co-supervisor: S. Sun.
6. Dias Carlson, P. 2021. Development of an integrated sensor system for automated on-the-spot measurement of physical soil properties. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (Mitacs).
7. Spiers, J. 2020. DeepSoil: A deep-learning framework for rapid low-cost estimation of soil particle size distributions from digital microscope images. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC).
8. Leclerc, M. 2020. Development of willow tree yield-mapping technology. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC).
9. Marmette, M.C. 2019. Comparison of laser-induced breakdown spectroscopy and color, visible, near-infrared, and mid-infrared spectroscopy to predict various soil properties. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC).
10. Debbagh, M. 2019. Development of a low-cost wireless sensor network for passive *in situ* measurement of soil greenhouse gas emissions. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (AGGP).
11. Boatswain Jacques, A. 2019. Development of a machine vision-based yield monitoring system for vegetable crops. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (Mitacs).
12. Johnston, A. 2018. Analysis of prediction maps and data separation methods for site-specific management of wild blueberry. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. External funding (AAFC). Co-supervisor: A. Biswas.
13. Buelvas, R.M. 2018. Crop canopy measurements using a low-cost laser for biomass estimation. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC).
14. Shinde, S. 2018. Development of a numeric on-line decision support system for crop fertilizer optimization. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (AAFC, Fertilizer Canada).
15. Su, Y. 2017. Development of proximal sensing systems for crop biomass determination. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (John Deere).
16. Pouliot, A. 2016. Development of a quick-install auto-steering system for agricultural vehicles. MSc Thesis. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC).
17. Reumont, F. 2016. Development of a portable instrumentation system for *in situ* assessment of soil respiration. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (AGGP).
18. Stanhope, T. 2016. Applications of low-cost computer vision for agricultural implement feedback and control. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC, Agri-Fusion 2000).

19. Henry, E. 2016. Precision apiculture: development of a wireless sensor network for honeybee hives. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (Bayer Crop Science).
20. Sudarsan, B. 2015. Assessment of soil properties using microscope-based computer vision. MSc Thesis. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC, Bayer Crop Science).
21. Saminsky M.W. 2015. Water quality monitoring in freshwater bodies with high-density spatial mapping. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (NSERC). Co-supervisor: S. Prasher.
22. Rene-Laforest, F. 2015. Real-time variable control technologies for precision agriculture. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (John Deere).
23. Kaur, J. 2015. Development of an NDIR CO_2 sensor-based system for assessing soil toxicity using substrate-induced respiration. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Grant funding (AGGP, NSERC).
24. Jonjak, A.K. 2011. Analysis of site-specific adjustment applied to on-the-go soil sensing data for agronomic use. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Grant funding (Nebraska Soybean Board).
25. Dhillon, R.S. 2010. Development of an integrated soil properties mapping system. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Grant funding (NSF).
26. Mat Su, A.S. 2010. Mapping vertical profiles of apparent soil electrical conductivity using an angular scanning approach. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Government of Malaysia funding.
27. Easterly, D.R. 2009. Development of a visual sensor system for performance testing of satellite-based tractor auto-guidance. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Teaching appointment.
28. Reed, T.M. 2009. Evaluation of on-the-go soil pH and lime requirement mapping. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Grant funding (SBIR).
29. Ingram, T.J. 2006. On-the-go mapping of soil mechanical resistance assumed to change linearly with depth. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Internal funding.
30. Speichinger, J.D. 2006. Development of an instrumented subsoiler for variable depth tillage. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Grant funding (John Deere).
31. Christenson, P.T. 2004. Development of an instrumented blade system for mapping soil mechanical resistance as a second order polynomial. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Scholarship funding.
32. Sifken, R.J. 2003. Mapping soil mechanical resistance with a multiple blade system. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Grant funding (AGPT).

COMPLETED GRADUATE STUDIES CO-SUPERVISION/CO-AUTHORSHIP

Doctor of Philosophy (PhD)

1. Zeitoun, R. 2021. Development of an electrochemical sensor for quantification of soil phosphorus. *PhD Thesis*. Guelph, Ontario, Canada: University of Guelph, Department of Environmental Sciences. Supervisor: A. Biswas.

2. Tikasz, P. 2019. Development of a manure-based nutrient supply for hydroponic crop production using ion-selective monitoring. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering. Supervisor: M. Lefsrud.
3. Yari, A. 2016. Application of variable-rate irrigation technology to conserve water and improve crop productivity. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Supervisor: C. Madramootoo.
4. Shiratsuchi, L.S. 2011. Integration of plant-based canopy sensors for site-specific nitrogen management. *PhD Dissertation*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Agronomy and Horticulture. Supervisor: R. Ferguson.
5. Kerby, A.T. 2009. Spatial clustering using likelihood function. *PhD Dissertation*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Statistics. Supervisor: D. Marx.
6. Roberts, D.F. 2009. An integrated crop- and soil-based strategy for variable-rated nitrogen management in corn. *PhD Dissertation*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Agronomy and Horticulture. Supervisor: R. Ferguson.

Master of Science

1. Harms, J.Z. 2024. Development of a generative AI-based model for guiding grape variety selection under contemporary climate dynamics. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Supervisor: J.F. Adamowski.
2. Zhang, Y. 2016. Optimization of sampling designs for validating digital soil maps. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Natural Resource Science. Supervisor: A. Biswas.
3. Edwards, K.P. 2014. Greenhouse gas emissions from drip irrigated tomato fields. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Supervisor: C. Madramootoo.
4. Ramaswamy, K. 2012. Precision application of herbicides in corn fields. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec: McGill University, Department of Bioresource Engineering. Supervisor: S. Prasher.
5. Krienke, B.T. 2011. Evaluation of sensor-based application of nitrogen to corn affected by imposed SI value thresholds. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Agronomy and Horticulture. Supervisor: R. Ferguson.
6. Janousek, G.S. 2010. Evaluation of ethanol and water introduction via fumigation on efficiency and emissions of a compression ignition engine using an atomization technique. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Biological Systems Engineering. Supervisor: R. Hoy.
7. Kyaw, T.Z. 2006. Site-specific hybrid management for pH-induced iron chlorosis for corn. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Agronomy and Horticulture. Supervisor: R. Ferguson.

POSTDOCTORAL ASSOCIATES

1. Saifuzzaman, M. 2020-2024. Postdoctoral Assistant (grant funding).
2. Park, J. 2018-2020. Research Associate (external funding).
3. Lacroix, R. 2016-2018. Part-time Research Associate (grant funding).
4. Huang, H.H. 2017-2018. Postdoctoral Assistant (grant funding).
5. Ji, W. 2015-2017. Postdoctoral Associate (scholarship and grant funding).
6. Fu, Y. 2015-2016. Postdoctoral Associate (scholarship funding).
7. Dhawale, N. 2015-2016. Postdoctoral Associate (grant funding).
8. Pan, L. 2013-2014. Postdoctoral Associate (grant funding).

VISITING SCHOLARS AND GRADUATE RESEARCH TRAINEES

1. Schmidinger, J. 2025. PhD student, Osnabrück University and ATB-Potsdam (Potsdam, Germany).
2. Bitzas, M. 2025. Undergraduate Research Trainee, John Abbot College (Ste-Anne-de-Bellevue, Quebec, Canada).
3. Sangphanta, P. 2024. Visiting Scholar, Agricultural Engineering Research Institute (Bangkok, Thailand).
4. Mbah, J.T. 2024. PhD student, Wroclaw University of Environmental and Life Sciences (Wroclaw, Poland).
5. Bönecke, E. 2023. Visiting Scholar, Leibniz Institute of Vegetable and Ornamental Crops (Grossbeeren, Germany).
6. Tremblay, P. 2023. Undergraduate Research Trainee, Sainte-Anne International College (Lachine, Quebec, Canada).
7. Qi, J. 2017-2018. Assistant Professor, Jilin University (Changchun, Jilin, China).
8. Fontenelli, J. 2017. PhD student, University of Campinas (Campinas, Sao Paulo, Brazil).
9. Tabatabai, S. 2017. PhD student, Aarhus University (Tjele, Denmark).
10. Fadel, M. 2016. Associate Professor, United Arab Emirates University (Al Ain, UAE).
11. Qi. L. 2015-2016. Associate Professor, South China Agricultural University (Guangzhou, Guangdong, China).
12. Claustre, M. 2016. MS student. ISARA – Lyon University (Lyon, France).
13. Behera S.K. 2013. Researcher, Directorate of Oil Palm Research (Andhra Pradesh, India).
14. Potz, G. 2013. PhD student, University of Sao Paulo (Piracicaba, Sao Paulo, Brazil)
15. Louargant, M. 2012. BS student, School of Bordeaux Sciences Agro (Gradignan, France).
16. Chen, X. 2012. BS student, South China Agricultural University (Guangzhou, China).
17. Freulon, M. 2008. BS student, National Institute of Agronomy of Dijon (Dijon, France).
18. Hemmat, A. 2006-2007. Associate Professor, Isfahan University of Technology (Isfahan, Iran).

OTHER GRADUATE-LEVEL SUPERVISION

1. Buisard, P. 2025. Temporary help. Graduate Certificate in Business Management, McGill University.
2. Langella, M. 2017. Project employee, MS in Food Science and Agricultural Chemistry, McGill University.
3. Lauzon, S. 2016. Uncompleted MS in Bioresource Engineering, McGill University.
4. Mastorakos, M. 2012-2014. Uncompleted PhD in Bioresource Engineering, McGill University.
5. Thomas, S.S. 2007-2009. Robotics and GPS/GIS in 4-H curriculum development, NSF project staff, University of Nebraska-Lincoln.
6. Maheshwari, A. 2003-2004. Temporary help, MS in Industrial Engineering, University of Nebraska-Lincoln.
7. Cole, T. 2003. Temporary help, MS in Mechanized Systems Management, University of Nebraska-Lincoln.
8. Wang, C. 2002-2003. Project employee, MS in Statistics, University of Nebraska-Lincoln.
9. Schepers, A.R. 2002. Project employee, MS in Agronomy, University of Nebraska-Lincoln.
10. Major, M.B. 2001. Temporary help. Evaluation of nitrate ion-selective electrodes for soil measurements. Project employee, MS in Mechanized Systems Management.

UNDERGRADUATE STUDENT SUPERVISION

1. Brasseur-Trottier, X. 2025. Summer project. BEng in Bioresource Engineering, McGill University.
2. Cole, S. 2024. Summer project. BEng in Bioresource Engineering, McGill University.

3. Geddes, K. 2023-2024. Temporary help. BEng in Bioresource Engineering, McGill University.
4. Leblond, P. 2023-2025. Three summer projects. BEng in Bioresource Engineering, McGill University.
5. Cardenas, N. 2021-2022. Temporary help. BEng in Bioresource Engineering, McGill University.
6. Lan, J. 2021. Summer project and work study. BEng in Bioresource Engineering, McGill University.
7. Csisztu, T. 2021. Summer project and work study. BEng in Bioresource Engineering, McGill University.
8. Simpson, K. 2020. Temporary help. BEng in Bioresource Engineering, McGill University.
9. Dalton, S. 2018-2019. Temporary help. BEng in Bioresource Engineering, McGill University.
10. Miller, C. 2017-2019. Summer project and work study. BEng in Bioresource Engineering, McGill University.
11. Leclerc, M. 2016-2018. Work study and internship. BEng in Bioresource Engineering, McGill University.
12. Ngadi, E. 2016. Summer project. BEng in Mechanical Engineering, McGill University.
13. Bennett, B. 2015-2016. Work study and internship. BEng in Bioresource Engineering, McGill University.
14. Lauzon, S. 2015-2016. Summer project. BEng in Bioresource Engineering, McGill University.
15. Ruiz de la Macorra, F. 2014-2015. Work study and internship. BEng in Bioresource Engineering, McGill University.
16. Brun, M. 2014. Work study. BS in Agricultural Economics, McGill University.
17. Tawil, S. 2013-2014. Temporary help. BEng in Bioresource Engineering, McGill University.
18. Stanhope, T.T. 2013-2015. Internship. BEng in Bioresource Engineering, McGill University.
19. Rene-LaForest, F.F. 2012-2013. Work study and internship. BEng in Bioresource Engineering, McGill University.
20. Burke Anderson, Q. 2012. Temporary help. BEng in Bioresource Engineering, McGill University.
21. Huang, H.H. 2011-2013. Internship. BEng in Bioresource Engineering, McGill University.
22. Chan, I.I. 2012. Temporary help. BS in Agricultural Economics, McGill University.
23. Swan, K.K. 2011-2012. Temporary help. BEng in Bioresource Engineering, McGill University.
24. Lutz, C. 2009-2010. Independent research project. BS in Electrical Engineering, University of Nebraska-Lincoln.
25. Landgraf, A.L. 2009-2010. Temporary help. BS in Agricultural Engineering, University of Nebraska-Lincoln.
26. Hulme, R. 2008-2009. Independent research project. BS in Agricultural Engineering, University of Nebraska-Lincoln.
27. Jahraus, D. 2007-2008. Independent research project. BS in Mechanized Systems Management, University of Nebraska-Lincoln.
28. Kohles, M. 2006. Temporary help. BS in Agricultural Engineering, University of Nebraska-Lincoln.
29. Moore, R. 2008. Temporary help. BS in Biological Systems Engineering, University of Nebraska-Lincoln.
30. Zhang, Y.Z. 2009. Temporary help. BS in Biological Systems Engineering, University of Nebraska-Lincoln.
31. Dodson, J.E. 2005-2007. Two independent research projects. BS in Biological Systems Engineering, University of Nebraska-Lincoln.

32. Person, T.M. 2003-2004. Independent research project. BS in Mechanized Systems Management, University of Nebraska-Lincoln.
33. Steinkraus, A.F. 2002-2003. Temporary help. BS in Agricultural Engineering, University of Nebraska-Lincoln.
34. Bray, T.B. 2002-2003. Temporary help. BS in Agricultural Engineering, University of Nebraska-Lincoln.
35. Reed, T.M. 2001-2003. Two independent research projects. BS in Mechanized Systems Management, University of Nebraska-Lincoln.
36. Coelho, I.R. 2001-2002. Temporary help. BS in Agronomy, University of Nebraska-Lincoln.

GRADUATE STUDIES EXAMINING COMMITTEES

1. Trivino Arevalo, A.M. 2026. Development and field validation of next generation passive flux samplers for monitoring agricultural ammonia emissions. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
2. Jackson, M. 2026. Using unoccupied aerial systems to improve yield and grain quality phenotyping in common bean breeding programs. *MSc Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Plant Science.
3. Lak, A. 2026. Real-time fertilizer distribution estimation via artificial intelligence and imaging systems. *PhD Thesis*. Regina, Saskatchewan, Canada: University of Regina, Industrial Systems Engineering.
4. Purkaystha, J. 2025. Soil amendments for increasing water and nutrient use efficiencies, reducing fertilizer pollution, and greater green pepper yield and quality. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
5. Arumuga, N. 2025. Optimizing irrigation using regional soil moisture and evapotranspiration estimates. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
6. Motalab, M.B. 2025. Toward developing standardized precision agriculture book sprayer via hybrid communication network for real-time spot application. *PhD Thesis*. Truro, Nova Scotia: Dalhousie University, Faculty of Agriculture.
7. Hitti, Y. 2025. Towards integrating plant behavior with technology: a design case study on light stimuli. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
8. Chen, H. 2024. Energy harvesting and energy absorbing/dissipating triboelectric mechanical metamaterials. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
9. Alizadeh, M.R., 2022. Development of a multi-scenario multi-objective analysis framework to explore optimal, resilient and robust solutions in coupled human-water systems. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
10. Inamdar, D. 2022. Raster end products misrepresent remotely sensed hyperspectral imaging data: preserving spectral and spatial integrity with a novel point cloud data format. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Geography.
11. Kelly, K. 2022. On the potential of metal-organic framework chemistry: A new pathway to develop phosphate adsorbents. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
12. van't Veen, K.M. 2022. Exploring the data foundation for calculating water flow and nitrate leaching. *PhD thesis*. Viborg, Denmark: Aahrus University, Department of Agroecology.

13. Triven Koganti. 2021. Mapping of agricultural subsurface drainage systems using proximal and remote sensors. *PhD thesis*. Viborg, Denmark: Aahrus University, Department of Agroecology.
14. Hung, C.Y. 2020. Nitrous oxide emissions from agricultural soil receiving manure in a changing climate. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Natural Resource Sciences.
15. Niknam, H. 2020. Graded cellular structures: A strategy to tune the structural performance of cellular materials. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
16. Bahadi, M. 2020. Expanding the potential of infrared spectroscopy as a tool of precision dairy farming: From on-site infrared milk analysis to spectral data mining for indicators of animal well-being. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Food Science and Agricultural Chemistry.
17. Ihuoma, S.O. 2020. The use of spectral reflectance data to assess plant stress and improve irrigation water management. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
18. Wang, J. 2020. Effects of novel food processing methods on allergenic and nutritional attributes of kiwifruit components. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
19. Ellis, E. 2020. Consumer-food security nexus framework for understanding agri-food value chains. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
20. Hmaissia, A. 2020. Développement d'une approche adaptative pur l'estimation des composantes de la texture du sol et son contenu en matière organique par spectroscopie visible-proche infrarouge. *MS Thesis*. Quebec, Quebec, Canada: University of Quebec, INRS.
21. Eslamain, F.A. 2019. Evaluation and development of lime-based products to reduce phosphorus loss from agricultural soils. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
22. McGuire, S. 2019. Design and testing of a high frequency hydraulic mechanical jackhammer. *MS Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
23. Kheng, T.Y. 2019. Strategies in precision cocoa management. University Putra Malaysia *PhD Thesis*. Serdang, Selangor, Malaysia: University Putra Malaysia.
24. Moreno García, L. 2019. Microalgae biomass production in wastewaters as feedstock for biorefinery systems. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
25. Adegbenjo, A.O. 2019. Non-destructive assessment of chicken egg fertility using hyperspectral imaging technique. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
26. Prinds, C. 2019. Remote and proximal sensing of the geology and shallow hydrology in riparian lowlands. *PhD thesis*. Viborg, Denmark: Aahrus University, Department of Agroecology.
27. Rakhra, A.K. 2018. Design and evaluation of the user interface for tractor air-seeder systems. *PhD thesis*. Winnipeg, Manitoba, Canada: The University of Manitoba, Department of Biosystems Engineering.
28. Quilty, J.M. 2018. An ensemble wavelet-based stochastic data-driven framework for addressing nonlinearity, multiscale change, and uncertainty in water resources forecasting. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.

29. Jiang, Q. 2018. Mitigating greenhouse gas emissions in subsurface-drained fields in Eastern Canada. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
30. Taghia, J. 2018. Path following of farming vehicles. *PhD Thesis*. Sydney, Australia: University of New South Wales, School of Mechanical and Manufacturing Engineering.
31. Folarin-ottun, O. 2018. Non-destructuve methods for aflatoxin B1 detection in maine beans. *MS Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
32. Takishita, Y. 2017. Pseudomonas entomophila 23S, a PGPR with potential for control of bacterial canker disease in tomato (*Solanum lycopersicum L.*) against *Clavibacter michiganensis* subsp. *michiganensis*. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Plant Science.
33. Li, J. 2017. Hollow core photonic bragg fibers for industrial sensing applications. *PhD Dissertation*. Montreal, Quebec: Montreal Polytechnique, Department of Engineering Physics.
34. Baig, A. 2016. Development of a group built coupled physical – socio-economic modeling framework for soil salinity management in agricultural watersheds in developing countries. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
35. Md Salim, N.S. 2016. Dried broccoli stalk through application of osmotic dehydration and microwave-assisted hot air drying. *PhD Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
36. Crézé, C. 2015. Greenhouse gas emissions from an intensively cropped field under various water and fertilizer management practices. *MS Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
37. Zang, F. 2015. Evaluation of drying behavior of broccoli (Brassica oleracea L.) in hot air and microwave drying systems. *MS Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
38. Rudnick, D.R. 2013. Impact of nitrogen and water management on maize actual evapotraspiration, soil water extraction, and crop water productivity in South Central Nebraska, USA. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Agronomy and Horticulture.
39. Ruan, Q. 2013. Effect of time and rate of nitrogen, sulfur and boron application on canola growth in southwestern Quebec. *MS Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Plant Science.
40. Islam, M.M. 2012. Evaluating the ability of a non-invasive sensor to improve soil management of paddy rice fields. *PhD thesis*. Gent, Belgium: Gent University, Department of Soil Management.
41. Dias, K.E.M. 2012. Proteomic comparison of Arabidopsis Thaliana under high and low nitrogen fertilization. *MS Thesis*. Ste-Anne-de-Bellevue, Quebec, Canada: McGill University, Department of Bioresource Engineering.
42. Bereuter, A.M. 2011. Management zone delineation techniques on irrigated corn in Nebraska. *MS Thesis*. Lincoln, Nebraska: University of Nebraska-Lincoln, Department of Agronomy and Horticulture.
43. Lobsey, C. 2010. Proximal soil nutrient sensing using electrochemical sensors. *PhD Dissertation*. Sydney, Australia: University of Sydney, Faculty of Agriculture, Food and Natural Resources.

COMPREHENSIVE EXAMINATIONS

1. Singh Mann, H. 2025. School of Environmental Sciences, University of Guelph
2. Tavcar, I. 2025. Department of Food Science and Agricultural Chemistry, McGill University.

3. Dash, S.S. 2024. Department of Bioresource Engineering, McGill University.
4. Boothman, R. 2023. Department of Natural Resource Sciences, McGill University.
5. Arumugagounder, N. 2022. Bioresource Engineering Department, McGill University.
6. Flores-Anderson, A. 2022. Department of Natural Resource Sciences, McGill University.
7. Seyedkanani, A. 2021. Department of Bioresource Engineering, McGill University.
8. Ekwunife, K. 2019. Department of Bioresource Engineering, McGill University.
9. Ihuoma, S.O. 2018. Department of Bioresource Engineering, McGill University.
10. Kucha, C. 2018. Department of Bioresource Engineering, McGill University.
11. Tikasz, P. 2017. Department of Bioresource Engineering, McGill University.
12. Vidana Gamage, D. 2017. Department of Natural Resource Sciences, McGill University.
13. Wu, B.S. 2016. Department of Bioresource Engineering, McGill University.
14. Yari, A. 2014. Department of Bioresource Engineering, McGill University.
15. Boluwade, A. 2012. Bioresource Engineering Department, McGill University.
16. Shiratsuchi, L. 2011. Department of Agronomy and Horticulture, University of Nebraska-Lincoln.
17. Roberts D. 2008. Department of Agronomy and Horticulture, University of Nebraska-Lincoln.

PRO-DEAN

1. Huang, K. 2024. Department of Food Science and Agricultural Chemistry, McGill University.
18. Loboda, S. 2020. Department of Natural Resource Sciences, McGill University.
19. Leila, M. 2017. Department of Natural Resource Sciences, McGill University.
20. Thomas, B.W. 2015. Department of Natural Resource Sciences, McGill University.
21. Abail, Z. 2015. Department of Natural Resource Sciences, McGill University.
2. Cofie, A.N. 2013. School of Dietetics and Human Nutrition, McGill University.