

March 23, 2025

To: Dr. Andrew Short  
Chair, Search and Screen Committee  
University of Florida  
Entomology and Nematology Department  
1881 Natural Area Drive  
Gainesville, FL 32611

Re: Professor and Chair - Agricultural and Biological Engineering (ABE) Department

Dear Dr. Short and Members of the Search Committee:

This letter is to apply for the announced Chair of the Department of Agricultural and Biological Engineering (ABE) position at the University of Florida. In 1996, I completed my undergraduate engineering degree at the National Agricultural University of Ukraine (now the National University of Life and Environmental Sciences of Ukraine). There, I gained my first administrative experience as an assistant to the president for international affairs and co-coordinator of the Linkage Project with Iowa State University. I completed my MS (1997-1998) and PhD (1998-2000) degrees in Agricultural and Biological Engineering at Purdue University.

From 2000 to 2010, I was an assistant (associate with tenure since 2007) professor and precision agriculture engineer (20% teaching, 50% research, and 30% extension) at the University of Nebraska-Lincoln. In 2010, I took a tenured academic appointment in the Department of Bioresource Engineering at McGill University and retained an adjunct status at the University of Nebraska-Lincoln. I became the Chair of the Bioresource Engineering Department in 2018 and was fully promoted on July 1, 2019. In 2023, I was re-elected for the second and last five-year term. I am a registered professional engineer in Nebraska and Ontario.

I have remarkable administrative experience managing 20 members of academic staff offering B.Eng., M.Sc., M.Sc.A., and Ph.D. programs to over 200 undergraduate and over 150 graduate students at a time with an annual scholarly output of 150-200 refereed journal articles per year. In addition, we have been supporting the Farm Management and Technology Diploma program. While dealing with COVID-related interruptions, program accreditation, and construction projects, our Department has managed to grow and maintain a strong reputation across North America and globally. My annual administrative performance evaluation score has ranged from 3.6/4.0 (2020) to 3.9/4.0 (2022), which corresponds to the "better than expected" category with excellent comments on my performance in managing academic programs, finances, facilities, human resources, as well as departmental representation. Openness, approachability, and fostering of a positive work environment have been the most frequently reported observations.

The part-time and temporary nature of administrative appointments at McGill University limits my ability to lead a strategic program development, which is essential for the sustainability of academic programs affiliated with the American Society of Agricultural and Biological Engineers. The excellent metrics and outstanding staff in the University of Florida's ABE Department make it an exceptionally perfect fit to lead our discipline in meeting contemporary workforce demands and society's sustainable development. Therefore, it will be my pleasure to have an opportunity to apply my administrative skills to strengthen the ABE Department and further expand our profession's positive impact on Florida's economy, nationally and globally.

Please do not hesitate to contact me if any additional information will be helpful.

Sincerely yours,



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## Vision Statement

When reading “The Martian,” a science fiction novel by Andy Weir, I completely disagreed with the repeated claim of Mark Watney’s dual major. In the novel, Mark repeatedly emphasizes that his mechanical engineering degree and his degree in botany allowed him to solve many challenges to survive the harsh environment of the red planet. To me, he did not have two majors. His only degree could have been in agricultural and biological engineering (ABE). The main task of our profession is the development of solutions to sustain human life and health under an endless array of challenges encountered by humanity around the globe. A sustainable food supply with a preserved environment is the career goal of many current and future ABE graduates.

With experience in every primary mission of land-grant universities across North America, I feel versatile in understanding the needs and challenges for modern higher education, agricultural and engineering research, and extension. A **healthy balance** among teaching, research, extension, and other professional services is the primary recipe for the Department to continue professional leadership at national and international levels.

While focusing on precision agriculture and sensor systems, I had the opportunity to conduct research and outreach programs on machinery systems, tractors and power units, soil and water, geographic information systems, soil fertility management, decision support systems, automation of crop production, agricultural systems management, reclamation of land resources, pedometrics, educational robotics, precision livestock management, etc. I believe that the prevailing **transdisciplinary nature** of the work environment for modern agricultural and biological engineering professionals makes it essential for universities to prepare young engineers capable of crossing the boundaries of their majors and engaging in transdisciplinary projects and initiatives.

While originally from Ukraine, I had a chance to conduct joint research projects as well as training programs across Canada, USA, UK, Australia, Brazil, Chile, Colombia, France, Germany, Hungary, Japan, Malaysia, Morocco, New Zealand, the Philippines, and South Korea. In addition, I participated in scientific meetings in Belgium, China, the Czech Republic, Denmark, Greece, India, Ireland, Israel, Italy, the Netherlands, Spain, and Sweden. A productive set of **international activities** to resolve some of the most significant global challenges is another essential ingredient for a prominent ABE academic program.

Over the years, I have interacted and collaborated with over 100 different crop producers and industrial partners, some of which are Veris Technologies (USA), John Deere (USA and Germany), CNH (USA and Canada), Bayer Crop Science (Canada), AgriLab (Ukraine), Alberta Environment (Canada), ChrysaLabs (Canada), Geocarta (France), Global Good (USA), InCeres (Brazil), SoilOptix (Canada), OCP (Morocco), SOYL (UK), World Bank, etc. Maintaining close **relationships with industry and farmers** is critical to leadership in modern ABE training, developing new technologies, and knowledge transfer.

My research team has produced over 270 multipage publications, including six US patents and 90 refereed journal articles. I have chaired six international events and made over 310 public presentations, including 46 invited and keynote talks. With \$3.5M in direct control, the total extramural support for my research and outreach was about \$15M. Through over 60 course offerings in 12 different subjects, I have taught over 2,600 undergraduate and graduate students. Also, I have supervised over 110 individuals, including eight postdocs, 11 PhD students (17 with co-supervision), 32 MS students (39 with co-supervision), undergraduate research assistants, visiting scholars, graduate research trainees, etc. I believe **efficient use of resources** is vital for the overall success of an academic program.

In my initial administrative role in 1995-96, I coordinated curricula-related work that led to the establishment of the Global Confederation of Higher Education Associations for Agricultural and Life Sciences (GCHERA, <http://www.gchera.com>). Since 2001, I have been heavily involved in engineering curriculum activities, including four successful program accreditation events. This relates to the development and implementation of graduate attributes and graduate attribute indicators. **Professional licensing** is an important mechanism employed for public safety. Therefore, a critical program component is high academic standards that would help program graduates pursue and maintain their professional licensure. The ongoing accreditations of technology programs, as well as professional recognition of recently, emerged engineering disciplines focusing on the synthesis of engineering design and biological systems, are essential for most academic programs related to the American Society of Agricultural and Biological Engineers (ASABE), such as ABE at the University of Florida.

Through my current administrative responsibilities, I found the most efficient model for operating an academic unit is to support the professional talents possessed by every member of the unit. Strategic goals and specific teaching, research, and extension objectives can be achieved through a coherent and collaborative environment, disregarding continuously changing external constraints. True leadership success lies in the ability to build **internal consensus** through the decision-making process. I believe timely and constructive communication on any emerging issue can significantly improve the work environment and diminish potential stressful situations.

I visited the ABE Department in 2005 and 2013 and was impressed with the Departmental capacity in Gainesville and across Research and Education Centers. Based on my observations, the main **priorities** include the engineering program's identity and achieving sustainable student enrollment. An internal support structure can help streamline the process of securing extramural funding through diverse interdisciplinary research initiatives and stakeholder engagements. The ABE Department is well-set to react to the growing demand within the Florida agri-food industry. The exceptional support staff and facilities give excellent opportunities to enhance students' experiential learning and research engagement. The Department has strong potential to retain/improve its ranking and leadership positions for the years to come. I will be happy to contribute to the successful future of the ABE Department, its students, faculty, and staff.