

2021 Leadership Award

Dr. Digvir Jayas, P.Eng., FEC, FGC(Hon)



Dr. Digvir S. Jayas is a Distinguished Professor at the University of Manitoba and a former Tier-1 Canada Research Chair in stored-grain ecosystems. He holds a BTech from G.B. Pant University in India, an MSc from the University of Manitoba, and a PhD and DSc from the University of Saskatchewan. Currently, Dr. Jayas serves as the Vice-President (Research and International) at the University of Manitoba.

Dr. Jayas has had a profound impact on the engineering profession through his involvement with Engineers Canada as former president and eight-time committee chair. He has also spent thousands of hours volunteering with Engineers Geoscientists Manitoba as former Association president and chair of multiple committees. As interim president of the Natural Sciences and Engineering Research Council (NSERC), he oversaw enhanced focus on equity, diversity, and inclusion, interdisciplinary research, and a significant overhaul of NSERC's University-Industry Partnership Program. He pioneered the University of Manitoba's Transformational Partnership Program, which has greatly increased university-industry interaction in engineering and other faculties. He also created the annual Science, Engineering, and Technology Day that exposes hundreds of Manitoba high school students to science, technology, engineering, and mathematics (STEM) fields. As interim director of TRIUMF, Canada's particle accelerator centre, he helped enhance research opportunities for Manitoba researchers who use TRIUMF facilities.

In addition to his impact on the engineering profession, Dr. Jayas' research has also had a profound impact on agricultural engineering in Manitoba and internationally. It is estimated that his grain storage research has saved at least 2% of annual crop yields, resulting in yearly savings of over \$40 million for the province and over \$300 million for Canada as a whole. In the last 30 years, he has directly helped more than 600 Manitoba farmers and indirectly helped almost all Manitoba farmers incorporate best grain storage practices and reduce crop losses. His research and knowledge mobilization activities have resulted in increased availability of grain to feed the ever-growing world population, saving millions of lives in the process, and improving the general overall health of individuals through the consumption of high-quality foods. Dr. Jayas provided scientific direction and contributed significantly to the design of the Richardson Centre for Functional Foods and Nutraceuticals in his role as its interim director. He led the development of the Canadian Wheat Board Centre for Grain Storage Research and played a significant role in the development of many facilities at the University of Manitoba, such as Manitoba Institute of Materials, Stanley Pauley Centre, Churchill Marine Observatory, and the Smartpark Innovation Hub. These facilities support the research of many engineers and geoscientists.

Dr. Jayas has been inducted as a Fellow by 13 Canadian and international technical and professional organizations, including Engineers Canada, the Engineering Institute of Canada, the Canadian Academy

of Engineering, and the Royal Society of Canada. He has received over 60 national and international awards in recognition of his service to the profession, community, and research excellence. These include selection for induction into the Manitoba Agricultural Hall of Fame, the Sir John William Dawson Medal from Royal Society of Canada, two John Ogilvie Research Innovation Awards from the Canadian Society for Bioengineering, K.Y. Lo Medal from Engineering Institute of Canada, Sukup Global Food Security Award, Honorary Life Member and Outstanding Service Award from Engineers Geoscientists Manitoba, Meritorious Service Award for Professional Service from Engineers Canada, NSERC Brockhouse Canada Prize, and appointment to the Order of Canada (Officer).

Dr. Jayas is the author or co-author of more than 975 technical articles, 10 books and monographs, and three patents. To transfer research results to the user community, he is frequently called upon to present his research to government and industry personnel at such meetings as the Manitoba Agri-Forum, the Canadian Prairie Chapter of the Grain Elevator and Processing Society, and to many exporters and users of Canadian grains and oilseeds across the globe. A true engineering leader, Dr. Jayas has demonstrated a steady, thorough, and ethical practice of the engineering profession at both the academic and professional levels, and has brought honour and distinction to Manitoba and its engineering community.

In recognition of his outstanding leadership, commitment to the profession, and service to the community at large, Engineers Geoscientists Manitoba is pleased to present the 2021 Leadership Award to Dr. Digvir S. Jayas, P.Eng., FEC.