

Association of Professional Engineers
of the
Province of Manitoba

Merit Award

to

DIGVIR S. JAYAS

B.Tech., M.Sc., Ph.D., P.Eng.

Dr. Digvir S. Jayas was born at Mant, India, and received his Bachelor of Technology degree in Agricultural Engineering from G.B. Pant University in India in 1980. He first came to Manitoba in 1980 where he commenced his Masters degree at the University of Manitoba with the Agricultural Engineering Department and where he also served as a graduate research assistant. In 1982, upon completion of his Masters degree, he joined the University of Saskatchewan to undertake his doctorate which was awarded to him in 1987. In 1985 Digvir Jayas joined the University of Manitoba as an Assistant Professor in the Agricultural Engineering Department. He is still with the University, and in 1995 became a Professor in the Biosystems Engineering Department.

Digvir Jayas is the author of more than 100 refereed papers and proceedings articles, 22 non-refereed proceedings articles, 21 chapters in books, 79 conference papers and eight engineering reports. His input to engineering literature far exceeds a lifetime of contributions for most academic engineers.

Digvir Jayas has worked in the field of grain storage throughout his career. He has always divided his focus between the theoretical underpinnings of this field of endeavour and practical applications. Beginning about ten years ago, Dr. Jayas began studying means of controlling insect growth in grains without the use of chemicals. His basic research suggested that the use of carbon dioxide could provide an acceptable level of control without the problem of contamination. Subsequent field level work led to cooperative projects involving Liquid Carbonic and Manitoba Pool Elevators. Today, the use of carbon dioxide in grain storage systems for insect control is close to a commercial reality as agreements between grain storage companies and gas supply companies are being finalized.

Digvir Jayas and his students have been working on a project in cooperation with Prince Rupert Grain to develop means of identifying grain types in a commercial handling environment. Working on both the theoretical and practical questions, they have developed a system of grain identification that is now being commercialized for sale around the world.

Digvir Jayas has contributed, with his colleagues at the University and Agriculture Canada, to the development of a computer program that incorporates weather information, grain properties, and insect and fungi growth models to derive recommendations for grain storage now being applied in Western Canada and North Central United States.

His accomplishments have been recognized internationally. He is very supportive of many professional associations, including APEM. Outside the technical world he is active in the Dakota Community Club, the Manitoba Hindu Society and the parent-teacher associations associated with every school his sons have attended. In total Digvir Jayas has contributed more than 116 "committee years" of service to technical and professional organizations. He currently serves as Associate Editor for five different technical publications.

This outstanding scholarly achievement has been complemented by his excellence as a teacher. Digvir Jayas has been selected three times for the University of Manitoba Merit Award for Teaching, Research and Service.

In recognition of his outstanding career as scholar and educator, and as an outstanding member of the community, the Association of Professional Engineers of the Province of Manitoba is proud to honour Dr. Digvir S. Jayas by presenting him with its Merit Award.

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