Jacek M. Zurada, Life Fellow of IEEE

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Dr. Jacek Zurada serves as a Professor with the Electrical and Computer Engineering Department at the University of Louisville, Kentucky. He was Department Chair from 2004 to 2006. He has published 380 journal and conference papers. He also has authored or co-authored three books and co-edited a number of volumes in Springer *Lecture Notes in Computer Science*. His research interests cover data mining with emphasis on data and feature understanding, deep and constrained learning of features, rule extraction from semantic and visual information, machine learning, decomposition methods for salient feature extraction, neural networks, and support vector machines.

His original research discoveries include the lambda learning rule of a neuron (referred to by some authors as 'Zurada learning rule'), a technique for salient feature detection in neural network models, an algorithm for drug dosing prediction, constrained learning of autoencoders with non-negative weights, methods of extraction of logic rules from data based on decision trees (with experiments including bioinformatics data and secondary protein structure prediction, and text data such as newsgroups), extension of complex-valued neurons to associative memories and perceptron networks, and the invention of the dynamic switching hysteresis and switching margins for fast VLSI logic circuitry. His work was cited over 9200 times.

He has held visiting appointments at Princeton, Northeastern, Auburn, and overseas in Australia, Chile, China, France, Germany, Hong Kong, Italy, Japan, Poland, Singapore, Spain, South Africa and Taiwan. Dr. Zurada was an Associate Editor of *IEEE Transactions on Circuits and Systems, Pt. I and Pt. II*, and served on the Editorial Board of the *Proceedings of IEEE*. From 1998 to 2003 he was the Editor-in-Chief of *IEEE Transactions on Neural Networks*. He is an Associate Editor of *Neurocomputing, Schedae Informaticae, International Journal of Applied Mathematics and Computer Science, Advisory Editor of Int'l Journal of Information Technology and Intelligent Computing*, and Editor of Springer Natural Computing Book Series.

He has served the profession in various capacities, as 2014 IEEE VP-Technical Activities, President of IEEE Computational Intelligence Society in 2004-05 and the ADCOM member in 2009-14 and earlier years. He chaired the IEEE TAB Periodicals Review and Advisory Committee and the IEEE TAB Periodicals Committee in 2010-11. In 2011 he was Vice-Chair of PSPB and member of PSPB Strategic Planning Committee in 2010-11.

Dr. Zurada has received a number of awards for distinction in research, teaching, and service including the 1993 Presidential Award for Research, Scholarship and Creative Activity, 1999 IEEE Circuits and Systems Society Golden Jubilee Medal, and the 2001 and 2014 Presidential Distinguished Service Awards for Service to the Profession. In 2013 he received the Joe Desch Innovation Award. He was a Distinguished Speaker of IEEE CIS in 2012-15. In 2003 he was conferred the Title of National Professor by the President of Poland. He also received four Honorary Professorships from Chinese universities. Since 2005 he has been a Member of the Polish Academy of Sciences, and was appointed as a Senior Fulbright Specialist for 2006-12.