

Biographical Sketch

KEITH W. HIPEL

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Keith Hipel is *University Professor* of Systems Design Engineering at the University of Waterloo, Waterloo, Ontario, Canada, and is *Vice President of the Academy of Sciences* which is part of the Royal Society of Canada. Keith thoroughly enjoys mentoring students and is a recipient of the *Distinguished Teacher Award* and the *Award of Excellence in Graduate Supervision* from the University of Waterloo. His major research interests are the development and application of conflict resolution, multiple objective decision making and time series analysis techniques from a systems design engineering perspective. The main application areas of these decision technologies are water resources management, hydrology, environmental engineering and sustainable development. Keith is the author or co-author of 4 books, 11 edited books, more than 200 journal papers, as well as many conference and encyclopedia articles. He is Fellow of the Royal Society of Canada (*FRSC*), Canadian Academy of Engineering (*FCAE*), Institute of Electrical and Electronics Engineers (*FIEEE*), Engineering Institute of Canada (*FEIC*), International Council on Systems Engineering (*FINCOSE*), and the American Water Resources Association (*FAWRA*). Keith is also a recipient of the *Norbert Wiener Award* from the IEEE Systems, Man and Cybernetics (SMC) Society, *Outstanding Contribution Award* from the IEEE SMC Society, *Docteur Honoris Causa* from Ecole Centrale de Lille, *W.R. Boggess Award* from AWRA, and the *University of Waterloo Award for Excellence in Research*. He has held a *Canada Council Killam Research Fellowship*, *Monbusho Kyoto University Visiting Professor Position*, *Stanley Vineberg Memorial Visiting Professorship*, *Centre National de la Recherche Scientifique (CNRS) Research Fellowship*, and *Japan Society for Promotion of Science (JSPS) Fellowship*. Moreover, he is a Professional Engineer (*PEng*) and has

carried out consulting activities with engineering firms, government agencies, and utilities in many countries. Keith is an Associate Editor of many international journals including the IEEE Transactions on Systems, Man and Cybernetics, Part A, Group Decision and Negotiation, and Systems Engineering. Finally, Keith has been privileged to serve members of the IEEE SMC Society through activities such as being an elected member of the Board of Governors for a total of nine years since 1990, Vice President of Publications (1998-1999), Chair of the Strategic Opportunities and Initiatives Committee (2004-2005), member of the Strategic Planning Task Force (2004-2005), member of the Executive Committee (2004-2005, 1998-1999), organizer of sessions on Conflict and Risk Analysis in Systems Management at all of the annual IEEE SMC Conferences since 1991, member of the IEEE SMC Fellow Selection Committee (2008, 2007, 1998, 1997), and, currently, Co-Chair of the Technical Committee on Conflict Resolution for which he jointly received the *Most Active SMC Technical Committee Award* (2007). On October 8, 2007, Keith delivered the opening keynote address entitled “Competition and Cooperation in Societal and Technological Systems of Systems”, at the 2007 IEEE International Conference on Systems, Man and Cybernetics held at the Delta Centre-Ville, Montreal, Quebec, Canada.

Seminar Presentations

Keith Hipel has been privileged to deliver stimulating seminars in many nations around the globe on thought-provoking topics which include:

Competition and Cooperation in Societal and Technological Systems of Systems

Trade versus the Environment: Strategic Settlement for a Systems Engineering Perspective

Strategic Opportunities in Systems Engineering

The Decision Support System GMCR II in Negotiations over Groundwater Contamination

Decision Support Systems in Water Resources and Environmental Management

A Systems Engineering Approach to Conflict Resolution

Systems Thinking in Fair Water Resources Allocation

Trend Analysis in Environmental Impact Assessment

Educational Innovations at the University of Waterloo: Cooperative Workterm Experience, International Exchange Programs, and Systems Design Engineering

The Internationalization of Engineering Education: A Tale of Two Countries

Accreditation of Engineering Programs and Licensing of Engineers in Canada