

**Slobodan P. Simonovic**

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Dr. Simonovic has over thirty five years of research, teaching and consulting experience in water resources engineering. He is teaching courses in civil engineering and water resources systems. He actively works for national and international professional organizations. He has received a number of awards for excellence in teaching, research and outreach. He is a Fellow of three professional organizations and has been **inducted into the Canadian Academy of Engineering** in June of 2013. Dr. Simonovic has been invited to present special courses for practicing water resources engineers in many countries. He is assisting in the publication of water resources Journals, and participates actively in the organization of national and international meetings. He has published over 500 professional publications (215 papers in peer reviewed Journals and three major textbooks) and delivered over 250 keynote and invited talks. (Citation index 8388 and H index 47 as of July 2017).

Dr. Simonovic's primary research interest focuses on ***the application of systems approach*** to, and development of the decision support tools for, management of complex water and environmental systems. Most of his work is related to the application of computerized simulation, optimization and multi-objective analysis tools in deterministic, probabilistic and fuzzy forms. The second focus area of Dr. Simonovic's research includes ***risk and resilience modelling***. He is developing, and implementing, probabilistic and fuzzy set methods for water resources risk and resilience analyses. He has undertaken applied research projects that integrate the mathematical modeling, spatial and temporal database management and intelligent interface development into decision support tools for water resources decision makers. Most of his research is being conducted through the Facility for Intelligent Decision Support (FIDS) at the University of Western Ontario.

An example of Dr. Simonovic's more recent research outcome is a web-based intensity-duration-frequency tool to update and adapt local extreme rainfall statistics to climate change ([www.idf-cc-uwo.ca](http://www.idf-cc-uwo.ca)). The IDF\_CC tool assists water management professionals to easily and quickly assess potential impacts of climate change on IDF curves at a local level, because it uses data from almost any rain monitoring station in Canada. The tool provides for planning and design of more resilient, sustainable water management infrastructure that can successfully operate over many decades under changing climate conditions. Improved planning using this tool is contributing to reduction of infrastructure maintenance and replacement costs, and helps protecting people, property and

ecosystems from the negative impacts of extreme storms caused by climate change. Currently the tool has 870 registered users (as of June 2017).

Expertise:

*Subject Matter* - Systems modeling; Risk management; Resilience modeling; Water resources and environmental systems analysis; Computer-based decision support systems development; Water resources education and training.

*Topical Area* - Flood control; Hydropower energy; Reservoirs; Operational hydrology; Climatic Change; Integrated water resources management.