

International Experience

Professor Medina has been the Director of the International Honors Program of the Pratt School of Engineering, Duke University since its establishment in 1991, and has served many years on the university International Affairs Committee. He has presented over 30 technical papers in 16 countries, and has traveled to 26 countries on various missions: Argentina, Australia, Belgium, Brazil, Canada, Costa Rica, Chile, Dominican Republic, El Salvador, England, France, Germany, Greece, Guatemala, Honduras, Hungary, India, Italy, Mexico, Netherlands, Panama, Spain, Tahiti, Turkey, Uruguay, Venezuela. His international contributions include being competitively selected a Fulbright Scholar at Monash University (Melbourne, Australia) to conduct research on instrumented paired catchments (with urban and non-urban subbasins) in Canberra, Australia. He has presented invited papers at NATO Advanced Research Workshops in France, and has conducted post-graduate intensive courses *in Spanish* on urban hydrology and water quality modeling for UNESCO in Costa Rica, Guatemala, Honduras, El Salvador, the Dominican Republic, and Panama. In 1986 and 1987 he evaluated the impact of water supply projects on the hydrology and water quality of Lake Valencia, Venezuela as a consultant for both the Pan American Health Organization and the Inter-American Development Bank. He was awarded an NSF travel grant in 1987 to establish links between U.S. and Argentine hydrologists and water professionals. In 1995 he presented two seminars on surface and subsurface contaminant transport modeling at Universidad Austral, Buenos Aires, Argentina, and was appointed to their Board of Academic Advisors. He conducted another hydrologic and water quality modeling short course in Costa Rica in 1994, co-sponsored by the University of Costa Rica and the Pan-American Institute of Highways, and was also invited that year to lecture at the International Symposium on Assessing and Managing Health Risks from Drinking Water Contamination at the Istituto Superiore di Sanita, Rome, Italy. From 1994 through 1997, he was a keynote lecturer in the series *International Course of Environmental Modelling*, held at the Polytechnic School of the University of Murcia, Cartagena, Spain, sponsored by the Mediterranean Cultural Savings and Loan Bank. In 1999 the Duke University Fuqua School of Business invited him to participate in their Global Interdependence Lecture Series, presenting global hydrology and contaminant transport issues. He presented a key technical paper on modeling contaminants across the hydrologic cycle at a UNESCO international conference in Panama in 1999, and organized a panel discussion on the same topic for DuPont Engineering in 2000, receiving an award from the E.I. DuPont De Nemours Company for “outstanding contributions and dedication toward furthering the science of environmental modeling.” From 2002 to 2004, Professor Medina was appointed an External Evaluator of the UNESCO International Hydrological Programme by the Director of the Division of Water Sciences, Paris, France, evaluating the effectiveness of their programs in 85 countries.

In December 2003 he presented an invited keynote paper on modeling ground water contamination and surface/subsurface interactions at the *International Conference on Water and Environment*, Regional Research Laboratory, Bhopal, India. In 2004 he was named an External Advisor of the new Masters Degree in Environmental Hydrology at the IIT in Roorkee, India, and has also been invited to present another keynote paper at the *International Conference on Water, Environment, Energy and Society* in New Delhi, India in December 18-21, 2007. This conference is officially organized by the National Institute of Hydrology, located in Roorkee. Dr. Medina presented a paper on “Study and Work Abroad Opportunities for Engineering Students

at Duke University,” at the *Ninth International Conference on Engineering Education* held in San Juan, Puerto Rico, July 23-28, 2006, attended by over 500 participants from 37 countries.

Dr. Medina is also a former Chairman of the International Technical Advisory Committee of the International Ground Water Modeling Center (Colorado School of Mines, and Delft, The Netherlands). He has been a consultant to the World Health Organization, the Inter-American Development Bank, the Pan American Health Organization, and Ministries of Water Resources in Venezuela and Spain. More recently (2003-2005), he has reviewed proposals for the Research Grants Council of Hong Kong; been appointed an External Reviewer of the College of Engineering & Petroleum, Kuwait University, Kuwait; and named an External Editor for the 2005 Theme Issue "Potential Water Challenges and Solutions in the New Millennium in Arid Regions" of the *Arabian Journal for Science and Engineering*. He has reviewed research proposals from former Soviet Union (now Russian) scientists to the US Civilian Research & Development Foundation (CRDF). He has recently been appointed a member of the International Program Committee for the International Association of Science and Technology for Development (IASTED) International Conference on Environmental Modelling and Simulation (2006).