



SECOND INTERNATIONAL NANOTECHNOLOGY CONFERENCE ON COMMUNICATIONS AND COOPERATION

Speaker's Biography

Mihail C. Roco III, NSF-NNI



Mihail Roco is Senior Advisor for Nanotechnology at the National Science Foundation, and chaired the U.S. National Science and Technology Council's subcommittee on Nanoscale Science, Engineering and Technology (NSET) since its inception in 2000 to 2005. He also coordinates NSF's Grant Opportunities for Liaison with Industry program. Previously he was Professor of Mechanical Engineering at the University of Kentucky (1981-1995), and held visiting professorships at the California Institute of Technology (1988-89), Johns Hopkins University (1993-95), Tohoku University (1989), and Delft University of Technology (1997-98).

Dr. Roco is credited with 13 inventions. He has authored/co-authored numerous archival articles and twelve books including "Particulate Two-phase Flow" (Butterworth, 1993), "Nanostructure Science and Technology" (Springer, 1999), "Societal Implications of Nanoscience and Nanotechnology" (Kluwer Acad., 2001), "Converging Technologies for Improving Human Performance" (Springer, 2003) and "The Coevolution of Human Potential and Converging Technologies" (N.Y. Acad. of Sciences, 2004). Dr. Roco was a researcher in multiphase systems, visualization techniques, computer simulations, nanoparticles and nanosystems in 1980s as Professor, and in 1991 initiated the first Federal Government program with focused on nanoscale science and engineering (on Synthesis and Processing of Nanoparticles at NSF). He formally proposed NNI in a presentation at White House/OSTP, Committee on Technology, on March 11, 1999. Dr. Roco is a key architect of the National Nanotechnology Initiative. Under his chairmanship, the NNI budget has increased about ten-fold to \$1 billion in 2005. He coordinated the preparation of the U.S. National Science and Technology Council reports on "Nanotechnology Research Directions" (NSTC, 1999) and "National Nanotechnology Initiative" (NSTC, 2000).

Dr. Roco is a Correspondent Member of the Swiss Academy of Engineering Sciences, a Fellow of the American Society of Mechanical Engineers, a Fellow of the Institute of Physics, and a Fellow of the American Institute of Chemical Engineers. He is Editor-in-chief of the Journal of Nanoparticle Research, and has served as editor for the Journal of Fluids Engineering and the Journal of Measurement Science and Technology. He is a member of the Executive Governance Board for Sandia and Los Alamos National Laboratories, the Review Board for National Research Council Institute (Canada), International Risk Governance Council, and boards in Europe, Asia and Australia.

Dr. Roco was selected as "Engineer of the Year" by NSF and the U.S. National Society of Professional Engineers in 1999 and again in 2004. Among his other honors are Germany's Carl Duisberg Award, a Burgers Professorship Award in Netherlands, the U.S. University Research Professorship award, and a 2002 Best of Small Tech Awards as "Leader of the American Nanotechnology Revolution". Forbes magazine recognized him in 2003 as first among "Nanotechnology's Power Brokers", Scientific American named him one of 2004's top 50 Technology Leaders, and NASA Brief listed him as 2005 Top 50 Innovators. In 2005, he received the AIChE Forum award "for leadership and service to the national science and engineering community through initiating and bringing to fruition the National Nanotechnology Initiative."