

Professor Najmedin (Najm) Meshkati

Biography

Dr. Najmedin Meshkati is a (tenured, full) Professor of Civil/Environmental Engineering, Industrial & Systems Engineering; and International Relations at the University of Southern California (USC); an Associate (former Research Fellow) with the Project on Managing the Atom at Belfer Center for Science and International Affairs at Harvard Kennedy School; and an Associate with the Mossavar-Rahmani Center for Business and Government at Harvard.

Meshkati was a Jefferson Science Fellow and a Senior Science and Engineering Advisor, Office of Science and Technology Adviser to the Secretary of State, US State Department, Washington, DC (2009-2010). He is a Commissioner of The Joint Commission (a not-for-profit organization that accredits and certifies nearly 21,000 healthcare organizations and programs in the United States and operates in 92 countries around the world) and is on the Board of Directors of the Center for Transforming Healthcare. He is a member of the Board on Human-Systems Integration (BOHSI), Division of Behavioral and Social Sciences and Education, The National Academies (Sciences, Engineering and Medicine). He has served as a member of the Global Advisory Council of the Civilian Research and Development Foundation (CRDF) Global, chaired by Ambassador Thomas R. Pickering (2013-2016).

For the past 35 years, he has been teaching and conducting research on risk reduction and reliability enhancement of complex technological systems, including nuclear power, aviation, petrochemical and transportation industries. He has been selected by the National Academy of Sciences (NAS), National Academy of Engineering (NAE) and National Research Council (NRC) for his interdisciplinary expertise concerning human performance and safety culture to serve as member and technical advisor on two national panels in the United States investigating two major recent accidents: The NAS/NRC Committee “Lessons Learned from the Fukushima Nuclear Accident for Improving Safety and Security of U.S. Nuclear Plants” (2012-2014); and the NAE/NRC “Committee on the Analysis of Causes of the Deepwater Horizon Explosion, Fire, and Oil Spill to Identify Measures to Prevent Similar Accidents in the Future” (2010-2011).

Dr. Meshkati has inspected many petrochemical and nuclear power plants around the world, including Chernobyl (1997), Fukushima Daiichi and Daini (2012). He has worked with the U.S. Chemical Safety and Hazard Investigation Board, as an expert on human factors and safety culture, on the investigation of the BP Refinery explosion in Texas City (2005), and served as a member of the National Research Council (NRC) Committee on Human Performance, Organizational Systems and Maritime Safety. He also served as a member of the NRC Marine Board’s Subcommittee on Coordinated R&D Strategies for Human Performance to Improve Marine Operations and Safety.

Dr. Meshkati is the only full-time USC faculty member who has continuously been conducting research on human factors and aviation safety-related issues (e.g., cockpit design and automation, crew resource management, safety management system, safety culture, and runway incursions,) and teaching in the USC 63-year old internationally renowned Aviation Safety and Security Program, for the past 25 years. During this period, he has taught in the “Human Factors in Aviation Safety” and “System Safety” short courses. From 1992 to 1999, he also was the Director and had administrative and academic responsibility for the USC Professional Programs, which included Aviation Safety, as well as for the Transportation Safety, and Process Safety Management (which he designed and developed) programs. He has worked with numerous safety professionals from all over the world and has taught safety short courses for private and public sector organizations, including the US Navy, US Air Force, US Forest Service, California OSHA, Celgene, Metrolink, Exelon, FedEx, the Republic of Singapore Air Force, Singapore Institution of Safety Officers, China National Petrochemical Corporation, Canadian upstream oil and

gas industry (Enform), Korea Hydro and Nuclear Power (KHNP), Ministry of Foreign Affairs (Republic of Korea), etc.

Dr. Meshkati is an elected Fellow of the Human Factors and Ergonomics Society (HFES); the 2015 recipient of the HFES highest award, the *Arnold M. Small President's Distinguished Service Award*, for his “career-long contributions that have brought honor to the profession and the Society”; and the 2007 recipient of the HFES *Oliver Keith Hansen Outreach Award* for his “scholarly efforts on human factors of complex, large-scale technological systems.” He is the inaugural recipient of the *Ernest Amory Codman Lectureship and Award* (from The Joint Commission for his leadership and efforts in continuously improving the safety and quality of care). He is an AT&T Faculty Fellow in Industrial Ecology, a NASA Faculty Fellow (Jet Propulsion Laboratory, 2003 and 2004), and a recipient of the *Presidential Young Investigator Award* from the National Science Foundation (NSF) in 1989.

He has received numerous teaching awards at USC, which include the 2013 Steven B. Sample Teaching and Mentoring Award from the USC Parents Association, the *2000 TRW Award for Excellence and Outstanding Achievement in Teaching* from the USC Viterbi School of Engineering; the 1996, 2003, 2006, 2007, 2008 and 2016 *Professor of Year Award (Excellence in Teaching and Dedication to Students Award)* from the Daniel J. Epstein Department of Industrial & Systems Engineering; the Mortar Board's *Honored Faculty Award* (2007-2008) from the University of Southern California's Chapter of the Mortar Board; and the *Outstanding Teaching Award* from The Latter-day Saint Student Association at USC (April 11, 2008). He was chosen as a *Faculty Fellow* by the Center for Excellence in Teaching, USC (2008-2010).

He is the co-editor and a primary author of the book *Human Mental Workload*, North-Holland, 1988. His articles and commentaries on public policy; the risk, reliability, and environmental impact of complex, large-scale technological systems; and foreign policy-related issues have been published in several national and international newspapers and magazines such the *New York Times*, *International New York Times (International Herald Tribune)*, *Los Angeles Times*, *Washington Post*, *Wall Street Journal*, *Financial Times*, *The Economist*, *The Hill*, *Baltimore Sun*, *Charleston Gazette*, *Houston Chronicle*, *Sacramento Bee*, *MIT Technology Review*, *Japan Times*, *Korea Herald* (South Korea), *Strait Times* (Singapore), *Times of India*, *Hurriyet Daily News* (Turkey), *Gulf Today* (UAE), *The Nation* (UAE), *Gulf News* (Qatar), *Iran News* (Iran), *Shargh* (Iran), *South China Morning Post* (Hong Kong), *Winnipeg Free Press*, *Waterloo Region Record*, *Windsor Star* (Canada), *Scientific Malaysian*, etc.

As chairman of the “group of experts” of the International Ergonomics Association (IEA), Dr. Meshkati coordinated international efforts which culminated in the joint publication of the United Nations' International Labor Office (ILO) and IEA *Ergonomic Checkpoints: Practical and Easy-to-Implement Solutions for Improving Safety, Health and Working Conditions* book in 1996, for which he received the Ergonomics of Technology Transfer Award from the IEA in 2000. According to the ILO, this book has so far been translated and published into 16 languages including Arabic, Bahasa Indonesia, Bahasa Malaysian, Chinese, Estonian, Farsi, French, Japanese, Korean, Polish, Portuguese, Russian, Spanish, Thai, Turkish, and Vietnamese. The second edition of this book was released by the ILO/IEA in 2010.

Dr. Meshkati simultaneously received a B.S. in Industrial Engineering and a B.A. in Political Science in 1976, from Sharif (Arya-Meher) University of Technology and Shahid Beheshti University (National University of Iran), respectively; a M.S. in Engineering Management in 1978; and a Ph.D. in Industrial and Systems Engineering in 1983 from USC. He is a Certified Professional Ergonomist.