

Mario A. Rotea

Educator, Researcher, Strategist

Born: August 6, 1958

Birthplace: Rosario, Argentina

Citizenship: US

Mario A. Rotea graduated with an Electronic Engineering degree from the National University of Rosario. He received his Master's degree in Electrical Engineering ('88) and Ph.D. in Control Science & Dynamical Systems ('90) from the University of Minnesota, Minneapolis.

He began his academic career at Purdue University, in West Lafayette, Indiana, where he rose to the rank of Professor of Aeronautics and Astronautics and courtesy Professor of Mechanical Engineering. In April 2007, Dr. Rotea joined the University of Massachusetts, Amherst, as Professor and Head of Mechanical and Industrial Engineering, and adjunct Professor of Electrical and Computer Engineering.

Prior to joining UMass, Dr. Rotea managed the Control Systems Program at the National Science Foundation (2005-07). He also worked for the United Technologies Research Center, in East Hartford, Connecticut, as a Senior Research Engineer in the Mechatronics Department (1997-98).

Dr. Rotea's research is in optimization and control of mechanical, electrical, and aerospace systems. He has made pioneering contributions in optimal and robust control, which led to his election as Fellow of the Institute of Electrical and Electronic Engineers (IEEE). He has developed and transitioned to industry control systems to mitigate noise and vibrations in gas turbine engines, helicopters, and machine tools. His current interests include health management and model predictive control of engineered systems.

Dr. Rotea's contributions have been documented in more than one hundred archival and conference publications, and several reports to industry and government agencies. He is a recipient of the NSF Young Investigator Award ('93). He has been on the Editorial Board of the IEEE Transactions on Automatic Control. He is currently on the Board of Governors of the IEEE Control Systems Society.

Dr. Rotea has made contributions to the national agenda for research and education in science and engineering. He raised the success rate of the Control Systems Program at the NSF to 18%. He has co-authored large (15M, 22M) NSF program solicitations for research at the interface of engineering, computer sciences, and mathematics.

Since joining UMass, Prof. Rotea has focused on increasing the visibility and reputation of the mechanical and industrial engineering program, and increasing the size of the faculty. He is leading the creation of a vision where key technical areas converge to give rise to research and educational programs that advance two sectors of modern society: energy and healthcare.