**Professional Narrative**

Dr. Rotea is a professor of mechanical engineering at the University of Texas at Dallas. He joined UT Dallas in 2009 to serve as professor and founding head of the then newly created mechanical engineering department. During his eleven-year tenure as department head student enrollment grew to 1,300 students, faculty size to 34, and a brand new 200,000 sqft building was constructed to house mechanical engineering. Rotea oversaw the processes for initial ABET accreditation of the BSME degree program and for the creation of the university’s PhD degree program in mechanical engineering. At UT Dallas, he developed and taught the undergraduate control systems laboratory. In 2014, he co-founded WindSTAR, the National Science Foundation (NSF) Industry-University Cooperative Research Center to advance the wind energy industry through use-inspired research and education, which currently has fifteen member companies, and it has been renewed by the NSF until 2024. Currently, Dr. Rotea is the director of the UTD Center for Wind Energy: <https://wind.utdallas.edu/>, which includes WindSTAR as one of its core projects. He is also an affiliate professor in the department of electrical and computer engineering at UT Dallas.

Rotea spent 17 years at Purdue University as professor of aeronautics and astronautics, developing and teaching methods for the analysis and design of control systems. He also worked for the United Technologies Research Center as senior research engineer on advanced control systems for helicopters, gas turbines, and machine tools. Rotea was the head of the mechanical and industrial engineering department at the University of Massachusetts Amherst, where he expanded the department in wind energy and applications of industrial engineering to the health care sector. His career includes terms as director of the Control Systems Program and division director of Engineering Education and Centers at the NSF.

Rotea is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE) for contributions to robust and optimal control of multivariable systems. His [publications](https://scholar.google.com/citations?hl=en&user=7Aytg3EAAAAJ) have influenced the development of CAD tools for control systems design and inspired the application of robust control algorithms to mechanical, aerospace and energy systems. His current research interests are in optimization and control of wind energy systems. His research is currently funded by the NSF, ARPA-E, DOE and DOI.

In his first term at NSF, he stimulated transformative research in control systems and co-authored federal solicitations for research at the interface of engineering, computer sciences, and mathematics (DDDAS, EFRI). Later, as division director of Engineering Education and Centers, he was responsible for programs and activities to inspire, identify and support projects in center-based transformational research, engineering education, workforce development and inclusion of underrepresented groups in engineering.

Rotea graduated with a degree in electronic engineering from the University of Rosario in 1983. He received a master’s degree in electrical engineering in 1988 and his Ph.D. in control science and dynamical systems in 1990 from the University of Minnesota. Notable awards include the NSF Young Investigator Award, the Purdue Seed for Success Award and the CT Sun School of Aeronautics & Astronautics Excellence in Research Award. He is also a FRIEND (Federal Research Innovation and ExpeNditures Dynamo) of the Office of Research and Innovation for federal research expenditures in excess of $500,000 (FY 2022, 2021). Rotea has been a member of the Board of Governors of the IEEE Control Systems Society. He currently serves as UTD's delegate to the European Academy of Wind Energy.