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Reza Langari, Ph.D.
Professor of Mechanical Engineering
and JR Thompson Department Head Chair,
Engineering Technology and Industrial Distribution
Texas A&M University, College Station, Texas

Lifetime Achievement Awardee

Bio: **Reza Langari** is Professor of Mechanical Engineering and JR Thompson Department Head Chair, Engineering Technology and Industrial Distribution in the College of Engineering at Texas A&M University. Dr. Langari received the B.Sc., M.Sc., and Ph.D. degrees from the University of California, Berkeley, CA, USA, in 1981, 1983, and 1991, respectively. He was with Measurex Corp., later a division of Honeywell (1984-1985); Integrated Systems, Inc. (1985-1986).; and Insight

Development Corporation (1987-1989) prior to starting his academic career at Texas A&M University in 1991. He has since held research positions at NASA Ames Research Center, Rockwell International Science Center, United Technologies Research Center, and the U.S. Air Force Research Laboratory.

Dr. Langari's expertise is in the area of computational intelligence, with application to robotics and autonomous systems. He is the author/co-author of four books and over two hundred technical papers. He has also served as an Associate Editor of the IEEE Transactions on Fuzzy Systems, the IEEE Transactions on Vehicular Technologies, and the ASME Journal of Dynamic Systems, Measurement, and Control. He currently serves as the Editor-in-Chief of the Journal of Intelligent and Fuzzy Systems (IOS Press, Netherlands) and as Associate Editor of the IEEE Transactions on Intelligent Transportation Systems. Dr. Langari currently leads the US DOT funded project on Automated Vehicles for All (AVA), which is a collaborative effort with the University of Illinois, University of California, Davis and George Washington University. He has also served as principal investigator or co-principal investigator on multiple US Army funded projects on Autonomous Systems.

Dr. Langari's contributions to engineering include a formal analysis of stability and transformation of fuzzy logic control algorithms as nonlinear controllers, which has received recognition for its pioneering use of nonlinear systems analysis to fuzzy logic control. He also took part in the development of data driven fuzzy logic based models, which have also been widely recognized as instances of machine learning using fuzzy logic and neuro-fuzzy techniques. Dr. Langari is also credited with one of the earliest applications of predictive machine learning to energy management of hybrid electric vehicles, which has inspired both academic and industrial research and development activities leading to commercial deployment of these techniques. Dr. Langari's most recent research has focused on the development of robotic exoskeletons for stroke rehabilitation as well as work on the application of game theory in automated vehicles, an area that is now rapidly expanding. This work has also been a starting point for a number of studies and is being considered for deployment onboard the next generation of automated vehicles and advanced driver assist systems.