

Robert O. Ambrose, Ph.D.

Associate Agency Director, TEES

Director for Space and Robotics Initiatives, TEES

University Distinguished Professor, Mechanical Engineering

Texas A&M Space Institute Associate Director

Member, National Academy of Engineering



Robert O. Ambrose retired from NASA in 2021 and accepted an endowed chair at Texas A&M, as the J. Mike Walker '66 Chair and in 2023 he was designated a University Distinguished Professor. He serves as the Texas Engineering Experiment Station (TEES) Associate Agency Director, Project Office Director for Space, Strategic Advanced Research Unit, and Director for Space and Robotics Initiatives. He also serves as the Texas A&M Space Institute Associate Director.

Dr. Ambrose received his Ph.D. from the University of Texas at Austin in Mechanical Engineering and his M.S. and B. S. degrees from Washington University in St. Louis. He has worked as a researcher in academia (UT Austin), as an engineer at an FFRDC (MITRE), and as a project leader at a small startup company (Metrica, Inc), then for over 20 years in government.

With NASA's Johnson Space Center from 2000-2021, he served as a Project Manager, Branch Chief and later as the Division Chief for the Software, Robotics and Simulation Division. Dr. Ambrose's Division supported the International Space Station (ISS), software and simulation for the Space X, Boeing and Orion Spacecraft, and the development of exercise equipment, wearable robotics and jetpacks used by astronauts in space. He led the design of futuristic machines like Robonaut, the Chariot rovers, Centaur, Valkyrie, MRV, Resource Prospector / VIPER rovers, and the LTV Rover that are paving the way for space exploration. Dr. Ambrose also served for 7 years at NASA Headquarters as the Principal Technologist for Robotics and Autonomous Systems.

He has built coalitions with dozens of commercial partners, universities and US government agencies. His work as a founding member of the National Robotics Initiative (NRI) with the White House has propelled the U.S. back into the lead for robotics. He has received three NASA medals for Leadership and Technical Achievement, two Government Invention of the Year Awards, and General Motor's Most Valuable Colleague Award. Dr. Ambrose retired as a member of the federal government's Senior Executive Service (SES), was elected to the National Academy of Engineering (NAE) and currently serves as the IEEE-RAS Vice President for Industrial Activities. He is married to Dr. Catherine Ambrose with homes in Texas and Colorado.