

IQSE AMO QO Seminar Series

Tuesday, February 22, 11:30 AM CST,
ZOOM&IQSE seminar room (MPHY 578)

Dr. Robert O. Ambrose

J. Mike Walker '66 Chair in Mechanical Engineering, Texas A&M University

Director for Space and Robotics, G.H.W. Bush Combat Development Complex

Robots at the Johnson Space Center, and Future Plans

The seminar will review a series of robotic systems built at the Johnson Space Center over the last 20 years. These will include wearable robots (exoskeletons, powered gloves and jetpacks), manipulation systems (ISS cranes down to human scale) and lunar mobility systems (human surface mobility and robotic rovers). As all robotics presentations should, this will include some fun videos.



Having recently retired from NASA, Dr. Robert Ambrose is now the Mike Walker Chair in Mechanical Engineering at Texas A&M University. He will outline his plans to extend the work of his NASA team, with projects in surface mobility, robotic manipulation and human augmentation. Dr. Ambrose is the Texas A&M Director for Space and Robotic Initiatives, and the Director of Space and Robotics at the Bush Defense Complex. He was elected to the National Academy of Engineering, serves as the VP of the IEEE Robotics and Automation Society for Industrial Activities, and retired from NASA as a member of the Senior Executive Service.

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.



<https://tamu.zoom.us/j/99696662195?pwd=NIFUZFpvamR6YlIBUUZROFVReFhkQT09>