The AAE Special Seminar Series Presents

Concurrent Space Mission Design and Jet Propulsion Laboratory’s Team-X

Dr. Charles Budney
Senior Systems Engineer
Jet Propulsion Laboratory
California Institute of Technology

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Abstract
Complex mission concepts will be needed for future ambitious robotic space missions, which in turn, will require new spacecraft, new approaches, and technologies. Concurrent engineering is the simultaneous and integrated engineering of all design, manufacturing, and operational aspects of a project from the conceptual formulation of the project through project completion. Dr. Charles Budney will talk about concurrent engineering applied to Space Mission Concepts and Design. Dr. Budney will talk about mission life cycle, roles of scientists and engineers in a mission environment, mission design interconnectedness and trade-offs, and the importance of teamwork. Dr. Budney will also talk about JPL’s Advanced Projects Team, Team-X and how it helps to design next-generation robotic and human exploration missions. Dr. Budney will also introduce Model Based System Engineering and how it will improve NASA’s mission design process.

Bio
Dr. Charles Budney received a B.S in Geochemistry from Caltech in 1988 and his Ph.D. degree in Geology and Geophysics from the University of Hawaii at Manoa in 1997. He is a senior systems engineer at the Jet Propulsion Laboratory, California Institute of Technology, where he is currently involved in the Asteroid Retrieval Mission and scientific planning for future missions to Mars. He has worked at JPL for over 15 years.