Invited lecture



About the first GPS receiver on the Moon, and the other NASA space PNT stories

Abstract

NASA's contributions to the GNSS enterprise through science applications and space operations has played a vital role in the modernization and evolution of GPS capabilities for several decades. In the latest and recent developments, NASA has clearly demonstrated the success of the GPS+Galileo synergy by landing the first GPS+Galileo receiver on the lunar surface and continuously processing satellite signals from both worldwide constellations to accomplish the first satellite-based Positioning, Navigation, and Timing (PNT) service outside our home planet Earth.

In this talk, the former NASA executive James J. Miller will present the evolution the spatial PNT technology advancements accomplished through decades, and how they will lead to an even greater space economy that will serve all of us here on Earth, and well beyond.

Biography

James J. Miller advised NASA leadership on Global Positioning System (GPS) policy and technology from 2005 – 2025, leading NASA Delegations to the United Nations. In March 2025, James' NASA team landed the first GPS receiver on the Moon in history. Mr Miller served as Executive Director of the U. S. National Space-Based Positioning, Navigation, and Timing (PNT) Advisory Board (AB), and as Executive Secretary of the National Space Council (NspC) Users' Advisory Group within the Office of the Vice President (OVP).

Prior to his NASA assignments, James was a Program Manager at United Airlines, determining airline industry policy on emerging communications, navigation, surveillance (CNS) technologies. In 2000, U. S. Vice-President Al Gore recognized Mr. Miller for benefiting the airline industry.

James is a commercial airline pilot with a Master of Public Administration (MPA) degree from Southern Illinois University and a Master of International Policy and Practice from the George Washington University. In 2023, James was a Harvard Senior Executive Fellow (SEF) at the John F. Kennedy Shool of Government.

Venue: Lecture halls P1 & P2, Ground Floor, Faculty of Engineering, University of Rijeka, Vukovarska 58, 51000 Rijeka, Croatia

Schedule: on June 6, 2025, at 12:00 CEST