Human Spaceflight Technology
TUM School of Engineering and Design
Technische Universität München

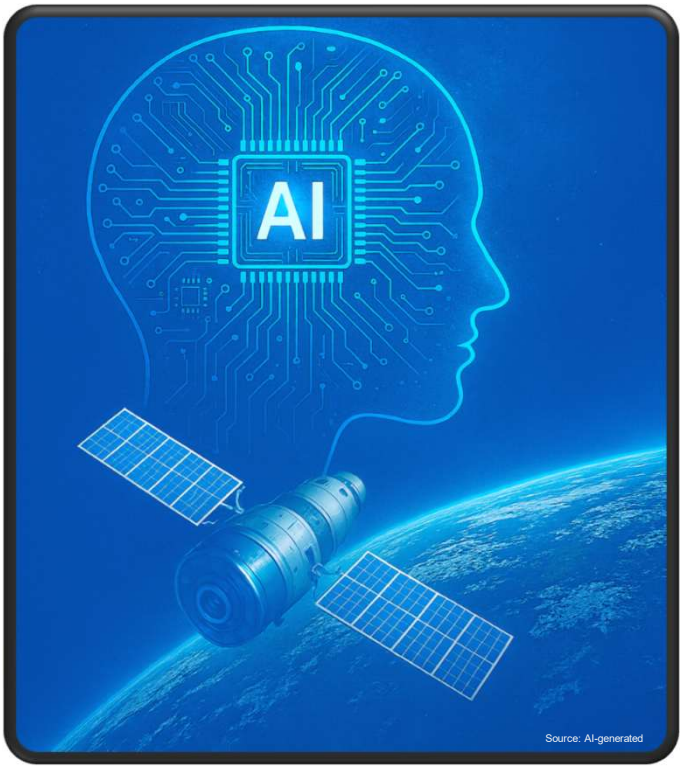
SPECIAL TALK - Dr. Wiley Larson

Using AI to Support Space Systems Development and Operations

Lecture Hall 3, Willy-Messerschmitt-Straße 5, Ottobrunn

13th January 2026, 16:30

Over three years of research and practical work with NASA and SpaceTech teams, the presentation explores how AI can be applied to the design, development, and operation of space systems. By creating and evaluating system-engineering artifacts with and without AI, the work shows that AI significantly accelerates early-phase development, enhances systems engineers' ability to contribute, and shifts their focus toward overall mission success and technical credibility. The findings indicate that most AI tools are accurate about 80–85% of the time and can act as valuable team contributors, especially for real-time operators. The project also identifies which AI packages are best suited for specific systems-engineering tasks and highlights practical insights into what works and what does not, forming the basis for the concluding remarks.



About Dr. Wiley Larson

Experienced leader in space-related development, operations, education and training. Served 20 years in the Air Force as a GPS spacecraft engineer, spacecraft launch controller, flight test engineer, *spacecraft program manager* and associate professor of Astronautics. Currently contributing to international space efforts by conducting research and creating an integrated set of *30 published books on space system engineering and project management, detailing "how to" design, develop, launch and operate space systems.*