

# DEPARTMENT OF MECHANICAL & AEROSPACE ENGINEERING

## WILLIAM MAXWELL REED SEMINAR SERIES

### “Reflections on an Academic Career: University Teaching, Research and Service”

**Suzanne Weaver Smith, Ph.D.**

**Professor Emeritus**

**Department of Mechanical and Aerospace Engineering**

#### **Abstract:**

Professors adopt and adapt various models for the teaching, research and service elements of their work. In this seminar, I include highlights of research projects and lessons learned, teaching experiences and insights, and service commitments and outcomes, within the interwoven themes of my career: structural dynamics, flight and complex systems. I started in industry at Harris Corporation, where I contributed to the Hubble Space Telescope and an early DoD Uncrewed Aircraft System (UAS) and found structural dynamics and modal testing. My PhD followed on the inverse problem of damage detection for the envisioned International Space Station (ISS). At UK, my lab’s research in nonlinear interactions in flexible large spacecraft dynamics included the ISS and Mir space stations, then evolved to innovative inflatable/deployable spacecraft technologies, microgravity testing and ultimately Mars airplanes, among other topics. The UK UAV Laboratory moved from Mars airplanes to large field campaigns with UAS for atmospheric science. Also along the way, NASA Kentucky came to UK and our new aerospace degree programs were developed. Throughout, I worked with amazing UK, U.S. and international colleagues, and was able to contribute my unique experience and expertise to challenging problems via a rewarding academic career.

#### **Speaker Bio:**



Dr. Suzanne Weaver Smith began her career in 1980 working at Harris Corporation. Dr. Smith joined the University of Kentucky faculty in 1990 after completing her PhD at Virginia Tech. She developed supplemental modules for NASA’s course in Space Systems Engineering. Dr. Smith is also Emeritus Director of the NASA Kentucky Programs. Her accomplishments and impact led to recognition as a National Science Foundation Young Investigator, college and university awards for exceptional education and service, induction into the 2019 Kentucky Aviation Hall of Fame, and selection as a 2020 Fellow of the American Institute of Aeronautics and Astronautics (AIAA).

**Date: Friday, August 23, 2024**  
**Place: WT Young Library 1-62**

**Time: 3:00 PM EST**  
**Contact: Dr. Jonathan Wenk**

Attendance open to all interested persons