Exploring Careers in Cybersecurity: Challenging and Rewarding Opportunities in a Cutting-Edge Field

In this talk, Jon Wallhauser and Tim Havel will cover a series of major cyber events which occurred over the last year. They will discuss each incident and its larger implication and impacts moving forward. Insights into the depth of the current problem faced in the industry related to cybersecurity will also be discussed. Also, they will share advice for where to start if you are interested in being part of the solution to this critical problem area.

Jon Wallhauser’s career spans more than 20 years in the space and aerospace/aeronautics sector, supporting several government customers across a diverse set of platforms and technologies. He started as an educator, then a software developer and transitioned into larger leadership roles within the organizations he worked in. His cybersecurity experience ranges from developing secure systems to governing their authorization within the environments they operate.

Tim Havel leads more than 750 engineers, technicians and staff on manned aircraft systems for the E-2D Advanced Hawkeye, Joint STARS, Advanced Laser Mine Detection System and other strategic restricted programs. He joined Grumman Aerospace Systems in 1984 as a flight test engineer and was assigned to the A-6 Intruder and F-14D Tomcat programs. He holds a bachelor’s degree in electrical engineering from Rochester Institute of Technology.

State-of-the-Art Experiments to Advance Zero-Carbon Electricity Generation, Develop High-Speed Aeropropulsion Concepts and Facilitate Low-Cost Space Exploration

Dr. Vasu will discuss ongoing projects conducted by his team in collaboration with industry and government. He mainly uses optical and novel laser diagnostic techniques to investigate fundamental and applied issues in mechanical, aerospace, chemical and space engineering at practical operation conditions. This strategy provides non-intrusive, time-resolved and remote detection of thermodynamic and flow properties such as species, gases, temperature, pressure, etc. Unique and world-class facilities in his lab generate crucial experimental knowledge about these systems and provide critical validation targets for computational models used by industry.

Since his appointment at UCF in 2012 (after his Ph.D. from Stanford and postdoc training at Sandia), he has authored a plethora of journals (more than 110, including breakthrough publication in the prestigious journal *Science* and *Proc. of National Academy of Sciences*) and conference articles (more than 200). More than 85 of these journal publications have been co-authored with his students as lead authors. He has brought in external projects worth more than $15M. Graduates from his group (11 postdocs, 15 PhDs, 14 M.S., and more than 70 undergraduate students) hold key positions in academia, government, national labs, and aerospace industries. He is a recipient of the following prestigious early career awards: DARPA Director’s Fellowship 2020 (1 out of 13 given in the country); DARPA Young Faculty Award - YFA 2018; Microsoft Investigator Fellowship 2019 (1 out of 15 given in the country); DTRA Young Investigator (YIP) 2016; ACS Doctoral New Investigator (YIP equivalent) 2015; ASME Dilip Ballal Early Career Award 2017 (international award); and SAE Ralph R Teetor Educational Award 2018 (international). Also, he received many highest honors at UCF, including the prestigious “UCF Luminary” and “Reach for the Stars” awards.