Research on Safe Autonomous Unmanned Aircraft at DLR (German Aerospace Center)

Abstract: A key research topic at DLR (German Aerospace Center) is safe and autonomous flight of unmanned aircraft in difficult environments. This talk will give a short overview over related research projects at the DLR Institute of Flight Systems that address a wide range of topics, including path planning, precise trajectory control, visual-navigation, flight envelope estimation and certification aspects. A special focus and outlook will be given on the speaker’s own research activities towards onboard path planning for unmanned fixed-wing aircraft under consideration of uncertain wind conditions.

Speaker Bio: Simon is a visitor from DLR (German Aerospace Center), Institute of Flight Systems. He studied aeronautical engineering at TU Braunschweig and is currently pursuing his Ph.D. The focus of his research is on path planning for unmanned aircraft in low-level mission scenarios. His research interests also include unmanned aircraft design, simulation and flight testing, flight control and trajectory optimization as well as safety and verification aspects of autonomous systems.