Research Scientist Position
in the
Air Force Research Laboratory
Aerospace Systems Directorate
Autonomous Control Branch

The Air Force Research Laboratory (AFRL), with locations across the U.S., employs over 4,000 civilian personnel. AFRL is responsible for planning and executing the Air Force's science and technology program. The Autonomous Control Branch in AFRL’s Aerospace Systems Directorate is the Air Force Center of Excellence in Control Science. It is located at Wright-Patterson Air Force Base near Dayton, Ohio. A team of approximately 25 civilians, military officers and on-site contractors lead the development of advanced control technology, including adaptive, cooperative, and intelligent control, for manned and unmanned vehicles of all sizes, shapes, and classes. Researchers tackle challenging problems in all three phases of the Air Force’s science & technology portfolio -- basic research, applied research, and advanced technology development. Our goal is to develop and validate control algorithms through real-time, nonlinear simulations and experiments, and transition technology to benefit the warfighter. The current area of interest is control law development for hypersonic vehicles—including air-breathing and gliding vehicles. Team members work closely with industry and academia, in addition to other government agencies, and the branch has a robust visiting researcher program that infuses the organization with approximately 20 collaborators each summer.

The branch is currently seeking an in-house Research Scientist contractor with a Ph.D. in Aerospace, Electrical, or Mechanical Engineering and a strong background in flight dynamics and flight control, dynamical systems theory, control theory, experimental methods, and/or validation of control laws using flight hardware.

Duties of In-house Research Scientist Contractor

Performs as a technical expert in the areas of air-breathing hypersonic vehicle control design, analysis, development, and testing. Maintains a broad knowledge of control, dynamics, guidance, flight mechanics, aerodynamics, propulsion systems, structures, real-time hardware and software development, and optimization theory. Conducts exploratory research of a broad scope in hypersonic vehicle flight control. Develops and applies new and evolving principles of control theory and optimization to the design, test, and evaluation of hypersonic vehicle control systems. Provides expert technical advice to peers, management, other government agencies, industry, and universities. Writes technical reports and articles for professional journals and symposia to transition research results to the warfighter and industry.

Individuals must be either a U.S. citizen or hold a Permanent Resident Visa (green card). Those who are interested are welcome to send a résumé to AFRL.RBCA@wpafb.af.mil.