VeHICaL: Verified Human Interfaces, Control, and Learning for Semi-Autonomous Systems

**Challenge:**
- Co-design human interfaces and control for human-cyber-physical systems with provable guarantees
- Apply to semi-autonomous vehicles (ground and air)

**Solution:**
- Integrate Learning, Verification and Control
- Bounded Resource Rational Human Modeling
- Prototype Controllers & Interfaces, Evaluate on Testbed

**Scientific Impact:**
- Developing a Science of Co-Design of Human Interfaces and Control
- Bridging Model-Based and Data-Driven Design of CPS

**Broader Impact:**
- Significantly improve safety, security, and performance of systems where humans interact closely with automation
- Involve middle/high-school and undergraduate students in VeHICaL activities

CPS Awards 1545126, 1544714, 1544924