**Project Description**
Design intelligent machines that can respond to changes in human trust in real-time by
- measuring and/or estimating the human's trust level
- affecting a change in the human's trust state through changes in the machine user interface (UI)

**Approach**
- Estimate gray-box models of human trust behavior based on human-subject data
- Design trust-based feedback controller

**Discussion**
- Varying UI transparency (amount of information presented) affects human trust and workload
- Human cognitive trust and workload can be estimated using psychophysiological measurements

**Results**
- Optimal controller that aims to maximize human-machine interaction performance by varying UI transparency
- Performance improvement by 15.72%

**Improved human-machine collaboration performance through trust-driven adaptive user-interface**