Robotics Research

Mechanical Engineering
University of Delaware
• Active sensing
• Reactive reconfiguration
• Detection
• Linking action to decision
• Communication, inference, & strategy

Reconnaissance & surveillance

Legged locomotion

Multi-Agent Decision making

Mobile sensor networks

• Locomotion from high-level motion planning
• Harnessing compliance
• Adaptation to human activity

• Stochastic control
• Environmental interactions

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Dealing with uncertainty

Stochastic optimal control

Optimal stopping time

Models from data

Reactive learning and adaptation

Controlled compliance & impedance control

Game theory with grammatical inference