

Question: *What topics about cognitive robots would you like to learn or lecture about?*

- Adaptive controllers for robotic arms
- Autonomous Space Systems
- Bayesian inference (particle filters)
- Collaborative (Distributed, cooperative) Robotics
- Compliant Environment exploitation (e.g. Beacon use)
- Control & reasoning
- Cooperative robotics
- Diagnosing (faults)
- Distributed systems
- Fault monitoring
- Human-robot interaction
- Hybrid reasoning systems
- Integration
- Introspective systems
- Machine learning
- Macro-learning
- Manipulation
- Monitoring & Estimation
- Multiple fault diagnosis
- Natural language processing
- Navigation
- Neural Networks
- Pattern recognition
- Physical Manipulation
- Planning/Path-planning
- Robotic controls enhanced by human input and vice versa
- Robotic space exploration
- Robustness
- Self-control/balance
- SLAM
- SLAM in rocky environments
- Voice & vision

Question : *What kind of cognitive robot might you be interested in creating?*

- A chess player
- A critter/toy type robot which could notice still and moving objects, and navigate its world with wander or follow routines
- A robot to aid people with mental handicaps
- A robot to work in the biomedical field
- A robot with recon & military applications
- A robotic limb
- A robotic system for a car or airplane or spacecraft
- A small animal-like robot possibly for defence purposes
- Autonomous controls in space suit design - space suit information transfer and data acquisition
- Autonomous exploration system, preferably Mars-relevant, perhaps learning from human interaction
- Collaborative & multi-agent systems with integration of control & reasoning
- Explorers that map out terrain
- I am working on an articulated chassis with 6 degrees of freedom and would like to work on relations of driver input and the reaction of the chassis based on the current driving dynamics
- Model estimation
- Model-free gain estimator for a Quanser helicopter.
- One that walks around and feels comfortably doing so. (I.e. doesn't bump into walls/hit obstacles)
- Path-planning for helicopter or plane; other aero-astro Applications
- Robot for exploration in home settings with health-related applications.
- System which can detect failures and work around them. Ideally related to network or other intra-system communications
- Team-playing robots for goal (capture the flag)
- UAV or group of UAVs using cooperative command
- UAV's, flight-based
- Ubiquitous Pervasive Smart Systems combining AI/Machine learning/Pattern Rec and sensors in the environment and robotic entities for activity recognition (human) and inference for health care applications
- Vision navigation, voice & vision human interacting robot.