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TWiki Tip of the Day
Custom rendered bullets
The RenderListPlugin can render bulleted lists in a variety of different ways. Use %RENDERLIST{ parameters ... Read on ≫

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Robot Learning

This team will work with artificial intelligence and the latest in robot technology.

The Team

Alex Stoytchev?	Faculty member	
Jivko Sinapov	Graduate student mentor	
Matt Miller	Graduate student mentor	
Allison White	Intern	tasks?
John (Cody) Glover?	Intern	
Brian Russell	Intern	

Possible Resources

1. Visual and Haptic Collaborative Tele-presence - Robot interacts with a 3D AR model

2. Using the WAM as a Master Controller -Barrett 7 DoF? arm used to control 6DoF arm

3. arm grounded haptic tele-manipulation - tests accuracy of perception when using a haptic glove to operate a robot hand

4. testing of telemanipulation system - tests performance with haptic glove

5. Haptic Perception of Spatial Relations -human performance without any robots

6. Non-Informative Vision Improves Haptic Spatial Perception -human performance, no robot, no vision of objects being manipulated

7. arm kinematics and dynamics -detailed explanations of equations for 2 joints in 2 dimensions

8. context sensitive learning network -converts cartesian space to joint space - efficient method for computing inverse jacobian

9. The Tricept robot: Inverse kinematics, manipulability analysis and closed-loop direct kinematics algorithm -looks promising, but no link to actual article

10. Direct Kinematics of Parallel Manipulators -another article that can probably help to develop the right equations

Modeling and Control of Robot Manipulators

11. Analysis of HRI -describes criteria robots should be evaluated by

12. bilateral teleoperation -design of bilateral teleoperation system

13. timeline -timeline of approaches to teleoperation

14. [[http://delivery.acm.org/10.1145/1350000/1349831/p57-levin.pdf?

key1=1349831&key2=3381684121&coll=GUIDE&dl=GUIDE&CFID=34884829&CFTOKEN=45004478][Concepts About the Capabilities of Computers and Robots: A test of the scope of adults' theory of mind]]

15. [Theory and Evaluation of Human Robot Interactions](#)

16.[Teleoperation, telerobotics](#) -long, but looks really useful

17. [A hybrid elastic model for real-time cutting, deformations, and force feedback for surgery training and simulation](#)

18. [size/weight illusion](#)

19. [deafferented weight judgment](#)

20. [[http://www.springerlink.com/content/y8140v13375j4t48/fulltext.pdf][Kinematic cues in perceptual weight judgement and their origins in box lifting]]

21. [A SAFE-CONTROL PARADIGM FOR HUMAN–ROBOT INTERACTION](#)

22. [Sensation-Preserving Haptic Rendering](#)

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