

Space Physics Seminar

Thursday, November 3, 2016



Human-in-the-Loop Coordination with Robot Systems

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Robots navigating in difficult and dynamic environments often need assistance from human operators or supervisors, either in the form of teleoperation or interventions when the robot's autonomy can not handle the current situation. Even in more controlled environments, such as office buildings and manufacturing floors, robots may need help from people. This talk will discuss the best practices for controlling both individual robots and groups of robots, in applications ranging from assistive technology to telepresence to search and rescue. A number of methods for human-in-the-loop coordination with robot systems, including multi-touch devices, software-based operator control units (softOCUs), game controllers, Oculus Rift, and Google Glass, will be presented.

Bio: *Dr. Holly Yanco is a Distinguished University Professor, Professor of Computer Science, and Director of the New England Robotics Validation and Experimentation (NERVE) Center at the University of Massachusetts Lowell. Her research interests include human-robot interaction, multi-touch computing, interface design, robot autonomy, fostering trust of autonomous systems, evaluation methods for human-robot interaction, and the use of robots in K-12 education to broaden participation in computer science. Yanco's research has been funded by NSF, including a CAREER Award, ARO, DARPA, DOE-EM, NASA, NIST, Microsoft, and Google. Yanco was the General Chair of the 2012 ACM/IEEE International Conference on Human-Robot Interaction and served as Co-Chair of the Steering Committee for the HRI Conference and Journal from 2013-2016. Yanco has a PhD in Computer Science from the Massachusetts Institute of Technology.*

4:00pm in CAS 502. Refreshments served at 3:45pm in CAS 500.

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