

Workshop Description

3/29/07 3:00 pm Workshop Block 3

22. Using robotics to improve command and control (*N. E. Consortium/U. Mass Lowell Computer Science Department; Mark Micire and Holly Yanco*) *Tracks: Advanced Training Technologies/ Emergency/ Disaster Response and Preparedness*

This workshop will demonstrate and discuss the potential of robotic technology and related command and control systems for improving hazardous materials and emergency response operations. One robot, the **Variable Geometry Tracked Vehicle (VGTV)**, currently under development at the University of Massachusetts Lowell, was developed out of the versatile robots used at Ground Zero and has been used in hazardous materials trainings to conduct environmental monitoring and after Hurricane Katrina to help search heavily damaged buildings. Another device, the **Mitsubishi Multi-Touch** interactive 2D 32" screen, similar to table-top pen and paper maps, has potential use in disaster response and hazmat operations. Finally, a software tool being developed at U. Mass Lowell employs robotics and multi-touch technologies to create an intelligent command and control interface that uses satellite and aerial data over time with city planning layouts (streets, city utilities, communications), with the goal of facilitating better use of resources and safer, more efficient hazmat and emergency response operations. All of these technologies will be available for demonstration.