

CALL FOR PAPERS

SSRR 2006



IEEE International Workshop on Safety, Security, and Rescue Robotics
National Institute of Standards and Technology (NIST)
Gaithersburg, Maryland USA
August 22-24 2006

Sponsored by:

WEBSITE: www.isd.mel.nist.gov/ssrr2006

IEEE Robotics and Automation Society

Technically Co-Sponsored by:

EMAIL: ssrr2006@nist.gov

International Rescue Systems Institute, Japan
Center for Robot-Assisted Search and Rescue, USA
NIST Intelligent Systems Division, USA

GENERAL CHAIR:

Adam Jacoff, National Institute of Standards and Technology, USA

REGIONAL PROGRAM CO-CHAIRS:

USA: **Anthony Detrick**, Technical Support Working Group / Battelle, USA

Asia: **Fumitoshi Matsuno**, University of Electro-Communications / IRS, Japan

Europe: **Daniele Nardi**, University of Roma "La Sapienza," Italy

IMPORTANT DATES AND FEES:

Mar. 15, 2006	Early submission of full papers
Apr. 15, 2006	Early notification of acceptance
May 1, 2006	Submission of full papers Demonstration proposals due
June 9, 2006	Notification of acceptance
July 1, 2006	Paper/Exhibit registration due
	IEEE Members: \$375
	Non-Members: \$500
	Responders/Students: \$250
	Exhibits: \$100 (additional)

Advanced registration is required at NIST.

RELATED EVENTS:

Aug. 21 (Monday) Responder/Robot Events

Attendees are invited to see US&R and EOD robot assessment exercises at a local fire/rescue training facility – see website for details.

Aug. 21-23 (Mon-Wed) PerMIS 2006

The Performance Metrics for Intelligent Systems workshop will be co-located to share plenary presentations, robot demonstrations, technology exhibits, and social events.

Aug. 22-24 (Tue-Thu) SSRR 2006

Technical and emergency responder presentations, robot performance test methods, training events.

The IEEE International Workshop on Safety, Security, and Rescue Robotics (SSRR2006) is dedicated to identifying and solving the key issues necessary to field capable robots across a variety of challenging applications. This year it will be hosted at the National Institute of Standards and Technology on August 22-24, 2006. This fourth workshop in the series will emphasize objective performance testing and evaluation of robotic systems to satisfy user-defined requirements. It will be co-located with the Performance Metrics for Intelligent Systems Workshop (PerMIS2006) to share plenary presentations, robot demonstrations, technology exhibits, and social events. As always, emergency responders and other expected users will play a prominent role in presentations and discussions to ensure the practical relevance of technology developments for eventual deployment. Desired topics for papers, demonstrations, and exhibits include:

- Robot performance requirements and technical solutions for applications of SSRR (explosive ordinance disposal, urban search and rescue, CBRN hazard detection/mitigation, physical security, surveillance, ...)
- Locomotion for ground, aerial, aquatic, indoor, and collapsed structures
- Perception for navigation, hazard detection, and victim identification
- Mapping of complex environments (2-D, 3-D, GIS integration, ...)
- Manipulation capabilities (hazards, payloads, obstacles, doors, ...)
- Communications for reliable data transfer (tether management, radio, ...)
- Human-robot interfaces for improved remote situational awareness
- Intelligent behaviors to improve robot performance and survivability
- Training methods and other personnel issues
- Emerging technologies (sensors, power sources, micro robots, ...)
- Deployment logistics and operational integration issues
- Emergency management issues related to robotics

Papers should be submitted electronically to ssrr2006@nist.gov in PDF format. Six camera-ready pages including figures are allowed for each paper. A maximum of two additional pages are permitted at \$100 extra charge. Detailed instructions for paper submissions are available on the workshop web page.

Robot Demonstrations are welcome and will be incorporated into the program if accepted. Please submit a one page description of how your demonstration will be compelling for safety, security, or rescue robot developers and users to see, along with images and a video of the demonstration (MPEG files up to 10 MB).

Technology Exhibits related to SSRR are also welcome, and will be featured prominently for all attendees during breaks and demonstration times. Please submit an exhibit registration form available on the website.