

CALL FOR PAPERS

# SSRR 2008



IEEE



2008 IEEE International Workshop on Safety, Security, and Rescue Robotics

Aoba Memorial Hall, Tohoku University Aobayama Campus

Sendai, Japan

October 21-24, 2008

*Sponsored by:*

WEBSITE: <http://www.rm.is.tohoku.ac.jp/ssrr2008>

IEEE Robotics and Automation Society

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Tohoku University, Japan

International Rescue Systems Institute, Japan

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## IMPORTANT DATES:

**JUNE 16, 2008**

**Full Papers and Demonstration  
Proposals Due**

**JULY 31, 2008**

**Notification of Acceptance**

**AUGUST 31, 2008**

**Final Papers Due**

## VENUE

Sendai is a historic city known by Date Masamune, the first lord of Sendai Clan established in 1600. He dispatched a Japan's first mission to Europe via Mexico in 1613 to meet Pope Paul V and to promote international trade. Sendai has a population of one million now, and is the political and economic center of Japan's Tohoku (northeast) Region. Tohoku University was established in 1907 as the third national university in Japan with "Research First" and "Open-door" policies. It has nine full professors in robotics, and one of the major centers of robotics research in Japan.

The 2008 IEEE International Workshop on Safety, Security, and Rescue Robotics (SSRR2008) 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 Tohoku University (October 21-24, 2008). This sixth workshop in the series will address both the research challenges posed by search and rescue scenarios and the design of deployable robotic systems that satisfy user-defined requirements. It will be co-located with NEDO Underground/Subway Surveillance Robot Demonstration to create a unique opportunity for development and exchange of research ideas and technical solutions. As always, emergency responders and other expected users will be involved in presentations and discussions to ensure the practical relevance of technology developments for actual usage. Topics for papers and demonstrations, include:

- Robot performance requirements and technical solutions for applications of SSRR (urban search and rescue, CBRN hazard detection/mitigation, explosive ordinance disposal, 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, ...)
- Intelligent behaviors to improve robot performance and survivability
- Human-robot interfaces for improved remote situational awareness
- Autonomous search and exploration
- Multi-robot teams and mixed human-robot teams
- Training methods and other personnel issues
- Safety standards of robots and systems
- Evaluation and performance metric of robotic systems
- Emerging technologies (sensors, power sources, micro robots, ...)
- Emergency management issues related to robotics

**Full Papers** should be submitted by e-mail to [ssrr2008@rm.is.tohoku.ac.jp](mailto:ssrr2008@rm.is.tohoku.ac.jp) in PDF format. Six camera-ready pages including figures are allowed for each paper. Maximum of two additional pages are permitted at JYE10,000 extra charge.

**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).