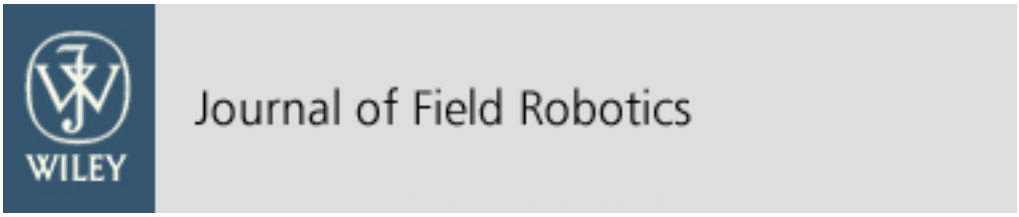

Special Issue on Safety, Security, and Rescue Robotics (SSRR) 2017

http://www.journalfieldrobotics.org/Special_Issues.html

Special Issue Guest Editors:

* Sören Schwertfeger, ShanghaiTech University
* Kazunori Ohno, Tohoku University

This special issue on Safety, Security, and Rescue Robotics (SSRR) is dedicated to identifying and solving the key issues necessary to field capable, robust, and dependable robots in safety, security, and rescue missions. We welcome cutting-edge papers in the theory and practice of robotics and automation for all types of safety, security, and rescue applications such as disaster response, mitigation and recovery; rapid and secure inspection of critical infrastructure; detection of chemical, biological and radiological risks, and operations in these dangerous sites. The scope of this special issue on SSRR covers the overall design of unmanned ground, aerial, and marine robots, as well as crucial components, e.g., for advanced locomotion, and intelligent onboard functionalities up to robot team collaboration and full autonomy. We explicitly welcome contributions from the following three areas: 1) robotic systems, i.e., complete marine, aerial, or ground robots as well as their components, 2) intelligent functionalities, e.g., mapping, robot team collaboration, advanced user interfaces, software components for autonomy, and 3) applications, e.g., field reports and end user studies. Related topics include but are not limited to the following technologies:

- Autonomous search and rescue
- Biologically inspired solutions
- Communications for reliable data transfer
- Computer vision
- GPS-denied navigation and mapping
- Humanoid robots
- Human-robot interaction and interfaces
- Intelligent behaviors to improve robot performance and survivability
- Manipulation
- Multi-agent coordination
- Novel sensors and mechanisms
- Perception for navigation, hazard detection, and victim identification
- Sensing and sensor fusion
- SLAM in complex and/or extreme environments
- Unmanned ground, aerial, and marine vehicles

Applications of interest include:

- Casualty assessment, care and extraction
- Detection and mitigation of chemical, biological, radiological, nuclear and explosive (CBRNE) events
- Humanitarian applications
- Inspection of critical infrastructure
- Nuclear decommissioning
- Robotics and Automation for safety and security
- Structural assessment
- Urban search and rescue
- Wildland fire fighting

Excellent papers from the 15th IEEE International Symposium on Safety, Security, and Rescue Robotics 2017 (http://www.ssrr-conference.org/2017) are encouraged to submit to this special issue. **Excellent submissions not originating from the SSRR 2017 conference are also very welcome!**

Submission Instructions:

The submissions must conform to the JFR guidelines. Submissions must follow the spirit of the Journal of Field Robotics, i.e., they must describe implemented systems that have been tested under realistic conditions or even deployed in regular operations.

Papers originating from the SSRR 2017 are particularly welcome. Papers originating from a conference need to be significantly extended for the journal version.

This special issue will follow a rolling schedule. The papers can be submitted anytime within the submission window of October 15 to January 31. The papers will be reviewed and a decision made, as and when they are received.

Papers that are accepted will appear online within two weeks of decision. All the accepted papers will then appear in the special print issue of JFR.

Detailed author information: http://www.journalfieldrobotics.org/Info_For_Authors.html
Submission website: https://mc.manuscriptcentral.com/rob

Deadlines (updated in Dec 2017):

- Feb 28, 2018 - Submit manuscripts
- April 2018 - Initial reviews completed
- June 15, 2018 - Decisions and author notification
- July 15, 2018 - Final manuscripts for publication

For comments, suggestions or requests, please send an email to Sören Schwertfeger (soerensch@shanghaitech.edu.cn) or Kazunori Ohno (kazunori@rm.is.tohoku.ac.jp)