

***Special Issue on Legal and Safety Constraints for Service
Robots Deployment***

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In the last decades, impressive technological achievements have been accomplished as regards to autonomous mobile robots. Robust and dependable systems for navigation, obstacle avoidance, path following, and localisation have been successfully integrated in several kinds of robotic platforms. At the same time, the latest advances in the field of human-robot interaction have brought robots and human beings as closer as ever. These two trends have given birth to a new generation of service robots specifically designed to accomplish different kinds of tasks in human inhabited environments (transportation of human beings or objects, garbage collection, physical and/or cognitive support to elderly and disabled people, etc.). However, this new robot generation opens new challenges in the current legal systems and in the safety design of safety requirements, which may represent a hindrance to their potential commercialization in the near future.

nowadays, the real challenges for the usability of service robots are no longer just technical ones but rather those related to regulations, laws, responsibility, and insurance.

The purpose of this special issue is to offer an interdisciplinary perspective on the main critical problems brought about by the actual deployment of this new generation of robots.

Papers on all aspects relevant to robot legal and safety issues are invited, including – but not limited to – the following topics:

- Legal gaps/issues of next generation service robots
- Strategies for safety and dependability in human-robot interaction
- New methodologies for risk evaluation in service robotics
- Urban robots and road traffic law
- Service robot insurance
- New safety standards for service robots
- Case studies on safety certification

Submission: **Pdf format file** of the complete manuscript should be sent by September 30, 2009 to the office of Advanced Robotics, the Robotics Society of Japan through our homepage (www.advanced-robotics.org). Sample form of the manuscript is available at the homepage, too. Additionally, please send the same file to Prof. Cecilia Laschi (cecilia.laschi@sssup.it), and Dr. Pericle Salvini (p.salvini@sssup.it) for the confirmation.