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# ***ADVANCED ROBOTICS* Call for Papers**

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## ***Special Issue on Physical Human-Robot Interaction Through Force Interfaces***

Editors: **Dr. Christian Ott** (DLR, Germany)

**Prof. Dragomir Nenchev** (Tokyo City University, Japan)

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Human-robot interaction (HRI) is a relatively newly established area of research within the field of robotics, rapidly growing together with research efforts toward the design of new robots for everyday life environments. HRI is actually a wide interdisciplinary area, strongly related also to other fields like psychology, cognitive science, human factors, artificial intelligence, organizational behavior, anthropology etc. The importance of HRI has also been recognized through the establishment of two annual conferences: “Robot and Human Communication (ROMAN)” (since 1992) and “Human and Robot Interaction” (established more recently, in 2006). Advanced Robotics has occasionally published papers, mainly related to the specific HRI aspect of interactive communication, e.g. in special issues like “*Communication and Robotics*” (Vol. 11, No. 8), and “*Robot and Human Interactive Communication*” (Vol. 23, No. 14).

This special issue is dedicated to another aspect of HRI --- that of physical human-robot interaction. This topic has already been addressed in past research, but there is no doubt that most of the work lies ahead. Indeed, only recently we started witnessing more systematic efforts toward such an important issue as safety of robot operation within dwelling environments, where, intentional or not, physical contacts between human and robot are inevitable. Other aspects of physical interaction include the mental and physical healing effects obtained via physical interaction with cute pet robots, and with skin-care robots, respectively. We invite papers on all aspects of physical interaction through a force interface, which may include, but are not limited to those listed below:

- Robot guidance via a force interface
- Robot response to external disturbances
- Touching a robot
- Touched by a robot
- Safety issues
- Control aspects for HRI via force and touch

*Submission:* **Pdf format file** of the complete manuscript should be sent by April 30, 2010 to the office of Advanced Robotics, the Robotics Society of Japan through our homepage ([www.rsj.or.jp/AR/index\\_e.html](http://www.rsj.or.jp/AR/index_e.html)). Sample form of the manuscript is available at the homepage, too. Additionally, please send the same file to Dr. Christian Ott ([Christian.Ott@dlr.de](mailto:Christian.Ott@dlr.de)) and to Prof. Dragomir Nenchev ([nenchev@tcu.ac.jp](mailto:nenchev@tcu.ac.jp)) for confirmation.