Editorial

Mechanism Design for Robotics

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MEDER 2018, the IFToMM International Symposium on Mechanism Design for Robotics, was the fourth event of a series that was started in 2010 as a specific conference activity on mechanisms for robots. The first event was held at Universidad Panamericana de Ciudad de Mexico, Mexico, in September 2010; the second was held in 2012 at Beihang University in Beijing, China; the third one was held in 2012at Aalborg University in Denmark; and the fourth one was organized at Udine University in Italy.

The aim of the MEDER Symposium is to bring researchers, industry professionals, and students together from a broad ranges of disciplines dealing with mechanisms for robots, in an intimate, collegial, and stimulating environment. Again, in the 2018 MEDER event, we have received significant attention regarding this initiative, as can be seen by the fact that the Proceedings contain contributions by authors from all around the world.

The Proceedings of MEDER 2018 Symposium have been published within the Springer book series on MMS, and the book contains 52 papers that have been selected after review for oral presentation. These papers cover several aspects of the wide field of robotics dealing with mechanism aspects in theory, design, numerical evaluations, and applications.

This Special Issue in *Robotics* (https://www.mdpi.com/journal/robotics/special_issues/MDR) has been obtained as a result of a second review process and selection, but all the papers that have been accepted for MEDER 2018 are of very good quality with interesting contents that are suitable for journal publication, and the selection process has been difficult.

The papers in this Special Issue are focused on the design of novel mechanisms for robots, and on the development of new methodologies for the modeling and control of robotic devices. In particular, a couple of papers deal with walking robots, namely, one presents a novel humanoid robot with parallel architectures [1] and the other one is focused on a hexapod robot [2]. Several papers are focused on teleoperation and HRI (human–robot interactions) to deal with the design of a safe teleoperated system for Doppler sonography [3] and of a safety mechanism for cobot joints [4], the development of techniques for hand guidance of a mobile robot [5], and the use of artificial muscles in haptic interfaces [6]. Other papers address problems regarding the design of specific actuators for robots, such as underactuated fingers [7], compliant rotary actuators [8], and robotic wrists [9]. There are also three papers on special robotic systems for a robot for artistic painting [10], a cylindrical rolling robot [11], and a cable-driven robot [12]. The last paper of this Special Issue presents a methodology for the design of optimal robotic trajectories [13].

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