

*Special Issue on
Robot Vision for Dexterous Manipulation and Interaction*

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Changing application areas of today's robots towards complex tasks, overlapping workspaces and direct physical contact also with humans in public, industrial or home environments require appropriate computer vision approaches in order to facilitate efficient, safe and smooth manipulation and interaction. Emerging fields of application include e.g. cloth handling, agri- and horticulture, food industry, human-robot interaction in industrial, assistance and care scenarios, medical and surgical applications, and others. Such applications for robotic dexterous handling require extended visual perception capabilities including all aspects of the perceptual chain including feature extraction, articulated, deformable and dynamic object modeling, multi-focal and multi-camera vision, dynamic vision and vision-based control, planning aspects, higher level cognitive functions, innovative vision sensor design, innovative architectures, etc. This special issue gathers contributions, which include, but are not limited to all these aspects of robot vision for dexterous manipulation and interaction. Novel field application papers are also welcome.

Submission: The full-length manuscript (either PDF file or MS word file) should be submitted by July 31, 2018 to the office of Advanced Robotics, the Robotics Society of Japan through the homepage (<http://www.rsj.or.jp/ar/submission>). Instructions to the Authors and the sample form of the manuscript are available at the homepage. Please send another copy to the guest editor Prof. Kolja Kühnlenz (kolja.kuehnlenz@hs-coburg.de) for submission confirmation.