Preface

Welcome to the proceedings of the third edition of the International Workshop on Computer-Assisted and Robotic Endoscopy (CARE) that was held in conjunction with MICCAI on October 17, 2016, in Athens, Greece.

CARE brings together researchers, clinicians, and medical companies involved in scientific research in the field of computer-assisted and robotic endoscopy to advance current endoscopic medical interventions. The next generation of CARE systems promises to integrate multimodal information relative to the patient’s anatomy, the control status of medical endoscopes and surgical tools, and the actions of surgical staff to guide endoscopic interventions. To this end, technical advances should be introduced in many areas, such as computer vision, graphics, robotics, medical imaging, external tracking systems, medical device controls systems, information processing techniques, endoscopy planning and simulation.

The technical program of this workshop comprised original and high-quality papers that, together with this year’s keynotes, explored the most recent scientific, technological, and translational advancements and challenges toward the next generation of CARE systems. We selected 11 high-quality papers from nine countries this year. All the selected papers were revised and resubmitted by the authors in accordance with the reviewers’ comments and the volume editors’ suggestions.

It was also our great honor and pleasure to welcome the keynote speakers, Dr. Pierre Jannin (INSERM and University of Rennes 1), Prof. Dr. Nassir Navab (Johns Hopkins University, USA), and Dr. Mahdi Azizian (Intuitive Surgical Inc., USA), who gave fantastic talks on recent advances in robotic endoscopic interventions from both academic and industrial perspectives.

The CARE 2016 Organizing Committee would like to sincerely thank all Program Committee members for putting their best effort in reviewing all the submissions. We also extend our thanks and appreciation to KUKA Robotics, Germany, for sponsoring the best paper award and Springer for accepting to publish the CARE proceedings in the Lecture Notes in Computer Science series. We warmly thank all authors, researcher, and attendees at CARE 2017 for their scientific contribution, enthusiasm, and support. We are looking forward to the continuing support and participation in our next CARE event that will be held in conjunction with MICCAI 2017 in Quebec, Canada.

January 2017

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