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Sensor-Based Surgical and Medical Robotics: Challenges and Opportunities

Guest Editors:

Dr. Jingwei Song

1. United Imaging Research
Institute of Intelligent Imaging,
Beijing 100144, China
2. Department of Naval
Architecture and Marine
Engineering, University of
Michigan, Ann Arbor, MI 48109,
USA

Dr. Cristina P. Santos

Center for
MicroElectroMechanical Systems
(CEMS), University of Minho,
4710-057 Braga, Portugal

Deadline for manuscript
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closed (30 March 2024)

Message from the Guest Editors

This Special Issue aims to discuss innovative sensors-based surgical and medical robots, as well as the intelligent algorithms that make full use of the sensors. Authors are invited to submit articles relating to "Sensor-Based Surgical Robotics: Challenges and Opportunities", with topics including, but not limited to, the following:

- AI-based medical/surgical algorithms;
- AI-enabled medical/surgical robotics;
- Clinical applications of sensors;
- Computer vision for medical/surgical robotics;
- Deep learning methods for medical/surgical robotics;
- Sensors for the automation of medical/surgical robotics;
- Hardware–software integration in medical/surgical robotics;
- Human–computer interaction methods in medical/surgical robotics;
- Planning and control algorithms in medical/surgical robotics;
- Preoperative medical image computing;
- Probability and uncertainty analysis in medical/surgical robotics;
- Perception techniques in medical/surgical robotics;
- Medical/surgical robots and systems;
- Navigation, localization, mapping, and SLAM in medical/surgical robotics;
- Neurorobotics;
- Safety in medical/surgical robotics;
- VR/AR techniques in medical/surgical robotics;



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Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria
Elettrica e dell'Informazione
(Department of Electrical and
Information Engineering),
Politecnico di Bari, Via Edoardo
Orabona n. 4, 70125 Bari, Italy

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Message from the Editor-in-Chief

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Contact Us

Sensors Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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