



sensors



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Sensors and Imaging for Medical Robotics

Guest Editor:

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Deadline for manuscript submissions:

closed (20 September 2023)

Message from the Guest Editor

This is a Special Issue dedicated to Sensors and Imaging Systems used as sensors in Medical Robotics. In the last decade, there is a great advance in medical devices with embedded sensing. Novel surgical robots incorporate medical imaging devices (CT, fluoroscopy, MRI, ultrasound) for registration, navigation, and treatment feedback. Magnetic and image-based navigation systems are used with robots. Another aspect of sensing in medical robotics are sensors that are incorporated in robots' end effectors such as a tactile sensor. Embedded sensors provide feedback for control of the robot, feedback for the operating surgeon, and enable increased robot safety. Sensors in medical robots are the key components for future safer, more autonomous medical robots. Sensing in medical micro-robots enables targeted personal therapy.

- Image-guided surgery
- Medical sensors
- Medical robotics
- Sensing systems
- Navigation systems
- Robotic registration
- Tactile/force/pressure sensors
- Imaging sensors
- Endoscopy



mdpi.com/si/47257

Special Issue



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Message from the Editor-in-Chief

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