

Sihang Yang

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Citizenship: People's Republic of China

Research interests

Laparoscopy Camera Control, Deformable Object Manipulation

Education

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| 2020 – Present | Huazhong University of Science and Technology – Wuhan, Hubei
PhD in Mechanical Engineering
Mentors: Professor Huan Zhao, Postdoc Yiwei Wang. <i>GPA: 86.19.</i> |
| 2016 – 2020 | Huazhong University of Science and Technology – Wuhan, Hubei
BA in Mechanical Engineering
<i>GPA: 87.64.</i> |

Publications

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| 2022 | Autonomous Laparoscope Control for Minimally Invasive Surgery With Intuition and RCM Constraints
Sihang Yang, Yiwei Wang, Huan Zhao, Haoyuan Cheng, Han Ding
<i>IEEE Robotics and Automation Letters.</i> |
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Research experience

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| June 2022 – Present | Deformable Tissue Manipulation in Surgery
Mentors: Professor Huan Zhao, Postdoc Yiwei Wang (Huazhong University of Science and Technology). <ul style="list-style-type: none">• Implemented deformation behavior simulation for deformable tissue by position-based dynamics (PBD). |
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May 2021 –
Present

Autonomous Laparoscope Control for Minimally Invasive Surgery

Mentors: Professor Huan Zhao, Postdoc Yiwei Wang (Huazhong University of Science and Technology).

- Proposed a novel intuition constraint to minimize the misorientation of laparoscopy FOV.
- Proposed an autonomous laparoscopy camera control framework and implemented on the experiment platform.

Technical skills

Programming languages

Proficient in: Python

Softwares

LaTeX, Matlab, ROS, CoppeliaSim

Languages

Chinese (Native), English (Intermediate)