Jing Huang

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EDUCATION

The Chinese University of Hong Kong (CUHK) *2017 - 2022*
Ph.D. in Mechanical and Automation Engineering *Hong Kong*
– Research Interests: robot manipulation, robot vision, motion and path planning

Tsinghua University *2013 - 2017*
B.Eng. in Automotive and Mechanical Engineering *Beijing*

EMPLOYMENT

University of California San Diego *2024 - present*
Exchange Postdoctoral Fellow, Department of Computer Science and Engineering *San Diego*

Multi-Scale Medical Robotics Center, CUHK *2023 - present*
Postdoctoral Fellow *Hong Kong*

PUBLICATIONS

1. Yunxi Tang, **Jing Huang**, Zhen Zhang, Xiangyu Chu, and Kwok Wai Samuel Au, "Hierarchical deformation planning and neural tracking for DLOs in obstacle-dense environments", under review, 2025.
2. **Jing Huang**, Yunxi Tang, and Kwok Wai Samuel Au, "Homotopic path set planning for robot manipulation and navigation", *Robotics: Science and Systems (RSS)*, 2024. [PDF] [Video]
3. Yunxi Tang, Xiangyu Chu, **Jing Huang**, and Kwok Wai Samuel Au, "Learning-based MPC with safety filter for constrained deformable linear object manipulation," *IEEE Robotics and Automation Letters (RAL)*, 2024. [PDF] [Video]
4. **Jing Huang**, Xiangyu Chu, Xin Ma, and Kwok Wai Samuel Au, "Deformable object manipulation with constraints using path set planning and tracking," *IEEE Transactions on Robotics (TRO)*, 2023. [PDF] [Video]
5. Xiangyu Chu, Shengzhi Wang, Minjian Feng, Yuxuan Zhao, Jiaxi Zheng, **Jing Huang**, and Kwok Wai Samuel Au, "Model-free large-scale cloth spreading with mobile manipulation: Initial feasibility study," *IEEE International Conference on Automation Science and Engineering (CASE)*, 2023. [PDF]
6. **Jing Huang** and Kwok Wai Samuel Au, "Task-oriented grasping position selection in deformable object manipulation," *IEEE Robotics and Automation Letters (RAL)*, 2022. [PDF] [Video]
7. **Jing Huang**, Yuanpei Cai, Xiangyu Chu, Russell H. Taylor, and Kwok Wai Samuel Au, "Non-fixed contact manipulation control framework for deformable objects with active contact adjustment," *IEEE Robotics and Automation Letters (RAL), ICRA option*, 2021. [PDF] [Video]
8. **Jing Huang**, Yuanpei Cai, Xiangyu Chu, and Kwok Wai Samuel Au, "Task-oriented contact adjustment in deformable objects manipulation with non-fiexed contact, *Workshop on Managing Deformation: A Step Towards Higher Robot Autonomy, IEEE/RSJ International Conference on Intelligent Robotics and Systems (IROS)*, 2020. [PDF]
9. Ru Yang, **Jing Huang**, and Ping Guo, "Frequency dependence of levitation force in near-field acoustic levitation." *International Symposium on Flexible Automation*, 2018. [PDF]

TEACHING

Department of Mechanical and Automation Engineering, CUHK

– MAEG4070 Engineering Optimization *Spring, 2020*
– ENGG1410C Linear Algebra and Vector Calculus for Engineers *Spring, 2019*
– MAEG3050 Introduction to Control Systems *Fall, 2018*

PROFESSIONAL SERVICE & CODING

Reviewer: RAL, ICRA, IROS Coding: C/C++, MATLAB, Python, ROS