

# JIANWEI PENG

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## EDUCATION

- Fujian Institute of Research on the Structure of Matter, CAS** • Fuzhou, China Aug 2021 – Jun 2023  
*Master's Academic Training Institute* • Advisor is [Prof. Houde Dai](#)
- University of Chinese Academy of Sciences** • Beijing, China Sep 2020 – Jun 2023  
*M.Eng. • Control Engineering* • GPA: 3.48/4.0 • Direct Admission
- Huaqiao University** • Xiamen, China Sep 2016 – Jun 2020  
*B.Eng. • Automation* • GPA: 4.56/5.0 (Ranking 2/60) • Outstanding Graduate (Top 5%)

## EXPERIENCE

- Quanzhou Institute of Equipment Manufacturing, Haixi Institutes, CAS** Jul 2023 – Present  
*Research Assistant with Prof. Houde Dai*
- Research on human-following and human-accompanying control strategies for mobile robots providing assistance to humans
  - Supervising students in the robotics group on research projects, writing academic papers and master's theses.

## PUBLICATIONS

- [1] **J. Peng**, Z. Liao, Z. Su, H. Yao, Y. Zeng and H. Dai, "A Dual Closed-Loop Control Strategy for Human-Following Robots Respecting Social Space", Accepted by IEEE International Conference on Robotics and Automation(**ICRA**), 2024. [paper],[[Video](#)]
- [2] **J. Peng**, Z. Liao, H. Yao, Z. Su, Y. Zeng and H. Dai, "MPC-Based Human-Accompanying Control Strategy for Improving the Motion Coordination Between the Target Person and the Robot," IEEE/RSJ International Conference on Intelligent Robots and Systems (**IROS**), 2023. [[link](#)], [[Video](#)]
- [3] **J. Peng**, Z. Liao, Z. Su, H. Yao, Y. Zeng, and H. Dai, "Human-Robot Interaction Dynamics-Based Impedance Control Strategy for Enhancing Social Acceptance of Human-Following Robot," China Automation Congress (**CAC**), 2023. [[link](#)], [[Video](#)]
- [4] **J. Peng**, Z. Liao, H. Yao, Z. Wan, L. Zhu, and H. Dai, "A Compliant Robot Control Based on Extended Social-force Model for Human-following and Obstacle Avoidance," Journal of System Simulation. (Chinese Core Journals), [[link](#)]
- [5] H. Yao, **J. Peng**, Z. Liao, R. Zhao, and H. Dai, "Leg Detection for Socially Assistive Robots: Differentiating Multiple Targets with 2D LiDAR." International Conference on Cognitive Systems and Signal Processing (**ICCSIP**), 2023. **Best Conference Paper Finalist**. [[link](#)]
- [6] Z. Liao, **J. Peng**, H. Yao, Z. Su, and H. Dai, "Admittance Control-based Human-accompanying and Obstacle-avoidance Control Strategy for Social Robot," ROBOT, 2024. (EI), [[link](#)]
- [7] H. Yao, **J. Peng**, H. Dai, and M. Lin, "A Compliant Human Following Method for Mobile Robot Based on an Improved Spring Model," ROBOT, 2021. (EI), [[link](#)]

## PROFESSIONAL SERVICES

- Conference Reviewer:
- CAC'23, ICRA'23, IROS'22'23, ROBIO'22'23

## SELECTED AWARDS AND HONORS

- National Scholarship, 2022
- Future Talent Support Program of the Shanghai Branch of the Chinese Academy of Sciences, 2022
- Lu Jiaxi Outstanding Freshmen Scholarship, 2021
- First Prize of Excellent Entrepreneurial Team of College Students in Beijing Region, 2021
- First Prize of the Ninth Exhibition and Promotion of Scientific and Technological Innovation Achievements of Universities, 2020
- National Second Prize of China University Student Mathematical Modelling Competition, 2018
- First-class Undergraduate Academic Scholarship at Huaqiao University, 2017-2019

## TECHNICAL SKILLS

- Programming: C++, Python, MATLAB Simulink
- Softwares & Tools: ROS, PyTorch, CasADi, OSQP, Eigen, Gazebo, Git, LaTeX