Ying Jin

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EDUCATION

Nankai University, Tianjin, China (Project 985)   *09.2022 – 06.2025 (expected)*
- M.Eng. in Control Engineering   GPA: 4.0/4.0
- Supervisor: Prof. **Jianda Han, Xiao Liang**

Nankai University, Tianjin, China (Project 985)   *09.2018 – 06.2022*
- B.Eng. in Automation   GPA: 3.09/4.00

RESEARCH EXPERIENCE

- **Jin, Y.**, et al. "Robust Adaptive Control for Aerial Continuum Manipulator Systems." *IEEE Transactions on Industrial Electronics* ***(under review)***

  In this project, an aerial continuum manipulator platform was designed and developed. A robust adaptive sliding mode control scheme was proposed to achieve stabilized trajectory tracking under disturbances. Several experiments were conducted to validate the performance.
- **Jin, Y.**, Pei, T., Yu, H., Zhang, Z., Han, J., & Liang, X. (2023, July). Disturbance Compensation Based Sliding Mode Control for Aerial Soft Manipulator System. In *2023 IEEE 13th International Conference on CYBER Technology in Automation, Control, and Intelligent Systems (CYBER)* (pp. 396-401). IEEE.

  In this project an an aerial soft manipulator system is proposed. To handle center-of-mass shifts from manipulator movements, a sliding mode controller ensures smooth quadrotor flight. Simulink simulations demonstrate the performance.
- Pei, T., **Jin, Y.**, Yu, H., Fang, Y., Han, J., & Liang, X. (2023, July). Gradient-Based Online Trajectory Planning for Quadrotor Transportation Systems. In *2023 IEEE 13th International Conference on CYBER Technology in Automation, Control, and Intelligent Systems (CYBER)* (pp. 892-897). IEEE.

  This project introduces a gradient-based safety constraint to avoid obstacles, combined with a novel B-spline optimization method and an improved hybrid-state A* algorithm for path searching. Gazebo simulations verify the feasibility of the generated trajectory.

SKILLS AND INTERESTS

Skills:
- Proficient in programming languages: Python, C++, MATLAB, Simulink
- Competent in using ROS for experimental setups and robot control
- Proficient in reading and writing academic papers
- Skilled in using SolidWorks for mechanical structure modeling and design

Interests: Mechanical design and modeling, nonlinear control, learning-based control

Language: IELTS 6.5

HONORS AND AWARDS

- **Scholarship of Public Interest and All-Round Capability** (8000 CNY)   *2022-2023*
- **Scholarship of Public Interest and All-Round Capability** (8000 CNY)   *2023-2024*
- **Scholarship of Public Interest and All-Round Capability** (8000 CNY)   *2024-2025*

LEADERSHIP EXPERIENCE

Served as the class monitor during the undergraduate period. Served as the Teaching Assistant of python of Nankai University in 2022 Fall. Served as the Teaching Assistant of c++ of Nankai University in 2023 Fall.

SELF-ASSESSMENT

I am outgoing and enjoy collaborating with others to share knowledge and ideas. I have a deep passion for learning new technologies in the field of robotics and applying them in practical contexts. I possess a solid understanding and hands-on experience with both hardware and software. I can quickly adapt to new environments, build strong connections with those around me, and I love working out, listening to music, and enjoying life.