Jiadong Lu

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EDUCATION

Zhaijang University | Advisor: Chao Xu, Yanjun Cao

Master in Control Science and Engineering

Shandong University 2020 – 2024

Bachelor in Control Science and Engineering

- GPA: 4.0/4.0 (Rank: 2/28)
- Data Structure (99), Fundamentals of Mechanical Engineering (99), Artificial Intelligence Technology Practice (99), Introduction to Artificial Intelligence (99), Machine Learing (99), University Physics (95), Image Processing and Computer Vision (95), Probability Theory (92), Automatic Control Theory (92).
- Thesis: Research on Reconfigurable Tracked Robot System (Outstanding Undergraduate Thesis)

PUBLICATIONS († for equal contribution)

- [1] **Jiadong Lu**†, Zhehan Li†, Tao Han, Chao Xu, Fei Gao, and Yanjun Cao, "Continuous-Time Relative-Inertial-Odometry with Enhanced Clamped Non-Uniform B-spline," IEEE Transactions on Automation Science and Engineering (**In preparation**)
- [2] Miao Xu†, **Jiadong Lu**†, Xiangyu Li, Chao Xu, and Yanjun Cao, "Communication-Free, Non-Inertial, and Robust: L1-Adaptive MPC for Cooperative System," IEEE Robotics and Automation Letters. (**In preparation**)
- [3] Chice Xuan†, **Jiadong Lu**†, Zhihao Tian, Jiacheng Li, Mengke Zhang, Hanbin Xie, Jianxiong Qiu, Chao Xu, and Yanjun Cao, "Novel Design of Reconfigurable Tracked Robot with Geometry-Changing Tracks," IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2024. (**Oral Presentation**)
- [4] Zhehan Li, Zheng Wang, **Jiadong Lu**, Zhiren Xun, Chao Xu, Fei Gao, and Yanjun Cao, "Hierarchical Cooperative Relative Localization via Closed-Form Solutions and Relative Kinematics," IEEE Transactions on Robotics. (**Submitted**)
- [5] Si Wang, Zhehan Li, **Jiadong Lu**, Rong Xiong, Yanjun Cao, Yue Wang, "Mr. Virgil: Learning Multi-robot Visual-range Relative Localization," IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2025. (**Oral Presentation**)

PROJECT EXPERIENCE

Air-Ground Cooperation without Global Information: RoFly and CubeTrack Cooperation with CREPES and CoNi-MPC

Zhejiang, China

2024 - Present

IROS 2025 EXPO | Team Leader

2025

- Present a live demo showcasing the autonomous collaboration between RoFly, an amphibious quadrotor, and Cube-Track [3], a reconfigurable tracked vehicle. The system is enabled by CREPES [1, 4, 5] for relative localization and by non-inertial MPC [2] for control in the non-inertial frame.
- Primary responsibility for the relative localization, and the control modules.

AWARDS

Presidential Scholarship Finalist of Shandong University (1 %)	2023
The First Prize of Nation College Student Intelligent Car Competition (5 %)	2022
The Second Prize of Nation College Student Intelligent Car Competition (10 %)	2021
Advanced Individual in Innovation of Shandong University (5 %)	2023
The First Prize Scholarship of Shandong University (5 %)	2022 & 2023

SKILLS

Programming: C++ (5+ years), C (5+ years), Python (5+ years), ROS (3+ years), MATLAB (4+ years).

Language: English - Full professional proficiency | Chinese - Native.

Software & Hardware Development: Linux, ROS, Gazebo, Git, Docker, SolidWorks, Fusion.