



NIU Xuezhi

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Uppsala, Sweden

EDUCATION

- Uppsala University** 2024–present
Ph.D. Student in Embedded Systems Uppsala, Sweden
- KTH Royal Institute of Technology** 2021–2023
M.Sc. Mechatronics Stockholm, Sweden
- City University of Hong Kong** 2017–2021
B.Eng. Mechanical Engineering Hong Kong SAR, China
- National University of Singapore** 2020
Academic Exchange Singapore

RESEARCH INTERESTS

- Cyber-Physical Systems
- Control & Dynamics
- Reinforcement Learning

JOURNAL PUBLICATIONS

- Tan, K., Niu, X., Q. Ji, L. Feng, and M. Törngren, "Optimal gait design for a soft quadruped robot via multi-fidelity Bayesian optimization," *Applied Soft Computing*, vol. 169, p. 112568, 2025.

CONFERENCE PUBLICATIONS

- Niu, X.*, Tan, K.*, Broo, D. G. and Feng, L.. Optimal Gait Control for a Tendon-driven Soft Quadruped Robot by Model-based Reinforcement Learning. In *2025 International Conference on Robotics and Automation (ICRA)*. IEEE

OTHER PUBLICATIONS

- Maser Thesis: Xuezhi, N. (2023). Optimal Gait Control of Soft Quadruped Robot by Model-based Reinforcement Learning. Thesis, 2023. Available: DiVA, id: diva2:1810127.
- HK project: C. Egenäs, F. Ekman, C. Ma, T. Naser, X. Niu, A. Sernelin, S. Stenow, and B. Ström, "Electronically Vacuum Regulated Shut-off Valve for Milking System," Report (Refereed), 2023. [Online]. Available: DiVA, id: diva2:1738909.

PROFESSIONAL SERVICE

- Reviewer for IEEE-RAS International Conference on Humanoid Robots (Humanoids), IEEE International Conference on Industrial Cyber-Physical Systems (ICPS)
- Teaching assistant for master level courses at KTH (MF2007) and Uppsala (1DT106, 1DT108, 1DT054, 1RT495, 1DT104)

AWARDS & ACHIEVEMENTS

- Talent Development Scholarship, Hong Kong SAR, China 2020.6
- Second Prize in National Finals of the Challenge Cup Competition, Beijing, China 2019.11
- Silver Prize in National Finals of Internet + Competition, Hangzhou, China 2019.10
- Second Prize in HK University Student Innovation and Entrepreneurship Competition 2019.4

TECHNICAL SKILLS

- MATLAB/Simulink, Python, C/C++, ROS/ROS2, Docker, Conda, Git, Inkscape, L^AT_EX, Gazebo, Isaac Sim, STM32, ESP32, Jetson, Raspberry Pi, UART, SPI, I2C, TCP/IP, SolidWorks, AutoCAD.