Pouya Pourakbarian Niaz

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Short Biography

- Since 2024. Ph.D. student, University of Innsbruck, Innsbruck, Austria.
- 2020-2023. M.Sc. in Mechanical Engineering, Robotics and Mechatronics Lab (RML), Koç University, Istanbul, Turkey.
- 2020-2024. Research fellow, KUIS AI Center, Koç University, Istanbul, Turkey.
- 2019-2020. Lab Assistant, Advanced Service Robots (ASR) Lab, University of Tehran, Tehran, Iran.
- 2016-2020. HVAC Systems Engineer, Frame-Sazeh, Tabriz, Iran.
- 2012-2016. B.Sc. in Mechanical Engineering, University of Tabriz, Tabriz, Iran.

Research Interests

- Robot perception, learning, planning, and control.
- AI-Driven Adaptive Control in Robotics.
- Multi-Modal Human-Robot Interaction.

Projects

- TÜBİTAK Grant EEEAG-117E645: Designing an Adaptive Fractional-Order Admittance Controller Using Machine Learning for Physical Human-Robot Interaction; Scientific and Technological Research Council of Turkey (TÜBİTAK), Istanbul, Turkey.

Teaching

- Robotics, Koç University, Istanbul, Turkey. 2023-2024.

- Computer-Based Simulation and Modeling, Koç University, Istanbul, Turkey. 2023-2024.
- Mechanical Engineering Final-Year Project, Koç University, Istanbul, Turkey. 2020-2023.
- Hydraulics and Pneumatics, University of Tabriz, Tabriz, Iran. 2016.
- Computer Programming with C++, University of Tabriz, Tabriz, Iran. 2014.

Publications

* B. Guler, P. P. Niaz, A. Madani, Y. Aydin, and C. Basdogan, “An adaptive admittance controller for collaborative drilling with a robot based on subtask classification via deep learning,” Mechatronics, vol. 86, p. 102851, 10 2022.
* A. Madani, P. P. Niaz, B. Guler, Y. Aydin, and C. Basdogan, “Robot-Assisted Drilling on Curved Surfaces with Haptic Guidance under Adaptive Admittance Control,” in IEEE International Conference on Intelligent Robots and Systems, vol. 2022 October. Institute of Electrical and Electronics Engineers Inc., 2022, pp. 3723–3730.