Jaehyun PARK

Personal Data

Ph.D. Student
MARCH Lab., Department of Mechanical Engineering,
Pohang University of Science and Technology (POSTECH)
77 Cheongam-ro, Pohang, Gyeongbuk,37673, Republic of Korea.



Nationality	South Korea
Birth	September 15, 1998
E-mail	jhpark17@postech.ac.kr
Cell	+82-10-3621-3408

Research Interests

Robotics

- Haptics
- Teleoperation in Extreme Environments
- Mechanism Design

Education

2023.02-	Ph.D Student, Department of Mechanical Engineering Pohang University of Science and Technology (POSTECH), Pohang, Korea Advisor: Prof. Keehoon Kim
2021.02-2023.2	M.S., Department of Mechanical Engineering Pohang University of Science and Technology (POSTECH), Pohang, Korea Advisor: Prof. Keehoon Kim Thesis: Development of Safe Teleoperation Interface Specified to Iron Lump Removal
2017.02-2021.02	B.S., Department of Mechanical Engineering Pohang University of Science and Technology (POSTECH), Pohang, Korea

Internship

2019.12-2020.12	Internship, MARCH Lab. (POSTECH) Advisor: Prof. Keehoon Kim
2019.06-2019.12	Internship, BBRC Lab. (POSTECH) Advisor: Prof. Sang Joon Lee

Awards and Honors

2025.12	Best Student Paper Award (Department of Mechanical Engineering, POSTECH)
2017.05	The Presidential Science Scholarship (Korea Student Aid Foundation)
2017.02	Global Talent and Lifelong Education Scholarship (Incheon Institute for Talent and Lifelong Education)

Publications

Journal Articles

1. **Jae Hyun Park**, Yeoeun Kim, Il Seop Choi, Sang-Woo Choi, Seungmoon Choi, and Keehoom Kim, "Assessment of Novel Haptic Interfaces for Digital Twin Teleoperation in High-Risk Steel Production," *IEEE Transactions on Industrial Informatics*, vol. 21, no. 8, pp. 5954-5964, Aug. 2025, https://doi.org/10.1109/TII.2025.3556077.
2. Man Bok Hong, Dukchan Yoon, **Jaehyun Park**, and Keehoon Kim, "KULEX-Wrist: Design and Analysis of Linkage-Driven Exoskeleton for Wrist Assistance," *Journal of Mechanical Design*, vol. 146, no. 8, Aug. 2024, https://doi.org/10.1115/1.4064491.
3. Jeong Jae Kim, **Jae Hyun Park**, Sung Yong Jung, and Sang Joon Lee, "Effect of trichome structure of *Tillandsia usneoides* on deposition of particulate matter under flow conditions," *Journal of Hazardous Materials*, vol. 393, 2020, https://doi.org/10.1016/j.jhazmat.2020.122401.

Conferences

1. **Jaehyun Park**, Il Seop Choi, Sang-Woo Choi, and Keehoon Kim, "Adaptive Haptic Control Interface for Safeguarding Robotic Teleoperation in Hazardous Steelmaking Environments," *2024 IEEE International Conference on Robotics and Automation (ICRA)*, Yokohama, Japan, 2024, pp. 15721-15727, https://doi.org/10.1109/ICRA57147.2024.10611107.
2. **Jaehyun Park**, Il Seop Choi, Sang-Woo Choi, and Keehoon Kim, "Design, Implementation, and Validation of an Ungrounded Visuo-Tactile Haptic Interface for Robtic Teleoperation in High-Risk Steel Production," *2025 IEEE International Conference on Robotics and Automation (ICRA)*, Atlanta, GA, USA, 2025, pp. 13810-13816, https://doi.org/10.1109/ICRA55743.2025.11128864.

Languages, Skills and Abilities

Languages	Korean (mothertongue) English (intermediate)
Computer Skills	C/C++/C#, Python, MATLAB Visual Studio, SolidWorks, Unity, Xenomai

Interests and Activities

Astronomical observation, Running