

Hojeong Lee

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EDUCATION

Korea Advanced Institute of Science and Technology | Ph.D. Candidate Daejeon, Korea | Aug 2025 -
School of Electrical Engineering, Robotics Program (Advisor: Sang Ho Yoon)

Korea Advanced Institute of Science and Technology | Master of Science Daejeon, Korea | Aug 2023 - Aug 2025
Graduate School of Culture Technology (Advisor: Sang Ho Yoon)
- Thesis: 'Wearable Haptic Interface for Shape Perception through Spatiotemporal Vibrotactile Patterns and Kinesthetic Feedback'

Seoul National University | B.F.A in Industrial Design Seoul, Korea | Mar 2018 - Aug 2023

PUBLICATION

Journals and Letters

- **VibGrasp: Spatiotemporal Vibration Based Multimodal Haptic Rendering with a Lightweight Exo-Glove for 3D Shape Perception**
Hojeong Lee, Eunho Kim, Rachel Kim, Sang Ho Yoon
IEEE Transactions on Haptics (SCIE, IF 2.9)
- **EStatiG: Wearable Haptic Feedback with Multi-Phalanx Electrostatic Brake for Enhanced Object Perception in VR**
Nicha Vanichvoranun*, Hojeong Lee*, Seoyeon Kim, Sang Ho Yoon (* First Co-author)
Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT), Vol. 8, No. 3, Article 131. (2024.9) (IF 4.5, Q1)
- **Exoskeleton for 2-DoF kinesthetic feedback (Under Review)**
Daegeun Park, Hojeong Lee, Sang Ho Yoon, Sung-uk Jung

Conference Papers

- **3D Shape Perception through Spatiotemporal Vibrotactile Patterns with Kinesthetic Feedback**
Hojeong Lee, Eunho Kim, Sang Ho Yoon
Proc. IEEE World Haptics Conference (WHC, 2025.7) (Selected Outstanding Paper (10%) - Invited to Journal)
- **Optimizing Button Size to Enhance User Experience for Augmented Reality Interactions in Mobile Scenarios**
Hojeong Lee, Yeahyoung Jeon, Keisuke Kudo, Paul Ssemakula, Seonghyeok Park and Shuping Xiong
Proc. 22nd Triennial Congress of International Ergonomics Association (IEA, 2024.8)
- **ThermicVib: Enabling Dynamic Thermal Sensation with Multimodal Haptic Glove for Thermal-Responsive Interaction**
Hyungil Yi, Hojeong Lee, Sang Ho Yoon
Proc. IEEE International Symposium on Mixed and Augmented Reality (ISMAR, 2024.10)

Posters and Demo

- **Effect of Movement Velocity and Flexion Angle on Realistic Haptic Reproduction**
Dongkyu Kwak*, Hojeong Lee*, Sang Ho Yoon (*First Co-Author)
IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR Adjunct, 2025.10)
- **Adaptive and Immersive XR Interactions with Wearable Interfaces (Demo of KAIST HCI Tech Lab)**
Sang Ho Yoon, Youjin Sung, Kun Woo Song, Kyungeun Jung, Kyungjin Seo, Jina Kim, Hyungil Yi, Nicha Vanichvoranun, Hanseok Jeong, Hojeong Lee
Proc. 2024 CHI Conference on Human Factors in Computing Systems (CHI Interactivity, 2024.5)
(People's Choice Best Demo Award)

HONORS AND AWARDS

- Dean's Research Award** | College of Liberal Arts and Convergence Science, KAIST 2024
- Popular Choice Winner** | CHI'24 Interactivity 2024

RESEARCH PROJECTS

- Development of a multimodal haptic rendering technology based on atypical objects** Jan 2024 -
Project Manager | Electronics and Telecommunications Research Institute (ETRI)
- Designing 2-DoF exoskeleton haptic glove and its haptic rendering system for the telepresence.
- Emotional Expression through Robot Arm Movement** | Co-work with XYZ Corporation Aug 2025 -
- Designing framework for reproducing emotion by robot arm's movement.
- A wearable multimodal sensing framework for adaptive interaction in extended reality** | National Research Foundation (NRF) Aug 2023 - Aug 2025
- Developing the model and criteria of evaluating motion sickness in automobile driving scenarios** | Hyundai NGV Jan 2023 - Jun 2023
- Research Assistant, Human Interface System Lab (Professor Myung Hwan Yun, Seoul National University)

EXPERIENCE

- Frankfurt University of Applied Science** | Summer School Exchange Student Frankfurt, Germany | July 2019
- Urban Design and Architecture Program, "Urban Redesign Project for Frankfurt Neue Strasse and Offenbach Station"
- Student President of the Department of Design** | Seoul National University Dec 2019 - Dec 2020

ACADEMIC SERVICES

Review

CHI LBW 24', Augmented Humans 25', WHC 25', ISMAR 25', UIST 25', ISMAR Poster 25', CHI 26', HRI 26', CHI Poster 26'
CHI Poster 26' AC, Eurohaptics 26', DIS 26'

Student Volunteer

UbiComp/ ISWC 2024

INVITED TALKS

- Invited Talk at Seoul National University Design Week** Dec 2025
- Invited Talk at Korea Haptics Conference** Aug 2024
Title: "Wearable Haptic Feedback with Multi-Phalanx Electrostatic Brake for Enhanced Object Perception in VR"

EXHIBITIONS

- Seoul Design 2022 (2022, Granted by Seoul Design Foundation)** Oct 2022
Dream Trade (Haeun Ki, Yuri Kim, Heejeung Yu, Hojeong Lee, Seyun Jun, Sungyun Jang)
- ZERO1NE DAY 2021 (2021, Granted by Hyundai Motors Group)** | headspace (Keunwook Kim) Nov 2021
Design Assistant (Wearable Device Design, Prototyping)