

SANG HO YOON

Associate Professor, Graduate School of Culture Technology @ KAIST
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EDUCATION

PURDUE UNIVERSITY

WEST LAFAYETTE, IN

Ph.D. Mechanical Engineering

DEC.2017

Thesis: Designing Hand-Driven Input with Novel Sensing Techniques for Natural Interactions in Tangible and Soft Interfaces

Advisor: Karthik Ramani

CARNEGIE MELLON UNIVERSITY

PITTSBURGH, PA

M.S. Mechanical Engineering

DEC.2008

B.S. Mechanical Engineering, Minor in Robotics

College and Department Honors & Honors Research

RESEARCH INTERESTS

Human-Computer Interaction, Haptics, XR, Physical AI, Interaction Techniques

EMPLOYMENT

KAIST

DAEJEON, KOREA

Associate Professor - Graduate School of Culture Technology

MAR.2025-PRESENT

Assistant Professor - Graduate School of Culture Technology

SEP.2021-FEB.2025

Affiliate Faculty - School of Computing, School of AX, Graduate School of Metaverse, Robot Program

DEC.2022-PRESENT

Research on physical computing, natural user interface, and augmented interactions. Enabling novel interactions for futuristic media such as Extended Reality (XR), Robotics, and Wearable Interfaces through sensing techniques and haptic feedback with the aid of AI.

Samsung Research

SEOUL, KOREA

Principal Engineer @ AR Lab

MAR.2021-SEP.2021

Staff Engineer @ AR Lab

MAR.2020-FEB.2021

Develop novel sensing devices with applied machine learning and optimized algorithms. Research on algorithms for novel sensing techniques for Mixed Reality Headset/Glasses/Wearables. Explore intellectual property/publish research work.

Microsoft

REDMOND, WA

Research Engineer @ Applied Sciences Group (ASG)

DEC.2017-FEB.2020

Develop novel sensing devices with applied machine learning and optimized algorithms.

Supervise research interns/post-docs (> 5) to develop intellectual property/publish research.

LG Electronics

SEOUL, KOREA

Research Engineer @ Convergence Research Center

SEP.2010-JUL.2013

Develop a smart car interface operated with gesture and bio-signal (ECG, EMG) sensing. National robotics research project (Rehabilitation Robot) with KIST, KITECH, and NRC.

LG Display

PAJU, KOREA

Research Engineer @ CTO

DEC.2008-SEP.2010

Develop a 'Transparent Display' module to enable transparency in the daily used LCD panel. Design a cooling system for a 'Public Display' module. A design backlight module using the structure and thermal simulation.

AWARDS & HONORS

KAIST Q-Day Research Award (KAIST)	2025
Best Paper Award, ISMAR '25 (IEEE)	2025
Honorable Mention Awards x2, CHI '25 (ACM)	2025
Outstanding Presentation Award (우수발표논문상) x2, KCC '25 (KIISE, 한국정보과학회)	2025
Research Innovation Prizes, KAIST College of Liberal Arts and Convergence Science	2024
People's Choice Best Poster Honorable Mention Award, UIST '24 (ACM)	2024
Interactivity Popular Choice Winner, CHI '24 (ACM)	2024
Outstanding Presentation Award (우수발표논문상) x2, KSC '24 (KIISE, 한국정보과학회)	2024
Outstanding Presentation Award (우수발표논문상), KCC '24 (KIISE, 한국정보과학회)	2023
Best Demo Award, Korea Haptics Society	2023
Best Paper Award, Korea Haptics Society	2023
Young Researcher Award (2023), Korea Haptics Society	2023
People's Choice Best Demo Award, UIST '23 (ACM)	2023
Best In-Person Poster/Demo Award, VRST '22 (ACM)	2022
People's Choice Best Poster Award (1 st Place), UIST '15 (ACM)	2015
International Design Excellence Awards in Transportation section with <i>Smart Walker</i> , Silver Medal (LG)	2012
Graduating with College and Department Honors (Carnegie Mellon University)	2008
Graduating with College Honors Research (Carnegie Mellon University)	2008
Dean's List (Carnegie Mellon University)	2007 – 2008

PUBLICATIONS

Conference & Journal Papers (Peer-Reviewed)

* & ** refer to co-first and co-corresponding author

- [C.48] Hojeong Lee, Eunho Kim, Rachel Kim and **Sang Ho Yoon**. "VibGrasp: Spatiotemporal Vibration Based Multimodal Haptic Rendering with a Lightweight Exo-Glove for 3D Shape Perception" IEEE Transactions on Haptics (TOH), IEEE. 2026. (IF: 2.8)
- [C.47] Yubin Lee, Liwei Chan, Geehyuk Lee, and **Sang Ho Yoon**. "CurvedTouch: Effects of Surface Curvature and Cursor Mapping Method for XR Touch Input on Curved Surface" Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT). To Appear. (IF: 4.5)
- [C.46] Youjin Sung, Heejin Jeong, Xuhai "Orson" Xu, and **Sang Ho Yoon**. "RehabGen: Generative Expert-in-the-Loop Vision-Language Model for Everyday Contextualized Rehabilitation Exercises" Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT). To Appear. (IF: 4.5)
- [C.45] Min-yung Kim, Jinwook Kim, Ken Pfeuffer, and **Sang Ho Yoon**. "Align-to-Scale: Mode Switching Technique for Unimanual 3D Object Manipulation with Gaze-Hand-Object Alignment in Extended Reality." Proceedings of the ACM on Computer Graphics and Interactive Techniques (ETRA'26), ACM. To Appear. (IF: 2.3)
- [C.44] Kun-woo Song, Youngra Kim, and **Sang Ho Yoon**. "Finger Tendon Vibration: Finger Movement Illusions for Immersive Virtual Object Interaction." Proceedings of the 2026 CHI conference on human factors in computing systems (CHI'26), ACM. (Acceptance Rate: 25.3%).
- [C.43] Dohui Lee, Qi Sun, and **Sang Ho Yoon**. "HOICraft: In-Situ VLM-based Authoring Tool for Part-Level Hand-Object Interaction Design in VR." Proceedings of the 2026 CHI conference on human factors in computing systems (CHI'26), ACM. (Acceptance Rate: 25.3%).
- [C.42] Soyeong Yang and **Sang Ho Yoon**. "AquaHaptics: Hand-based Multimodal Haptic Interactions for Immersive Virtual Underwater Experience" IEEE Transactions on Visualization and Computer Graphics (TVCG), IEEE. 2026. (IF: 6.5, JCR 5.8%)

- [C.41] Seo Young Oh, Junghoon Seo, Juyoung Lee, Boram Yoon, Woontack Woo** and **Sang Ho Yoon****. "ForceCtrl: Hand-Raycasting with User-Defined Pinch Force for Control-Display Gain Application." IEEE Transactions on Visualization and Computer Graphics (TVCG), IEEE. 2025. **(IF: 6.5, JCR 5.8%)**
- [C.40] Dongkyu Kwak*, Kyungjin Seo*, Rachel Kim, and **Sang Ho Yoon**. "Moving-Press: Pressure-based Moving Phantom Sensation for Immersive VR Hand Interaction." Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 9, no. 2 (2025), 24 pages. (IF: 4.5)
- [C.39] Minju Baeck, Yoonseok Shin, Dooyoung Kim, Hyunjin Lee, Woontack Woo**, and **Sang Ho Yoon****. "Visuo-Tactile Feedback with Hand Outline Styles for Modulating Affective Roughness Perception." IEEE Transactions on Visualization and Computer Graphics (TVCG), IEEE. (Acceptance Rate: 8%) **(IF: 6.5, JCR 5.9%) Best Paper Award at ISMAR 2025 (top 1%)**.
- [C.38] Hyung Il Yi*, Kun-woo Song*, Nihar Sabnis, Andrea Bianchi, and **Sang Ho Yoon**. "InvisiBow: Finger-Held Device for Bimanual Haptic Illusions during Virtual Archery." Proceedings of the 2025 ACM International Symposium on Wearable Computers (ISWC'25). ACM.
- [C.37] Seungwan Lee, Hwanhee Jung, ByoungSoo Koh, Qixing Huang, **Sang Ho Yoon**, and Sangpil Kim. "PASTA: Part-Aware Sketch-to-3D Shape Generation with Text-Aligned Prior." ICCV 2025. (Acceptance Rate: 24.2%)
- [C.36] Jaehwan Jeong, Sumin In, Sieun Kim, Hannie Shin, Jongheon Jeong, **Sang Ho Yoon**, Jaewook Chung, and Sangpil Kim. "FaceShield: Defending Facial Image against Deepfake Threats." ICCV 2025. (Acceptance Rate: 24.2%)
- [C.35] Wonseok Roh, Hwanhee Jung, Giljoo Nam, Dong In Lee, Hyeongcheol Park, **Sang Ho Yoon**, Jungseock Joo, and Sangpil Kim. "Insightful Instance Features for 3D Instance Segmentation." In Proceedings of the IEEE/CVF conference on computer vision and pattern recognition (CVPR'25), pp. 14057-14067. IEEE. (Acceptance Rate: 22%)
- [C.34] Changhyeon Park, Yubin Lee, and **Sang Ho Yoon**. "UltraBoard: Always-available Wearable Ultrasonic Mid-air Haptic Interface for Responsive and Robust VR." Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 9, no. 2 (2025), 31 pages. (IF: 4.5)
- [C.33] Sieun Kim, Jaehwan Jeong, Sumin In, Seung Hyun Lee, Seungryong Kim, Saerom Kim, Wooyeol Baek, **Sang Ho Yoon**, Eugenio Culurciello, and Sangpil Kim. "Semantically complex audio to video generation with audio source separation." Engineering Applications of Artificial Intelligence 149, 110457. **(IF: 8.0, JCR 2.6%)**
- [C.32] Hojeong Lee, Eunho Kim, and **Sang Ho Yoon**. 3D Shape Perception through Spatiotemporal Vibrotactile Patterns with Kinesthetic Feedback. In 2025 IEEE World Haptics Conference (WHC), pp. 439-445. IEEE.
- [C.31] Youjin Sung*, Kevin John*, Hasti Seifi** and **Sang Ho Yoon****. "HapticGen: Generative Text-to-Vibration Model for Streamlining Haptic Design." Proceedings of the 2025 CHI conference on human factors in computing systems (CHI'25), ACM. (Acceptance Rate: 27%)
- [C.30] Hyunyoung Han, Kyungeun Jung, and **Sang Ho Yoon**. "ChoreoCraft: In-situ Crafting of Choreography in Virtual Reality through Creativity Support Tool." Proceedings of the 2025 CHI conference on human factors in computing systems (CHI'25), ACM. (Acceptance Rate: 27%) **Honorable Mention Award (top 5%)**.
- [C.29] Jina Kim, Yang Zhang, and **Sang Ho Yoon**. "T2IRay: Design of Thumb-to-Index based Indirect Pointing for Continuous and Robust AR/VR Input." Proceedings of the 2025 CHI conference on human factors in computing systems (CHI'25), ACM. (Acceptance Rate: 27%) **Honorable Mention Award (top 5%)**.
- [C.28] Shih Ying-Lei, Tang Dongxu, Weiming Hu, **Sang Ho Yoon**, and Yitian Shao. "VibWalk: Mapping Lower-limb Haptic Experiences of Everyday Walking." Proceedings of the 2025 CHI conference on human factors in computing systems (CHI'25), ACM. (Acceptance Rate: 27%)

- [C.27] Kun-woo Song and **Sang Ho Yoon**. "Neck Goes VRrr: Reducing Rotation-Induced Virtual Reality Sickness through Neck Muscle Vibrations". IEEE Transactions on Visualization and Computer Graphics (TVCG). 2025. **(IF: 6.5, JCR 5.9%)**
- [C.26] Gyeongrok Oh, Sungjune Kim, Heon Gu, **Sang Ho Yoon**, Jinkyu Kim, and Sangpil Kim. "FPAnet: Frequency-based video demoreing using frame-level post alignment." Neural Networks (2025): 107021. **(IF: 6.3, JCR 10.4%)**
- [C.25] Hanseok Jeong, Fangqing Li, **Sang Ho Yoon**. "Two-Channel EMG and IMU-Based Hand Gesture Classification Method Using Wearable Wristband." Korean Institute of Information Scientists and Engineers (정보과학회 컴퓨팅의 실제 논문지) 31(3), 135-140. 2025.
- [C.24] Kyungjin Seo*, Junghoon Seo*, Hanseok Jeong, Sangpil Kim, and **Sang Ho Yoon**. "Posture-Informed Muscular Force Learning for Robust Hand Pressure Estimation." The Thirty-eighth Annual Conference on Neural Information Processing Systems. 2024.
- [C.23] Hyung-II Lee, Hojeong Lee, and **Sang Ho Yoon**. "ThermicVib: Enabling Dynamic Thermal Sensation with Multimodal Haptic Glove for Thermal-Responsive Interaction." In 2024 IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2024), pp. 614-623. 2024.
- [C.22] Nicha Vanichvoranun, Hojeong Lee, Seoyeon Kim, and **Sang Ho Yoon**. "EStatiG: Wearable Haptic Feedback with Multi-Phalanx Electrostatic Brake for Enhanced Object Perception in VR." Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 8, no. 3 (2024), 29 pages. (IF: 4.5)
- [C.21] Seung Hyun Lee, Sieun Kim, Wonmin Byeon, Gyeongrok Oh, Sumin In, Hyeongcheol Park, **Sang Ho Yoon**, Sung-Hee Hong, Jinkyu Kim, and Sangpil Kim. "Audio-guided implicit neural representation for local image stylization." Computational Visual Media 10.6 (2024): 1185-1204. **(IF: 17.3, JCR 0.4%)**
- [C.20] Wonseok Roh, Hwanhee Jung, Giljoo Nam, Jinseop Yeom, Hyunje Park, **Sang Ho Yoon**, Sangpil Kim. "Edge-Aware 3D Instance Segmentation Network with Intelligent Semantic Prior" In Proceedings of the IEEE/CVF conference on computer vision and pattern recognition (CVPR'24), pp. 20644-20653. IEEE, 2024.
- [C.19] Seung Hyun Lee, Hyung-gun Chi, Gyeongrok Oh, Wonmin Byeon, **Sang Ho Yoon**, Hyunje Park, Wonjun Cho, Jinkyu Kim, Sangpil Kim. "Robust sound-guided image manipulation." Neural Networks (2024), 106271. 2024. (IF: 7.8, JCR 10%)
- [C.18] Kyungeun Jung, Sangpil Kim, Seungjae Oh, and **Sang Ho Yoon**. "HapMotion: Motion-to-Tactile Framework with Wearable Haptic Devices for Immersive VR Performance Experience." Virtual Reality (2024) 28(1), 13. 2024. **(IF: 4.2, Q1)**
- [C.17] Youjin Sung, Rachel Kim, Kun-woo Song, Yitian Shao, and **Sang Ho Yoon**. "HapticPilot: Motion-to-Tactile Framework with Wearable Haptic Devices for Immersive VR Performance Experience." Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 7, no. 4 (2023), 28 pages. (IF: 4.5)
- [C.16] Jina Kim, MinYung Kim, Woo Suk Lee, and **Sang Ho Yoon**. "VibAware: Context-Aware Tap and Swipe Gestures Using Bio-Acoustic Sensing." In 2023 ACM Symposium on Spatial User Interaction (SUI'23), Article No.:6, pp.1-12. 2022.
- [C.15] Minjae Jo, Dongkyu Kwak, and **Sang Ho Yoon**. "WriMouCon: Wrist-Mounted Haptic Controller for Rendering Physical Properties in Virtual Reality." In 2023 IEEE World Haptics Conference (WHC'23), pp. 34-40. IEEE, 2023. (Oral Presentation Acceptance Rate: 35.4%)
- [C.14] Seung Hyun Lee, Gyeongrok Oh, Wonmin Byeon, Chanyoung Kim, Won Jeong Ryoo, **Sang Ho Yoon**, Hyunjun Cho, Jihyun Bae, Jinkyu Kim, and Sangpil Kim. "Sound-guided semantic video generation." In European Conference on Computer Vision (ECCV'22), pp. 34-50. Springer Nature, 2022. (Acceptance Rate: 28%)

- [C.13] Seung Hyun Lee, Wonseok Roh, Wonmin Byeon, **Sang Ho Yoon**, Chanyoung Kim, Jinkyu Kim, and Sangpil Kim. "Sound-guided semantic image manipulation." In Proceedings of the IEEE/CVF conference on computer vision and pattern recognition (CVPR'22), pp. 3377-3386. IEEE, 2022. (Acceptance Rate: 25.3%)
- [C.12] Yitian Shao, Siyuan Ma, **Sang Ho Yoon**, Yon Visell, and James Holbery. "Surfaceflow: Large area haptic display via compliant liquid dielectric actuators." In 2020 IEEE Haptics Symposium (HAPTICS'20), pp. 815-820. IEEE, 2020.
- [C.11] **Sang Ho Yoon**, Siyuan Ma, Woo Suk Lee, Shantanu Thakurdesai, Di Sun, Flávio P. Ribeiro, and James D. Holbery. "HapSense: A soft haptic I/O device with uninterrupted dual functionalities of force sensing and vibrotactile actuation." In Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology (UIST'19), pp. 949-961. 2019. (Acceptance Rate: 24.4%)
- [C.10] **Sang Ho Yoon**, Luis Paredes, Ke Huo, and Karthik Ramani. "MultiSoft: Soft sensor enabling real-time multimodal sensing with contact localization and deformation classification." Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 2, no. 3 (2018), 21 pages.
- [C.9] Ke Huo, Yuanzhi Cao, **Sang Ho Yoon**, Zhuangying Xu, Guiming Chen, and Karthik Ramani. "Scenariot: Spatially mapping smart things within augmented reality scenes." In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI'18), pp. 1-13. 2018. (Acceptance Rate: 25.7%)
- [C.8] **Sang Ho Yoon**, Ke Huo, Yunbo Zhang, Guiming Chen, Luis Paredes, Subramanian Chidambaram, and Karthik Ramani. "iSoft: a customizable soft sensor with real-time continuous contact and stretching sensing." In Proceedings of the 30th Annual ACM Symposium on User Interface Software and Technology (UIST'17), pp. 665-678. 2017. (Acceptance Rate: 22.5%)
- [C.7] Chiho Choi, **Sang Ho Yoon**, Chin-Ning Chen, and Karthik Ramani. "Robust hand pose estimation during the interaction with an unknown object." In Proceedings of the IEEE International Conference on Computer Vision (ICCV'17), pp. 3123-3132. 2017. (Acceptance Rate: 28.9%)
- [C.6] **Sang Ho Yoon**, Ke Huo, and Karthik Ramani. "Wearable textile input device with multimodal sensing for eyes-free mobile interaction during daily activities." Pervasive and Mobile Computing 33 (2016): 17-31. (IF: 4.3)
- [C.5] **Sang Ho Yoon**, Yunbo Zhang, Ke Huo, and Karthik Ramani. "TRing: Instant and customizable interactions with objects using an embedded magnet and a finger-worn device." In Proceedings of the 29th Annual Symposium on User Interface Software and Technology (UIST'16), pp. 169-181. 2016. (Acceptance Rate: 20.6%)
- [C.4] **Sang Ho Yoon**, Ke Huo, and Karthik Ramani. "TMotion: Embedded 3D mobile input using magnetic sensing technique." In Proceedings of the TEI'16: Tenth International Conference on Tangible, Embedded, and Embodied Interaction (TEI'16), pp. 21-29. 2016. (Oral Presentation Acceptance Rate: 18.5%)
- [C.3] **Sang Ho Yoon**, Ansh Verma, Kylie Peppler, and Karthik Ramani. "HandiMate: exploring a modular robotics kit for animating crafted toys." In Proceedings of the 14th International Conference on Interaction Design and Children (IDC'15), pp. 11-20. 2015. (Acceptance Rate: 23%)
- [C.2] **Sang Ho Yoon**, Ke Huo, Vinh P. Nguyen, and Karthik Ramani. "TIMMi: Finger-worn textile input device with multimodal sensing in mobile interaction." In Proceedings of the Ninth International Conference on Tangible, Embedded, and Embodied Interaction (TEI'15), pp. 269-272. 2015. pp. 269-272. (Acceptance Rate: 28.4%)
- [C.1] Vinh P. Nguyen, **Sang Ho Yoon**, Ansh Verma, and Karthik Ramani. "Bendid: Flexible interface for localized deformation recognition." In Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp'14), pp. 553-557. 2014. (Acceptance Rate: 20.7%)

Posters, Demos, and Workshop Papers

- [c.31] Easa AliAbbasi, Dennis Wittchen, Yinan Li, Shihan Lu, Thomas Müller, Donald Degraen, Thomas Leimkühler, **Sang Ho Yoon**, Hasti Seifi, Oliver Schneider, Heather Culbertson, Jürgen Steimle and Paul Strohmeier. "Beyond Glasses: Future Directions for XR Interactions within the Physical World." In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, To Appear. ACM, 2026.
- [c.30] DongKyu Kwak, Kyungjin Seo, Rachel Kim and **Sang Ho Yoon**. "Pressure Movement Sensation with Rack and Pinion Based Wearable Interface." In Adjunct Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (UIST'25-Adjunct), pp.1-3. ACM, 2025.
- [c.29] Hanseok Jeong, Junghoon Seo and **Sang Ho Yoon**. "Thumb Force Estimation with Egocentric Vision." In Adjunct Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (UIST'25-Adjunct), pp.1-3. ACM, 2025.
- [c.28] Youjin Sung, Kevin John, Hasti Seifi and **Sang Ho Yoon**. "Hey AI, Make This Vibrate!: A Demonstration of Rapid Haptic Prototyping Using a Generative Text-to-Vibration Model." In Adjunct Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (UIST'25-Adjunct), pp.1-3. ACM, 2025.
- [c.27] **Sang Ho Yoon**, Andrea Bianchi, Hasti Seifi, Jin Ryong Kim, Radu-Daniel Vatavu, Jeongmi Lee, and Geehyuk Lee. "Beyond Glasses: Future Directions for XR Interactions within the Physical World." In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, pp.1-6. ACM, 2025.
- [c.26] **Sang Ho Yoon**, Youjin Sung, Kun Woo Song, Kyungeun Jung, Kyungjin Seo, Jina Kim, Hyung Il Yi, Nicha Vanichvoranun, Hanseok Jeong, and Hojeong Lee. "Adaptive and Immersive XR Interactions with Wearable Interfaces (Demo of KAIST HCI Tech Lab)." In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, pp.1-4. ACM, 2024.
Interactivity Popular Choice Winner. (1st Place out of 38 Interactivity)
- [c.25] Kyungeun Jung and **Sang Ho Yoon**. "Mo2Hap: Rendering VR Performance Motion Flow to Upper-body Vibrotactile Haptic Feedback." In Adjunct Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology (UIST'23-Adjunct), pp.1-3. ACM, 2023.
People's Choice Best Demo Award. (1st Place out of 71 Demos)
- [c.24] Nicha Vanichvoranun, Kyungjin Seo, Yeonsu Kim, Jinwook Kim, Haemin Kim, Kyungeun Jung, and **Sang Ho Yoon**. "GoGoHand+: Designing Haptic Feedback to Enhance the GoGoHand Interaction Technique." In 2023 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR'23-Adjunct), pp. 736-741. IEEE, 2023.
- [c.23] Nicha Vanichvoranun, Jina Kim, Hyuckjin Jang, and **Sang Ho Yoon**. "Swipe-it!: One-handed Thumb-tip Interaction for Text Editing in AR." In 2023 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR'23-Adjunct), pp. 598-603. IEEE, 2023.
- [c.22] Kyungeun Jung, Seungjae Oh, and **Sang Ho Yoon**. "Mo2Hap: Rendering performer's Motion Flow to Upper-body Vibrotactile Haptic Feedback for VR performance." In 2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW), pp. 579-580. IEEE, 2023.
- [c.21] Jina Kim, Min-Yung Kim, Woo Suk Lee, and **Sang Ho Yoon**. "VibAware: Context-Aware Tap and Swipe Gestures Using Bio-Acoustic Sensing." In 2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW), pp. 609-610. IEEE, 2023.
- [c.20] Nicha Vanichvoranun, and **Sang Ho Yoon**. "A Lightweight Wearable Multi-joint Force Feedback for High Definition Grasping in VR." In 2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW), pp. 625-626. IEEE, 2023.

- [c.19] Youjin Sung, Yitian Shao, Rachel Kim and **Sang Ho Yoon**. "Exploring Vibration Intensity Map Of Hand Postures For Haptic Rendering In XR." In 28th ACM Symposium on Virtual Reality Software and Technology (VRST'22), pp.1-2. ACM, 2022.
People's Choice Poster Award. (1st Place out of 36 Posters)
- [c.18] Zofia Marciniak, Seo Young Oh, and **Sang Ho Yoon**. "Guide Ring: Bidirectional Finger-worn Haptic Actuator for Rich Haptic Feedback." In Proceedings of the 28th ACM Symposium on Virtual Reality Software and Technology (VRST'22), pp. 1-2. 2022.
- [c.17] Jieon Du, Sohyun Park, Joosun Yum, Zeynep Özge Özdemir, Dooyoung Kim, Seo Young Oh, and **Sang Ho Yoon**. "Art Rich: Place Your AR Artwork." In 2022 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR'22-Adjunct), pp. 667-670. IEEE, 2022.
- [c.16] Seung Un Lee, Jiyoung Yun, Dain Kim, Dooyoung Kim, Seo Young Oh, and **Sang Ho Yoon**. "CARDS: Comprehensive AR Docent System." In 2022 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR'22-Adjunct), pp. 739-743. IEEE, 2022.
- [c.15] Seonji Kim, Hyuckjin Jang, Kyung Taek Oh, Seo Young Oh, Dooyoung Kim, Woontack Woo, Jeongmi Lee, Jaehong Ahn, and **Sang Ho Yoon**. "Bring Store in My Room: AR Store Authoring System for Spatial Experience in Mobile Shopping." In 2022 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR'22-Adjunct), pp. 654-656. IEEE, 2022.
- [c.14] Hyuckjin Jang, Taehei Kim, Seoyoung Oh, Jeongmi Lee, Sunghee Lee, and **Sang Ho Yoon**. "Sense of Embodiment Inducement for People with Reduced Lower-body Mobility and Sensations with Partial-Visuomotor Stimulation." In ACM SIGGRAPH 2022 Emerging Technologies, pp. 1-2. 2022.
- [c.13] Seunghyun Lee, **Sang Ho Yoon**, Jinkyu Kim, and Sangpil Kim. "Sound-Guided Semantic Image Manipulation", NeurIPS Workshop on CtrlGen: Controllable Generative Modeling in Language and Vision (NIPSW) 2021.
- [c.11] Seung Hyun Lee, Nahyuk Lee, Chanyoung Kim, Wonjeong Ryoo, Jinkyu Kim, **Sang Ho Yoon**, and Sangpil Kim. "Audio-Guided Image Manipulation for Artistic Paintings." In Workshop on Machine Learning for Creativity and Design at 35th Conference on Neural Information Processing Systems (NIPSW). 2021.
- [c.10] Jonathan Ting, Yunbo Zhang, **Sang Ho Yoon**, James D. Holbery, and Siyuan Ma. "iMold: Enabling interactive design optimization for in-mold electronics." In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI'20 EA), pp. 1-7. 2020.
- [c.9] Joong Hoon Lee, Hannes Gamper, Ivan Tashev, Steven Dong, Siyuan Ma, Jacquelin Remaley, James D. Holbery, and **Sang Ho Yoon**. "Stress monitoring using multimodal bio-sensing headset." In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI'20 EA), pp. 1-7. 2020.
- [c.8] **Sang Ho Yoon**, Tan, Yanke, and Karthik Ramani. "BikeGesture: user elicitation and performance of micro hand gesture as input for cycling." In Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI'17 EA), pp. 2147-2154. 2017.
- [c.7] **Sang Ho Yoono**. "Promoting Natural Interactions Through Embedded Input Using Novel Sensing Techniques." In Adjunct Proceedings of the 29th Annual ACM Symposium on User Interface Software and Technology (UIST'16 Adjunct), pp. 5-8. 2016.
- [c.6] **Sang Ho Yoon**, Ke Huo, and Karthik Ramani, K. "TMotion: Embedded 3D Mobile Input using Magnetic Sensing Technique." In the Adjunct Proceedings of the 28th annual ACM symposium on User interface software and technology (UIST'15 Adjunct). pp. 71-72. **People's Choice Best Poster Award (1st Place)**

- [c.5] Vinh Nguyen, Pramod Kumar, **Sang Ho Yoon**, Ansh Verma, and Karthik Ramani. "SOFTii: soft tangible interface for continuous control of virtual objects with pressure-based input." In Proceedings of the Ninth International Conference on Tangible, Embedded, and Embodied Interaction (TEI'15), pp. 539-544. 2015.
- [c.4] **Sang Ho Yoon**, Ke Huo, and Karthik Ramani. "Plex: finger-worn textile sensor for mobile interaction during activities." In Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct Publication (Ubicomp'14 Adjunct), pp. 191-194. 2014.
- [c.3] **Sang Ho Yoon**. "Designing new input modalities for wearables & digitized home." In Proceedings of the 2014 ACM International Symposium on Wearable Computers: Adjunct Program (Ubicomp'14 Adjunct), pp. 151-154. 2014.
- [c.2] Keunyoung Park, HongSoo Park, **Sang Ho Yoon**, Byung Ju Dan, and Woo Sok Chang. "Development of 2-DOF powered exoskeleton for upper limb rehabilitation." In 2013 10th International Conference on Ubiquitous Robots and Ambient Intelligence (URAI'13), pp. 550-551. IEEE, 2013.
- [c.1] Keunyoung Park, HongSoo Park, **Sang Ho Yoon**, Byung Ju Dan, and Woo Sok Chang. "Development of 2-DOF powered exoskeleton for upper limb rehabilitation." In 2013 10th International Conference on Ubiquitous Robots and Ambient Intelligence (URAI'13), pp. 550-551. IEEE, 2013.

TEACHING

Instructor

- Augmented Humans (KAIST GCT.50065) FALL 2025
12 students. Evaluation: 4.72/5.0
- Special Topics in Smart Convergence (KAIST CoE.49901) FALL 2025
29 students. Evaluation: 4.32/5.0
- Special Topics in Smart Convergence (KAIST EE.49904) FALL 2025
21 students. Evaluation: 4.39/5.0
- Interactive Haptic Technologies (KAIST GCT722) SPRING 2025
10 students. Evaluation: 4.63/5.0
- Interaction Sensing Principle & Application (KAIST GCT/MV 623) SPRING 2025
4 students.
- Augmented Humans (KAIST GCT565) FALL 2024
11 students. Evaluation: 4.92/5.0
- Special Topics in Smart Convergence (KAIST CoE.49901) FALL 2024
14 students. Evaluation: 4.70/5.0
- Special Topics in Smart Convergence (KAIST EE.49904) FALL 2024
12 students. Evaluation: 4.45/5.0
- Interaction Sensing Principle & Application (KAIST GCT/MV 623) SPRING 2024
9 students. Evaluation: 4.5/5.0
- Augmented Reality (KAIST CTP445) SPRING 2024
30 students. Evaluation: 4.53/5.0
- Augmented Humans (KAIST GCT565) FALL 2023
24 students. Evaluation: 4.55/5.0
- Interactive Haptic Technologies (KAIST GCT722) SPRING 2023
19 students. Evaluation: 4.62/5.0
- Interaction Sensing Principle & Application (KAIST GCT741) SPRING 2023
6 students. Evaluation: 4.5/5.0
- Augmented Humans (KAIST GCT565) FALL 2022
19 students. Evaluation: 4.71/5.0
- Augmented Reality (KAIST CTP445) SPRING 2022
38 students. Evaluation: 4.34/5.0
- Augmented Humans (KAIST GCT565) FALL 2021

11 students. Evaluation: 4.5/5.0

- HSS091, Exciting College Life (KAIST HSS091)

FALL 2021 – FALL 2025

Teaching Assistant

- Product and Process Design Innovation (Purdue ME553) FALL 2015
- Mechanical Engineering Design, Innovation and Entrepreneurship (Purdue ME263) SPRING 2015
- Computer-Aided Design and Rapid Prototyping (Purdue ME444) FALL 2014

ADVISING & MENTORING

Current PostDoc

- Jinwook Kim OCT.2025-PRESENT

Current Ph.D. Students (14 Students)

- Youjin Sung AUG.2023-PRESENT
- Jina Kim MAR.2024-PRESENT
- Kyungeun Jung AUG.2024-PRESENT
- Dongkyu Kwak MAR.2025-PRESENT
- Min-yung Kim MAR.2025-PRESENT
- Soyeong Yang MAR.2025-PRESENT
- Hyung Il Yi MAR.2025-PRESENT
- Kun-Woo Song AUG.2025- PRESENT
- Hojeong Lee AUG.2025- PRESENT
- Hanseok Jeong MAR.2024-PRESENT
- Hyungwook Yi AUG.2023-PRESENT
- Seo Young Oh (Co-advising with Woontack Woo) MAR.2023-PRESENT
- Minju Baek (Co-advising with Woontack Woo) MAR.2025-PRESENT
- Kyungjin Seo (Leave of Absence) AUG.2024-PRESENT

Current M.S. Students (11 Students)

- Fangqing Li AUG.2023-PRESENT
- Changhyeon Park MAR.2024-PRESENT
- Kyoungwhan Mheen MAR.2024-PRESENT
- Dohui Lee SEP.2025-PRESENT
- Rachel Jungming Kim MAR.2025-PRESENT
- Murad Eynizada MAR.2025-PRESENT
- Youngrae Kim MAR.2025-PRESENT
- Eun Ho Kim MAR.2025-PRESENT
- Donghee Hyun AUG.2025-PRESENT
- HyeongJin Do MAR.2026-PRESENT
- Hyunwook Jung MAR.2026-PRESENT

M.S. Alumni (17 Students)

- Hanseok Jeong (Ph.D. student @ KAIST) MAR.2024- FEB.2026
- Hyungwook Yi (Ph.D. student @ KAIST) AUG.2023- FEB.2026
- Yubin Lee MAR.2024-FEB.2026
- Kun-Woo Song (Ph.D. student @ KAIST) AUG.2023-AUG.2025
- Hyunyoung Han (Ph.D. student @ KAIST) AUG.2023-AUG.2025
- Hojeong Lee (Ph.D. student @ KAIST) AUG.2023-AUG.2025
- Dongkyu Kwak (Ph.D. student @ KAIST) MAR.2023-FEB.2025
- Min-yung Kim (Ph.D. student @ KAIST) MAR.2023-FEB.2025
- Soyeong Yang (Ph.D. student @ KAIST) MAR.2023-FEB.2025
- Hyung Il Yi (Ph.D. student @ KAIST) MAR.2023-FEB.2025
- Junghoon Seo (Principal Engineer @ PITIN) MAR.2023-FEB.2025
- Nicha Vanichvoranun (Research Staff @ Samsung Electronics) AUG.2022-AUG.2024
- Kyungeun Jung (Ph.D. student @ KAIST) AUG.2022-AUG.2024
- Kyungjin Seo (Ph.D. student @ KAIST) AUG.2022-AUG.2024
- Jina Kim (Ph.D. student @ KAIST) MAR.2022-FEB.2024
- Youjin Sung (Ph.D. student @ KAIST) MAR.2022-AUG.2023
- Minjae Jo DEC.2022-FEB.2022

INVITED TALKS

- 2026 **Hyundai Motors Company**, *Automobile UX solution and Haptic Sensing/Feedback Research*
KAIST Global Institute for Talented Education, Invited Talk, *How should robots coexist with humans?*
4th Korea Haptics Society PI Symposium, *Proposals for Cross-Generational Collaboration*
- 2025 **3rd Korea Haptics Society PI Symposium**, *International Research Collaboration*
GIST AI Colloquium, *Towards Human-centered Interactive Technologies*
KSSIS 2025, *Beyond Glasses: Physical-AI based Tactile Interaction*
Samsung Global Research CX Forum, *Customer Experience for Robot Technology & Physical AI*
KAIST-NYU Workshop on Meta-Museum, *Haptics for Multimodal Feedback*
International GINP Professors Summit, *Towards Human-centered Interactive Technologies*
KSOP-KAIST Science Outreach Program, *HCI & AI for New User Experience*
APMAR 2025, Keynote Speech, *Beyond Glasses: Towards Adapt-bodied Interaction*
KAMRR'25, Invited Speech, *Beyond Glasses*
Korea University AI Seminar, *Beyond Glasses: Future Directions for Human-centered XR Interactions*
- 2024 **Kyung Hee University Graduate School of Metaverse**, *Towards Adaptive and Immersive XR Interactions*
Microsoft Research Seminar, *Future Directions for XR Interactions*
NYU HCI Seminar, *Towards Human-centered Interactive Technologies*
SKKU Seminar, *Interactive Technologies for XR*
KAIST-GDI-ITTP, *Interactive Technologies for XR*
Hyundai Motors, *Human-centered Sensing Techniques Overview*
2nd Korea Haptics Society PI Symposium, *Adaptive & Immersive Hand Interaction*
- 2023 **KAIST-NYU Workshop on Meta-Museum**, *Haptic Interactions for Meta-Museum*
Hyundai Motors, *Haptic Interaction Research for Hyper-realistic Mobility Experience*
Korea Haptics Conference, *Human-Centered Interactive*
KAIST-GDI-ITTP, *Introduction to Digital Technology R&D in Korea*
KAIST CS493 <CS for All>, *Code & AI for Human-centered Interactive Technologies*
KAIST Humanities & Social Sciences Colloquium, *Human-centered Interactive Technologies*
HCI@KAIST, *Human-centered Interactive Technologies*
Korea Tech, *Human-centered Interactive Technologies*
KCC 2023 Young Scientist Seminar (신진연구자 최신연구소개), *Human-centered Interactive Technologies*
ETRI, *Human-centered Interactive Technologies*
- 2022 **Samsung Global Research CX Forum**, *Customer Experience for VR/AR technology*
University of Calgary-KAIST Workshop on the Future of XR
DIOPS, *Future of the optics industry in the metaverse era*
KAIST First Wednesday Multidisciplinary Forum, *Promoting natural interactions through human-centered interactive technologies*
KECFT (한국미래기술교육연구원), *State-of-the-art interactive technologies for the metaverse platform*
- 2021 **LG Energy Solution**, *Novel Sensing Techniques for Natural Human-Machine Interactions*
KAIST Graduate School of Culture Technology, *Natural Human-Machine Interactions*
Metaverse Forum, *Shaking hands in metaverse*
가상융합경제 활성화 포럼, *Wearable & Context-Aware Interface*

SELECTED PRESS COVERAGE

- 2025 **Chosun Biz**, *KAIST earns two awards at top CHI conference for innovative technologies*
EurekAlert, *KAIST's pioneering VR precision technology & choreography tool receives spotlights at CHI*
YNA (연합뉴스), *KAIST Wins 2 Paper Awards at CHI, including Precision Manipulation Technology in VR*
Herald (헤럴드경제), *KAIST, Development of Next-Generation Augmented and Virtual Reality Technologies*
EDongA (E 동아), *KAIST Wins Two Awards at Top CHI Conference for VR Technologies*
HelloDD (헬로디디), *"Breaking VR Limits" — KAIST Wins Double Best Paper Awards at CHI*
- 2024 **전자신문**, *K팝 댄스, 신기술로 안무 저작권 보호 새 시대 연다*
- 2023 **YNA (연합뉴스)**, *1Million·EBS·KAIST MOU on AI-based K-Dance Education Platform*
YNA (연합뉴스), *1Million joins hands with EBS, ETRI, and KAIST to conduct K-dance pilot training*
- 2020 **MSPowerUser**, *Microsoft files patent for a smart glove*
TechGenyz, *Microsoft Smart Gloves patent comes to life after a year*
PhoneArena, *Microsoft is working on a smart glove, the patent shows*
TechTheLead, *Patent Shows Microsoft Is Developing A Smart Glove*
- 2019 **IEEE Signal Processing Magazine**, *Special Reports: Signal Processing Advances Consumer Electronics*

Microsoft Applied Sciences Project Coverage, HapSense

- 2018 **ACM Interactions**, *How was it made?*
- 2017 **ACM Interactions**, *Demo Hour*
Engadget, *Tactile soft sensor can turn anything into a controller*
The Engineer, *Soft sensor material could make clothes smarter*
Geek.com, *Soft Sensor Turns Anything (Even Fabric) Into Interactive Controller*
Science360 Network, *Anything is a controller: iSoft makes fabrics interactive*
Purdue News, *Top 10 2017 research news stories from Purdue University*
AzoSensors, *New Type of Stretchable Material is Sure to Revolutionize Wearable Technologies*
Tech Stock Insider, *How a New Piece of Tech From Purdue May Change the Wearable Tech Market*
Design News, *Soft, Stretchable Sensor Eyed for Wearable Tech, Prosthetics*
BTN, *This innovative wearable tech from Purdue may have Google beat*
ViaEmpressa, *iSoft, sensors flexibles sense circuits*
Press From, *Tactile soft sensor can turn anything into a controller*
Monitor, *Smart clothes on the hike*
PC Review, *This non-electric sensor can be programmed to control anything from computer to TV*
NumRush, *Soft sensor iSoft can change everything in a controller*
Purdue News, *Innovative material for soft sensor could bring new tactile tech*
Europa Press, *A new material that allows to manufacture touch sensors 'wearables' without electrical circuits*
- 2016 **ACM Interactions**, *Demo Hour*
Purdue News, *Ziro robotics kit is 'success story' for Purdue, National Science Foundation*
Engadget, *Introducing the Best of CES 2016 finalists!*
Engadget, *Build your own gesture-controlled robots with the Ziro kit*
- 2013 **MBC (Korea Major Broadcasting Channel)**, *Walking Assisted Robot from LG Electronics*
KBS (Korea Major Broadcasting Channel), *Walking Assisted Robot from LG Electronics*
IT DongA, *LG Electronics Smart Walker for elderly people*

PATENTS

GRANTED

- [P.30] KR102898493B1, Wearable device and operating method thereof (Dec 2025)
[P.29] US12367646B2, Augmented reality device and method for obtaining depth map (Jul 2025)
[P.28] KR102836591B1, Augmented reality device and augmented reality system (Jul 2025)
[P.27] US12216818B2, Augmented reality device for obtaining depth information of object (Feb 2025)
[P.26] US12235523B2, Device and method for correcting user's vision and performing calibration (Feb 2025)
[P.26] US12073016B2, Electronic device and method of operating the same (Aug 2024)
[P.25] US11852823B2, Device and method for measuring depth of object (Dec 2023)
[P.25] US11809670B2, Flexible touch sensing system and method with deformable material (Nov 2023)
[P.24] US11669164B2, Augmenting the functionality of user input devices using a digital glove (Jun 2023)
[P.23] US11550440B2, Flexible touch sensing system and method with deformable material (Jan 2023)
[P.22] US11494147B2, Sensing bending of multiple joints (Nov 2022)
[P.21] US11334198B2, Flexible touch sensing system and method (May 2022)
[P.20] US11294463B2, Augmenting the functionality of user input devices using a digital glove (Apr 2022)
[P.19] US11199901B2, Augmenting the functionality of non-digital objects using a digital glove (Dec 2021)
[P.18] US11199936B2, Flexible touch sensing system and method with deformable material (Dec 2021)
[P.17] US11061476B2, Haptic feedback Apparatus, (Jul 2021)
[P.16] US11054905B2, Motion-restricting apparatus with the common base electrode (Jul 2021)
[P.15] US11023047B2, Electrostatic slide clutch with a bidirectional drive circuit, (Jun 2021)
[P.14] US10895446B2, Sensor-integrated disposable cover (Jan 2021)
[P.13] US10890974B2, Electromagnetically actuating a haptic feedback system (Jan 2021)
[P.12] US10860102B2, Guide for supporting flexible articulating structure (Dec 2020)
[P.11] US10852825B2, Selective restriction of skeletal joint motion (Dec 2020)
[P.10] US10564719B1, Augmenting the functionality of user input devices using a digital glove (Feb 2020)
[P.9] KR102043149B1, Move Assist System (Nov 2019)
[P.8] KR102045459B1, Control device using sensor and move assist system having the same, (Aug 2019)
[P.7] KR101931937B1, Control sensor system (Dec 2018)
[P.6] KR101892004B1, A control apparatus for grasping the intent to move using a hall sensor and an electronic moving vehicle (Aug 2018)
[P.5] KR101731351B1, Control sensor system (Apr 2017)

[P.4] US9433552B2, Electric walking assistant device (Sep 2016)
[P.3] US8993196B2, Fuel cell system having circulation structure and method of operating same (Mar 2015)
[P.2] US8713748B2, RU2533676C2, KR101929813B1, Autonomous mobile cleaner and method of moving the same (May 2014)
[P.1] KR101315220B1, Apparatus for processing motion of body and method thereof (Oct 2013)

PUBLISHED & PENDING

[p.7] US20250076988A1, Device and method for providing haptics based on character motion, and storage medium storing instructions to perform method for providing haptics based on character motion (Mar 2025)
[p.6] KR1020240079190, Method and Apparatus for Providing Haptic Feedback, and Virtual Reality System for Providing Haptic Feedback (Jun 2024)
[p.5] KR1020230157670, Multipoint Force Feedback Finger Haptic Apparatus and Driving Method Thereof (Nov 2023)
[p.4] KR1020230131684, Method and Apparatus for Hand Posture-Adaptive Haptic Rendering (Oct 2023)
[p.3] KR1020230116552, Apparatus, Method, and Computer Program for Providing Haptic Based on Character Action (Sep 2023)
[p.2] US20230164858A1, Augmented reality device and augmented reality system (Jan 2023)
[p.1] KR1020220120356, Electronic Apparatus and Operating Method Thereof (Aug 2022)

ACADEMIC SERVICE

ORGANIZING COMMITTEE

UbiComp'27, *Program Co-Chair*
WHC'27, *Publication Co-Chair*
UIST'26 *Demo Co-Chair*
IEEE VR'26, *Publication Co-Chair*
UIST'25 *Demo Co-Chair*
WHC'25, *Publication Co-Chair*
ISMAR'25, *Financial Co-Chair*
Korea Haptics Conference'24, *Publication Chair*
Korea Haptics Conference'23, *Local Chair*
MobileHCI '23, *Publicity Chair*

PROGRAM COMMITTEE

UbiComp/ISWC'26, *Technical Program Committee (TPC)*
UIST'26 *Associate Chair*
ISMAR'26 *International Program Committee (IPC)*
DIS'26 *Associate Chair*
CHI'26 *Associate Chair (+Awards Committee)*
CHI'25 *Associate Chair (+Awards Committee)*
UIST'25 *Associate Chair (+Awards Committee)*
IMWUT *Associate Editor (AE)*
DIS'26 *Associate Chair (AC)*
AHs'26 *Program Committee (PC)*
UbiComp/ISWC'25, *Technical Program Committee (TPC)*
IUI '16,'17,'19-'25 *Papers and Notes, Program Committee (PC)*
ACII'24, *Program Committee (PC)*
CSCW'23,'24 *Associate Chair (AC)*
ICMI '22-'23, *Program Committee (PC)*
UbiComp/ISWC'24, *Technical Program Committee (TPC)*
CHI'19,'21-'24 *Late-Breaking Work, Program Committee Associate Chair (AC)*
CHI'21, *Session Chair (Tech for Learning and Families)*
KSC'25 *Program Committee (CG&I 소사이어티 프로그램위원)*
KCC'25 *Program Committee (CG&I 소사이어티 프로그램위원)*

PAPER REVIEWS (> 330 papers)

CHI '15,'17,'19*-'26*	UIST '19, '20,'22*,'23*,'24,25*	SIGGRAPH '19,'24-25
CSCW '19,'22-24	IMWUT '19-21, '23,'24,'25*	IEEE ISMAR '22-25
UbiComp '14-15	PACM '19-20,'22	IEEE Sensors Journal
MobileHCI '18,'20	DIS '17,'18,'20-22,'24	IEEE VR '18,'19,'22-24
ICMI '19-23*	ETRA '18,'21	IEEE TOH '22-26
HRI '17	IDC '15,'18,'20	Eurohaptics Conference '18
SUI '15-17	ISS '17,'19,'21-24	ISWC '15,'18,'19
TEI '15-22	VRST '16-19,'22	EICS '19,'22
IEEE TVCG '23-25	IJHCI '23-24	MM '25
Springer VR '25,'26	Nature Communications '24	IEEE WHC '23,'25
DIS'26	EuroHaptics '26	CGASI'26

* *Special Recognition*

UNIVERSITY COMMITMENT

HCI@KAIST Committee Chair	2024-2025
HCI@KAIST Steering Committee	2023,2026
Metaverse Program Steering Committee	2022-2026
Graduate School of Culture & Technology Operational Committee	2023-2026
Graduate School of Culture & Technology New Faculty Search Committee	2021-2026