

# Young-Woo Park.

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I am an Associate Professor of Design at Ulsan National Institute of Science and Technology (UNIST) in South Korea. As a director of the Interactive Product Design Laboratory, current research highlights the significance of 'physical richness' during interaction with technologies. Recently, our research team proposed examples of using *personal data as a material for designing interactive artifacts* enabling tangible exploration of digital archives in everyday lives. Also, the research approach includes investigating the *potential of embodiment of ephemerality as a method for designing aesthetic interaction*. As TPC, I was Program Chair of ACM TEI'22, and Papers Program Committee for ACM CHI'19, '20 & '23 DIS'18 & '20~'22 along with South Korea's HCI and Design community. The works have received Honorable Mention at ACM CHI'17 and DIS'19, also have won top international design awards, such as iF, Red Dot, and G Mark with future product design concepts.

**Research area:** Human Computer Interaction; Tangible Interaction; Personal Lifelog Data; Shape-changing Interfaces; Ephemeral UI; Remote Tactile Communication

## Experience

### Associate Professor

Department of Design | College of Information and Biotechnology  
Director of Interactive Product Design (IPD) Lab  
Ulsan National Institute of Science of Technology (UNIST)

### NASA Visiting Researcher (Sabbatical)

NASA Ames Research Center, Intelligent Robotics Group (IRG)  
Moffett Field, CA, USA

### NASA-KAIST Postdoctoral Researcher

NASA Ames Research Center, Intelligent Robotics Group (IRG)  
Moffett Field, CA, USA

### Postdoctoral Researcher

Mobile Software Platform Center, KAIST

● June 2015 ~ Current

● August 2022 ~ July 2023

● August 2014 ~ May 2015

● March 2014 ~ June 2014

## Education

### Ph.D., Department of Industrial Design, KAIST

Co.design:Inter.action Design Research Lab.

Advisor: Tek-Jin Nam (tjnam@kaist.ac.kr)

Thesis: "Tactile Phone Conversation"

● 2010 ~ 2014

### M.S., Culture Technology, KAIST

Digital Media Design Lab.

● 2008 ~ 2010

### B.S., Information & Computer Engineering, Digital Media (Visual Design)


Ajou University


● 2002 ~ 2008

(Incl. military service, '04~'06)

## Publications (\*\*: role as a corresponding author)

### Conference Proceedings

- **CHI 2023 Paper**  
+ Kim, N., Jang, S., Kim, H., Lee, J., **Park, Y-W\*\***, Design and Field Trial of Tunee in Shared Houses: Exploring Experiences of Sharing Individuals' Current Noise-level Preferences with Housemates. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (**CHI '23**). ACM, Article 139, 1–15.
- **DIS 2023 Paper**  
+ Moon, J-Y., Kim, N., Goh, G., Lee, K-R., Kim, H., **Park, Y-W\*\***. 2023. Stubbi: an Interactive Device for Enhancing Remote Text and Voice Communication in Small Intimate Groups through Simple Physical Movements. In Proceedings of the 2023 ACM Designing Interactive Systems Conference (**DIS '23**). ACM, 1773–1788.
- **DIS 2022 Papers**  
+ Kim, S., Jang, S., Moon, J., Han, M., **Park, Y-W\*\***. Slide2Remember: an Interactive Wall Frame Enriching Reminiscence Experiences by Providing Re-encounters of Taken Photos and Heard Music in a Similar Period. In Proceedings of Designing Interactive Systems (**DIS**) 2022. ACM, 288–300  
+ Kim, D., Jang, S., Kim, B., **Park, Y-W\*\***. Design and Field Trial of Lumino in Homes: Supporting Reflective Life by Archiving and Showing Daily Moods with Light Colors. In Proceedings of Designing Interactive Systems (**DIS**) 2022. ACM, 1715–1728
- **DIS 2021 Paper**  
+ Kim, N., Kim, J., Kim, B., **Park, Y-W\*\***. The Trial of Posit in Shared Offices: Controlling Disclosure Levels of Schedule Data for Privacy by Changing the Placement of a Personal Interactive Calendar. In Proceedings of Designing Interactive Systems (**DIS**) 2021. ACM, 149–159
- **CHI 2021 Paper**  
+ Lee, K-R., Kim, B., Kim, J., Hong, H., **Park, Y-W\*\***, ADIO: An Interactive Artifact Physically Representing the Intangible Digital Audiobook Listening Experience in Everyday Living Spaces. In Proceedings of SIGCHI Conference on Human Factors in Computing Systems (**CHI**) 2021. ACM, Article 164, 1–12.
- **IASDR 2021 Paper**  
+ Kim, B., Kim, N., Yun, G., Jang, S., Kwon, H., **Park, Y-W\*\***, Physical Traces and Materialization of Songs for Individuals' Music Participation in Cafés: The Design and Field Studies of Camue. In Proceedings of International Association of Societies of Design Research (**IASDR**) 2021  
+ Lee, H., Kim, B., Gim, S., **Park, Y-W\*\***, Hand-in-O: Exploring Possibilities of Sensing and Constraining the Gestures with the Product's Frame to Provide Light and Sound Feedback. In Proceedings of International Association of Societies of Design Research (**IASDR**) 2021  
+ Jang, S., **Park, Y-W**, Kim, C\*, Artistic Visualisation of Personal Data: A Case Study of Digital Scheduler. In Proceedings of International Association of Societies of Design Research (**IASDR**) 2021
- **CHI 2020 Paper**  
+ Lee, C., Kim, S., Han, D., Yang, H., **Park, Y-W**, Kwon, B-C., Ko, S\*, GUIComp: A GUI Design Assistant with Real-Time, Multi-Faceted Feedback, In Proceedings of SIGCHI Conference on Human Factors in Computing Systems (**CHI**) 2020, ACM, 1-13
- **DIS 2020 Paper**  
+ Lee, K-R., Ju, S., Dzhoroev, T., Goh, G., Lee, M-H., **Park, Y-W\*\***, DayClo: An Everyday Table Clock Providing Interaction with Personal Schedule Data for Self-reflection, In Proceedings of Designing Interactive Systems (**DIS**) 2020, ACM, 1793-1806
- **DIS 2019 Paper**  
+ Jang, S., Kim, S., Noh, B., **Park, Y-W\*\***. Monomizo: A Tangible Desktop Artifact Providing Schedules from E-ink Screen to Paper, In Proceedings of Designing Interactive Systems (**DIS**) 2019, ACM, 1123-1130  
+ Kim, K., Jang, S., Kim, B., Kwon, H., **Park, Y-W\*\***. muRedder: Shredding Speaker for Ephemeral Musical Experience, In Proceedings of Designing Interactive Systems (**DIS**) 2019, ACM, 127-134  
 Best Paper Honorable Mention (Top 2%)

- **CHI 2019 Paper**  
+ Ju, S., Lee, K-R., Kim, S., **Park, Y-W\*\***. Bookly: An Interactive Everyday Artifact Showing the Time of Physically Accumulated Reading Activity, In Proceedings of SIGCHI Conference on Human Factors in Computing Systems (CHI) 2019, ACM, 1-8
- **IASDR 2019 Paper**  
+ Choi, H., Lee, KR., **Park, Y-W.**, Kim, C. Designing for Improving Sleep Hygiene through the Reflection of Smartphone Awareness with Ambient Lighting, In Proc. International Association of Societies of Design Research (IASDR) 2019
- **DIS 2018 Paper**  
+ Kim, J., Self, A. J., **Park, Y-W\*\***. Traffico: A Tangible Timetable Delivering Transportation Information between Schedules, In Proceedings of Designing Interactive Systems (DIS) 2018, ACM, 1229-1234
- **CHI 2017 Paper**  
+ Lee, K-R., Goh, G., **Park, Y-W\*\***. Quietto: An Interactive Timepiece Molded in Concrete and Milled Wood, In Proceedings of SIGCHI Conference on Human Factors in Computing Systems (CHI) 2017, ACM, 2988-2922  
 Best Paper Honorable Mention (Top 5%)
- **AIAA SpaceOps 2016 Paper**  
+ Kim, H., **Park, Y-W.**, Baker, E., Adams, J., Fong, T\*. Design Issues for Real-Time Remote Robotic Science Operations, In Proceedings of 14th International Conference on Space Operations, AIAA (the American Institute of Aeronautics and Astronautics) 2016, 2476-2488
- **CHI 2015 Paper**  
+ **Park, Y-W.**, Park, J., Nam, T-J\*. The Trial of Bendi in a Coffeehouse: Use of a Shape-Changing Device for a Tactile-Visual Phone Conversation, In Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI) 2015, ACM. 2181-2190
- **TEI 2015 Paper**  
+ Kim, J., **Park, Y-W.**, Nam, T-J\*. BreathingFrame: An Inflatable Frame for Remote Breath Signal Sharing, In Proceedings of Tangible Embedded and Embodied Interactions (TEI) 2015, ACM, 109-112
- **CHI 2014 Paper**  
+ Park, J., **Park, Y-W.**, Nam, T-J\*. Wrigglo: Shape-Changing Peripheral for Interpersonal Mobile Communication, In Proceedings of SIGCHI Conference on Human Factors in Computing Systems (CHI) 2014, ACM, 3973-3976
- **CHI 2013 Paper**  
+ **Park, Y-W.**, Baek, K-M., Nam, T-J\*. The Roles of Touch during Phone Conversations: Long-Distance Couples' Use of POKE in Their Homes, In Proceedings of SIGCHI Conference on Human Factors in Computing Systems (CHI) 2013, ACM, 1679-1688
- **CHI 2012 Paper**  
+ **Park, Y-W.**, Bae, S-H., Nam, T-J\*. How Do Couples Use CheekTouch Over Phone Calls? In Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI) 2012, ACM, 763-766
- **IASDR 2011 Paper**  
+ **Park, Y-W.**, Nam, T-J\*. Role of Touch for Enriching Remote Interpersonal Interactions over Digital Products, In Proc. International Association of Societies of Design Research (IASDR) 2011.

## Journals

- Jang, S., Lee, K-R., Goh, G., Kim, D., Yun, G., Kim, N., Kim Lux B., Woo, C-W., Kim, H. & **Park, Y-W\*\***.(2023): Design and field trial of EmotionFrame: exploring self-journaling experiences in homes for archiving personal feelings about daily events, **Human-Computer Interaction**
- Kim, H., Kim, J., Han, Y., Hong, H., Kwon, O. S., **Park, Y-W.**, & Kwon, B. C. (2023). Towards Visualization Thumbnail Designs That Entice Reading Data-Driven Articles. IEEE Transactions on Visualization and Computer Graphics.

- Jang, S., Lee, W., Kim, B., Odom, W., **Park, Y-W\*\***, Encountering Cover Versions of Songs Derived from Personal Music-Listening History Data: A Field Trial of Musée in Homes, *Interacting with Computers*, 2022; iwac027, <https://doi.org/10.1093/iwc/iwac027>
- Kim, J., Self, A. J., **Park, Y-W\*\***, Investigating Physical Interaction with Digital Data through the Materialization of Email Handling, *Interacting with Computers*, Volume 32, Issue 5-6, September-November 2020, Pages 457–474 (SCIE)
- Noh, B., Jang, S., Kim, K., **Park, Y-W\*\***, Bringing the colour senses of personal photos to everyday living environment: the design and deployment of a tangible interactive lighting artifact, *Digital Creativity*, 31:2, 114-132 (A&HCI)
- Jang, S., Lee, S., Dzhoroev, T., Kim, T., Oh, H., Kim, N., & **Park, Y-W\*\***. (2021). Design Guidelines for Contextual Awareness and Management of Hygiene in Daily Life with Infectious Viruses. *Archives of Design Research*, 34(3), 101-121 (SCOPUS)
- Kim, J., Noh, B., **Park, Y-W\*\***. (2020). Giving Material Properties to Interactive Objects: A Case Study of Tangible Cube Representing Digital Data, *Archives of Design Research*, 33(3), 55-73 (SCOPUS)
- **Park, Y-W.**, Bae, S-H., Nam, T-J\*. Design for Sharing Emotional Touches during Phone Calls: A Quantitative Evaluation of Four Tactile Representations, *Archives of Design Research*, 29(2), 95-107
- Bae, J-E., **Park, Y-W.**, Seok, J-M., Kwon, E-Y., Nam, T-J\*. Taxonomy of Design Research focused on Enhancement of Connection between Design Practice and Research, *Archives of Design Research*, 25(2), 309-320

## HCI Demonstrations, Video Showcases and WIPs

- **ACM DIS'19 Demonstrations**  
"muRedder: Shredding Speaker for Ephemeral Musical Experience," (Kim, K., Jang, S., Kim, B., Kwon, H., **Park, Y-W\*\***)
- **ACM Ubicomp'17 Demonstrations**  
"Quietto: An Interactive Timepiece Molded in Concrete and Milled Wood", (Lee, K-R., Goh, G., **Park, Y-W\*\***)
- **ACM DIS'17 Demonstrations**  
"Calm Station: An Interactive Perpetual Desk Object that Reduces Digital Distractions", (Kim, T., **Park, Y-W.**, Hong, H\*)
- **ACM CHI'17 Video Showcase**  
"DayCube: An Interactive Object for Delivering Daily Information through Five Unique Materials", (Kim, J., Noh, B., **Park, Y-W\*\***)
- **ACM CHI'16 Video Showcase**  
"SATURNO: A Shadow-Pushing Lamp for Better Focusing and Reading", (Jeong, Y., Noh, B., **Park, Y-W\*\***)
- **ACM CHI'15 Video Showcase**  
"Bendi: Shape-Changing Device for a Tactile-Visual Phone Conversation", (**Park, Y-W.**, Park, J., Nam, T-J\*)
- **ACM HRI 2016 Late Breaking Report**  
"Shared Displays for Remote Rover Science Operations", (Baker, E., Adams, J., Fong, T., Kim, T., **Park, Y-W**)
- **ACM CHI'14 Video Showcase & Interactivity**  
"Wrigglo: Shape-Changing Peripheral for Interpersonal Mobile Communication", (Park, J., **Park, Y-W.**, Nam, T-J\*)
- **ACM CHI'13 Video Showcase**  
"POKE: A New Way of Sharing Emotional Touches during Phone Conversations", (**Park, Y-W.**, Nam, T-J\*)
- **ACM Interactions May + June '12 Demo Hour**  
"Poke", Demo Hour, Interactions, Volume 19 Issue 3, 8-9, (**Park, Y-W.**, Hwang, S., Nam, T-J\*)
- **ACM UIST'11 Poster**  
"Poke: Emotional Touch Delivery through an Inflatable Surface over Interpersonal Mobile Communications", (**Park, Y-W.**, S., Hwang., Nam, T-J\*)

- ACM CHI'10 WIP (Poster)  
"CheekTouch: An Affective Interaction Technique while Speaking on the Mobile Phone", (Park, Y-W., Lim, C., Nam, T-J\*)

## Design Exhibition and Domestic Demonstrations

- Japan Good Design Exhibition 2019 | "Soldering Equipment / sold", (Lee, K., Choi, H., Park, Y-W\*\*)
  - HCI Korea 2021 Interactive Demos  
"Meemo" (Kim, J., Park, Y-W\*\*), "Youtube vis frame" (Kim, T., Lee, K., Park, Y-W\*\*)
    - "Counterfunctional music player" (Lee, S., Lee, K., Park, Y-W\*\*), "Diffo", (Kim, N., Park, Y-W\*\*)
      - HCI Korea 2019 Interactive Demos  
"Reely" (Ju, S., Choi, H., Park, Y-W\*\*), "Cubisong" (Kim, B., Park, Y-W\*\*)
        - HCI Korea 2018 Interactive Demos  
"Interactive News Printer" (Lee, H., Park, Y-W\*\*), "Airscope" (Kim, S., Han, D., Ko, S., Park, Y-W\*\*)
          - "Alarm Lamp" (Kim, S., Kim, B., Park, Y-W\*\*), "stool.D" (Park, S., Jo, E., Park, Y-W\*\*)
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## Awards

### Design awards

- **IDEA Bronze Award 2023**, "SAFEUP", Participating co-designer
- **Red Dot Award 2021**, "MoMo: Audio docent for enhanced exhibition experience", Professional Concept, **Lead designer\*\***
- **iF Design Award 2021**, "TOQUE: Covid-19 pass box", Professional Concept, Co-designer
- **Red Dot Award 2019**, "Soldi – Daily Soldering Stationery". Design Concept, **Lead designer\*\***
- **G Mark** (Japan Good Design Award 2019), "Soldering Equipment / sold", **Lead designer\*\***
- **iF Design Award 2019**, "stool.D: Cycling-enabled stool". Professional Concept, **Lead designer\*\***
- **IDEA 2018 Finalist**, "stool.D", **Lead designer\*\***
- Spark Design Awards 2016, Bronze Award, "Plant Diary", , Design Concept, **Lead designer\*\***
- Spark Design Awards 2016, Spark Award, "BabyKing", Design Concept, **Co-designer**

### Paper, Demo and other Awards

- **ACM DIS 2019 Honorable Mention Award**, " muRedder: Shredding Speaker for Ephemeral Musical Experience"
- **ACM CHI 2017 Honorable Mention Award**, " Quietto: An Interactive Timepiece Molded in Concrete and Milled Wood"
- Excellent Reviewer Award (우수 심사위원상) 2021, Archives of Design Research
- Excellence Prize, HCI Korea '18 & '19 & '21 Creative Award Interactive Demo
- Grand Prize, "Interactive News Printer", Creative Award, HCI Korea 2018
- Silver Prize (Computer Science & Engineering), "Wrigglo", 2014 Samsung HumanTech Paper Award
- Conference Chair Prize, "CheekTouch", 2010 Creative Invention Contest, KIPA, Seoul, Korea

## Academic Service

### Program Committee

- **ACM TEI 2022 Program Chair (TPC), TEI 2021 Papers Program Committee (Associate Chair)**
- **ACM CHI 2019, 2020, 2023 Papers Program Committee (Associate Chair, TPC)** – Papers editorial committee member
- **ACM DIS 2018, 2020, 2021, 2022 Papers Program Committee (Associate Chair, TPC)** – Papers editorial committee member

- **Archives of Design Research (SCOPUS Journal), Editorial Board Member**
- ACM CHI 2017 Student Design Competition Juror
- HCI Korea 2021 Program Chair (Design), 2018 Creative Award Co-Chair
- 한국디자인학회 이사 & 디자인융복합학회 상임이사 (연구분과)

## Paper Review

- CHI (SIGCHI Conference on Human Factors in Computing Systems) Paper, Demos and WIP Reviewed ('10~'23)
- TEI (Tangible Embedded Interaction) Short, Long Paper, WIP Reviewed ('12~'21)
- DIS (Designing Interactive Systems) Full Paper Reviewed ('12, '16~'22)
- Archives of Design Research Journal Paper Reviewed ('15~'21), UbiComp (IMWUT Journal) Paper Reviewed ('16~'18), HCI Korea Paper, Journal Reviewed ('16~'21), ISS ('19), EuroHaptics ('14), IEEE Haptics Symposium ('14), IASDR ('13), NordiCHI ('14, '18), MobileHCI ('19), APCHI ('12), AH (Augmented Human) ('14)

## Teaching Experience

Year	Sem.	Type	Course Name	Credit	Remarks
2017~2021	Fall	Grad	Integrated Design Project II	3	Required
2015~2021	Fall	Grad	Interaction Design	3	Elective
2017~2023	Spring	UG	Design Elements and Principles/ Designing Ambient Things	3	2 <sup>nd</sup> year req.
2017, 2021	Spring	UG	Creative Design 1	1	4 <sup>th</sup> year req.
2016~2017	Spring	Grad	Engineering Technologies for Designers	3	Elective
2017, 2021	Fall	UG	Creative Design 2	1	4 <sup>th</sup> year req.
2015-2016	Fall	UG	Interactive Technology	3	3 <sup>rd</sup> year elec.

## Patents & Design Rights

42 patents and 35 design rights

2 International Patents, 40 Domestic Patents, 35 Design Rights

Classification	Acquisition Country	Type	Total Number	Design Dept. Criteria
<b>Registered</b>	<b>Domestic</b>	<b>Patents</b>	<b>24</b>	<b>L3</b>
Filed	Domestic	Patents	16	L4
Filed	U.S (PCT)	Patents	2	L2
<b>Registered</b>	<b>Domestic</b>	<b>Design Rights</b>	<b>33</b>	<b>L3</b>
Filed	Domestic	Design Rights	2	L4

## Graduate Students Supervision

+ Kyong-Ryong Lee ('23) | Ph.D – **LG Electronics H&A**

+ Juntae Kim ('20) | Ph.D – **NISSAN Motors, Japan NATC (Nissan Advanced Technology Center)**

- + Dohee Kim ('23) | M.S, Nari Kim ('22) M.S – UNIST Ph.D Student, Junyoung Kim ('22) | M.S – Dot Inc.
- + Subin Kim ('21) | M.S – **LG Electronics**, Sangsu Jang ('21) | M.S – UNIST Ph.D Student
- + Bomin Kim ('20) | M.S – **LG Electronics**, Somi Ju ('20) | M.S – **LG Electronics**, Hanbyul Lee ('19) | M.S – KIST
- + Kyungjin Kim ('19) | M.S – **LG Electronics**, Boram Noh ('18) | M.S – **LG Electronics**

## ***Invited Talks***

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- Exploring Self-reflective Experiences through Tangible Interaction with Personal Lifelog Data, University of Technology Sydney (UTS) Talk, SydCHI, Materialising Memories (05/2022)
- Tangible Representation of Personal Data for Self-reflection, KAIST, Catch the Future, KAIST (04/2022) (Domestic)
- Design of Interactive Objects with Concrete, Wood and Acrylics, 2017, KAIST, HCI Group (12/2017) (Domestic)
- Design-led Research: Investigation of Materials and Delicate Interactions, 2016 KSDS Fall Conference, (11/2016) (Domestic)
- Applying a Faculty Position after Ph.D., id KAIST Ph.D. Colloquium, Daejeon, KAIST (08/2015) (Domestic)
- Designing Future Communications with Wearables, LG Electronics MC Research Center (7.1, 8, 22/2015) (Domestic)
- Tactile Phone Conversation, IRG Minitalk, NASA Ames Research Center (10/2014)
- Bendi: a way of tactile and visual phone conversation through bodily shape transformations, KAIST (06/2014)
- Tactile Phone Conversation: A New Notion of Phone Conversation, TEDxKAIST, KAIST (01/2014)
- “Only One” idea for better user experience, Department of Digital Design, Univ. of Daegu Catholic (05/2011)
- POKE, Digital Communication, Culture Technology, KAIST (04/2011)
- Introduction of a Mediating Touch Device and Interaction Technique, Digital Communication, KAIST (04/2010)