

Young-Jun Ko

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Seoul, 01811, Republic of Korea

AREA OF RESEARCH INTERESTS

Universal Design, Service Design, User Centered Design, Social Design, Sustainable Design

EDUCATION

- Mar. 2003 Kinki University, Japan. PhD. Industrial Design
(Thesis: Kitchen Design for Wheelchair Users Applying Universal Design Principles)
- Aug. 1991 Rochester Institute of Technology, NY, USA. MFA, Industrial Design
(Thesis: The Electronic Interpreter for the Deaf)
- Aug. 1989 Hongik Graduate School, Korea. Discontinued to study at RIT
- Feb. 1986 Seoul National University of Science and Technology, Korea. BFA, Industrial Design

PROFESSIONAL EXPERIENCE

- Jan. 2022 – Present President, UD Plus, Seoul, Korea
- April 2004 – Aug. 2022 Professor, Seoul National Univ. of Science and Technology, Seoul, Korea
- Oct. 2008 – Aug. 2022 Director, Universal Design Initiative Institute, Seoul National Univ. of Science and Technology, Seoul, Korea
- Mar. 2015 – Feb. 2016 Visiting Scholar, North Carolina State University, USA
- Mar. 2011 – Dec. 2012 Lecturer, Kookmin University, Seoul, Korea
- Jan. 1998 – Jan. 2000 Senior Designer, Eson Design Agency, Seoul, Korea
- April 1986 – Jan. 1995 Senior Researcher, Korea Institute of Design Promotion, Seoul, Korea

PROFESSIONAL ACTIVITIES AND SERVICE

Academic Community

- 2018 – 2019 President, Korean Society of Design Science
- 1999 – Present Member, Japanese Society of Design Science

Special Lectures, Seminars & Workshops

- 12/20/2022 2022 Museum and Art Gallery Policy Seminar: Presentation on the topic of strengthening access to museums and art galleries for the culturally underprivileged, Topic: Museum Division Universal Design, National Hangeul Museum.
- 09/29/2022 2022 International Symposium on Rehabilitation Research, Chairperson, Novotel Ambassador Hotel, National Rehabilitation Center.
- 09/27/2022 2022 Presentation on the topic of the future of universal design in the Department of Assistive Technology, Topic: Current status and cases of universal design at home and abroad, Sejong City Assistive Device Center
- 08/30/2022 2022 International Symposium on Museum Education: Presentation on the theme of Museum Space Creation and Education for All, Topic: Museum Design and Service for All, National Museum of Korea
- 11/22/2019 Keynote speaker, 2019 International Seminar on Universal Design, To build environment where everyone can easily travel, Korea Disabled People's Development Institute
- 09/25/2019 Mentor, Human City Design Workshop, Seoul Design Foundation

- 11/09/2018 Invited speaker, 2018 International Seminar on Universal Design, Development of universal design through user and stakeholder participation, Korea Disabled People's Development Institute
- 09/18/2018 Invited speaker, 2018 Seoul Design Cloud Conference, Enhancement of user convenience through the application of smart technology to bus service, Dongdaemun Design Plaza, Seoul
- 04/06/2018 Special lecturer, Universal Design Education: Understanding and application of universal design, Dagu Officials Training Institute
- 07/07/2016 Special lecturer, Public Facility Specialist Training: UD environment and Disability Discrimination Act, Korea Employment Agency for the Disabled
- 11/01/2013 Invited speaker, Public Design International Symposium: Universal Design in Cultural Facilities, Korea National Museum
- 10/29/2013 Invited speaker, Universal Design Forum, Jeju City Convention Center, Jeju City
- 10/12/2012 Invited speaker, 4th International Conference for Universal Design: Universal Design in Korea, Fukuoka, Japan
- 12/08/2010 Panelist, Seoul International Conference to commemorate the designation of World Design Capital: Solution of Social Gaps, Shila Hotel, Seoul
- 10/26/2010 Keynote speaker, Universal design of Seoul, Design Forum: Seoul, City for All, Seoul Municipal Museum
- 07/10/2010 Moderator, Seoul International Universal Design Workshop, Seoul Design Foundation
- 07/23/2010 Kukmin Univ., Seoul
- 03/08/2008 Invited speaker, Symposium to nurture senior-friendly industry: Elderly Friendly Products and Design Cases, Yonsei Univ., Seoul

Advisor or Juror, Committee Member

- 09/06/2023 Advisory Committee Member of the Installation of the Sensory Learning Space for the Visually Impaired, National Museum of Korea
- 09/04/2023 Advisory Committee Member of the Installation of the Universal Design Exhibition and Experience Space in 2023, Korea Disabled People's Development Institute
- 02/13/2023 Advisory Committee Member of National Museum's Project to Strengthen Access to Cultural Vulnerable Groups, National Museum of Korea
- 01/11/2022 Advisory Committee Member of Jongro-gu Urban Public Space Design (2023-2026), Jongro-Gu
- 12/09/2022 Juror of 2022 Service Design Infrastructure Building Project, Incheon Technopark
- 10/22/2021 Juror of the 1st Seoul Universal Design Award, Seoul City
- 01/17/2019 Advisory Committee Member of 2019 Kwangju Design Biennale, Kwangju Design Center
- 01/11/2019 Design Consultant of Korea Land and Housing Corporation (2019-2021)
- 09/29/2017 Advisory Committee Member of Incheon International Airport Terminal 2 Opening Preparation
- 05/12/2016 Advisory Committee Member of the 11th Universal Design Competition, Human Rights Forum for the Disabled in Korea
- 10/15/2013 Juror of the 8th Universal Design Competition, Korea Disabled People's Human Right Forum
- 04/18/2006 Juror of the 41th Korea Industrial Design Award, Ministry of Commerce, Industry and Energy
- 06/20/2003 Juror of 2003 Good Design Award, Ministry of Industry and Energy

AWARDS & HONORS

- 2023 Swing Washbasin, 2023 Top Design in the European Product Design Award (EPDA)
- 2023 Add-on Shower, Winner in the European Product Design Award (EPDA)
- 2023 Universal Shower, Winner in the European Product Design Award (EPDA)
- 2023 Add-on Shower, IDA 2023, Gold in the International Design Awards (IDA)

2023	Height-Adjustable Washbasin, IDA 2023, Silver in the International Design Awards (IDA)
2023	Prime Minister's Award, The 25 th DK (Design Korea) Awards, Korea Institute of Design Promotion
2021	Grand Prize, 2021 KSDS International Invitation Exhibition, Korea Society of Design Science
2019	Special Prize, 2019 KSDS International Invitation Exhibition, Korea Society of Design Science
2017	Outstanding Paper Award, Korea Society of Design Science
2015	Research Achievement Award, Korean Institute of Cultural Product Art & Design
2014	Grand Prize for Design Education, Korean Federation of Design Association
2013	Paper Supervision Award, Korea Society of Design Science
2009	Outstanding Paper Award, Korea Society of Design Science
2003	Korea Industrial Design Award, Korea Association of Industrial Design
1994	Good Design Mark, Korea Institute of Design Promotion
1986	Special Prize, Korea Industrial Design Competition, Korea Institute of Design Promotion
1985	Special Prize, Korea Industrial Design Competition, Korea Institute of Design Promotion

DESIGN EXHIBITIONS

- YJ Ko, DI Seo, DI Kim, 2019 KSDS International Invitation Exhibition, 'Universal Bus Stop,' exhibited at the Bahrom Gallery of Seoul Women's Univ., Seoul Korea, May. 2019
- YJ Ko, DI Seo, DI Kim, 2019 KSDS International Invitation Exhibition, 'Universal Sign,' exhibited at the Bahrom Gallery of Seoul Women's Univ., Seoul Korea, May. 2019
- YJ Ko, WH Han, 2019 KSDS International Invitation Exhibition, 'Universal ATM,' exhibited at the Bahrom Gallery of Seoul Women's Univ., Seoul Korea, May. 2019
- YJ Ko, WH Han, SE Jeong, SR Lee, 2014 KSDS International Fall Invitation Exhibition, 'Universal Design Applied ATM,' exhibited at the UNIST Univ., Korea, Nov. 2014

PUBLICATIONS

Books

1. *User Centered Universal Design Method and Cases*, Idam Books. (Revised edition) (2022)
2. *Product Design Text Book for Vocational High School*, Seoul Metropolitan Office of Education. (2013)
3. *Design Text Book for 3rd and 4th Grade Elementary Students*, Korea Institute of Design Promotion (2012)
4. *User Centered Universal Design Method and Cases*, Idam Books. (2011)
5. *Public Design Text Book for Vocational High School*, Seoul Metropolitan Office of Education. (2010)
6. *Universal Design Research and Application*, Changmi Publication Co. (2007)
7. *Formative Art*, Ministry of Education. (2007)
8. *Product Design Application*, Korea Research Institute for Vocational Education and Training. (1998)
9. *Design Sketch Rendering*, Changmi Publication Co. (1997)

Journals

Note: Underlined names indicate students and starred names* indicate the corresponding authors. Prof. YJ Ko (Ko, Y)'s name is always in bold. Double starred names** indicate articles where the corresponding author is YJ Ko and a student under his direct supervision.

1. Jung, H. Kim K., **Ko, Y***, Kim W., Choi W. (2023). Design Considerations for Variable Washbasin Considering Wheelchair Users in Public Disabled Toilets, *Archives of Design Research*, 36(1), 123-135.
2. Kim, K. & **Ko, Y****, Yoon H. (2022). A Study on User Requirements for the Design of Ostomate Responsive Washing Machine, *Journal of Cultural Product & Design*, 68, 211-226.
3. Sung, K. & **Ko, Y****. (2022). Prior Research and Case Analysis for the Design Development of Robots for Guidance Services at Welfare Centers for the Disabled, *Journal of Cultural Product & Design*, 68, 161-174.
4. Choi, W., Kim W., & **Ko, Y***. (2021). Universal Design Guidelines for Improvement of Toilet Hygiene Products in Public Rental Housing, *Archives of Design Research*, 34(4), 103-118.
5. Park, K. & **Ko, Y****. (2021). Kiosk Design of Smart Bus Stop in Seoul Applying Universal Design, *Journal of Cultural Product & Design*, 66, 295-304.
6. Sung, K. & **Ko, Y****. (2021). Directions for the Design Development of Information Service Robots at Senior Welfare Centers, *Journal of Cultural Product & Design*, 66, 329-339.
7. Kim, K. & **Ko, Y****, Yoon H. (2021). Analysis of Preceding Cases and Actual Conditions for the Design of Ostomate Responsive Washing Machine, *Journal of Cultural Product & Design*, 66, 315-327.
8. Kim, K. & **Ko, Y****. (2021). Design Improvement of Indoor Hand Bike for People with Spinal Cord Injury Through Usability Test, *Journal of Integrated Design Research*, 20(1), 89-105.
9. Park, K. & **Ko, Y****. (2021). A Study on the Application of Universal Design through Case Analysis and Evaluation of Smart Bus Stops, *Journal of Cultural Product & Design*, 64, 169-179.
10. Kim, S., Lee, J. & **Ko, Y****. (2020). A Study on the Correlation Between Lifestyle Patterns and Design Factors of Floor Materials in Residential Spaces-Focused on Apartment Residents, *Journal of Integrated Design Research*, 19(3), 79-92
11. Kim, S. & **Ko, Y****. (2020). A Study on Housing Design Characteristics Reflecting Lifestyle-Focused on Apartment Model House, *Journal of Integrated Design Research*, 19(1), 41-56
12. Yoon, H. & **Ko, Y****. (2020). A Study of Application of Universal Design Through the Analysis of Previous Research and Cases on the Development of Restroom in Welfare Facilities for the Elderly, *Journal of Cultural Product & Design*, 63, 161-172.
13. **Ko, Y.** & Kim, J. (2019). An Analysis of the Requirements for Developing Home Visiting Rehabilitation Medical Service Using ICT for Persons with Spinal Cord Injury, *Journal of Integrated Design Research*, 18(4), 131-146.
14. Kim, H. & **Ko, Y****. (2019). Proposal of Service Design to Guide Senior Medication, *Design Works*, 2(2), 76-87.
15. Kim, S. & **Ko, Y****. (2019). Analysis and Case Study for the Application of Universal Design of Road Information Signs, *Journal of Integrated Design Research*, 18(3), 91-107.
16. **Ko, Y.** & Kim, J. (2019). ICT-based Service Design Proposal for the Safe Life of Single Elderly Households, *Journal of Cultural Product & Design*, 59, 107-116.
17. Hou, P. & **Ko, Y****. (2019). A Proposal of Service Scenario Based on Sharing Economy for Chinese Free Travelers, *Journal of Integrated Design Research*, 18(1), 145-160.
18. Kim, K. & **Ko, Y****. (2018). A Study on the Service Design of ICT Medical Cooperation Service for Life Care of People with Spinal Cord Injury- Based on stakeholder requirements surveys -, *Korea Institute of Cultural Product & Design*, (55), 279-289.

19. Doh, H. & **Ko, Y****. (2018). A Case Study of Emotional Design in Medical Equipment Reducing Children's Psychological Anxiety, *Journal of Integrated Design Research*, 17(4), 73-86.
20. Kim, J. & **Ko, Y****. (2018). A Proposal of ICT Converged Service Design Scenarios for the Safe Living of the Elderly, *Journal of Integrated Design Research*, 17(3), 129-139.
21. Jung, H. & **Ko, Y****. (2018). User-centered contents for real-time information of subway in universal design, *The Korean Society of Science & Art*, 32, 259-269.
22. Kim, S. & **Ko, Y****. (2017). Analysis of Robot Research and Development Cases Used for Treatment and Social Adaptation of Children with Autism Spectrum Disorder, *Journal of Integrated Design Research*, 16(4), 21-32.
23. Jung, H. & **Ko, Y****. (2017). Design Guideline for Real-time Passenger information Content of Subway- Focused on Literature and JapanTokyo metro Cases Study-, *The Korean Society of Science & Art*, 30, 415-425.
24. Kim, J. & **Ko, Y****. (2017). Analysis of ICT Convergence Cases and Preceding Studies to Improve Safe Life Supporting Services for the Elderly, *Journal of Integrated Design Research*, 16(3), 113-124.
25. Yun, G. & **Ko, Y****. (2017). The Application Direction of Universal Design for Prevention of Safety Accidents of Internal Facilities of Community Bus, *Korea Entertainment Industry Association*, 11(4), 271-284.
26. Jung, H. & **Ko, Y****. (2017). ATM Design Applying the Universal Design Concept, *Journal of Korean Society of Design Science*, 30(2), 123-137.
27. Kim, K., **Ko, Y***. & Jung, H. (2017). Development of a Safety Training Board Game for Elementary School Children Using Service Design Methods, *Journal of Korean Society of Design Science*, 30(2), 101-121.
28. Kim, J., **Ko, Y.** & Kim, J. (2016). A study on Usability Assessment of Participatory Action about Bathroom Products of High-Performance: Based on People with Physical disability & Brain disorder, *The Korean Society of Science & Art*, 23, 83-93.
29. Jung, H., Kim, K., Jo, S. **Ko, Y.** (2016). The Usability Evaluation Indicators for Services Design Platform, *The Korean Society of Science & Art*, 20, 409-419.
30. Lee, H., **Ko, Y.** & Kim, C. (2015). A study on the universal design evaluation of the bus stop in Seoul- Focusing on the roadside and the central bus stop in Seoul-, *The Korean Society of Science & Art*, 19, 547-559.
31. Kim, K. & **Ko, Y****. (2014). A study of user needs to develop an application for cultural facilities in consideration of the deaf, *Korea Institute of Cultural Product & Design*, (39), 101-114.
32. Kim, J. & **Ko, Y****. (2014). A Study of Developing a Guideline for the Application of Universal Design based on the Web-2-Print Service, *Korea Institute of Cultural Product & Design*, (39), 87-100.
33. Kim, J. & **Ko, Y****. (2014). Extracting Design Elements of Mobile Messenger Emotion using Disaster Preparedness Manual, *Korea Association of Industrial Designers*, 8(4), 99-108.
34. Kim, H. & **Ko, Y****. (2014). Development of Robotic Gadget a Prototype for Social Activity Enhancement of the Persons with Severe Disability, *The Korean Society of Science & Art*, 17, 141-150.
35. Jung, H., **Ko, Y***. & Kim, K. (2014). Storyboard Prototyping Toolkit Design for Co-creation, *Journal of Korean Society of Design Science*, 27(3), 235-249.
36. An, S. & **Ko, Y.** (2014). A study on Sign system of Hongkong Subway in Universal Design, *Korea Institute of Cultural Product & Design*, (37), 109-120.

37. Kim H., An, K., **Ko, Y.** & Kim, J. (2014). A Study on the Suggestion for Performing the Manual Working of the Persons with Severe Disability to Improve the Social Activities, *The Korean Society of Science & Art*, 16, 117-125.
38. **Ko, Y.**, Jung, H., Kim, K. & Keum, E. (2014). Suggestions for an Online Service Prototyping Tool for Co-creation: Focused on Mobile Applications, *Korea Institute Of Cultural Product & Design*, 27(2), 5-17
39. **Ko, Y.** (2014). Design of posture support equipment for children with cerebral palsy, *Korea Institute Of Cultural Product & Design*, (36), 63-74.
40. An, S. & **Ko, Y.** (2013). A Study on Sanitary facilities and Accessibility to Cultural facilities from Universal Design point, *Korea Institute Of Cultural Product & Design*, (35), 1-13.
41. Kim, H., **Ko, Y.*** & Kim, J. (2013). A study on quantization of service for development of the adequate service index, *The Korean Society of Science & Art*, 14, 135-143.
42. Kim, K., **Ko, Y.*** & Jung, H. (2013). Development of Service Design Prototyping Guidelines, *Journal of Korean Society of Design Science*, 26(4), 122-153.
43. An, S. & **Ko, Y.** (2013). A Comparison the World Cup's Sports Facilities between Korean and Japan and a Study of Promotion Plan from a View of Universal Design, *Korea Institute Of Cultural Product & Design*, (32), 17-29.
44. Seo, D. & **Ko, Y.****. (2013). An analysis on the universal design application to the Bukhansan National Park sign facilities Focusing on Bukhansan Dullegil barrier-free trail, *Journal of Korean Society of Design Science*, 26(1), 483-505.
45. **Ko, Y.**, Yoon, H. & Kim, J. (2013). Equipment design for stairs to evacuate people with a mobility impairment when fire occurs, *Journal of Korean Society of Design Science*, 26(1), 339-353.
46. **Ko, Y.**, Kim, H., Kim, J. & Sohn, R. (2012). The Design of a Power Wheelchair Based Computing System for Individuals with Severe Disability, *Journal of Korean Society of Design Science*, 25(2), 361-370.
47. Sin, H. & **Ko, Y.****. (2012). Testing Tactual Sensibility for Spatial Directions: An experimental study on Touch-pressure and Two-point discrimination threshold, *Journal of Korean Society of Design Science*, 25(1), 93-104.
48. **Ko, Y.** & Kim, H. (2011). Manhole Design Considering Balances with Pavement Environment and Easiness of Walking, *Society of Korea Illusart*, 14(2), 1-10.
49. An, S & **Ko, Y.** (2011). A Study on Nonverbal Sign of Subway for Universal Design, *Journal of Integrated Design Research*, 10(1), 151-170.
50. Lee, D & **Ko, Y.****. (2010). Design Development and Evaluation of Visual Environment Improvement Facility for Long Road Tunnel-Focused on the Case of Inje Tunnel-, *Journal of Korean Society of Design Science*, 23(3), 207-216.
51. **Ko, Y.**, Lee, J. & Kim, H. (2010). Design Development of Roadside Tree Protecting Cover, *Korea Association of Industrial Designers*, 4(1), 11-18.
52. **Ko, Y.** & Kim M. (2010). The Sign System Design of Bupyeong Street in Incheon City for the Integration of Regional Characteristics and the Revitalization of a Festival, *Korea Academy of Commodity Science & Technology*, 28(1), 13-23.
53. Sin, H. & **Ko, Y.****. (2009). Applications of Ubiquitous IT to Improve Socially Underprivileged People's Access to Traffic Facilities, *Journal of Korean Society of Design Science*, 22(4), 41-50.

54. **Ko, Y.**, Kim, H., & Lee, M. (2009). Street Furniture Design that Considers Regional Characteristics and User Needs in Bupyeong-gu, Incheon city, *Journal of Korean Society of Design Science*, 22(3), 297-308.
55. **Ko, Y.**, (2009), Policies and Applications of Universal Design in Local Governments of Japan -Focused on the Cases of Shizuoka Prefecture and Kumamoto Prefecture-, *Journal of Korean Society of Design Science*, 22(1), 217-230.
56. **Ko, Y.**, Woo, H. & Yoon, H. (2008). Expanded Evaluation System for Design Guidelines of Universal Smart Kitchen, *Journal of Korean Society of Design Science*, 21(2), 155-166.
57. Kim, H., **Ko, Y.** & Park, S. (2008). A Study on Design for Development of Robot to Care Old People: Design Development of Robot to Support Movement of Old People, *Korea Academy of Commodity Science & Technology*, 26(1), 35-45.
58. **Ko, Y.** (2007). A Case Study of the Universal Design Application of Japanese Companies-Focused on Universal Design Evaluation Criteria and User Centered Design Methods, *Korea Academy of Commodity Science & Technology*, 25(4), 1-10.
59. **Ko, Y.** (2006). Evaluations of Convenience of Use and Image Preference of Bicycles to Develop Electric Bikes, *Journal of Korean Society of Design Science*, 19(3), 19-30.
60. **Ko, Y.** & Park, H. (2003). A Study on the Guidelines of Residential Space Design for Wheelchair Users, *Journal of Korean Society of Design Science*, 16(2), 21-218.

Conference Proceedings:

1. Lee, H., **Ko, Y.** (2022). Furniture Design Considerations for Interactions with Small Dogs: Based on Behavioral Characteristics, *Proceedings of Korean Society of Design Science Spring Conference*, Seoul, Korea, 46-47.
2. Cha, H., **Ko, Y.** (2022). User Requirements and Design Directions of Shower Chair for the Elderly: Focused on Rental Housing, *Proceedings of Korean Society of Design Science Spring Conference*, Seoul, Korea, 250-251.
3. Jung, J., **Ko, Y.** (2021). Service Design Using Robots for Women's Safe Return Home, *Proceedings of Korean Society of Design Science Autumn Conference*, Korea, 380-381.
4. Kim, K., **Ko, Y.** (2021). Development of a One Day Design Thinking Workshop Model for Non-majors, *Proceedings of Korean Society of Design Science Autumn Conference*, Korea, 138-143.
5. Park, K., **Ko, Y.** (2021). Evaluation of Universal Design Application to Bus Stop Information in Seoul through Customer Journey Map, *Proceedings of Korean Society of Design Science Spring Conference*, Korea, 178-179
6. Sung, K., **Ko, Y.** (2021). Design Direction of Home Visiting Medical Rehabilitation Service for Persons with Spinal Cord Injury, *Proceedings of Korean Society of Design Science Autumn Conference*, Korea, 192-193.
7. Park, K., **Ko, Y.** (2020). Analysis of Previous Studies and Cases to Design Universal Kitchens, *Proceedings of Korean Society of Design Science Autumn Conference*, Korea, 2-3.
8. Kim, M., **Ko, Y.** (2020). Design Study for the Mitigation of Digital Divide of the Elderly: Focused on Kiosk Interface, *Proceedings of Korean Society of Design Science Autumn Conference*, Korea, 182-183.
9. Sung, K., **Ko, Y.** (2020). Universal Design Guidelines for Washbasin of Public Disabled Restrooms, *Proceedings of Korean Society of Design Science Autumn Conference*, Korea, 4-5.

10. Kim, S., **Ko, Y.** (2020). Design of Pet Dry Room for Relieving Pet Stress, Proceedings of Korean Society of Design Science Autumn Conference Korea, 170-171.
11. Hong, H., **Ko, Y.** (2020). Suggestion of Design Guidelines for Adult Diaper Changing Table, Proceedings of Korean Society of Design Science Spring Conference, Korea, 196-197.
12. Jang, Y., **Ko, Y.** (2020). User Requirements and Design Direction of Ceiling Hoist for Individuals with Mobility Issues, Proceedings of Korean Society of Design Science Spring Conference Korea, 152-153.
13. Sung, K., **Ko, Y.** (2020). Direction of Shower Unit Design Applying Universal Design: Focused on the Public Rental Housing, Proceedings of Korean Society of Design Science Spring Conference, Korea, 194-195.
14. Park, K., **Ko, Y.** (2020). Analysis of Problems and Requirements to Develop Washbasin in Rental Housing with Universal Design, Proceedings of Korean Society of Design Science Spring Conference, Korea, 192-193.
15. Woo, S., **Ko, Y.**, Cho, W. (2019). A Study on a Guiding Cane Operated with Tactile Signal for Blind People, Proceedings of Korean Society of Design Science Autumn Conference, Korea, 235-236.
16. Jung, W., Ryu, J., & **Ko, Y.** (2019). A Study on Universal Controller Design for Various Virtual Reality Content, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 284-285.
17. Kim, J., Kim, K., Jung, H., & **Ko, Y.** (2019). A Survey of the Requirements for Developing Healthcare Monitoring Application for the Spinal cord injured, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 50-51.
18. Choi, S., **Ko, Y.** (2019). A Study on the Direction of Cognitive Disorder Diagnosis Service Design, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 404-405.
19. Kim, K., Kim, J., Kim, H., Kim, J., & **Ko, Y.** (2018). Design Direction of Home Visiting Medical Rehabilitation Service for Persons with Spinal Cord Injury, Proceedings of Korean Society of Design Science Autumn Conference, Pusan, Korea, 192-193.
20. Kim, J., Kim, K., **Ko, Y.**, & Kim, W. (2018). Analysis of Accessible Map Cases for the Mobility of the Transportation Vulnerable, Proceedings of Korean Society of Design Science Autumn Conference, Pusan, Korea, 176-177.
21. Jung, H., Lee, H., & **Ko, Y.** (2018). A Case Study on Home Visiting Nursing Service Using ICT. Proceedings of Korean Society of Design Science Autumn Conference, Pusan, Korea, 272-273.
22. Jeon, D., Lee, H., & **Ko, Y.** (2018). A service design proposal for express bus use of wheelchair users. Proceedings of Korean Society of Design Science Autumn Conference, Pusan, Korea, 288-289.
23. Kim, M., Hong, K., & **Ko, Y.** (2018). A suggestion of ux design of drinking water for fitness center users. Proceedings of Korean Society of Design Science Autumn Conference, Pusan, Korea, 314-315.
24. Kim, K., **Ko, Y.**, & Kim, J. Bus reservation system design for the transportation vulnerable, RESNA Annual Conference-2018, Arlington, VA., USA.
25. Kim, J., & **Ko, Y.** (2018). User needs of ICT application service for the safe living of senior citizens living alone, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 190-191.
26. Choi, S., & **Ko, Y.** (2018). Analysis of examination methods and program cases for dementia diagnosis service design, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 108-109.
27. Michaela, S., Lieu, J., & **Ko, Y.** (2018). Analysis of user journey to design a mental health care service for

- people with anxiety symptoms, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 256-257.
28. Hou, P, & **Ko, Y.** (2018). Research on the service design for Chinese free tourists on the bases of sharing economics, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 296-297.
 29. Lee, Y., & **Ko, Y.** (2017). A proposal of customized water drinking product UX design concept, Proceedings of Korean Society of Design Science Autumn Conference, Dagu, Korea, 64-65.
 30. Kim, K., Kim, J., & **Ko, Y.** (2017). Environmental design guideline for the elderly with cognitive impairment, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 142-143.
 31. Youn, K., Kim, J., & **Ko, Y.** (2016). An analysis of network-based life support cases to design a service for the elderly with cognitive impairment. Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 6-7.
 32. Lee, J., **Ko, Y.**, & Jung, S. (2016). Case study of service design fun concept is applied, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 38-39.
 33. Min, S., **Ko, Y.**, & Jung, S. (2016). Case study of on-line accessibility map to improve accessibility of wheelchair users. Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 144-145.
 34. Lee, Y., Ku, B., Yun, K., & **Ko, Y.** (2016). Preliminary study for developing near future bus service scenario. Proceedings of Korean Society of Design Science Autumn Conference. Pusan, Korea, 26-27.
 35. Im, J, Her, C, & **Ko, Y.** (2013) A study on the service design for woman who were getting home at night, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 220- 221.
 36. Kim, K, Keum, E, Jung, H, & **Ko, Y.** (2012) Evaluation sheet for the development of service design prototyping authoring tool, Proceedings of Korean Society of Design Science Conference, Seoul, Korea, 56- 57.
 37. Kim, H, Youn, H, & **Ko, Y.** (2012). A study of the stakeholder for fire response in the metro, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 122- 123.
 38. Kim, H, **Ko, Y.** & Kim, S. (2012). Case analysis of game type disaster prevention education programs at home and aboard, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 142- 143.
 39. Keum, E, & **Ko, Y.** (2012). Analysis of prototyping tools for service design, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 184- 185.
 40. Woo, D, Koo, Y, Seo, K, Yu, H, Jang, H, **Ko, Y.** & Choi, M. (2012). Universal design study of the information facilities in National park, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 208- 209.
 41. **Ko, Y.** (2012). Design of a power wheelchair based computing system for individuals with severe disability, National Research Foundation of Korea, Seoul, Korea, 361- 370.
 42. **Ko, Y.** (2012). Testing of tactual sensibility for spatial directions: An experimental study on touch pressure and two-point discrimination threshold, Proceedings of Korean Society of Design, Science Spring Conference, Seoul, Korea, 93- 104.
 43. **Ko, Y.** (2012). Manhole design considering balances with pavement environment and easiness of walking, The Society of Korea Illusart, Seoul, Korea, 1- 10.

44. **Ko, Y.** (2011). A study on nonverbal sign of subway for universal design, Journal of Digital Interaction Design, Seoul, Korea, 151- 170.
45. **Ko, Y.** (2010). Design development and evaluation of visual environment improvement facility for long road tunnel-focused on the case of Inje Tunnel-, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 207- 216.
46. **Ko, Y.** (2010). Design development of roadside tree protecting cover, Korea Society of Industrial Design, Seoul, Korea, 17- 25.
47. **Ko, Y.** (2010) Sign system design of Bupyeong Street in Incheon City for the integration of regional characteristics and the revitalization of a festival, Korea Academy of Commodity Science & Technology, Seoul, Korea, 13- 23.
48. **Ko, Y.** (2009). Applications of ubiquitous IT to improve socially underprivileged people's access to traffic facilities, Proceedings of Korean Society of Design Science Conference, Seoul, Korea, 41- 50.
49. **Ko, Y.** (2009). Street furniture design that considers regional characteristics and user needs in Bupyeong, Incheon, Proceedings of Korean Society of Design Science Conference, Seoul, Korea, 297- 308.
50. **Ko, Y.** (2009). Policies and applications of universal design in local governments of Japan-Focused on the cases of Shizuoka Prefecture and Kumamoto Prefecture-, Proceedings of Korean Society of Design Science Conference, Seoul, Korea, 217- 230.
51. **Ko, Y.** (2008). Expanded evaluation system for design guidelines of universal smart kitchen, Proceedings of Korean Society of Design Science Conference, Seoul, Korea, 155- 166.
52. **Ko, Y.** (2008). Design development of robot to support the mobility of old people, Korea Academy of Commodity Science & Technology, Seoul, Korea, 35- 45.
53. **Ko, Y.** (2006). Evaluations of convenience of use and image preference of bicycles to develop electric bikes, Proceedings of Korean Society of Design Science Spring Conference, Seoul, Korea, 19- 30.

EXTERNAL RESEARCH PROJECTS (Principal investigator only. \$1 = ₩1,000)

- | | |
|------|---|
| 2023 | Development of variable toilet devices with universal design concept (4 th year), Ministry of Health & Welfare. (₩140,000,000=\$140,000) |
| 2022 | Development of variable toilet devices with universal design concept (3 rd year), Ministry of Health & Welfare. (₩187,000,000=\$187,000) |
| 2021 | Development of variable toilet devices with universal design concept (2 nd year), Ministry of Health & Welfare. (₩233,000,000=\$233,000) |
| 2020 | Development of variable toilet devices with universal design concept (1 st year), Ministry of Health & Welfare. (₩240,000,000=\$240,000) |
| 2019 | Development and its effectiveness verification of ICT based cooperative model for life care service for persons with spinal cord injury, (2 nd year), Ministry of Health & Welfare. (₩45,000,000=\$45,000) |
| 2018 | Universal design evaluation and content development for public environment , Seoul Design Foundation. (₩ 89,360,000=\$89,360) |
| 2018 | Development and its effectiveness verification of ICT based cooperative model for life care service for |

- persons with spinal cord injury, (1st year), Ministry of Health & Welfare. (₩50,000,000=\$50,000)
- 2018 A study of ICT convergence service model for safe living of older people (3rd year), Korea Research Foundation. (₩12,990,000=\$12,990)
- 2017 Design for people with cognitive impairment, Seoul City Government.(₩ 48,732,000=\$48,732)
- 2017 A study of ICT convergence service model for safe living of older people (2nd year), Korea Research Foundation. (₩12,990,000=\$12,990)
- 2016 A study on the application of universal design for the urban mobility of buses, Seoul Design Foundation.(₩12,900,000=\$12,900)
- 2016 A study of ICT convergence service model for safe living of older people (1st year), Korea Research Foundation. (₩12,990,000=\$12,990)
- 2016 Water purifier design, Hyundai Wacotec co.(₩8,000,000=\$8,000)
- 2014 Development of domestic eco-friendly cooking utensils. Ecozero inc.(₩10,000,000=\$10,000)
- 2014 Basic research to develop super precision balance scale design. CAS Inc. (₩33,000,000=\$33,000)
- 2013 Development of business model and universal user interface(UI) design platform technology of smart device in consideration of old people. Ministry of Trade, Industry and Energy (₩ 90,000,000=\$90,000)
- 2013 Service-Integrated Design Consulting Support Technology for Enhancing Design Industry(3rd year). Ministry of Trade, Industry and Energy. (₩ 70,000,000=\$70,000)
- 2013 Universal design guide line for cultural facilities. Ministry of Culture Sports and Tourism. (₩ 44,545,450=\$44,545)
- 2013 Posture maintaining chair design for children with cerebral palsy. Seoultech Research Fund. (₩ 3,500,000=\$3,500)
- 2012 Analysis of universal design applications in cultural facilities and proposals to improve the situation, Ministry of Culture, Sports and Tourism. (₩ 19,000,000=\$19,000)
- 2012 Development of posture maintaining chair for children with cerebral palsy. Easy Move Inc. (₩ 11,900,000=\$11,900)
- 2012 Service-Integrated Design Consulting Support Technology for Enhancing Design Industry(2nd year), Ministry of Knowledge Economy. (₩ 91,000,000=\$91,000)
- 2012 An analysis on the universal design application to the Bukhansan National Park sign facilities. Seoultech Research Fund.(₩ 3,000,000=\$3,000)
- 2011 Digital bell design for inline skater. Woosung Trading Inc. (₩ 2,500,000=\$2,500)
- 2011 Products & Service Design for Disaster Preparedness. Ministry of Knowledge Economy. (₩ 115,000,000=\$115,000)
- 2011 Service-Integrated Design Consulting Support Technology for Enhancing Design Industry(1st year), Ministry of Knowledge Economy. (₩ 40,000,000=\$40,000)
- 2010 Development of computing system for wheelchair users. National Rehabilitation Center.

(₩ 50,000,000=\$50,000)

- 2010 A study of commercialization strategy to develop service robot. Small and Medium Business Administration. (₩ 12,460,000=\$12,460)
- 2010 Development of roadside tree protecting cover and manhole. IMU Inc. (₩11,000,000=\$11,000)
- 2009 Development of symbolic artifact to commemorate the designation of World Design Capital. Seoul Design Foundation. (₩ 10,000,000=\$10,000)
- 2009 Multipurpose line lighting system, Eyclight inc.. (₩ 10,000,000=\$10,000)
- 2007 Street furniture designs for Bupyeong Street in Incheon City, Korea Institute for Design Promotion (₩ 150,000,000=\$150,000)
- 2007 Home body fat analyzer. CAS Inc.(₩ 7,000,000=\$7,000)
- 2007 DVR design, Prostar Inc. (₩ 31,077,000=\$31,077)
- 2006 Room control design, SMI Inc. (₩ 6,500,000=\$6,500)
- 2006 Product design for the elderly, Yonsei Univ. (₩ 8,000,000=\$8,000)
- 2005 nBody digital scale design, CAS Inc. (₩ 7,000,000=\$7,000)
- 2004 Electric bike design using Ni-Mh battery and hob motors, (₩ 36,003,000=\$36,003)
- 2004 nBody digital scale & health meter design, CAS Inc. (₩ 7,500,000=\$7,500)

INTELLECTUAL PROPERTY

- 2023 Patent- Shower faucet
- 2023 Patent- Dry room for pets
- 2023 Patent-Attachable shower device
- 2023 Patent- A washbasin in the toilet for the disabled
- 2023 Patent-A washbasin in the toilet for the disabled
- 2023 Design patent-Wall-mounted shower
- 2023 Design patent- Wall-mounted shower
- 2023 Design patent-Wall-mounted shower
- 2022 Design patent- Washbasin
- 2020 Design patent-Health bike
- 2018 Patent- Bus reservation system for the transportation vulnerable
- 2018 Utility patent-Trailer (Bicycle camping trailer)
- 2018 Utility patent- Wheelchair with hand pedals
- 2017 Design patent-Trailer (Bicycle camping trailer)

2017	Design patent- Wheelchair with hand pedals
2017	Design patent- Card for story telling board game
2017	Design patent- Board for safety education
2016	Design patent- Body fat scale design
2016	Design patent- Subway ticket machine design
2016	Design patent- Bus stop information system (BIS) design
2015	Design patent- ATM design
2015	Design patent- Fry pan lid design
2015	Design patent- Blood pressure monitor design
2015	Design patent- ATM design
2014	Patent- Safety mask for subway users
2014	Design patent- Equipment design for stairs to evacuate people with a mobility impairment
2012	Design patent- Safety guideline manual for disaster preparedness
2012	Design patent- Tool kit for disaster preparedness

PRESS & COLUMN

01/11/2022	Museum for all- Museum and universal design 2, https://museumnews.kr/301column/
12/28/2021	Museum and Universal Design 1, https://museumnews.kr/300column/
07/23/2019	The pursuit of equality, safety and a pleasant city...Improve the quality of life for the underprivileged(Seoul's Design Story); Segye Ilbo Daily (http://www.segye.com/newsView/20190722509386?OutUrl=naver)
10/31/2018	Need to create universal design landmarks without discrimination toward socially underprivileged, Seoul Shinmun Daily (http://go.seoul.co.kr/news/newsView.php?id=20181031017001&wlog_tag3=naver)

STUDENT SUPERVISION

PhD Students

1. Kiwon Kim. (2022). Design guidelines for ostomate responsive facilities in public toilets.
2. Seunghyun Kim. (2022). A study on the design of a smart floor mat in a residential space reflecting lifestyle: Focused on CMF design
3. Hoejun Chung. (2018). Universal design guideline for passenger information display system.
4. Hyungsik Kim. (2015). A study on robotic arm design for social activities of patients with acquired severe limb paralysis.

5. Hongjae Shin. (2012). Tactile 3D mobile information model for the visually impaired.

Masters Students

1. Kyuhwa Sung. (2022). Design of guide service in welfare center for the disabled using service robot
2. JiYeon Kim. (2019). Proposal of App Design for ICT-Utilized Home Visit Rehabilitation Service for People with Spinal Cord Injury
3. Hou Pan-Pan. (2019). A Study on the Shared Economy Based Service Design for Free Tourists in China: Focused on Chinese Tourists in Korea.
4. Chuchan Kim. (2015). A study of developing a guideline for the application of universal design based on the Web-2-Print service.
5. Kiwon Kim. (2014). A design guideline to develop an application for cultural facility in consideration of deaf.
6. Eunbyeol Kum. (2013). Suggestions of prototyping tool for service design co-creation: Focusing on mobile application.
7. Dongik Seo. (2012). An analysis on the universal design application to the Bukhansan National Park sign facilities: Focusing on Bukhansan Dulle-gil Barrier-free Trail.
8. Daehyun Kim. (2011). A study on hand control design for self-driving of wheelchair users.
9. Donghee Lee. (2011). Design study of visual environment improvement facility for long road tunnel: Focused on the case of Inje Tunnel.
10. Chunghyuk Lee. (2011). Aerobic exercise equipment design for wheelchair users.
11. Chihoon Youn. (2010). A study on bicycle design for the elderly.
11. Byungju Lee. (2010). Design development of home security robot for single.
12. Bonsup Ku. (2008). Applications of industrial heritage for urban regeneration: Focused on disused railroad station.
13. Miyouon Kim. (2007). Sign system design of a street for the integration of regional images and the revitalization of regional festivals: Focused on the Bupyeongno in Incheon.
14. Sangwoo Cha. (2006). Design development of tools for manual works of the disabled with hemiplegia.
15. Hyungsik Kim. (2006). Design development of walking device for old people.

COURSE TAUGHT (Since 2016)

- 2022 Undergraduate: Smart ID (spring) Graduate: Universal design (spring)
- 2021 Undergraduate: Service design (fall), Industrial capstone design 2(fall)
- 2021 Undergraduate: Smart ID (spring), Industrial capstone design 1 (spring)
Graduate: Advanced service design(spring),
- 2020 Undergraduate: Service design (fall), Industrial capstone design 2(fall)

- 2020 Undergraduate: Smart ID (spring), Industrial capstone design 1 (spring)
Graduate: Advanced service design(spring)
- 2019 Undergraduate: Service design (fall), Industrial capstone design 2 (fall)
Graduate: Master thesis study 1(fall), PhD thesis study 1(fall)
- 2019 Undergraduate: ID3 (spring), Industrial capstone design 1(spring)
Graduate: Advanced service design (spring), Master thesis study 2(spring)
- 2018 Undergraduate: Service design (fall), Industrial capstone design 2 (fall)
Graduate: Universal design research (fall), Master thesis study 1(fall), PhD thesis study 1(fall)
- 2018 Undergraduate: ID1(spring), Industrial capstone design 1(spring)
Graduate: Advanced service design(spring), Master thesis study 2(spring), PhD thesis study 2(spring)
- 2017 Undergraduate: Design research(fall), Service design(fall), Industrial capstone design 2(fall)
Graduate: Universal design research(fall), PhD thesis study 1(fall)
- 2017 Undergraduate: Basic ID1(spring), ID1(spring), Industrial capstone design 1(spring)
Graduate: Advanced service design(spring), Master thesis study 2(spring),
- 2016 Undergraduate: Design research(fall), Service design(fall), Industrial capstone design 2(fall) Graduate:
Universal design research(fall), PhD thesis study 1(fall), Master thesis study 2(fall)
- 2016 Undergraduate: Basic ID1(spring), ID1(spring), Industrial capstone design 1(spring) Graduate: Advanced
service design(spring), Master thesis study 1(spring)

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