

## HEECHEON YOU, PH.D.

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 Department of Industrial & Management Engineering  
 Pohang University of Science & Technology  
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### RESEARCH INTERESTS

- ❑ Ergonomic Design
  - Anthropometric and biomechanical analysis for product design
  - Product design and evaluation with digital human models
  - Human performance and workload assessment
  - Usability testing
- ❑ User-Centered, Innovative Product Development
  - Virtual liver surgery planning system
  - Screening and diagnosis system for glaucoma
  - Screening and diagnosis system for motor intentional disorders
  - Serious games for brain fitness
  - Noninvasive monitoring device for dysphagia
  - Healthcare service systems

### ACADEMIC APPOINTMENTS

- |   |                       |
|---|-----------------------|
| <b>Professor</b>  | Sept. 2013 ~ present  |
| Department of Industrial & Management Engineering<br>Pohang University of Science & Technology, Pohang, Kyungbuk, South Korea |                       |
| <b>Associate Professor</b>  | Mar. 2007 ~ Aug. 2013 |
| Department of Industrial & Management Engineering<br>Pohang University of Science & Technology, Pohang, Kyungbuk, South Korea |                       |
| <b>Visiting Associate Professor</b>   | Jan. 2009 ~ Dec. 2009 |
| Engineering Systems Division<br>Massachusetts Institute of Technology, Cambridge, MA, USA                                     |                       |
| <b>Assistant Professor</b>  | July 2002 ~ Feb. 2007 |
| Department of Industrial & Management Engineering<br>Pohang University of Science & Technology, Pohang, Kyungbuk, South Korea |                       |
| <b>Assistant Professor</b>  | Jan. 1999 ~ July 2002 |
| Department of Industrial & Manufacturing Engineering<br>Wichita State University, Wichita, KS, USA                            |                       |

**Lecturer** Aug. 1998 ~ Dec. 1998  
 School of Engineering Technology and Commonwealth Engineering  
 The Pennsylvania State University, University Park, PA, USA

**Lecturer** Mar. 1994 ~ June 1994  
 Department of Industrial Engineering  
 Seoul National Polytechnic University, Seoul, South Korea

## EDUCATION

Ph.D. Industrial Engineering May 1999  
 The Pennsylvania State University, University Park, PA, USA  
 Dissertation: Development of a Risk Assessment Model for Carpal Tunnel  
 Syndrome (CTS)  
 Advisor: Dr. Andris Freivalds

M.S. Industrial Engineering Feb. 1990  
 Seoul National University, Seoul, South Korea  
 Thesis: Development of a Hierarchy of Human Functions for Systematic  
 Identification of High-Touch Product Functions  
 Advisor: Dr. Myun-Woo Lee

B.S. Industrial Engineering Feb. 1988  
 Seoul National University, Seoul, South Korea

## COURSES TAUGHT

### Undergraduate

- Ergonomics/Human Factors Engineering
- Industrial Ergonomics
- Work Systems Design
- Product Development Engineering
- Engineering Probability & Statistics
- Engineering Design & Graphics

### Graduate

- Product Design & Development
- Occupational Biomechanics
- Work Physiology
- Human Factors Experiment
- Usability Engineering
- Life Cycle Assessment for Eco Design

## OTHER PROFESSIONAL EXPERIENCES

**Lieutenant** (Research Officer) Oct. 1992 – Feb. 1994  
 Research Institute for Pilot Aptitude Test and Evaluation  
 The ROK Air Force Academy, Chungju, South Korea

**Lieutenant** (Fighter Controller) Nov. 1990 – Sept. 1992  
 The 30<sup>th</sup> Air Defense Control Wing  
 The ROK Air Force Operations, Osan, South Korea

**Research Staff**

Research Institute of Engineering Science  
Seoul National University, Seoul, South Korea

Mar. 1990 – Oct. 1990

**PUBLICATIONS****A. BOOKS**

1. You, H., Kim, E., Yune, M., Jeon, E., Lee, W., and Park, J. (2014). Design for Eco Life. Humanopia: ISBN: 978-89-969260-1-6.
2. You, H., Kim, E., Park, J., Jeon, E., Park, J., Choi, Y., and Lee, W. (2012). Design for Eco Life. Humanopia: ISBN: 978-89-969260-0-9.
3. You, H. (2003). Applied Statistics and Probability for Engineers: Student Workbook with Solutions. John Wiley & Sons. ISBN: 0-471-42682-2.
4. You, H., Oesterling, B., Bucciaglia, J., Lowe, B. D., Gilmore, B. J., and Freivalds, A. (1997). Bus Operator Workstation Evaluation and Design Guidelines: Summary. Washington, DC: National Academy Press. ISBN: 0-309-06074-5.

**B. JOURNALS****B.1 INTERNATIONAL JOURNAL ARTICLES**

1. Kim, Y.G., Lee, J., Lim, H., Jin, K.H., Lee, N., You, H., and Kang, J. (under review). Development of an LED-based visual field system: Comparison with standard automated perimetry.
2. Lee, W., Xiaopeng, Y., Jung, D., Park, S., Kim, H., and You, H. (under review). Ergonomic evaluation of pilot oxygen mask designs.
3. Yang, X., Yu, H. C., Choi, Y., Yang, J., Kim, J. H., Cho, B. H., and You, H. (under review). Development and usability testing of a user-centered 3D virtual liver surgery planning system.
4. Yang, X., Chu, C., Yang, J., Ryu, J., Yang, K., Park, Y., Lee, H., Lee, W., Choi, Y., Bae, S.I., Hwang, S.E., Yu, H.C., Cho, B.W., and You, H. (under review). Right lobe graft weight estimation based on preoperative graft volume measurement using abdominal CT images for living donor liver transplantation.
5. Jung, K., Lee, B., You, H., and Kwon, O. (under review). A boundary zone method for generation of multivariate representative humanoids.
6. Park, J., Park, K., Lee, B., You, H., and Yang, C. (under review). Classification of the lateral upper body shapes of Korean male wheelchair users.
7. Lee, W., Yang, X., Yoon, S., Lee, B., Kim, H., Park, K., and You, H. (under review). A semi-automatic protocol using plastering and 3D scanning techniques for hand measurement.
8. Chang, J., Jung, K., Lee, W., and You, H. (under review). Development of a usability evaluation method using natural product-use motion.
9. Tjolleng, A., Jung, K., Hong, W., Lee, W., Lee, B., You, H., Son, J., and Park, S. (accepted). Classification of a driver's cognitive workload levels using artificial neural network on ECG signals. *Applied Ergonomics*.
10. Kim, G.H., Seo, S.W., Jung, K., Kwon, O., Kwon, H., Kim, J.H., Roh, J.H., Kim, M.J., Lee, B.H., Yoon, D.S., Hwang, J.W., Lee, J.M., Jeong, J.H., You, H., Heilman, K.M.,

- and Na, D.L. (2016). The neural correlates of motor intentional disorders in patients with subcortical vascular cognitive impairment. *J. of Neurology*, 263(1), 89-99.
11. Lee, B., Park, H., Jung, K., Lee, B. H., Na, D. L., and You, H. (2015). The effects of age, gender, and hand on finger force control capabilities. *Human Factors*, 57(8), 1348-1358.
  12. Cho, M., Kim, D., Chung, J., Park, J., You, H., and Yang, Y. (2015). Effects of a cognitive-enhancement group training program on daily living activities, cognition, and depression in the demented elderly. *Journal of Physical Therapy Science*, 27(3), 681-684.
  13. Kim, K. W., Choi, Y., You, H., Na, D. L., Yoh, M. S., Park, J. K., Seo, J. H., and Ko, M. H. (2015). Effects of a serious game training on cognitive functions in older adults. *Journal of the American Geriatrics Society*, 63(3), 603-605.
  14. Park, J., Chang, Y., Hong, W., Lee, M., Han, A., Chae, Y., Cho, G., and You, H. (2014). Effects of color, scouring method, and age on the visual sensibility of naturally colored organic cotton (NaCOC). *Human Factors and Ergonomics in Manufacturing & Service Industries*, 24(3), 318-327.
  15. Yoon, D. S., Jung, K., Kim, G. H., Kim, S. H., Lee, B. H., Seo, S. W., You, H., and Na, D. L. (2014). Motor intentional disorders in vascular mild cognitive impairment and vascular dementia of subcortical type. *Neurocase*, 20(1), 53-60.
  16. Yang, X., Yu, H. C., Choi, Y., Lee, W., Wang, B., Yang, J., Hwang, H., Kim, J. H., Song, J., Cho, B. H., and You, H. (2014). A hybrid semi-automatic method for liver segmentation based on level-set methods using multiple seed points. *Computer Methods and Programs in Biomedicine*, 113(1), 69-79.
  17. Lee, W., Jeong, J., Park, J., Kim, H., Jung, D., Park, S., and You, H. (2013). Analysis of the facial measurements of Korean Air Force pilots for oxygen mask design. *Ergonomics*, 56(9), 1451-1464.
  18. Park, J., Hong, W., Jeong, J., Lee, M., Chae, Y., Paik, M., Cho, G., and You, H. (2013). Development of a textile sensibility evaluation system. *Fibers & Polymers*, 14(8), 1400-1406.
  19. Kim, E., Lee, B., Jo, M., Jung, K., You, H., Lee, B.H., Cho, H., Sung, S., Jung, D.S., Heilman, K.M., and La, D.L. (2013). Directional and spatial motor intentional disorders in patients with right versus left hemisphere strokes. *Neuropsychology*, 27(4), 428-437.
  20. Lee, W., Jung, K., Jeong, J., Park, J., Cho, J., Kim, H., Park, S., and You, H. (2013). An anthropometric analysis of Korean male helicopter pilots for helicopter cockpit design. *Ergonomics*, 56(5), 879-887.
  21. Yu, H.C., Jin, G.Y., You, H., Jin, Z.W., Chung, J.W., Hwang, S., and Cho, B.H. (2011). Identification of the anterior sectoral trunk with particular reference to the hepatic hilar plate and its clinical importance. *Surgery* 149(2), 291-296.
  22. Jung, K., You, H., and Kwon, O. (2010). Evaluation of the multivariate accommodation performance of the grid method. *Applied Ergonomics*, 42(1), 156-161.
  23. Jung, K., You, H., and Kwon, O. (2010). Evaluation of the force sensitive application hand force measurement system. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 20(3), 226-232.
  24. Seo, S.W., Jung, K., You, H., Lee, B.H., and Na, D.L. (2009). Motor intentional disorders in right hemisphere stroke. *Cognitive and Behavioral Neurology*, 22(4), 242-248.
  25. Yang, Y., Kim, C., Park, J., You, H., and Cho, G. (2009). Application of fabric frictional speeds to fabric sound analysis using water repellent fabrics. *Fibers & Polymers*, 10(4), 557-561.

26. Jung, K., Kwon, O., and You, H. (2009). Development of a digital human model generation method for ergonomic design in virtual environment. *International Journal of Industrial Ergonomics*, 39(5), 744-748.
27. Kwon, O., Jung, K., You, H., and Kim, H. (2009). Determination of key dimensions for a glove sizing system by analyzing the relationships between hand dimensions. *Applied Ergonomics*, 40(4), 762-766.
28. Kwon, O., You, H., and Jung, K. (2009). Identification of the maximum acceptable frequencies of upper extremity motions in the sagittal plane. *Human Factors and Ergonomics in Manufacturing*, 19(3), 212-222.
29. You, H., Young, R., and Lee, M. W. (2008). The development and usability testing of an operating manual for a hair-braiding machine. *Human Factors and Ergonomics in Manufacturing*, 18(1), 1-13.
30. Seo, S. W., Jung, K., You, H., Kim, E. J., Lee, B. H., Adair, J. C. and Na, D. L. (2007). Dominant limb motor impersistence associated with callosal disconnection. *Neurology*, 68(11), 862-864.
31. You, H., Ryu, T., Oh, K., Yun, M., and Kim, K. (2006). Development of customer satisfaction models for automotive interior materials. *International Journal of Industrial Ergonomics*, 36(4), 323-330.
32. You, H., Kumar, A., Young, R., Veluswamy, P., and Malzahn, D. E. (2005). An ergonomic evaluation of manual Cleco plier designs: Effects of rubber grip, spring recoil, and worksurface angle. *Applied Ergonomics*, 36(5), 575-583.
33. You, H., and Kwon, O. (2005). A survey of repetitiveness assessment methodologies for hand-intensive tasks. *International Journal of Industrial Ergonomics*, 35(4), 353-360.
34. You, H., and Ryu, T. (2005). Development of a hierarchical estimation method for anthropometric variables. *International Journal of Industrial Ergonomics*, 35(4), 331-343.
35. Yu, H. C., You, H., Lee, H., Jin, Z., Moon, J. I., and Cho, B. H. (2004). Estimation of standard liver volume for liver transplantation in the Korean population. *Liver Transplantation*, 10(6), 779-783.
36. You, H., Simmons, Z., Freivalds, A., Kothari, M. J., Naidu, S. H., and Young, R. (2004). The development of risk assessment models for carpal tunnel syndrome: A case-referent study, *Ergonomics*, 47(6), 688-709.
37. You, H., Simmons, Z., Freivalds, A., Kothari, M. K., and Naidu, S. H. (1999). Relationships between clinical symptom severity scales and nerve conduction measures in carpal tunnel syndrome. *Muscle & Nerve*, 22(4), 497-501.
38. Oesterling, B., You, H., Lowe, B. D., Gilmore, B. J., and Freivalds, A. (1999). Vibration isolation evaluation of transit bus operator seats based on lower torso acceleration. *Heavy Vehicle Systems, A Series of the Int. J. of Vehicle Design*, 6(1-4), 374-390.
39. You, H., Bucciaglia, J., Lowe, B. D., Gilmore, B. J., and Freivalds, A. (1997). An ergonomic design process for a US transit bus operator workstation. *Heavy Vehicle Systems, A Series of the Int. J. of Vehicle Design*, 4(2-4), 91-107.
40. Bucciaglia, J., Lowe, B. D., You, H., Gilmore, B. J., and Freivalds, A. (1995). Transit bus operator work station design for a diverse population. *SAE Technical Paper Series No. 952668*. Warrendale, PA: SAE.

## B.2 KOREAN JOURNAL ARTICLES

1. Jeon, E., Park, S., You, H., and Kim, H. (in press). Development of a sizing system and a draping pattern for hip protector based on 3D data analysis of Korean older women.
2. Bae, S., Yang, C., You, H., and Park, K. (in press). Developing suit prototype pattern for mass customization of wheelchair users.
3. Lee, J., Kim, Y., You, H., and Ko., B. (2015). An analysis of parents' and experts' needs for smart content for speech and language therapy for people with speech disorders. *Journal of Speech-Language & Hearing Disorders*, 24(4), 171-182.
4. Kim, S., Lee, W., Lee, B., Lee, J., Choi, Y., Jung, K., and You, H. (2015). Kim, S., Lee, W., Lee, B., Lee, J., Choi, Y., Jung, K., and You, H. (2015). Learning from successes and failures of registration of patent applications based on physical ergonomics. *J. of the Ergonomics Society of Korea*, 34(5), 455-467.
5. Kim, S., Lee, S., Lee, K., Lee, B., Lee, J., Park, S., and You, H. (2015). Usability evaluation of graphic user interfaces for a military computer-based training system. *J. of the Ergonomics Society of Korea*, 34(5), 401-410.
6. Yeon, Y., Lee, B., Kim, E., Park, B., and You, H. (2015). Establishment and application of a comprehensive business model framework: Focusing on healthcare business models. *J. of the Korean Institute of Industrial Engineers*, 41(6), 530-539.
7. Sungho Kim, Jihyung Lee, Seunghoon Lee, Younghee Yeon, Batbileg Tsolmonbaatar, and Heecheon You. A survey of eco product development methods and strategies. *J. of Life Cycle Assessment*, 16(1), 95-106.
- 8.
9. Jihyung Lee, Sungho Kim, Hayoung Jung, Heecheon You. Development of design guidelines and a checklist of ease of disassembly for effective disassembly of smartphone. *J. of Life Cycle Assessment*, 16(1), 33-47.
10. Jeong, M., Yang, C., You, H., Park, K., and Kim, S. Development of a web usability testing tool of online men's suits customizing system for the disabled in wheelchair. *Journal of Korea Society of Design Forum*, 48, 171-180.
11. Lee, S., Choi, Y., Lee, W., Yu, M., Ko, M., Park, J., and You, H. (2015). Development of a physical therapy system for enhancement of balance ability. *J. of Korean Society for Computer Game*, 28(2), 205-214.
12. Choi, Y., Jung, H., Lee, W., Yang, X., Lee, S., You, H., Yu, M., Ko, M., and Park, J. (2015). Development of a serious game for active Kegel exercise. *J. of Korean Society for Computer Game*, 28(2), 195-203.
13. Lee, W., Yang, X., Lee, S., Choi, Y., Jung, H., Lee, H., You, H., Yu, M., Ko, M., and Park, J. (2015). Development of a serious game for rehabilitation of articulation and fluency disorders. *J. of Korean Society for Computer Game*, 28(2), 1-9.
14. Lee, B., Park, H., Kim, S., Lee, B. W., Na, D. L., and You, H. (2015). Analysis of force tracking capabilities in healthy adults for screening brain disorders. *J. of the Korean Institute of Industrial Engineers*, 41(2), 121-127.
15. Park, J., Lee, H., Choi, Y., Park, K., Kim, M., and You, H. (2015). Development of an evaluation protocol for a bus seat. *J. of the Korean Institute of Industrial Engineers*, 41(1), 74-78.
16. Kwon, Y.N., Sung, M.J., Cho, H.A., Chang, E.C., Park, K.A., Park, J., Jeon, E.J., Kim, E., Lee, S., You, H., Ha, T., and Shin, W.C. (2014). Effects of an indigo blanket on insomnia symptoms: Double blind, placebo-controlled, randomized pilot study. *J. of Korean Sleep Research Society*, 11(1), 33-37.
17. Hong, W., Lee, W., Jung, K., Lee, B., Park, J., Park, S., Park, Y., Son, J., Park, S., and You, H. (2014). Development of an ECG-based assessment method for a

- driver's cognitive workload. *J. of the Korean Institute of Industrial Engineers*, 40(3), 325-332.
18. Lee, W., Lee, B., Kim, E., and You, H. (2014). Design ideation and evaluation process for E<sup>3</sup> (ecology, ergonomics, economy)-friendly product development. *J. of the Korean Institute of Industrial Engineers*, 40(3), 299-304.
  19. Lee, W., Son, D., Jung, D., Park, S., Kim, H., and You, H. (2014). Development of an ergonomic oxygen mask for Korean Air Force pilots. *Defense and Technology*, 423, 100-115.
  20. Lee, B., and You, H. (2014). A case study of eco-design for a small-size electric heater by performance, usability, and life-cycle assessments. *J. of the Korean Institute of Industrial Engineers*, 40(2), 223-232.
  21. Lee, B., Jung, K., Jeong, J., Kim, J., Park S., and You, H. (2014). Ergonomic evaluation of console chairs for a weapon locating radar. *J. of the Ergonomics Society of Korea*, 33(2), 97-108.
  22. Park, J., Choi, Y., Lee, B., Jung, K., Sah, S., and You, H. (2014). A classification of sitting strategies based on driving posture analysis. *J. of the Ergonomics Society of Korea*, 33(2), 97-108.
  23. Park, H., Lee, S., Lee, B., and You, H. (2013). Development of eco-design solutions for an electric hair dryer through performance, usability, and life-cycle assessments. *Korean J. of Life Cycle Assessment*, 14(1), 19-32.
  24. Choi, Y., Lee, B., and You, H. (2013). A case study of eco-design for a bladeless fan by performance, usability, and life-cycle assessments. *Korean J. of Life Cycle Assessment*, 14(1), 33-47.
  25. Lee, J., Lee, B., Park, H., Choi, J., You, H., and Kang, J. (2013). A study of effective gaze fixation induction methods in PC-based visual field testing. *J. of the Korean Ophthalmological Society*, 54(9), 1401-1406.
  26. Choi, Y., Park, J., Lee, B., Jung, K., Sah, S., and You, H. (2013). A classification of sitting strategies based on seating pressure distribution. *J. of the Korean Institute of Industrial Engineers*, 39(2), 105-108.
  27. Jung, K., Kim, J., You, T., Lee, B., Lee, W., Park, S., Roh, W., and You, H. (2012). A characteristic analysis of ergonomic console layout studies using optimization techniques. *J. of the Ergonomics Society of Korea*, 31(6), 733-740.
  28. Masoudi, A., You, H., and Suh, S. (2012). Characterization of eco-design checklists. *J. of the Korean Society for Precision Engineering*, 29(9), 946-970.
  29. Jung, K., Lee, B., and You, H. (2011). Development and Application of an Anthropometric Design Method Considering Physical Human Variabilities. *IE Interfaces*, 24(4), 420-427.
  30. Jung, K., Lee, M., Chang, J., and You, H. (2011). Evaluation of information presentation methods for a wearable Braille display. *J. of the Ergonomics Society of Korea*, 30(6), 739-747.
  31. Lee, B., Jung, K., and You, H. (2011). Development of a distributed representative human model generation and analysis system for multiple-size product design. *J. of the Ergonomics Society of Korea*, 30(5), 683-688.
  32. Lee, W., Yoon, S., and You, H. (2011). Development of a 3D semi-automatic measurement protocol for hand anthropometric measurement. *IE Interfaces*, 24(2), 105-111.
  33. Lee, W., Jung, K., Lee, H., Song, H, Oh, J., and You, H. (2011). Development of a comprehensive usability testing and analysis framework for the physical interface between product and user. *J. of the Ergonomics Society of Korea*, 30(2), 331-338.
  34. Park, J., Chang, Y., Hong, W., Lee, M., Han, A., Chae, Y., Cho, G., and You, H. (2011). An analysis of visual sensibility evaluation of naturally colored organic cotton:

- Identification of reliability and proper scouring method. *J. of the Ergonomics Society of Korea*, 30(2), 311-317.
35. Park, J., Kim, S., and You, H. (2011). An analysis of natural motion for product design: Refrigerator half guard installation part design. *Journal of the Korean Institute of Industrial Engineers*, 37(1), 10-18.
  36. Jeon, E., Park, S., You, H., and Kim, H. (2010). The improvement and evaluation of the flight suit pattern to enhance movement. *J. of the Korean Society for the Clothing Industry*, 12(5), 633-641
  37. Han, Y., Jung, K., Mun, J., You, H., Chang, S. Y., and Jun, C. (2010). Benchmarking on product development curricula of domestic and foreign universities. *J. of Engineering Education Research*, 13(3), 3-10.
  38. Park, J., Jung, K., Chang, J., Kwon, J., and You, H. (2010). Evaluation of predicted driving postures in RAMSIS digital human model simulation. *IE Interfaces*, 23(2), 101-108.
  39. Lee, B., Chang, Y., Jung, K., Jung, I., and You, H. (2010). Ergonomic evaluation of a control room design of radioactive waste facility using digital human simulation. *J. of the Ergonomics Society of Korea*, 29(3), 383-391.
  40. Park, J., Kim, S., Yang, Y., Han, A., Kim, C., Cho, G., and You, H. (2010) Development of an affective evaluation system for fabric frictional sound. *J. of the Ergonomics Society of Korea*, 29(2), 217-224.
  41. Jung, K., Park, J., Lee, W., Kang, B., Eum, J., Park, S., and You, H. (2010). Development of a quantitative ergonomic assessment method for helicopter cockpit design in a digital environment. *J. of the Ergonomics Society of Korea*, 29(2), 203-210.
  42. Lee, W., Park, J., Kim, S., Yoon, S., Yang, X., Lee, Y., Son, J., Kim, M., and You, H. (2010). Development of an analysis system for biosignal and driving performance measurements. *J. of the Ergonomics Society of Korea*, 29(1), 47-53.
  43. Park, J., Jeon, E., Jeong, J., Park, S., You, H., and Kim, H. (2009). Usage analysis and design development for pilot gloves. *J. of the Korean Society for the Clothing Industry*, 11(5), 764-770.
  44. Jeon, E., Park, S., You, H., and Kim, H. (2009). An evaluation of wearing characteristic for improving flight suit design. *J. of the Korean Society for the Clothing Industry*, 11(2), 301-307.
  45. Jeon, E., Park, J., Jeong, J., Park, S., Park, J., You, H., and Kim, H. (2009). Pattern analysis and determination of body dimension for flight suit design. *J. of the Korean Society for the Clothing Industry*, 11(2), 286-292.
  46. Lee, K., You, H., Kwon, O., and Jung, M. (2009). Development process of mobile phone PUI design guidelines. *J. of the Ergonomics Society of Korea*, 28(1), 53-60.
  47. Lee, W., Jung, K., Jang, J., Jang, J., You, H., Chang, S. Y., Jung, M., Han, S. H., and Jun, C. (2008). The needs of students and practitioners on the education curriculum of innovative product development. *J. of Engineering Education Research*, 11(4), 11-18.
  48. Cho, J., Jeong, J., Yeon, S., Chang, J., You, H., and Kim, H. (2008). Cost-effectiveness analysis for clothing design improvement using ergonomic methods: Evaluation of flame-proof clothing and design optimization. *J. of the Ergonomics Society of Korea*, 27(4), 45-58.
  49. Jung, K., Cho, J., Jung, J., Park, J., Lee, W., Eum, J., Lee, J., Kang, B., Kim, H., Park, S., and You, H. (2008). Anthropometric analysis of Korean helicopter pilots for helicopter cockpit design. *J. of the Ergonomics Society of Korea*, 27(4), 37-44.



50. Jung, K., Jang, J., Han, Y., You, H., Chang, S. Y., and Jun, C. (2008). A strategic approach to construction of a course module for innovative product design and development. *J. of Engineering Education Research*, 11(3), 5-11.
51. Jung, K., Kwon, O., and You, H. (2007). An anthropometric product design approach using design structure matrix (DSM): Application to computer workstation design. *J. of the Ergonomics Society of Korea*, 26(3), 111-115.
52. Cho, J., Jeong, J., Yeon, S., Jang, J., You, H., and Kim, H. (2007). Development and application of an ergonomic evaluation system for functional clothing: Evaluation of flame-proof clothing and identification of design problems. *J. of the Ergonomics Society of Korea*, 26(2), 1-13.
53. Kwon, O., Lee, S., Cho, Y., Park, J., Jung, K., You, H., and Han, S. H. (2007). Development of a workload assessment model for overhead crane operation. *J. of the Ergonomics Society of Korea*, 26(2), 45-59.
54. Jung, K., and You, H. (2007). Evaluation of a representative human model generation method for anthropometric design: Grid approach. *J. of the Ergonomics Society of Korea*, 26(1), 103-109.
55. Kim, H., Yeun, S., Jung, J., Lee, M., Chang, J., and You, H. (2006). Ergonomic evaluation of functional working-clothes: Focused on flame-proof clothing. *J. of the Korean Society for the Clothing Industry*, 8(5), 597-603.
56. Jung, K., Lee, M., Seo, S., Lee, B., Kim, E., You, H., and Na, D. (2006). Development of a quantitative assessment method of finger force control capabilities for motor intentional disorders. *J. of the Ergonomics Society of Korea*, 25(2), 155-159.
57. Kwon, O., Sun, M., Jung, K., Lee, M., Yeon, S., You, H., and Kim, H. (2005). Analysis of changes in hand length dimensions by hand motion for glove design. *J. of the Ergonomics Society of Korea*, 24(4), 1-5.
58. Kwon, O., Sun, M., Jung, K., Lee, M., Yeon, S., You, H., and Kim, H. (2005). Evaluation of glove designs applying change in hand length dimensions by hand motion. *J. of the Ergonomics Society of Korea*, 24(4), 15-21.
59. Jung, K., Lee, S., Kwon, O., You, H., and Kim, D. (2005). Structural analysis and practitioner needs survey for a WMSD prevention program. *J. of the Ergonomics Society of Korea*, 24(3), 35-41.
60. Jung, K., You, H., and Kwon, O. (2005). Evaluation of the FSA hand force measurement system. *J. of the Ergonomics Society of Korea*, 24(2), 45-49.
61. Kwon, O., You, H., and Jung, K. (2005). Analysis of maximum acceptable frequencies for upper extremity motions with forces in a seated position. *J. of the Ergonomics Society of Korea*, 24(2), 65-70.
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67. Kwon, O., and You, H. (2003). A survey of repetitiveness assessment methodologies for hand-intensive tasks. *J. of the Ergonomics Society of Korea*, 22(3), 75-91.

## C. CONFERENCE PROCEEDINGS

### C.1 INTERNATIONAL CONFERENCE PROCEEDINGS

1. Wonsup Lee, Hayoung Jung, Ilgeun Bok, Chulwoo Kim, Ochaee Kwon, Teukgyu Choi, and Heecheon You (2016). Measurement and application of 3D ear images for earphone design. In *Proceedings of the Human Factors and Ergonomics Society (HFES) 60th Annual Meeting*.
2. Nahyeon Lee, Seunghoon Lee, Baekhee Lee, Hayoung Jung, and Heecheon You. Ergonomic evaluation on handle designs of vacuum cleaner. In *Proceedings of the Human Factors and Ergonomics Society (HFES) 60th Annual Meeting*.
3. Baekhee Lee, Hyunji Park, Sook Hui Kim, Byung Hwa Lee, Duk L. Na, Heecheon You (2015). Analysis on force tracking capabilities of healthy adults. In *Proceedings of the Human Factors and Ergonomics Society (HFES) 59th Annual Meeting*.
4. Baekhee Lee, Kihyo Jung, Jineun Jeong, Jinman Kim, Wongi Hong, Seikwon Park, Heecheon You (2015). Ergonomic evaluation of console chairs for a weapon locating radar. In *Proceedings of the Human Factors and Ergonomics Society (HFES) 59th Annual Meeting*.
5. Wonsup Lee, Baekhee Lee, Sungho Kim, Hayoung Jung, Ilgeun Bok, Chulwoo Kim, Ochaee Kwon, Teukgyu Choi, Heecheon You (2015). Development of headforms and an anthropometric sizing analysis system for head-related product designs. In *Proceedings of the Human Factors and Ergonomics Society (HFES) 59th Annual Meeting*.
6. Wonsup Lee, Baekhee Lee, Sungho Kim, Hayoung Jung, Eunjin Jeon, Teukgyu Choi, Heecheon You (2015). 3D scan to product design: Methods, techniques, and cases. In *Proceedings of the 6th International Conference on 3D Body Scanning Technologies*.
7. Lee, W., Kim, H., Jung, D., Park, S., and You, H. (2014). Ergonomic design and evaluation of a pilot oxygen mask. In *Proceedings of the 70th Annual Meeting of the Japan Society of Physiological Anthropology*.
8. Kim, H., Jeon, E., Park, S., Jung, D., Lee, W., Kim, S., and You, H. Wearing evaluation of hip protector design for hip fracture prevention. In *Proceedings of the 70th Annual Meeting of the Japan Society of Physiological Anthropology*.
9. Yang, X., Yu, H.C., Choi, Y., Lee, W., Wang, B., Yang, J., Hwang, H., Kim, H., Song, J., Cho, B.H., and You, H. (2014). A hybrid semi-automatic method for liver segmentation based on level-set methods using multiple seed points. In *Proceedings of the 11th World Congress of the International Hepato-Pancreato-Biliary Association*.
10. Yang, X., Choi, Y., Lee, W., Jung, H., Wang, B., Yang, J., Hwang, H., Kim, H., Song, J., Yu, H.C., Cho, B.H., and You, H. (2014). Development of the user-centered preoperative liver surgery planning system Dr. Liver. In *Proceedings of the 11th World Congress of the International Hepato-Pancreato-Biliary Association*.
11. Chu, J., Yang, X., Yang, J., Choi, Y., Ryu, J., Yang, K., Park, Y., Yu, H.C., Cho, B.H., and You, H. (2014). Development of a graft weight prediction model using preoperative CT volumetric measurement for living donor liver transplantation. In *Proceedings of the 11th World Congress of the International Hepato-Pancreato-Biliary Association*.
12. Lee, W., Kim, H., Jung, D., Park, S., and You, H. (2013). Ergonomic design and evaluation of a pilot oxygen mask. In *Proceedings of the Human Factors and Ergonomics Society 57th Annual Meeting*. San Diego, CA: The Human Factors and Ergonomics Society.

13. Lee, B., Jung, K., and You, H. (2013). Development of a distributed representative human model generation and analysis system for multiple-size product design. In *Proceedings of the Human Factors and Ergonomics Society 57th Annual Meeting*. San Diego, CA: The Human Factors and Ergonomics Society.
14. Park, J., Lee, B., Choi, Y., Jung, K., Sah, S., and You, H. (2013). Development of statistical geometric models for a driver's hip & eye location. In *Proceedings of the Human Factors and Ergonomics Society 57th Annual Meeting*. San Diego, CA: The Human Factors and Ergonomics Society.
15. Park, J., Choi, Y., Lee, B., Jung, K., Sah, S., and You, H. (2013). Sitting strategy analysis based on driving postures and seating pressure distributions. In *Proceedings of the Human Factors and Ergonomics Society 57th Annual Meeting*. San Diego, CA: The Human Factors and Ergonomics Society.
16. Lee, B., Park, H., Jung, K., Lee, B., Yang, G., Jeon, H., Na, D., and You, H. (2013). Analysis of normative finger force control capabilities for quantitative evaluation of motor intentional disorders. In *Proceedings of the 20th IAGG World Congress of Gerontology and Geriatrics*. Seoul: The International Association of Gerontology and Geriatrics..
17. Lee, B., Seo, M., Lee, H., Yang, G., Hong, S., Lee, Y., Na, D., and You, H. (2013). Development of a quantitative assessment system using Doppler ultrasound for dysphagia. In *Proceedings of the 20th IAGG World Congress of Gerontology and Geriatrics*. Seoul: The International Association of Gerontology and Geriatrics.
18. Choi, Y., You, T., Yang, G., Kim, G., An, J., Jeon, H., Na, D., and You, H. (2013). Development of a musical brain fitness program for social, physical, emotional, and cognitive capabilities of seniors. In *Proceedings of the 20th IAGG World Congress of Gerontology and Geriatrics*. Seoul: The International Association of Gerontology and Geriatrics.
19. Yang, X., Choi, Y., You, H., Kim, Y., Yang, J., Hwang, H., Wang, B., Kim, J, Yu, H., and Cho, B. (2012). Functions and features of the virtual liver surgery planning system Dr. Liver. In *Proceedings of the Asian Association of Clinical Anatomists 1st Conference*.
20. Lee, W., Park, J., Jung, J., Jeon, E., Kim, H., Park, S., and You, H. (2012). Analysis of the facial anthropometric data of Korean pilots for oxygen mask design. In *Proceedings of the Human Factors and Ergonomics Society 56th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.
21. Lee, B., Chang, Y., Jung, K., Jung, I., and You, H. (2012). Ergonomic evaluation of a main control room design of radioactive waste facility using digital human simulation. In *Proceedings of the Human Factors and Ergonomics Society 56th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.
22. Yang, X., Lee, W., Choi, Y., and You, H. (2012). Development of a user-centered virtual liver surgery planning system. In *Proceedings of the Human Factors and Ergonomics Society 56th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.
23. Masoudi, A., You, H., and Suh, S. H. (2012). A guidance system for selecting an appropriate eco-design checklist in the early stages of product development. In *Proceedings of the 3rd International Conference on Green and Sustainable Innovation*. Centre of Excellence on environmental strategy for GREEN business (VGREEN).
24. Jeon, E., Lee, B., Kim, H., Park, S., and You, H. (2011). An ergonomic design of flight suit pattern according to wearing characteristics. In *Proceedings of the Human Factors and Ergonomics Society 55th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.

25. Park, J., Jung, K., Chang, J., Kwon, J., and You, H. (2011). Evaluation of predicted driving postures in digital human model simulation using RAMSIS. In *Proceedings of the Human Factors and Ergonomics Society 55th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.
26. Park, J., Lee, B., Choi, Y., Jung, K., Sah, S., Kim, S., Pyun, J., Kim, K., and You, H. (2011). Statistical geometric models on the hip point and eye point in a driving posture. In *Proceedings of the Human Factors and Ergonomics Society 55th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.
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28. Park, J., Kim, S., Jung, K., and You, H. (2010). An analysis of natural motion for product design: Refrigerator half-guard installation part design. In *Proceedings of the Human Factors and Ergonomics Society 54th Annual Meeting*. San Francisco, CA: The Human Factors and Ergonomics Society.
29. Lee, W., Yoon, S., You, H. (2010). Development of a 3D semi-automatic measurement protocol for hand anthropometric measurement. In *Proceedings of the Human Factors and Ergonomics Society 54th Annual Meeting*. San Francisco, CA: The Human Factors and Ergonomics Society.
30. Chang, Y., Park, J., Hong, W., Han, A., Chae, Y., Cho, G., and You, H. (2010). Analysis of visual sensibility evaluation of naturally colored organic cotton. *2010 Spring Conference of Korean Society for Emotion & Sensibility and Korean-Japan Cooperative Symposium*.
31. Jung, K., Kwon, O., and You, H. (2009). Development of the boundary zone method for generation of representative human models. In *Proceedings of the Human Factors and Ergonomics Society 53rd Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society. **Award winning paper: The Alphonse Chapanis Best Student Paper Award, HFES.**
32. Lee, W., Jung, K., Park, J., and You, H. (2009). Development of a quantitative and comprehensive usability evaluation system based on user needs. In *Proceedings of the Human Factors and Ergonomics Society 53rd Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.
33. Yang, X., Jung, K., and You, H. (2009). Development of an optimization method for determining human hand link lengths based on surface measurement. In *Proceedings of the XVIIth Triennial Congress of the International Ergonomics Association*.
34. Jung, K., Park, J., Lee, W., Uem, J., Kang, B., Park, S., and You, H. (2009). Development of a quantitative ergonomic assessment method for helicopter cockpit design in a digital environment. In *Proceedings of the XVIIth Triennial Congress of the International Ergonomics Association*.
35. Lee, W., Jung, K., and You, H. (2009). Development of a comprehensive usability testing and analysis protocol for ergonomic product design. In *Proceedings of the XVIIth Triennial Congress of the International Ergonomics Association*.
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42. Yun, M.H., You, H., Geum, W., and Kong, D. (2004). Affective evaluation of vehicle interior craftsmanship: Systematic checklist for touch/feel quality of surface-covering material. In *Proceedings of the Human Factors and Ergonomics Society 48th Annual Meeting* (pp. 971-975). Santa Monica, CA: The Human Factors and Ergonomics Society.
43. Ryu, T., Oh, K., You, H., and Yun, M. (2003). Development of satisfaction models for passenger car interior materials considering statistical and engineering aspects of design variables. In *Proceedings of the Human Factors and Ergonomics Society 47th Annual Meeting* (pp. 821-825). Santa Monica, CA: The Human Factors and Ergonomics Society.
44. Ryu, T., Shin, S., Lim, I., Oh, K., Min, D., Sun, M., You, H., Kim, K., and Yun, M. (2003). Development of hierarchies of customer needs and impressions for passenger car interiors based on a survey of car reviews on the internet. In *Proceedings of the XVth Triennial Congress of the International Ergonomics Association* (vol. 3, pp. 38-41). Seoul, South Korea: International Ergonomics Association.
45. Kwon, O., Sun, M., and You, H. (2003). An analysis of repetitiveness measures and measurement/analysis methods for hand-intensive tasks. In *Proceedings of the XVth Triennial Congress of the International Ergonomics Association* (vol. 2, pp. 193-196). Seoul, South Korea: International Ergonomics Association.
46. You, H., Young, R., Zimmerman, D., Ekrut, C., Kumar, A., and Lee, M. W. (2001). A usability test for the operating manual of BraidMagic™. In *Proceedings of the Human Factors and Ergonomics Society 45th Annual Meeting* (pp. 697-701). Santa Monica, CA: The Human Factors and Ergonomics Society.
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48. Freivalds, A., Kong, Y., You, H., and Park, S. (2000). A comprehensive risk assessment model for work-related musculoskeletal disorders of the upper extremities. In *Proceedings of IEA 2000/HFES 2000 Annual Meeting* (vol. 5, pp. 728-731). Santa Monica, CA: The Human Factors and Ergonomics Society.
49. Chao, A., Kumar, A. J., Emery, C. T. N. D., Nagarajao, K., and You, H. (2000). An ergonomic evaluation of Cleco pliers. In *Proceedings of IEA 2000/HFES 2000*

- Annual Meeting* (vol. 4, pp. 441-442). Santa Monica, CA: The Human Factors and Ergonomics Society.
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  53. You, H. (1998). Relationships between clinical scales on severity of symptoms and electrodiagnostic measures on abnormality of nerve conduction in carpal tunnel syndrome. In *Proceedings of the Human Factors and Ergonomics Society 42nd Annual Meeting* (pp. 841-845). Santa Monica, CA: The Human Factors and Ergonomics Society. **Award winning paper: The Alphonse Chapanis Best Student Paper Award, HFES.**
  54. Freivalds, A., Coker, A., Cunningham, K. D., and You, H. (1998). Shiftwork scheduling and individual factors associated with the incidence of injury/illness at the workplace: A case study. In *Proceedings of the Human Factors and Ergonomics Society 42nd Annual Meeting* (p. 1621). Santa Monica, CA: The Human Factors and Ergonomics Society.
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  60. You, H. (1996). An ergonomic evaluation of a transit bus operator's workstation by computer simulation of JACK®. Presented at the *SAE Truck & Bus Meeting and Exposition*, Detroit, MI.
  61. Lowe, B. D., You, H., Bucciaglia, J., Gilmore, B. J., and Freivalds, A. (1995). An ergonomic design strategy for the transit bus operator's work space. In *Proceedings*

*of the Human Factors and Ergonomics Society 39th Annual Meeting* (pp. 1142-1146). Santa Monica, CA: The Human Factors and Ergonomics Society.

## **C.2 KOREAN CONFERENCE PROCEEDINGS**

1. Jeon, E., Park, S., You, H., Kim, H. (2014). Wearing characteristic evaluation of hip protector product design for hip fracture prevention. In *Proceedings of the 2014 Spring Conference of the Korean Institute Society of Fashion & Textile Industry*.
2. Kim, S., Lee, J., Jung, H., Lee, C., You, H. (2014). Development of design guideline and assessment factors of ease of disassembly for improving the reusability of the smartphone. In *Proceedings of the 2014 Spring Conference of the Korean Institute of Industrial Engineers*.
3. Lee, S., Kim, K., Bang, S., Yeon, Y., You, H. (2014). Comparison of national and corporate take-back system to derive effective collection program of EOL mobile phone. In *Proceedings of the 2014 Spring Conference of the Korean Institute of Industrial Engineers*.
4. Lee, J., Kim, S., Jung, H., Lee, C., You, H. (2014). Development of design guideline and assessment checklists of ease of disassembly for efficient disassembly of the smartphone. In *Proceedings of the 2014 Spring Conference of the Korean Society for Precision Engineering*.
5. Yeon, Y., Kim, K., Bang, S., Lee S., You, H. (2014). Comparison of national and corporate mobile phone take-back system. In *Proceedings of the 2014 Spring Conference of the Korean Society for Precision Engineering*.
6. Lee, J., Lee, B., Lee, S., You, H., and Kang, J. (2013). A study on personalized visual field testing methods for improving the efficiency and accuracy. In *Proceedings of the 29th Annual Meeting of Korean Glaucoma Society*.
7. Lee, J., Lee, B., Park, H., Choi, J., Kang, J., and You, H. (2013). A study for effective gaze fixation induction methods in PC-based visual field testing. In *Proceedings of the 110th Annual Meeting of the Korean Ophthalmological Society*.
8. Lee, W., Lee, J., Lee, H., Kim, E., and You, H. (2013). Identification of the characteristics of SEEE (society, ecology, ergonomics, and economy)-friendly products. In *Proceedings of the 2013 Fall Conference of the Korea Society for Life Cycle Assessment*.
9. Kim, E., Lee, W., Park, J., Jeon, E., Choi, Y., You, H., Yoon, M., and Jung, H. (2013). Development of a revised and enlarged case book edition for eco-design products. In *Proceedings of the 2013 Fall Conference of the Korea Society for Life Cycle Assessment*.
10. Kim, S., Lee, J., Lee, S., Yeon, Y., Batbileg, T., and You, H. (2013). A survey of eco product development methods and strategies. In *Proceedings of the 2013 Fall Conference of the Korea Society for Life Cycle Assessment*.
11. Park, G., Park, J., Yang, J., and You, H. (2013). Classification of upper lateral body shapes to design mass-customized clothing for wheelchair users. In *Proceedings of the 2013 Fall Conference of the Society of Fashion and Textile Industry*.
12. Yeon, Y., Kwon, J., Jung, H., Lee, W., You, H., and Na, D. (2013). The development trend of brain fitness products and roles of industrial engineering. In *Proceedings of the 2013 Fall Conference of the Korean Institute of Industrial Engineering*.
13. Lee, H., Lee, W., You, H., Ko, M., Park, J., and Yu, M. (2013). Development of speech therapy game for stuttering and articulation disorders. In *Proceedings of the 2013 Fall Conference of the Korean Institute of Industrial Engineering*.



14. Lee, B., Jung, K., Hong, W., Kim, J., Jung, J., and You, H. (2013). Ergonomic design and evaluation of a console of counter-battery radar. In *Proceedings of the 2013 Fall Conference of the Korean Institute of Industrial Engineering*.
15. Lee, H., Park, J., Choi, Y., Park, K., Yoon, M., Kim, M., Kim, K., Kim, H., Lee, Y., Kwon, O., Jung, Y., and You, H. (2013). Development of an ergonomic bus passenger seat design by seat comfort and seat profile analyses. In *Proceedings of the 2013 Fall Conference of the Korean Institute of Industrial Engineering*. **Award winning paper: Industry-Academia Collaboration Research Competition, Junior Grand Prix, KIIE.**
16. Park, H., and You, H. (2013). Analysis of motor performance in normal controls for the screening of patients with brain disorders. In *Proceedings of the 2013 Fall Conference of the Korean Institute of Industrial Engineering*. **Award winning paper: Best Paper Award, KIIE.**
17. Park, G., Park, J., Yang, J., and You, H. (2013). A study of body shapes to design clothing for wheelchair users. In *Proceedings of the 2013 Fall Conference of Ergonomics Society of Korea*.
18. Jeon, E., Park, J., Lee, S., Jung, D., Park, S., Ha, J., Kim, E., Park, S., and You, H. (2013). Wearing comfort evaluation of safety shoes with a ventilation system. In *Proceedings of the 2013 Fall Conference of the Ergonomics Society of Korea*.
19. Choi, Y., Park, J., Choi, J., Suh, H., Kim, Y., and You, H. (2013). Development of an analysis protocol for preferred hard key locations of a mobile device. In *Proceedings of the 2013 Fall Conference of the Ergonomics Society of Korea*.
20. Lee, W., Park, S., Jung, D., Jeon, E., Kim, H., Park, J., Lee, S., and You, H. (2013). Development of a design process of hip protector for the elderly. In *Proceedings of the 2013 Fall Conference of Ergonomics Society of Korea*.
21. Lee, S., Choi, Y., Lee, H., Lee, W., You, T., Ko, M., Park, J., Yu, M., and You, H. (2013). Development of a physical therapy system for enhancement of balance ability. In *Proceedings of the 2013 Fall Conference of Ergonomics Society of Korea*.
22. Lee, H., Tae, H., Ko, S., Ki, Y., Kim, K., and You, H. (2013). Eco-friendly design for electric kettle through life-cycle assessment. In *Proceedings of the 2013 Spring Conference of Korean Institute of Industrial Engineers*.
23. Park, H., Kim, M., Lee, S., Lee, S., Lee, B., and You, H. (2013). Eco-friendly design for electric hair dryer through life-cycle assessment. In *Proceedings of the 2013 Spring Conference of Korean Institute of Industrial Engineers*.
24. You, T., Lee, J., Kim, T., Kim, B., Cho, H., Lee, J., and You, H. (2013). Eco-friendly design for handy vacuum cleaner through life-cycle assessment. In *Proceedings of the 2013 Spring Conference of Korean Institute of Industrial Engineers*.
25. Yang, X., Choi, Y., Lee, W., Wang, B., Yang, J., Hwang, H., Kim, J., Song, J., Yu, H., Cho, B., and You, H. (2013). A usability test for Dr. Liver, a 3D virtual liver surgical planning system. In *Proceedings of the 2013 Spring Conference of Ergonomics Society of Korea*.
26. Lee, S., Park, H., Park, J., and You, H. (2013). Development of a muscle rigidity measurement system for an early diagnosis of Parkinson's disease. In *Proceedings of the 2013 Spring Conference of Ergonomics Society of Korea*.
27. Lee, J., Lee, S., Lee, B., Kang, J., Jun, C., and You, H. (2013). Development of a diagnostic model for glaucoma. In *Proceedings of the 2013 Spring Conference of Ergonomics Society of Korea*.
28. Choi, Y., You, T., Kim, G., An, J., Na, D., and You, H. (2013). Development of a musical brain fitness program for social, physical, emotional, and cognitive capabilities of seniors. In *Proceedings of the 2013 Spring Conference of Ergonomics Society of Korea*.

29. Lee, B., Lee, H., Yun, M., Suh, M., Na, D., and You, H. (2013). Comparison of swallowing characteristics in normal controls and patients with dysphagia. In *Proceedings of the 2013 Spring Conference of Ergonomics Society of Korea*.
30. Park, J., Choi, Y., Lee, H., Park, K., Kim, M., and You, H. (2013). Development of an ergonomic evaluation protocol for a bus seat. In *Proceedings of the 2013 Spring Conference of Ergonomics Society of Korea*.
31. Lee, H., Park, J., Choi, Y., Park, K., Kim, M., and You, H. (2013). Development of an ergonomic bus seat design process based on the seat comfort and 3D profile analysis. In *Proceedings of the 2013 Spring Conference of Ergonomics Society of Korea*.
32. Park, H., Lee, B., Jung, K., Lee, B., Na, D., and You, H. (2013). Analysis of motor performance in normal finger force capabilities. In *Proceedings of the 2013 Spring Conference of Ergonomics Society of Korea*.
33. Jeon, E., Park, S., Ha, J., Kim, H., and You, H. (2013). Wearing comfort evaluation of summer flight suit to improve the ventilation. In *Proceedings of the Society of Fashion & Textile Industry*.
34. Lee, W., Park, J., Lee, B., Kim, E., and You, H. (2012). Ideation of E3 (Eco, Ergonomics, and Economy) friendly products. In *Proceedings of the 2012 Fall Conference of the Korean Society for Life Cycle Assessment*.
35. You, H., Choi, Y., Kim, Y., Ryu, T., Na, D., Kim, G., Ahn, J., Jeon, H., and Kim, Y. (2012). The music game Smart Harmony for enhancement of social, physical, emotional, and cognitive capacities. In *Proceedings of the 2012 Fall Conference of the Korean Institute of Industrial Engineers*. **Award winning paper: Industry-Academia Collaboration Research Competition, Grand Prize, KIIE.**
36. Park, H., Lee, B., Jung, K., Lee, B., Na, D., and You, H. (2012). Analysis of finger force control capabilities for early detection of motor intentional disorders (MIDs) patients. In *Proceedings of the 2012 Fall Conference of the Korean Institute of Industrial Engineers*. **Award winning paper: Best Paper Award, KIIE.**
37. Kim, Y., Park, J., Choi, Y., Lee, H., Park, K., Kim, M., and You, H. (2012). Development of an ergonomic evaluation questionnaire for a bus seat. In *Proceedings of the 2012 Fall Conference of the Korean Institute of Industrial Engineers*.
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19. You, H., Park, D., Jeong, S., and In, J. Earphone. Application number: 10-2009-0038144, 2009. 4. 30; patent number: 10-1082014, 2011. 11. 3.
20. You, H., Jung, K., Lee, W., Park, J., Kang, B., Lee, J., Uem, J., and Park, S. Method of anthropometric product design and media that can record computer program for method the same. Application number: 10-2008-0120733, 2008. 12. 1; patent number: 10-1053284, 2011. 7. 26.

21. Kim, H., Jeon, E., Park, J., Jeong, J., Park, S., You, H. Flight suit. Application number: 10-2008-0079895, 2008. 8. 14; patent number: 10-1041547, 2011. 6. 8.
22. You, H., Hwang, W., Yoon, J., Cha, M., and Ahn, J. A seat information display unit using infrared sensor. Application number: 10-2009-0042323, 2009. 5. 15; patent number: 10-1016824, 2011. 2. 15.
23. Cho, G., Kim, C., You, H., Park, J., Yang, Y., Kim, M., and Kim, S. Method for simulating frictional sound of fabrics. Application number: 10-2008-0114842, 2008. 11. 18; patent number: 10-1016439, 2011. 2. 14.
24. You, H., Park, S., Jeong, J., Jeon, J., Park, J., and Kim, H. Flight gloves. Application number: 10-2008-0022022, 2008. 3. 10; patent number: 10-0980066, 2010. 8. 30.
25. You, H., Park, S., Jeong, J., Jeon, J., Park, J., and Kim, H. Flight gloves. Application number: 10-2008-0022018, 2008. 3. 10; patent number: 10-0979535, 2010. 8. 26.
26. You, H., Park, S., Jeong, J., Jeon, J., Park, J., and Kim, H. Flight gloves. Application number: 10-2008-0022019, 2008. 3. 10; patent number: 10-0977847, 2010. 8. 18.
27. You, H., Park, S., Jeong, J., Jeon, J., Park, J., and Kim, H. Flight gloves. Application number: 10-2008-0022024, 2008. 3. 10; patent number: 10-0977846, 2010. 8. 18.
28. You, H., Park, S., Jeong, J., Jeon, J., Park, J., and Kim, H. Flight gloves. Application number: 10-2008-0022020, 2008. 3. 10; patent number: 10-0977845, 2010. 8. 18.
29. You, H., Park, S., Jeong, J., Jeon, J., Park, J., and Kim, H. Flight gloves. Application number: 10-2008-0022023, 2008. 3. 10; patent number: 10-0973301, 2010. 7. 26.
30. You, H., Park, S., Jeong, J., Jeon, J., Park, J., and Kim, H. Flight gloves. Application number: 10-2008-0022021, 2008. 3. 10; patent number: 10-0949376, 2010. 3. 17.
31. You, H., Park, S., Jeong, J., Jeon, J., Park, J., and Kim, H. Gloves. Application number: 30-2008- 0008203, 2008. 2. 26; design registration number: 30-0514456, 2008. 12. 4.
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33. You, H., Chang, J., Kim, H., Jeong, J., and Yeon, S. A method for deciding detail size of glove. Application number: 10-2007-0091021, 2007. 9. 7; patent number: 10-0853483, 2008. 8. 14.
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38. You, H., Chang, J., Lee, M., Kim, H., Jeong, J., Yeon, S., and Kim, Y. Glove. Application number: 30-2006-0030784; design registration number: 30-0449709, 2007. 5. 10.
39. You, H., Chang, J., Lee, M., Kim, H., Jeong, J., Yeon, S., and Kim, Y. Glove. Application number: 30-2006-0030783; design registration number: 30-0449708, 2007. 5. 10.
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42. You, H., Sun, M., Kim, H., Choi, M., Kwon, O., Yun, S., Lim, Y., and Jung, K. Elastic glove. Application number: 10-2004-0013112; patent number: 10-0535317, 2005. 12. 2.

### **PENDING**

1. You, H., Park, B., Choi, Y., Lee, N., and Kim, S. Yellow dust mask. (Application number: 10-2015-0083467, 2015. 6. 2)
2. You, H., Lee, B., Lee, J., Kim, S., Rhee, J., Lee, S., and Lee, K. Apparatus and method for providing customized screen for training. (Application number: 10-2015-0083467, 2015. 6. 2)
3. You, H., Choi, Y., You, T., Park, J., Ko, M., Yu, M., Choung, W., Lee, E., Lee, S., Lee, C., Choe, J. Exercise apparatus for upper limb rehabilitation. (Application number: 10-2015-0064723, 2015. 5. 8)
4. You, H., Choi, Y., Park, J., Ko, M., Yu, M., Choung, W., Lee, E., Lee, S., Lee, C., Choe, J. Medical functional game system for active Kegel exercise and abdominal breathing and driving method thereof. (Application number: 10-2015-0031626, 2015. 3. 6)
5. Kim, M., Choi, Y., and You, H. The arm rest of a seat. (Application number: 10-2014-0152184, 2014. 11. 4)
6. Lee, B. and Lee, S. System for counting swallowing method and thereof. (Application number: 10-2014-0109615, 2014. 8. 22)
7. You, H., Lee, W., Lee, H., Jung, H., Park, J., Ko, M., Yu, M., Choung, W., Lee, E., Lee, S., Lee, C., Choe, J. Speech therapy game system with social and physical activities and driving method thereof. (Application number: 10-2014-0051043, 2014. 4. 28)

### **E. TECHNOLOGY TRANSFER & COMMERCIALIZATION**

1. 3-dimensional virtual liver surgery planning system. Transferred to Humanopia, Inc., and commercialized as Dr. Liver. 2012.
2. Musical brain fitness system. Transferred to SeedTech, Inc., and commercialized as Smart Harmony. 2012.
3. Apparatus for measuring force applied by the hand, analyzing apparatus and system. Transferred to TechStorm, Inc. 2006.

### **RESEARCH GRANTS**

1. You, H. (PI). An explorative study of in-vehicle risk analysis using ECG signals. NGV. 2015. 11 ~ 2016. 4.
2. You, H. (PI). Ergonomic evaluation of excavator designs. Hyundai Heavy Industry. 2015. 12 ~ 2016. 5.
3. You, H. (PI). Development of an ergonomic dust mask design using 3D facial data. LG Household & Healthcare. 2015. 6 ~ 2015. 12. 6.
4. You, H. (PI). Design technology of product design shape based on analysis of human-product deformation. National Research Foundation. 2015. 5 ~ 2018. 6.

5. You, H. (PI). Development of design strategies and ergonomic designs for earset using 3D ear scan data. LG Electronics. 2015. 5 ~ 2015. 8.
6. You, H. (PI). Development of ergonomic bus seat design using 3D sitting body shape data and cushion density preference. NGV. 2015. 4 ~ 2016. 3.
7. You, H. (PI). Development of ergonomic handle designs for vacuum cleaners. LG Electronics. 2014. 8 ~ 2015. 3.
8. You, H. (PI). Ergonomic evaluation methodologies for HCI design. LIG Nex1. 2014. 8. ~ 2015. 4.
9. You, H. (PI). 3D measurement and analysis of the ear. Samsung Electronics. 2014. 7 ~ 2014. 10.
10. Kang, J., and You, H. (Co-PI). Evaluation of the clinical performance of a PC-based perimetry for glaucoma diagnosis. Ministry of Health, Welfare, and Family Affairs. 2014. 6 ~ 2016. 4.
11. You, H. (PI). Development of a representative human model analysis system by analyzing 3D anthropometric data for wearable product design. Samsung Electronics. 2014. 7 ~ 2014. 10.
12. You, H. (PI). Development of a design factor quantification methodology for optimal grip fit of car door handles. Hyundai Motors. 2013. 9 ~ 2014. 9.
13. You, H. (PI). Development of a seat design methodology based on the 3D profile analysis of sitting posture and an ergonomic armrest based on voices of customers. Hyundai Motors. 2013. 9 ~ 2014. 8.
14. You, H. (PI). Development and validation of an ergonomic guideline for the control panel design of home appliance. Samsung Electronics. 2013. 6 ~ 2013. 8.
15. Kim, H., Park, S., Chung, D., and You, H. (Co-PI). Development of a hip fracture prevention product based on 3D body shape and biomechanical analyses. National Research Foundation. 2013. 6 ~ 2016. 5.
16. You, H. (PI). Development of ergonomic design guidelines of button layout for smart phone. LG Electronics. 2013. 5 ~ 2013. 10.
17. You, H. (PI). Development of a muscle rigidity measurement system for early identification of Parkinson's disease. Korea Science Academy. 2013. 3 ~ 2013. 12.
18. You, H. (PI). Interdisciplinary study program for smart lifestyle and healthcare research. POSTECH. 2013. 3 ~ 2014. 2.
19. You, H. (PI). Evaluation of a ventilation structure at the midsole of shoe. Kyungdo, Inc. 2012. 12 ~ 2013. 8.
20. You, H. (PI). Development of an ergonomic console design for a next generation weapon locating radar system. LIG Nex1. 2012. 11 ~ 2013. 12.
21. Park, K., You, H. (Co-PI), and Yang, J. Development of mass clothing custom design technology and system for living convenience of wheelchair users. National Research Foundation of Korea. 2012. 9 ~ 2015. 8.
22. Ko, M., You, H. (Co-PI), and Kim, Y. Development of serious games for healthcare. Chonbuk National University Hospital. 2012. 8 ~ 2015. 7.
23. You, H. (PI). An explorative study of the standard profile of bus passenger seat for seating comfort. NGV. 2012. 4 ~ 2013. 3.
24. You, H. (PI), Jung, K., and Park, S. Development of an optimal console layout design technique. LIG Nex1. 2012. 1. ~ 2012. 12.
25. You, H. (PI), Park, S., Kim, H., and Jung, D. Evaluation of ergonomic oxygen mask designs for Korean fighter pilots. ROK Air Force. 2011. 11 ~ 2012. 10.
26. You, H. (PI). Development of a specialized graduate program for eco design. Korea Environmental Industry & Technology Institute. 2011. 8 ~ 2013. 7.
27. Chung, M., and You, H. (Co-PI). An action plan for enhancement of POSCO design capabilities. 2011. 7 ~ 2011. 12.

28. You, H. (PI), Park, S., Kim, H., and Jung, D. Ergonomic design of an oxygen mask for Korean fighter pilots. ROK Air Force. 2010. 11 ~ 2011. 3.
29. You, H. (PI). Seat comfort guide by ergonomic experimentation. NGV. 2010. 4 ~ 2010. 10.
30. You, H. (PI). Development of digital design technology based on 3D biomechanical information for ergonomic hand-product interface. National Research Foundation of Korea. 2010. 5 ~ 2013. 4.
31. Na, D., You, H. (Co-PI), and Yang, G. Development of a portable measurement and analysis system for scientific diagnosis of dysphagia. Ministry of Health, Welfare, and Family Affairs. 2010. 5 ~ 2013. 3.
32. You, H. (PI). Development of a driver's abnormal state detection algorithm using HRV. Xtron I&T. 2010. 4 ~ 2010. 10.
33. Cho, G., and You, H. (Co-PI). Sensibility expert system through evaluating color, mechanical properties and sensibilities of naturally colored cotton. National Research Foundation of Korea. 2009. 9 ~ 2012. 8.
34. You, H. (PI). Development of a physiological signal analysis protocol for driving workload evaluation. Daegu Gyungbuk Institute of Science and Technology. 2009. 5 ~ 2009. 12.
35. You, H. (PI). Ergonomic evaluation of a radioactive waste control room layout design. Korea Engineering Power Company, Inc. 2009. 2 ~ 2009. 6.
36. Cho, B., and You, H. (Co-PI). Exploration of new strategies for the diagnosis and treatment of hepatopancreaticobiliary cancer. Ministry of Health, Welfare, and Family Affairs. 2008. 12 ~ 2013. 3.
37. You, H. (PI). Evaluation of a RAMSIS utility manual. Hyundai Motors. 2008. 4 ~ 2008. 11.
38. You, H. (PI). Physical user interface design for refrigerator. Samsung Electronics. 2007. 11 ~ 2008. 10.
39. You, H. (PI). Development of new design concepts for vacuum cleaner. Gwangjoo Samsung Electronics. 2007. 9 ~ 2007. 12.
40. You, H. (PI). Universal mobile phone design for the disabled. Samsung Electronics. 2007. 9 ~ 2007. 12.
41. Cho, G., You, H. (Co-PI), and Na, Y. A functional textile development system for auditory-sensible textiles based on sound analyses. Korea Science & Engineering Foundation. 2007. 9 ~ 2009. 8.
42. You, H. (PI). Physical user interface design for mobile phone. Samsung Electronics. 2007. 3 ~ 2007. 9.
43. You, H. (PI). Development of an ergonomic design of helicopter cockpit for Korean pilots. Korea Aerospace Industries. 2006. 11 ~ 2008. 10.
44. You, H. (PI). Analysis and development of representative case determination methods for user-centered interface design. Korea Research Foundation. 2006. 7 ~ 2007. 6.
45. You, H. (PI). Physical user interface design for vacuum cleaner. Gwangjoo Samsung Electronics. 2006. 5 ~ 2006. 10.
46. Jun, C., Jung, M., Chang, S., and You, H. (Co-PI). Course module development for user-centered innovative product development. Korea Research Foundation. 2005. 11 ~ 2008. 10.
47. You, H. (PI). Evaluation of fatigue from extended use of a cellphone. Samsung SDI. 2005. 3 ~ 2005. 4.
48. Na, D., and You, H. (Co-PI). Intentional deficits in patients with hemispatial neglect. Korea Research Foundation. 2004. 11 ~ 2005. 10.

49. Kim, H., and You, H. (Researcher). Ergonomic design of functional clothing for productivity: An ergonomic flame-resistant wear design. Korea Research Foundation. 2004. 7 ~ 2005. 6.
50. You, H. (PI), and Han, S. Development of a workload assessment model for crane operation. POSCO. 2004. 6 ~ 2005. 2.
51. You, H. (PI). Development of a practitioner manual for musculoskeletal disorder prevention. OSHRI. 2004. 5 ~ 2004. 12.
52. You, H. (PI), and Kim, K. Development of a human model generation system for ergonomic automobile occupant packaging layout design in virtual environment. Hyundai Motors. 2002. 11 ~ 2003. 4.
53. You, H. (PI). A comparative study on repetitiveness assessment methods for manual tasks. POSTECH. 2002. 9 ~ 2003. 8.
54. Yun, M. H., Kim, K., and You, H. (Researcher). Improvement of image/impression quality of automobile interiors. Hyundai Motors. 2002. 8 ~ 2002. 12.
55. Yun, M. H., and You, H. (Researcher). Ergonomic evaluation of joystick-type control device designs for next generation vehicles. Hyundai Motors. 2002. 8 ~ 2002. 12.
56. You, H. (PI), and Malzahn, D. Development of time standards for Learjet Model 60 Fuselage. Bombardier-Learjet. 2001. 5 ~ 2001. 8.
57. You, H. (PI). Development of a reach envelope measurement and analysis system. Wichita State University. 2001. 1 ~ 2001. 12.
58. You, H. (PI). Usability survey and manual development for BraidMagic. HiBraid. 2000. 1 ~ 2000. 6.
59. You, H. (PI), and Malzahn, D. Development of an ergonomic system for hand-transmitted vibration assessment. Wichita State University. 2000. 1 ~ 2000. 6.
60. You, H. (PI). Evaluation of WristCorder wrist-forearm motion analyzer. MotionWatch. 1999. 11 ~ 2000. 3.
61. Freivalds, A., and You, H. (RA). Shift-work schedule design. Owens Corning. 1997. 10 ~ 1998. 8.
62. Freivalds, A., and You, H. (RA). Standard production time study. HESS Manufacturing Co., Inc. 1996. 8 ~ 1997. 8.
63. Gilmore, B. J., Freivalds, A., You, H. (RA), Lowe, B. D., Oesterling, B., and Bucciaglia, J. Development of bus operator workstation design guideline. The Federal Transit Administration. 1994. 8 ~ 1996. 10.
64. Lee, M., Lee, J., Yune, M., and You, H. (Manager). Ergonomic design of video player. Goldstar Electronics. 1994. 4 ~ 1994. 7.
65. Lee, M., Lee, J., Yune, M., and You, H. (Manager). Ergonomic design of white electronic goods. Samsung Electronics. 1994. 4 ~ 1994. 7.
66. Lee, D., Kim, Y., Lee, J., and You, H. (Research Officer). Development of a pilot aptitude test and diagnosis system. The ROK Air Force Academy. 1993. 2 ~ 1994. 3.
67. Lee, C., Lee, S., Kim, Y., Park, S., Lee, J., and You, H. (RA). Ergonomic cockpit interior space design for Korean pilots. The Agency for Defense Development. 1992. 9 ~ 1993. 8.
68. Lee, M., You, H. (Research Staff), Seo, D., and Lee, S. Development of a research engineering research information system. Research Institute of Engineering Science of Seoul National University. 1990. 3 ~ 1990. 11.
69. Lee, M., Lee, D., Chang, S., Yune, M., Kong, D., Kim, M., Lim, Y., You, H. (RA), Lee, D., and Chang, H. Ergonomic design of electronic goods. Daewoo Electronics. 1988. 8 ~ 1990. 7.
70. Lee, M., Chang, S., Lee, J., Goo, J., Yune, M., Kong, D., Kim, M., and You, H. (RA), Lee, D., and Chang, H. Development of a master architecture of management information system. Daewoo Electronics. 1988. 8 ~ 1989. 5.

71. Lee, M., Jun, Y, and You, H. (RA). Evaluation of a Jungju plant layout. Daewoo Electronics Components Co. 1988. 5 ~ 1988. 8.
72. Lee, M., Chang, S., Lee, J., Goo, J., Yune, M., Kong, D., Kim, M., and You, H. (RA). Development of a productivity improvement plan. Daewoo Electronics Co. 1987. 7 ~ 1988. 3.
73. Lee, M., Lee, J., Goo, J., Yune, M., Lee, I., Kong, D., Kim, M., and You, H. (RA). Forecasting of the Korean telecommunication market. IBM Asia Pacific Group. 1986. 6 ~ 1986. 11.

## **HONORS & AWARDS**

### **1. INTERNATIONAL AWARDS**

1. Silver Prize at 2012 Seoul International Invention Fair. Invention: A virtual bicycle tour for physical and brain fitness. Nov. 2012.
2. Special Prize in Medical Area at the Geneva International Exhibition of Inventions. Invention: Visual field analyzer for glaucoma. April 2012.
3. Gold Prize at the Geneva International Exhibition of Inventions. Invention: Visual field analyzer for glaucoma. April 2012.
4. Gold Prize at 2011 Seoul International Invention Fair. Invention: The musical brain fitness system Smart Harmony. Nov. 2011.
5. Grand Prix at the International Public Design Award 2010/2011 hosted by International Public Design Foundation. Invention: Ergonomic flight suit design for Korean pilots. Oct. 2011.
6. Junior Grand Prix at the International Public Design Award 2010/2011 hosted by International Public Design Foundation. Invention: Music game Smart Harmony for brain fitness. Oct. 2011.
7. The Alphonse Chapanis Best Student Paper Award at the Human Factors and Ergonomics Society 53rd Annual Meeting. Paper: Development of the boundary zone method for generation of representative human models. Oct. 2009.
8. The Alphonse Chapanis Best Student Paper Award at the Human Factors and Ergonomics Society 43rd Annual Meeting. Paper: The development of a risk assessment model for carpal tunnel syndrome. Sept. 1999.
9. Industrial Ergonomics Technical Group 1999 Student Paper Award at the Human Factors and Ergonomics Society 43rd Annual Meeting. Paper: The development of a risk assessment model for carpal tunnel syndrome. Sept. 1999.
10. First Runner of K. U. Smith Student Award at the International Ergonomics Association 13th Triennial Congress. Paper: A prototype testing and evaluation for the development of ergonomic transit bus operator's workstation design guidelines. July 1997.

### **2. KOREAN AWARDS**

1. Best Paper Award at the KIIE MS Thesis Competition. Paper: Analysis of motor performance in normal controls for the screening of patients with brain disorders. Nov. 2013.
2. Junior Grand Prix at the KIIE Industry-Academia Collaboration Research Competition. Paper: Development of an ergonomic bus passenger seat design by seat comfort and 3D seat profile analyses. Nov. 2013.
3. Excellence Award at the University Creative Invention Contest. Invention: Upper limb



- physical therapy system evaluating range of motion, motion control capability, and muscle strength. Nov. 2013.
4. Encouragement Prize at the University Creative Invention Contest. Invention: Personalized visual field testing method. Nov. 2013.
  5. Junior Grand Prix at the 13th Ergonomic Design Award of the Ergonomics Society of Korea. Invention: The user-friendly liver surgery planning system Dr. Liver. May 2013.
  6. Best of the Best at the 13th Ergonomic Design Award of the Ergonomics Society of Korea. Invention: An ergonomic oxygen mask design for Korean fighter pilots. May 2013.
  7. Best Paper Award at the KIIE MS Thesis Competition. Paper: Analysis of motor performance in normal controls for the screening of patients with brain disorders. Nov. 2013.
  8. Best Paper Award at the 2012 Defense Technology Paper Competition hosted by Korea Defense Industry Association. Paper: Development of an ergonomic oxygen mask for Korean Air Force pilots. Feb. 2013.
  9. Bronze Prize at the 2012 Korea Invention Patent Exhibition. Invention: 3D virtual liver surgery planning system. Nov. 2012.
  10. Grand Prize at the KIIE Industry-Academia Collaboration Research Competition. Paper: The music game Smart Harmony for enhancement of social, physical, emotional, and cognitive capacities. Nov. 2012.
  11. Best Paper Award at the KIIE MS Thesis Competition. Paper: An analysis of sitting strategies based on driving posture and seating pressure distribution. Nov. 2012.
  12. Best Paper Award at the KIIE MS Thesis Competition. Paper: Development of an evaluation method for a driver's cognitive workload using ECG data. Nov. 2012.
  13. Best Paper Award at the KIIE Ergonomic Session Paper Competition. Paper: Analysis of finger force control capabilities for the early detection of motor intentional disorders. Nov. 2012.
  14. Excellence Award for the development of a creative pedagogical method for active learning. Case study: The development of a project-based learning course for user-friendly product design and development. POSTECH. May 2012.
  15. Grand Prix (Prime Minister Award) at the University Creative Invention Contest. Invention: Visual field analyzer for glaucoma. Dec. 2011.
  16. Certificate of Commendation at the University Creative Invention Contest. Invention: Visual field analyzer for glaucoma. Dec. 2011.
  17. Best Paper Award at the KIIE MS Thesis Competition. Paper: Development of a distributed representative human model generation and analysis system for the sizing system of a multiple-size product. Nov. 2011.
  18. Grand Prix at the 12th Ergonomic Design Award of the Ergonomics Society of Korea. Invention: Ergonomic flight suit design for Korean pilots. Oct. 2011.
  19. Junior Grand Prix at the 12th Ergonomic Design Award of the Ergonomics Society of Korea. Invention: Music game Smart Harmony for brain fitness. Oct. 2011.
  20. Best Paper Award at the KIIE MS Thesis Competition. Paper: Development of a 3D semi-automatic measurement protocol for hand anthropometric measurement. Nov. 2010.
  21. Best Paper Award at the KIIE MS Thesis Competition. Paper: Evaluation of predicted driving postures in RAMSIS digital human model simulation. Oct. 2009.
  22. Best Paper Award at the KIIE MS Thesis Competition. Paper: An ergonomic product design evaluation method using motion analysis. Nov. 2006.
  23. Best Paper Award by the Ergonomics Society of Korea. Paper: An assessment method of force control capabilities for motor intentional disorders. Oct. 2006.
  24. Best Paper Award at the 5th KIIE Cyber Paper Competition. Paper: Development

- and application of a generation method of human models for a design support system in virtual environment. Nov. 2004.
25. Citation from the ROKAF Operations Commander for Outstanding Mission Fulfillment, ROK Air Force. 1992.
  26. Citation from the ROKAF 30th Air Defense Control Wing Commander for Outstanding Mission Fulfillment, ROK Air Force. 1991.

## PROFESSIONAL AFFILIATIONS

1. Human Factors and Ergonomics Society, 1994 ~ present.
2. Ergonomics Society of Korea, 2002 ~ present.
3. Korean Institute of Industrial Engineers, 2002 ~ present.
4. Korean Certificated Professional Ergonomist Association, 2006 ~ present.
5. Korean Society of Life Cycle Assessment, 2013 ~ present.

## INSTITUTIONAL & PROFESSIONAL SERVICES

1. Reviewer for *International Journal of Automotive Technology*, 2012 ~ present.
2. Member, Evaluation Management Committee, POSTECH, 2010. 2 ~ present.
3. Reviewer for KSII Transactions on Internet and Information Systems, 2010.
4. Member, Intelligent Robot Institute Planning Committee, POSTECH, 2008. 5 ~12.
5. Member, Admission & Promotion Committee, POSTECH, 2008. 1 ~ 12.
6. Member, Medical Center Planning Committee, POSTECH, 2007. 10 ~ 2008. 1.
7. Member, Globalization Committee, POSTECH, 2007. 3 ~ 2008. 12.
8. Planning Board Member, Korean Certificated Professional Ergonomist Association, 2006. 3 ~ 2008.12.
9. Board Member, Special Interest Group of Product Design & Manufacturing, Ergonomics Society of Korea, 2006. 1 ~ 2008. 12.
10. Member, Best Master Thesis Award Committee, Korean Institute of Industrial Engineers, 2005. 8 ~ 12.
11. Member, Occupational Health Consortium, Gyungbuk East Branch of Korean Occupational Safety & Health Administration, 2005. 1 ~ 2008.
12. Reviewer for *Human Factors and Ergonomics in Manufacturing & Service Industries*, 2005 ~ present.
13. Reviewer for *Applied Ergonomics*, 2005 ~ present.
14. Reviewer for *Korean Journal of CAD/CAM*, 2005.
15. Reviewer for *Journal of Occupational and Environmental Medicine*, 2005.
16. Member, Clean Workplace Construction & Musculoskeletal Disorder Prevention Program Committee, Gyungbuk East Branch of Korean Occupational Safety & Health Administration, 2004. 6 ~ 2008.
17. Member, Editorial Board of IE Magazine, Korean Institute of Industrial Engineers, 2004. 1 ~ 2006. 12.
18. Board Member, Ergonomics Society of Korea, 2004. 1 ~ 2005.12.
19. Member, Operations Committee of the 16<sup>th</sup> Triennial Congress of the International Ergonomics Association, 2003.1 ~ 2003. 8.
20. Reviewer for *Journal of Korean Data Analysis Society*, 2003 ~ present.
21. Reviewer for *International Journal of Industrial Ergonomics*, 2002 ~ present.
22. Reviewer for *Journal of the Korean Institute of Industrial Engineers*, 2002 ~ present.
23. Reviewer for *IE Interfaces*, 2002 ~ present.

24. Reviewer for *Journal of Ergonomics Society of Korea*, 2002 ~ present.
25. Reviewer for *Asian Journal of Ergonomics*, 2002 ~ 2006.
26. Founding Secretary, Great Plains Air Capital Chapter of Human Factors & Ergonomics Society, 2002. 3 ~ 7.