

# Huiju Park

Web Bio

## Information

### Biography

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#### Biographical Statement

Huiju Park is an Assistant Professor in the Dept. of Fiber Science & Apparel Design at Cornell University. He obtained his Ph.D. at Oklahoma State University (O.S.U.) with expertise in functional apparel design. Dr. Park participated as a research assistant in multiple funded research projects aiming to improve the mobility and thermal comfort of ballistic body armor at the Institute for Protective Apparel Research and Technology (IPART) at O.S.U. Dr. Park has also been an Instructor in the Department of Design, Housing and Merchandising at Oklahoma State University.

In the Department of Fiber Science and Apparel Design, Dr. Park is focusing on smart clothing, sportswear design, mobility and the thermal comfort of protective clothing.

### Professional

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#### Research

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##### Current Research Activities

Dr. Park has established a strong expertise in the evaluation of body armor and its effect on warfighters' physical performance, including mobility, thermal comfort and physiological strain through human performance testing. He currently uses an inertial sensor (non-marker) based full body 3D motion capture system, surface electromyography, sweating thermal manikin and in-shoe plantar pressure sensor systems for his biomechanical and thermal research on body armor & protective clothing systems.

Dr. Park's research on ballistic body armor and protective clothing systems has been disseminated through multiple peer reviewed journal publications and reviewed presentations, at international conferences during the past four years. His research paper titled "Impact of wearing body armor on lower body movement" received an award for "the paper of distinction" at the 2009 annual conference of the International Textile and Apparel Association.

### Extension

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#### Education

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##### Education

- Ph.D. 2011 - Oklahoma State University, Apparel Design
- M.S. 2002 - Yonsei University, Clothing and Textiles
- B.S. 1997 - Yonsei University, Clothing and Textiles

### **Professional Experience:**

- Chief Footwear Merchandiser (2006 - 2007)
- TeamSports Product Line Manager (2002 - 2005)  
E.LAND Co., Ltd. / Division of PUMA KOREA

### **Awards:**

- 'Paper of Distinction' Award  
(2010 Annual Conference of International Textile and Apparel Association, Montreal, Canada)
- ATEXINC Excellent Marketable Design Award  
(2009 Annual Conference and Fiber Art, Design Competition of International Textile and Apparel Association, Bellevue, WA)
- Second Place Design Award  
(2009 The 23rd Annual American Quilter's Society & Hobbs Bonded Fibers Fashion show and competition, Paducah, KY)
- Outstanding Doctoral Student Award  
(College of Human Science, Oklahoma State University, Stillwater, OK)
- Honorable Mention  
(2009 The National Little Black Dress Competition, Kansas State University, Manhattan, KS)
- Sarah Douglas Fellowship for Promising Doctoral Student  
(2010 Annual Conference of International Textile and Apparel Association, Montreal, Canada)
- Phoenix Award for Oklahoma State University Outstanding Doctoral Student  
(2010 / Oklahoma State University, Stillwater, OK)

### **Courses**

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#### **Courses Taught**

FSAD6000: Independent Graduate Study

FSAD3550: Active Sportswear Design

FSAD1440: Introduction to CAD

## Websites

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### Related Websites

<http://www.wix.com/huijupark/wearable-design-lab>

## Administration

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## Publications

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### Selected Publications

#### Refereed Publications

**Park, H.**, Branson, D., Petrova, A., Peksoz, S., Jacobson, B., Warren, A., Goad, C., & Kamenidis, P. (In revision), Impact of Ballistic Body Armour and Load Carriage on Walking Patterns and Perceived Comfort, *Ergonomics*.

**Park, H.**, & Cho, H. (In press). Social Online Communities: Information Source for Apparel Shopping, *Journal of Consumer Marketing*. (expected: *Volume 29*, Winter, 2012)

**Park, H.**, An, S. K., Peksoz, S., Cao, H., & Branson, D. (in press). Core Body Temperature Prediction through Monitoring of Microclimate under Body Armor Using Thermal Manikin *AATCC Review*. (expected: *Vol. 12*, No. 2 March/April)

**Park, H.** Impact of body armor and load carriage on lower body movement. Ph.D. dissertation, Oklahoma State University, United States -- Oklahoma. (Publication No. AAT 3474691).

Choi, K., **Park, H.**, Chung, E. & Peksoz, S. (2011). Scientometric Analysis of Research in Smart Clothing: State of the Art and Future Direction, *2011 Lecture Notes in Computer Science*, Vol. 6776, 500-508.

**Park, H.**, Nolli, G., Branson, D., Peksoz, S., Petrova, A., & Goad, C. (2011). Impact of Wearing Body Armor on Lower Body Movement, *Clothing and Textile Research Journal*, 29(3), 232-247.

Peksoz, S., Cao, H., **Park, H.**, An, S. K., & Branson, D. (2010). Core Temperature Prediction Modeling Using a Sweating Manikin, *The 8th International Meeting Manikins and Modeling*, Victoria, BC, Canada. (5 page proceeding paper)

Branson, D., Kamenidis, P., Peksoz, S., **Park, H.**, An, S. K., & Starr, C. (2010). Thermal Manikin Evaluation of Prototype Arm and Shoulder Armor, *The 8th International Meeting for Manikins and Modeling*, Victoria, BC, Canada. (5 page proceeding paper)

Peksoz, S., Park, H., An, S, K., & Cao, H. (2009). Smart Clothing for Firefighter Protection, *Intelligent Textiles and Mass Customisation International Conference*, Casablanca, Morocco. (9 page proceeding paper / ISBN: 978-9954-8878-1-4)

\***Park, H.**, Lee, J. H., & Lee, S. G. (2002). An Explorative Research for Possibility of Digital-wear Based on Motion-detective Input Technology as Apparel Product and a Suggestion of the Design Prototypes (I). *Korean Journal of the Science of Emotion & Sensibility*, 5(1), 33-48.

\***Park, H.**, Lee, J. H., & Lee, S. G. (2002). An Explorative Research for Possibility of Digital-wear Based on Motion-detective Input Technology as Apparel Product and a Suggestion of the Design Prototypes (II). *Korean Journal of the Science of Emotion & Sensibility*, 5(2), 35-50.

\* Lee, Y, Chung, H., **Park, H.** Lee, J., & Cho, G. (2002). Effect of Design Elements of Block Stripe Pattern on Sensibility, *Korean Journal of the Science of Emotion & Sensibility*, 5(3), 21-28.

\*: Published in Korean language (English abstract is included in the paper)

### **Reviewed Publication**

**Park, H.**, Choi, K., & Branson, D. (2009). Effect of Heat Reflective Textile for Thermal Protective Smart Apparel System against Solar Radiation, *2009 Human Computer Interaction International Conference*, San Diego, CA. (5 page proceeding paper available on CD to conference participants)