Susan Ashdown

Web Bio

Information

Biography

Biographical Statement

Susan Ashdown joined the Cornell faculty in 1991 on completion of her Ph.D research in perception of apparel fit at the University of Minnesota. Previous to this she completed her MA degree at Cornell, where her research was in the area of functional apparel design. Her research continues to address topics in apparel sizing and fit and in the design of functional apparel. Overall the questions that inform her research and teaching focus on the interactions between apparel design and technology, and the changes that are occurring in the way that apparel is designed, produced, and distributed using new and developing technologies.

More specifically, her research and teaching are in the field of technical apparel design, with a concentration on sizing and fit of both fashion and functional apparel, and the use of full body three-dimensional scanning in the apparel industry. Issues in patternmaking, grading, automated custom fit, judging apparel fit in research and industry settings, virtual fit, use of 3D scans for virtual fit avatars, anthropometric measures, anthropometry of the active body, mass customization, interactions of materials and design, and functional apparel design are addressed in her research program.

Professional

Current Professional Activities

Member of the Editorial Advisory Board of *Fashion Practice; The Journal of Design, Creative Process & the Fashion Industry*

Objective 1 leader, NC-170 Regional Research Group

Research

Current Research Activities

The focus of current work includes sizing and fit of apparel and the use of three-dimensional body scanning in the apparel industry, apparel sizing systems for target markets based on anthropometric data,hand anthropometry and changes in surface measurements in active positions, fit of clothing in active positions and for functional clothing, and the use fo scanning in virtual fit initiatives. Other issues being investigated include the use of computer systems for automating custom-fitted patterns, the use of 3D data for visualizing and

judging the fit of apparel, virtual fit of apparel for the consumer, and the design, sizing, fit, and function of protective clothing.

Extension

Education

Education

- Ph.D. 1991 - University of Minnesota, Apparel Design
- M.A. 1989 - Cornell University, Textiles: Apparel Design
- B.A. 1971 - Grinnell College, Theater Arts

Courses

Courses Taught

- FSAD 2640 - Draping
- FSAD 2660 - Product Development
- FSAD 4010 - Empirical Research
- FSAD 4020 - Internship Experience
- FSAD 6640 - Human Factors: Anthropometrics and Apparel
- FSAD 6370 - Apparel Seminar
- co-instructor for FSAD 3770

Websites

Related Websites

www.bodyscan.human.cornell.edu
Body Scan Research: Description of the work of the Cornell Body Scan Research Group (with Suzanne Loker), 2002

www.sizingsystems.human.cornell.edu
Apparel Sizing: Reference list of publications on sizing and fit of apparel, 2001

http://fit.cit.cornell.edu/textiles
Draping Instruction: Teaching support for apparel patternmaking/draping (with Richard MacPike), 2004

Administration

Publications

Selected Publications

Nam, J., Branson, D.H., Ashdown, S.P., Cao, H., & Carnrite, E. (2011, June). Analysis of cross sectional ease values for fit analysis from 3D body scan data taken in working position. International Journal of Human Ecology, 12(1). 87-99.

Song, H.K. & Ashdown, S.P. (2011), Categorization of Lower Body Shapes Based on Multiple View Analysis, Textile Research Journal 81,(9), pp 914-931.

Ashdown, S.P. (2011) 'Improving body movement comfort in apparel,' book chapter in *Comfort in Clothing*, editor Song, G., Woodhead Publishing Limited, Cambridge, UK.

Ashdown, S.P. & Loker, S., (2010) 'Mass customized target market sizing: Extending the sizing paradigm for improved apparel fit,' Design Practice, 2(2), pp. 147-173.

Ashdown, S.P., Editor. (2007) Sizing in Clothing: Developing Effective Sizing Systems for Ready-To-Wear Clothing, Woodhead Publishing Limited, Cambridge, England.

Lee, Y. A., Ashdown, S. P. Slocum, A. C. (2006) Measurement of surface area of 3-D body scans to assess the effectiveness of hats for sun protection. Family and Consumer Sciences Research Journal 34(4), 366-385.

Ashdown, S. P. & Dunne, L. (2006) A study of automated custom fit: Readiness of the technology for the apparel industry. Clothing and Textiles Research Journal, Focused issue on fit, 24(2), 121-136.

Ashdown, S. P., Loker, S., Schoenfelder, K. A., & Lyman-Clarke, L. (2004). Using 3D scans for fit analysis. Journal of Textile and Apparel, Technology and Management, 4(1), www.tx.ncsu.edu/jtatm/volume4issue1/articles/Loker/Loker_full_103_04.pdf

Ashdown, Susan P. (1998) An Investigation of the Structure of Sizing Systems: A comparison of three multidimensional optimized sizing systems generated from anthropometric data. International Journal of Clothing Science and Technology. Vol. 10, #5, pp 324-341.

Ashdown, Susan P. and Susan M. Watkins. (1996) Concurrent engineering in the design of protective clothing: Interfacing with equipment design. In Performance of Protective Clothing: Fifth Volume, American Society of Testing and Materials STP 1237.