

Topic of the Speech: Measuring Methods of Body Shape for Efficiently Manufacturing Individualized Garments

Dr. KyoungOk Kim Faculty of Textile Science and Technology Shinshu University Japan



Dr. KyoungOk Kim is an Associate Professor in Department of Advanced Textile and Kansei Engineering, Faculty of Textile Science and Technology, Shinshu University and Division of Fabrics & Production, Institute for Fiber Engineering (IFES), Interdisciplinary Cluster for Cutting Edge Research (ICCER), Shinshu University, Japan.

She received her Ph.D. from Shinshu University in Textile Engineering. Her research interests are clothing engineering, textile engineering, and kansei engineering for both apparel and textile fields.



Measuring Methods of Body Shape for Efficiently Manufacturing Individualized Garments

KyoungOk Kim¹

¹ Shinshu University, Institute for Fiber Engineering (IFES), Tokida 3-15-1, Ueda, Nagano, 386-8567, Japan

*Presenter's email: kimko@shinshu-u.ac.jp

ABSTRACT (NO MORE THAN 500 WORDS:)

To make an individualized garment efficiently, it is important to understand the body characteristics and measure those with a simple method without a three-dimensional scanner or special skills. It is also necessary not only to measure body dimensions but also to design a method of individualized garments using the measured dimensions. We developed measuring equipment for shoulder angles and placements to make individualized men's basic upper body patterns. We also developed a measuring garment using stretchable capacitance sensors that measure necessary body dimensions and angles altogether. We proposed a method for making individualized basic body block patterns considering body characteristics using the dimensions and angles obtained from the measuring garment. With the measuring equipment, we were able to modify the pattern to fit individuals. With the measuring garment, we successfully made individualized patterns that showed a good fit, especially in the locations of the shoulder point and side neck point. The proposed equipment and measuring garments will assist the efficient manufacture of individualized upper garments without a three-dimensional scanner or special skills.