

## Exploring the Impact of Body Shape on Bra Fit: Integrating 3D Body Scanning and Traditional Patternmaking Methods

**Authors :** Yin-Ching Keung, Kit-Lun Yick

**Abstract :** The issue of bra fitting has persisted throughout history despite advancements in molded bra cups. To gain a deeper understanding of the interaction between the breast and bra pattern, this study combines the art of traditional bra patternmaking with 3D body scanning technology. By employing a 2D bra pattern drafting method and analyzing the effect of body shape on the desired bra cup shape, the study focuses on the differentiation of the lower cup among bras designed for flat and round body-shaped breasts. The results shed light on the impact of body shape on bra fit and provide valuable insights for further research and improvements in bra design, pattern drafting, and fit. The integration of 3D body scanning technology enhances the accuracy and precision of measurements, allowing for a more comprehensive analysis of the unique contours and dimensions of the breast and body. Ultimately, the study aims to provide individuals with different body shapes a more comfortable and well-fitted bra-wearing experience, contributing to the ongoing efforts to alleviate the longstanding problem of bra fitting.

**Keywords :** breast shapes, bra fitting, 3D body scanning, bra patternmaking

**Conference Title :** ICTEAA 2024 : International Conference on Textile Engineering and Applied Arts

**Conference Location :** Rome, Italy

**Conference Dates :** August 22-23, 2024