World Academy of Science, Engineering and Technology
International Journal of Materials and Textile Engineering
Vol:11, No:12, 2017

Developing Mathematical Relationships to Evaluate the Amount of Added Ease to the Basic Pattern of Weft Knitting Fabrics and Its Fitting to the Upper Part of Egyptian Women's Bodies

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Abstract : Knitted garments recently became a key component in wardrobes of the Egyptian woman. Many Egyptian women depend on garments made of knitted fabrics in their outer appearance because of its specific properties including flexibility. Through observation and application, it was noticed that knitwear blocks that used for knitted fabrics somehow does not fit the figures of the Egyptian women. Moreover, the pattern makers are usually confused and unable to choose the suitable blocks for different knitting fabrics taking into consideration its physical and mechanical properties. This study seeks to develop mathematical relationships for evaluation of the amount of added- or subtracted ease to Aldrich's basic fitting blocks for some weft knitting fabrics and its fitting to the upper part of Egyptian women's bodies. To achieve this goal, 12 samples were used to evaluate fitting of Aldrich's Basic Fitting Block to the upper part of Egyptian women's bodies. The samples were evaluated before and after alterations, through wear trials on the standard mannequins of size 48 and 56, and judged by experienced assessors using fit evaluation scale. The data obtained were statistically analyzed to identify the efficiency of the adjustments. The Aldrich's Basic Fitting Block was selected because his method is known internationally and easy to use.

Keywords : Aldrich basic fitting block, clothing industry, knitted fabrics, pattern construction
Conference Title : ICATFD 2017 : International Conference on Apparel, Textiles and Fashion Design
Conference Location : Amsterdam, Netherlands
Conference Dates : December 04-05, 2017