A survey on pattern-making technologies in Garment CAD

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Abstract:

Since interactive pattern-making technique in Garment CAD has its inherent limitation, some advanced pattern-making ones are intensively studied. This paper reviews state-of-art pattern-making techniques, including pattern generation based on artificial neural network, pattern flattening technique from 3D human or garment model and parametric pattern-making technique. In each technique, basic principles, characteristic and application are systematically discussed and commented. In first technique, the model of artificial neural network is constructed to simulate a pattern-making process. Pattern flattening technique is one of the key techniques of 3D GCAD system, geometrical and physical pattern flattening approaches are presented in this technique. Variant programming, macro definition, parametric model based on sequence and dimensional constraints, parametric model based on dimensional and geometric constraints are included in parametric pattern-making technique, parametric model based on dimensional and geometric constraints is considered as a promising one.

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Author Keywords

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I. Introduction

Interactive garment CAD (GCAD) techniques provide garment enterprises with fashion design, pattern-making, pattern-grading and marker making. Compared to manual operation, the techniques shorten product development cycle, improve product quality and respond more quickly to customer's market, thus the techniques are widely utilized and play a significant role in mass production in a garment industry.

Document Sections

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