Using Metallic Threads to Enrich the Aesthetic Properties of Weft Knitted Fabrics

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Abstract:
The knitting industry has proven over the ages its ability to adapt quickly to the change in market needs and different fashion lines, the knitting industry is characterized by the ability to change its styles quickly compared to other industries in the fashion world, this flexibility is one of the reasons for the success of the knitting industry, and the advanced technology currently used Helped its expand in the fashion markets.
The design of knitwear depends on the structural design of the knitted fabric and the external design of the garment shape, both of which is related to the other and are related to the type of machine used and methods of production, which show the distinctive features of the produced garment and affect how it is constructed and the designed.
The thread is one of the structural design factors for the knitted fabric. Its properties are one of the most influential factors on the properties of the fabrics. The properties of the threads differ according to the type of material and the method of production. The appearance of the threads and the effects they have on the fabrics also differ accordingly. The most recently used of these types are metallic threads, which work to increase the aesthetic and decorative appearance of the fabrics produced. Therefore, the current research tended to add metallic threads in the production of weft knitting fabrics to benefit from its aesthetic properties to enrich the produced fabrics.

Research Problem: The research problem can be identified in the following questions: 1- What is the effect of adding metallic threads to weft knitting fabrics? 2- What is the effect of the different structures of weft knitting fabrics produced by adding metallic threads?

Research objectives: 1- Obtaining aesthetic and decorative designs for weft knitting fabrics by adding metallic threads. 2- Obtaining structural designs used for weft knitting fabrics by adding metallic threads.

Research importance: 1- Obtaining new appearance properties for weft knitting fabrics by adding metallic threads. 2- Achieving aesthetic values for weft knitted fabrics produced by adding metallic threads.

Tools: A questionnaire to evaluate the produced fabrics.

Methodology: This research follows the analytical experimental method.

Results: 1- The specialist judges agreed that the addition of metallic threads to the weft knitting fabrics suits the structural purpose in the design of the proposed designs, as all opinions occurred at an appropriate level and the percentages of agreement ranged between (82.78%-95.83%). 2- The specialist judges agreed that adding metallic threads to weft knitting fabrics achieved the aesthetic aspect of the design of the proposed designs, as all opinions were signed at an appropriate level and the percentages of agreement ranged between (85.67%-99.0%). 3- The specialist judges agreed that adding metallic threads to weft knitting fabrics achieved the innovative aspect of the design of the proposed designs, as all opinions were signed at an appropriate level and the percentage of agreement ranged between (87.50% - 94.17%).

Keywords:
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