

Enhancement of Design Aesthetics for Jackets Fabrics Executed to Dobby Looms by Applying Self-similarity property in the fractal theory

Prof. Hassan Suleiman Ali Rahma

**Professor of Design, Spinning, Weaving, and Knitting Dept, Faculty of Applied Arts,
Helwan University**

Prof. Tarek Ahmed Ibrahim Khalil

**Professor of Design, Spinning, Weaving, and Knitting Dept, Faculty of Applied Arts,
Helwan University**

Engineer. Mohamed Mohamed Naguib Shebl Ahmed

**Demonstrator, Spinning, Weaving, and Knitting Dept, Faculty of Applied Arts, Helwan
University**

mm2561990@gmail.com

Abstract:

Fabrics produced on fabric looms with Dobby devices play a major role in meeting the needs of consumers of woven fabrics, especially in the field of clothing fabrics. With the great technological development in these lines and their connection to computers, this gave the designer the opportunity to increase his creative and innovative ability to produce designs with values Functional and aesthetic within the limits of the number of limited textile differences in those looms.

Jacket fabrics are very important for consumers to use frequently in the winter as they provide the required warmth, and given its importance and advantages, it deserves technical and Technology consideration, Whereas the design of that kind of fabrics carried on doobby looms almost typical is represented in plain, streak, and plaid designs. There are rarely simple engravings, Hence the importance of developing this type of fabric and providing a new vision by adapting some of the relevant scientific theories and applying them to the production of innovative designs with a new aesthetic and artistic vision. The most important research is Presenting a new vision for winter jacket fabric designs, Promote the use of scientific foundations and theories to obtain new and diverse designs, Take advantage of the recent developments of doobby looms to develop doobby fabric designs, and Enrich the local market with advanced products. and Objectives is Development of winter jacket fabrics executed on doobby looms, Emphasis on the adaptation of theories and scientific foundations and use in the doobby fabric design, Developing the local product to face the competition of the foreign product.

Keywords:

Fractal Geometry, Self- similarity, Sierpinski Carpet, Fractal in Nature.