

## **Design and Implementation of Innovative Woven Floor Covering to enhance Aesthetic and Functional Values**

### **Prof. Hammad Abdallah Hammad**

Prof. of Textile Designing, spinning, weaving and knitting Department, hammad\_abdallah@a-arts.helwan.edu.eg.

### **Prof. Gamal Abd El-Hameed Radwan**

Prof. of Textile Designing, spinning, weaving and knitting Department, - Gamal.mohamed@buc.edu.eg

### **Dr. Heba Khamis Abd El-Tawab**

Lecturer of Spinning, Weaving & knitting Department, Faculty of Applied Arts - Helwan University  
Heba\_kh26@yahoo.com

### **Asmaa kamel Attia**

Assistant lecture of Spinning, Weaving & knitting Department, Faculty of Applied Arts - Helwan University  
AsmaaAttia@a-arts.helwan.edu.eg

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### ***Abstract:***

The use of woven floor covering is not limited to homes only, but it is also used in many public places such as schools, offices, hospitals, restaurants and shops to achieve the aesthetic vision of the place and compatibility with the furniture next to the functional performance.

According to the face-to-face technique, two identical carpets are woven at the same time. To obtain this, two superimposed ground fabrics are woven, interlaced by the pile yarns. The fabric so produced is cut in the middle on the weaving machine to obtain two carpets: a bottom and a top carpet. **Research problem:** The difficulty of producing floor covering with inscriptions and slogans, whether using the flat weaving technique or the pile shape using the Face to Face technology, due to the lack of the first technology for texture and the waste of one carpet in the other. **Research objectives:** Producing designs characterized by combining different textile methods inside the floor covering and obtaining closed loops and cut on both carpets (top and bottom), Access to an innovative aesthetic product that performs its functional role appropriately and meets the needs of the consumer. **Significance:** Achieving the possibility of reading the writings in the carpet system face to face as a decorative element to build the design on both carpets (top and bottom) in a terry shape and several levels. (Structural composition). **Conclusion :** The design of the woven floor covering with the cut and loop technology adds several touches represented in the flat, loop and pile, and also allows reading the artwork on the upper and lower carpet produced, The possibility of producing two different designs for the upper and lower carpet, Productions of two designs with different design and texture, where one of the two carpets is a loop installation and the other is flat .

### ***Keywords:***

Face to Face technique, Cut and loop, Weaving Flat

### ***References:***

- 1- Awatef Ahmed Abdo, "Arabic Calligraphy as a Design and Formative Element in Contemporary Interior Architecture" Master's Thesis - Faculty of Fine Arts - Helwan University 2016.
- 2- Hend Ahmed Amin, "The effect of different technical methods of face-to-face carpets on the functional performance properties of the final use" Ph.D. Thesis, Faculty of Applied Arts, Helwan University, 2004.
- 3- Sabry Abbas Singer, "The Effect of Mixing and Shearing Pile Threads on Aesthetic Values and Writings in the Design of Suspenders in the Style of Mechanical Carpets in Opposite Shape" Ph.D. Thesis, Faculty of Applied Arts, Helwan University, 2006.
- [4] Geoffrey H Crawshaw –Carpet Manufacture- Chaucer Press Limited-2002.
- [5] K. K. Goswami-"Advances in carpet manufacture ,Second Edition" Woodhead Publishing Limited, 2018.
- [6] Van de Wiele`M."Carpets and Velvet Weaving Machines"-Carpet Jaquard Catalogue`1995