Creating Designs through Mathematical Functions

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Abstract

This study aims at generating textile patterns and innovative artistic and constructional designs for the artists and architects. It is the development of programming procedure for the analysis and designs of textile patterns and artistic instructional designs. The programming procedure utilizes MATLAB graphics tools for coding program which uses mathematical functions as input(s). The graphs of the functions are animated through several frames of iterations which eventually turn into designs. Trigonometric functions, hyperbolic functions, elliptical functions, parabolic functions and polar functions are inputs of the program. Every step of the iteration generates beautiful design.

Most of the designs were found to be patterns for clothing, tiles, wall clothes, dresses, logo and other textile materials. Other designs were found ideal for artistic works. It must be noted that the designs generated are new and valuable patterns for textiles. They are also valuable innovative designs for artistic technology and also for other purposes.
References

5. DMCK Designs@ 30, October, 2013. Mathematical Fashion https://dmck.us/

Index Terms

Computer Science  Applied Mathematics

Keywords

Trigonometric functions, Matlab, Pattern Designs, 3-D Graphics