

إستخدام التقنيات الذكية ذات التحكم اللوني في تصميم الأزياء Using intelligent color control techniques in fashion design

أ.م.د/ شيرين سيد محمد حسن

أستاذ مساعد بقسم الملابس الجاهزة - كلية الفنون التطبيقية - جامعة حلوان

م/ سهام أحمد سيد محمد

قسم الملابس الجاهزة - كلية الفنون التطبيقية - جامعة حلوان

Summery

This paper is concerned with the study of using color-changing smart materials technology in fashion design, whose colors vary according to the type of stimuli that affect them. Three different techniques which are thermochromic dyes, photochromic embroidery thread and glow colors in the dark were the objects of the investigation. The study examined the application of these materials to make smart clothes by using thermochromic materials that change color according to the body temperature of the person wearing it, and the use of photochromic materials for the preparation of a smart embroidered garment with dyed yarns by the Photochromic dye which changes the color when exposed to sunlight. Moreover, the phosphorous materials that illuminate itself in darkness after being exposed to light for a period of time - in a glossy print in the dark were used. Color stability tests were conducted on samples of the techniques used in the research for washing, friction, sweat and ironing in a standard laboratory environment. The results of the study were evident in the difference of the effect of these techniques on the clothes.