13.AI BASED SMART COSMETICS SUGGESTION SYSTEM

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In recent years, artificial intelligence (AI) has revolutionized the beauty industry by offering personalized skincare and cosmetic recommendations. This paper presents an AI-based cosmetics recommendation system that analyzes a user's skin type and tone from a photograph to suggest suitable beauty products. The system employs Multi-task Cascaded Convolutional Networks (MTCNN) for precise face detection, a k-nearest neighbors (KNN) algorithm for skin tone classification, and a Convolutional Neural Network (CNN) for skin type detection. Based on the extracted features, the system filters a curated dataset of cosmetic products to provide tailored recommendations. This approach enhances user experience by eliminating guesswork and ensuring scientifically-backed suggestions. The proposed system aims to bridge the gap between AI and the beauty industry, offering a smart and efficient way to select cosmetics that match an individual’s unique skin profile.

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