

UNIVERSITI TEKNOLOGI MARA

**SKIN COLOUR MATCH FINDER
BASED ON ANALYSIS OF IMAGE
PROCESSING USING MOBILE APPS**

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ABSTRACT

Nowadays, mobile technology has taken place and has been widely used in our modern life. The use of gadgets or technology has been revolutionized the way we do things. Merging between technology and beauty has led to a digital transformation in the cosmetics industry. A person who are keen into makeup can do some shopping spree anywhere and anytime by using their own gadgets. The purpose of this project is to solve problems that has been facing by makeup enthusiast who wants to find the suitable shades that match their skin from a brand that are not available in local via online. Makeup enthusiast founds that they have the difficulty in finding shades as they could not spend a great deal of time swatching foundation down. Due to this problem, this project aims to design a mobile application that can help makeup enthusiast to overcome the problem. This project also aims to develop mobility in cosmetics. The result of this project is to ensure that finding foundation shades through the mobile application can be developed and widely used by every person who has enthusiasm in makeup in order to get the right shades for their skin.

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CHAPTER 1

INTRODUCTION

This chapter briefly explain about the skin colour match finder based on analysis of image processing using mobile apps. It covers on the overview of the whole system starting from its background of study, the problem statement, the objectives of the project, the scope and significance and the summary for the whole chapter.

1.1 Background of Study

Foundation colours play an important role in makeup since it can cover any flaws, diminish imperfections and enhances women's beauty. Since there are variety of skin colours and types, various shades of foundation being market. Although there are many choices of foundation available, every makeup enthusiast is battling with themselves in order to find the perfect foundation shades. According to a study by Estee Lauder, up to 70% of women could not find the matching colour of their foundation and 94% of women are wearing the wrong colour of foundation (Chang et al., 2017). This shows that finding the perfect colour for foundation have some limitation for the buyers.

In this era of globalisation, people tend to seek for innovations or future trends no matter in what aspects. Cosmetic industry has upped their game in the market as they put technology as their core strategy to attract consumer. Merging technology with cosmetics give great impact to makeup enthusiast as it helps them in finding foundation shades that matches to their skin. Beauty devices expected to have a significant growth by 2020 (Persistence Market Research, 2015). It is inevitable trend for cosmetics industry to embrace with technology as they trying to attract and introduce products to digital native. By having an application that can determine the shades that correspond to user's skin colour, it will resolve the conundrum in finding