



ColorGuard: Ensuring Mobile App Design Compliance with Google Material Design Color and Theme Guidelines

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I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.

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DECLARATION

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Sri Lanka Institute of Information Technology or to any other institution for assessment for any other purpose.



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ABSTRACT

ColorGuard: Ensuring Mobile App Design Compliance with Google Material Design Color and Theme Guidelines

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Abstract – Developing mobile applications today demands significant time and effort. Creating user-friendly user interfaces (UIs) is particularly challenging, with special attention needed for color-related details as they are the first thing customers notice. Numerous guidelines have been introduced to assist mobile UI designers in fostering good interaction between users and UIs. Among these, Google's Material Design guidelines are highly trusted, being developed and maintained by Google. Adhering to these guidelines enables developers and designers to create more efficient and effective UIs, which is crucial for commercial mobile applications. However, reading, understanding, and implementing all these guidelines can be overwhelming for novice UI designers. Additionally, having improvement tips and suggestions is highly beneficial. To address this challenge, this research proposes a web-based solution that reviews developed mobile UIs and provides textual suggestions to improve the UI design according to the guidelines. Since the solution is implemented as a web application, offering an effective way to provide this service across any device and operating system.

Keywords: mobile applications, design guidelines, UI element colors

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