

UNIVERSITI TEKNOLOGI MARA

**HYBRID KANSEI ENGINEERING
SYSTEM FOR WEBSITE USER
INTERFACE DESIGN**

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IT Project submitted in partial fulfillment
of the requirements for the degree of
Master of Science in Information Technology

Faculty of Computer and Mathematical Sciences


July 2016

AUTHOR'S DECLARATION

I declare that the work in this report was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as reference work. This IT Project has not been submitted to any other academic institution or non-academic institution for any other degree of qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Past literature on website user interface design and user experience has shown that feeling and emotion play a very important role in determining users' browsing behavior and decision in their online activity. The design elements used to construct a website had a great impact on how a user perceives and responds to the website. Design that is visually appealing and emotionally attractive will make a user stay longer on a website. Kansei Engineering is a technology that aims to integrate feeling and emotion into product design. According to past literatures, there were several success story of Kansei Engineering implementations in various fields. In website development, there was a study on Kansei Engineering which produced a guideline for developing Kansei website user interface called Kansei Web Design Guideline (KWDG). Using this guideline, a user can identify related web design elements based on intended Kansei word. This research aims to extend the previous research by investigating the possibility of automating Kansei recognition from a given design specimen. Using Hybrid Kansei Engineering System (KES), this study introduced a new Kansei Web Relational Data Model (KWRDM) that served as a data model to define Kansei web design. On top of this new data model, a prototype of Kansei Web Recognition System (KWRS) was developed featuring applications for Forward KES and Backward KES. Forward KES application is capable of identifying web design elements from a given Kansei word while Backward KES application is used to automatically recognize Kansei from a set of design elements. The prototype has been tested using five website design specimens of different Kansei concepts and feedback from 40 respondents has been collected. While the result varies between the tested specimens, the analysis indicated that with certain improvements, KWRDM can be used to automate Kansei web recognition. The author recommended the inclusion of image recognition feature and the enhancement of KWRDM to improve the KWRS. The outcome of this study is significant to Kansei research on website user interface. It will open a new opportunity towards engaging and affective website user interface design which embed human feeling and emotion.

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