A RESEARCH ON INTELLIGENT AGENT SYSTEM FOR FASHION CLOTHING USING KANSEI ENGINEERING



INSTITUT PENGURUSAN PENYELIDIKAN UNIVERSITI TEKNOLOGI MARA 40450 SHAH ALAM, SELANGOR MALAYSIA

DISEDIAKAN OLEH :

ANITAWATI MOHD LOKMAN

FEBRUARI 2011

Contents

1.	Letter of Report Submissioniii
2.	Letter of Offer (Research Grant)iv
3.	Acknowledgementsv
4.	Enhanced Research Title and Objectives (if any)vi
5.	Report1
	5.1 Proposed Executive Summary1
	5.2 Enhanced Executive Summary2
	5.3 Introduction4
	5.4 Brief Literature Review
	5.5 Methodology
	5.6 Results and Discussion
	5.7 Conclusion and Recommendation
	5.8 References/Bibliography41
6.	Research Outcomes
7.	Appendix

2. Letter of Offer (Research Grant)



Surat Kami : 100 IRDC/E-Science 16/6/7/1 Tarikh : 4 Disember 2008

Anitawati binti Mohd Lokman Pensyarah Fakulti Teknologi Maklumat & Sains Kuantitatif Universiti Teknologi MARA SHAH ALAM

Puan

KELULUSAN MEMBIAYAI PROJEK-PROJEK SCIENCEFUND DI BAWAH RMKe-9

Dengan hormatnya perkara di atas adalah dirujuk.

Sukacita dimaklumkan Jawatankuasa Kelulusan MOSTI telah meluluskan kertas cadangan puan dan membiayai projek penyelidikan di bawah dana *ScienceFund*.

Penyelidikan yang diluluskan adalah seperti berikut:

No	Penyelidik	Fakulti	Tajuk	Tempoh	Peruntukan
Projek			-		Keseluruhan
01-01- 01- SF0241	Anitawati binti Mohd Lokman	FTMSK	A Research On Intelligent Agent System Using Kansei Engineering	19 bulan	178,100.00

Kami mengucapkan tahniah kepada puan kerana berjaya mendapatkan peruntukan *ScienceFund* ini dan semoga berjaya menyiapkan projek penyelidikan ini dengan cemerlang.

Sekian, harap maklum.

Yang PROF. DR. AZNI ZAIN AHMED

Penolong Naib Canselor (Penyelidikan)

- 1. Y. Bhg. Dato' Seri Prof. Dr. Ibrahim Abu Shah Naib Canselor UiTM
- 2. Prof. Madya Dr. Mohd. Hanafiah Abidin Ketua Penyelidikan (Sains & Teknologi) Institut Pengurusan Penyelidikan
- Dekan Fakulti Teknologi Makiumat & Sains Kuantitatif

/τια

s.k.:

Penolong Naib Canselor (Penyelidikan) : 603-5544 2094/2095		Bahagian Penerbitan : 603-5521 1425/5544 2747		Bahagian Pentadbiran	603-5544 2090
Bahagian Penyelidikan : 603-5544 2097/2091/5521 1462		Bahagian INFOREC: 603-5544 3097/2104/2098		Fax	:603-5544 2096/2767
Bahagian Perundingan : 603-5544 2100/2753/2092		Bahagian Sains: 603-5544 2098/5521 1463		Unit Kewangan Zon 17	003-5544 3404
Bahagian Inovasi : 603-5544 2750/2747		Pejabat Am. 603-5544 2093/2101/2057/2559	1		: 603-5521 1386
Research Management Institute (RMI) Universiti http://www.rmi.uitm.edu.my	Tel	knologi MARA, 40450 Shah Alam, Malaysia	- [Demi

5. Report

5.1 Proposed Executive Summary

The study intends to implement Kansei Engineering in the design of an intelligent agent system for fashion clothing. The proposed system will read potential buyer's constraints, such as purpose, desire, age, and budget. The system will process the data and retrieve suitable fashion clothing from the database according to the results of Kansei evaluation and social constraints. Ultimately, the system will send clothing details to an avatar that advise the details to buyer, and display a list of possible fashion clothing including details as proposal to the potential buyer.

5.3 Introduction

The growth of e-Commerce is very encouraging over the past recent years. According to research done by Forrester in 2007 (http://www.forrester.com), online sales are expected to rise 18 percent to \$259.1 billion as compared to \$219.9 billion in the previous 2006, and previous years have seen approximately 25% year-to-year increase. This shows that e-Commerce, which is the medium of online sales, has become more important than ever.

Likewise, according to the first part of The State of Retailing Online 2007 (http://www.forrester.com/SORO), Americans last year spent more online on clothing than they did on computers for the first time in history. Apparel has taken over the top spot in terms of online sales volume. Online clothing sales are forecast to hit \$22.1 billion in 2007, and 10 percent of all clothing sales are expected to occur online in 2007. The report suggests that one of the reason why the clothing category has experienced strong sales is because the online retailers are integrating new technologies onto their sites including rich imaging, where customers can zoom and rotate merchandise or see the item in different colors before buying, all of which eases the mind of a customer who is hesitant to purchase apparel online.

Corresponding to the facts, in the effort to encourage purchase, online shopping sites provide diverse techniques to help consumers find products to purchase. Clothing e-Commerce provides recommender system to give choices according to buyer's preferences. Recommender Systems act as personalized decision guides, aiding users in decisions on matters related to personal taste. However, current recommender systems tend to be short-sighted in nature and usually focus on the narrow problem of pushing a set of closely related products that try to satisfy the user's current need. Most e-commerce recommender systems analyze a large amount of

4