MICROSCOPIC IMAGE AND TEXT EXAMINATION OF CONVENTIONAL AND DIGITAL PRINT-OUTS

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Tuan/Puan

KELULUSAN PERMOHONAN DANA KECEMERLANGAN (RIF) 07/2012

Tajuk Projek	:	An Image Identification And Characterization Between Digital And Conventional Printouts
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Dengan segala hormatnya perkara di atas adalah dirujuk.

2.　　Sukacita dimaklumkan pihak Universiti telah meluluskan cadangan penyelidikan tuan/puan untuk membiaya projek penyelidikan di bawah Dana Kecemerlangan UiTM.
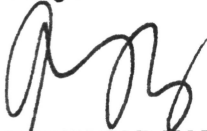
3.　　Bagi pihak Universiti, Institut Pengurusan Penyelidikan (RMI) mengucapkan tahniah kepada tuan/puan di atas kejayaan ini dan seterusnya diharapkan berjaya menyiapkan projek ini dengan cemerlang. Untuk makluman, penggunaan peruntukan adalah tertakluk kepada Garis Panduan Fakulti Berintensif Penyelidikan. Peruntukan tambahan akan diberi setelah laporan berkala dihantar kepada RMI dan berjaya menghasilkan sekurang-kurangnya satu (1) penerbitan berindeks dalam SCOPUS/ISI/ERA.

4.　　Untuk tujuan mengemas kini, pihak tuan/puan adalah diminta untuk menyusun perancangan semula bajet yang baru dan mengisi borang setuju terima projek penyelidikan dalam tempoh dua (2) minggu. Selain itu, kertas cadangan lengkap juga harus dikemukakan dalam tempoh tiga (3) bulan dari tarikh surat ini. Bersama-sama ini disertakan tatacara pengurusan projek penyelidikan untuk rujukan dan perhatian pihak tuan/puan.

Sekian, harap maklum.

"SELAMAT MENJALANKAN PENYELIDIKAN DENGAN JAYANYA"

Yang benar

MUSTAFAR KAMAL HAMZAH
Ketua Penyelidikan (Sains dan Teknologi)

: Disertakan

4. Report

4.1 Proposed Executive Summary

Wide spread of printers and computers have led to increasing use of print documents in people's common life. While mass print, automatic print quality evaluation is necessary in the fast print process to avoid the quality defect immediately when it appears. Also, in many cases print materials are direct accessories to many criminal and terrorist acts, for example forge contract, hence print identification has become more importance. With the technology that is evolving as rapidly as conventional and digital printing, however, it is easy to lose track of the many processes and the many variables in each process. Furthermore, as digital prints often appear similar to one another and to prints of traditional processes, comparing digital and conventional printouts can be confusing.

This research aims to examine and characterizing digital and conventional printouts and investigate whether digital prints outs are significantly different than conventional printouts which can then be used for management and control purposes. Prior efforts to characterize digital and conventional printout have been made, however it is based on visual examination (Gascoigne 2004, Jarry 1996 and Lloyd and Taub 1988). To address this issues, In order to evaluate the print quality automatically or identify the source of the printouts intelligently, this study research will fully utilised primary examination of print with the naked eye, a magnified view of its edges and surface will render additional information. A stereomicroscope that magnifies up to approximately 20x to 50x as an instrumentation. The print identification checklist as proposed by Jurgens C. (2009) to keep track of the observations during identification. The experimental results are then presented and analyzed, showing that the results are promising and convinced.

4.3 Introduction

Printing has been around since about 3000 BCE where cylinders and blocks were used. Images were first duplicated on clay blocks, then silk fabrics, animal skin and paper. (Ronald C Baker 2012). In this era, became a famous industry and quite important for the country based on services it can provide. Since technology has evolved and demand for demand for printing products grows, many printing process exists only to provide perfection and quality on every printed product. Revolution in printing industry today enables a customer to choose customer able chooses which printing process is suitable for product and quality. In today's digital world the computers and the printers are widely used. Due to the wide spread of the digital devices, people may be printing rather than handwriting on many occasions, that is, producing printed documents more instead of traditional manuscripts which are dominant hard copies in people's social lives nowadays. Due to a healthy increase in printing, print quality assessment which is significant in quality examination and control is highly demanded. On the other hand, when a large part of manuscripts are replaced by print documents, most mature writer identification methods are unreliable in the area of forensic, criminology, business security and so on. The purpose of this research is to investigate and determine the quality from image identification and characteristic of the digital printing and conventional printing printouts: (1) To examine characterizing digital and conventional printouts. (2) To investigate whether digital prints outs are significantly differences than conventional printouts. This research makes comparison between quality of printed products produced by digital and conventional printing method. In addition, in many cases print materials are tools for many criminal and terrorist acts. The scope of this research will focus on the characteristic of products printed by digital printing and conventional printing method. Every printout will be analyzed and examined in order to come out with a comparative analysis between conventional and digital printing. However, there are a few limitations to this research: (1) To create a difference in every printing process because there are a digital and conventional printing process (2) To capture the image and text clearly during conducted a stereo microscope.