Final Year Project Report

Semi-Automatic Feature Based Approach for Sketch to Image Matching

Project Advisor:

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Submitted By:

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Dedication

We devote this to our parents. Without their understanding, support, encouragement and never-ending love the completion of this work was not possible.

Final Approval

Panel of Examiners

1) **Head of Department** _____
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2) **Program Director (Final Year Projects)** _____
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3) **Supervisor** _____
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4) **Co-Supervisor** _____

5) **External Examiner** _____

6) **Controller of Examinations** _____

Statement of plagiarism

Acknowledgment

Prima facie, we are grateful to ALLAH (الله) SWT for the good health and wellbeing that were necessary to complete this thesis.

We place on record, our sincere gratitude to Dr. Abdul Aziz Bhatti, Dean of the Faculty for School of science and technology UMT, for the continuous encouragement.

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We take this opportunity to express gratitude to all of the Department faculty members for their help and support. We also thank our parents for the unceasing encouragement, support and attention. We are also grateful to our partners for this entire venture.

We also want to place on record, our sense of gratitude to one and all, who directly or indirectly, have lent their hand in this venture.

Project Title	**Semi-Automatic Feature Based Approach for Sketch To Image Matching**
Objective	**To make the practice of face recognition stress-free for the crimnal investigation**
Undertaken by	Prof. Syed Farooq Ali
Supervised by	Prof. Syed Farooq Ali
Starting Date	October 27th, 2014
Completion Date	September 15th, 2015
Tools Used	Matlab, Excel
Operating System	Windows

Abstract

A semi-automatic feature-based approach for sketch to image matching is presented which is used to achieve matching or recognition of sketch-based facial features to image-based facial features of human subjects. Loosely termed as ‘sketch to photo’ matching, this problem is complicated by the wide possible variety of factors in both the sketches and the photos, some of which are angles, color, lighting and scale. Our proposed approach overcomes these difficulties by normalization of inputs and selection of some prominent and reliable features points. The basis of comparison between corresponding feature points is the ratio of Euclidean distances which makes the approach scale independent. The approach promises discernible improvements in accuracy and efficiency.

REVISION CHART

Version	Primary Author(s)	Description of Version	Date Completed
1.0	Bilal Siddiqui	Initial draft created for proposal and presentation.	November 10th, 2014
1.1	Muhammad Danish Tufail	Second draft incorporating initial review and comments,	January 23rd, 2015
1.2	Abdul Rahman	First complete draft, which is placed under change control	April 17th, 2015
Final Draft	Muhammad Danish Tufail Bilal Siddiqui Abdul Rahman	Revised draft, revised according to the change control process and maintained under change control	September 30th, 2015

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