FACIAL KEY POINTS DETECTION SYSTEM

A Thesis report presented to the National University in partial fulfilment of the requirement for the degree of M.Sc.(Master's) in Computer Science & Engineering

Submitted By

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DECLARATION

I hereby declare that I have completed the work of this thesis under the supervision of Ditee Yasmeen, Assistant Professor, Department of Computer Science and Engineering (CSE), Institute of Science and Technology (IST), affiliated with the National University of Bangladesh. I also declare that neither this thesis nor any part of this has been submitted elsewhere for the award of any degree.

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APPROVAL

The thesis “Facial Key Points Detection System” submitted by Md. Ikramul Murad, Registration No: 15602000014 to the Department of Computer Science and Engineering, Institute of Science and Technology (IST), Dhaka, Bangladesh has been accepted as satisfactory for the fulfillment of the requirements for the Degree of Master of Science in Computer Science and Engineering under National University and approved as to its style and contents.

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ACKNOWLEDGMENTS

This is my humble attempt to present gratitude in preparing this report. I have truly drawn upon my own experience as a student of computer science. This thesis would not have been possible without the dedications and contributions of a number of individuals.

First and foremost, I would like to express my gratitude to Allah for always help me. Then I would like to thanks, Ditee Yasmeen, Assistant Professor, Department of Computer Science and Engineering (CSE) for agreeing to supervise me during the thesis. Her eagerness helped me in every step of the way and encouraged me to propel myself higher.

Abstract

This paper gives the intersection between the vision based and knowledge based facial key points detection system which will be used in several modern world applications. It undertakes two primary tasks; namely understanding of the traditional vision based system provided by the OpenCV and a proposed methodology to make them more accurate in facial key points detection. The methodology uses both vision and knowledge for the facial key points detection procedure. This system can be used as a building block in several applications, such as Track faces in images and videos, Analyzing facial expressions, Detecting facial signs for medical diagnosis, Biometrics etc. This paper provides a generalized solution for facial key points detection system for the field of modern applications.

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