Informatics Institute of Technology

In collaboration with

University of Westminster, UK.

Pressure Point Locator

A dissertation by

Ms. A.G.Dulmini Kanchana Guruge (2014230)

Supervised By

Mr. Sudharshana Welihindha

Submitted in partial fulfillment of the requirements for the

BSc (Hons) Software Engineering degree

Department of Computing

ABSTRACT

For centuries, people have been giving treatments to specific energy points in the human body which were linking various organs, limbs immune responses and even emotions.

These 'points' are named in Chinese Medicine as Acupressure points/Acupuncture points and referred as Marma points in Ayurveda and yogic healing. According to both Chinese Medicine and Ayurveda, energy (chi or prana) can stagnate in these energy points. Both Chinese and ayurvedic systems have separate healing practices focused on freeing this energy, either through , Ayurvedic massage ,acupuncture or acupressure. The focus of marma point massage or pressure point therapy is to manipulate subtle energy or prana, but the massage therapy for the marma points is also useful for boosting circulation, relieving stiff muscles, to cure pains and a large number of different diseases. The locations of marma points are defined in ancient books like Susruta using "anguli" or finger units and locations of acupressure points in "cun" which is equal to the width of the thumb. As the thumb sizes and the sizes of the human body and the locations of anatomical landmarks differ from individual to individual and it is essential to identify the correct location of the marma points/pressure points before doing treatments which takes time for identification of the exact location.

This project addresses the problem placement of pressure points on the human.This application is developed for real time face and hand detection and replacement using the identified locations of the pressure points.A novel approach was identified using the existing technologies in image processing, computer vision and machine learning algorithms.

Keywords:

Computer vision , image processing , machine learning