



**INFORMATICS INSTITUTE OF TECHNOLOGY**

**In Collaboration with**

**UNIVERSITY OF WESTMINSTER, UK**

# **Cephalometric Analysis System Using Image Processing**

A dissertation by

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Submitted in partial fulfilment of the requirements for the

BSc (Hons) Software Engineering degree

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May 2019

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## **Abstract**

Cephalometric is the evaluation of human head of the living beings and its measurements through medical images such as x-rays and radiographs. Dentists, orthodontics and other doctors use this study analyze the growth of human head and its dimes to plan treatments. However this cephalometric analysis process is a hard and very time consuming task. Use of image processing techniques for solving complex problems in the medical field have become very popular in the current world. In this research it is discussed in detail about a new system that use image processing techniques to automate the manual process of the cephalometric analysis.

The x-ray images are scanned and the landmark points which are used to calculate the human skull dimensions are identified with the use of image processing techniques. The time taken to process the x-ray images and produce final results is very low compared with the time taken for the manual process of cephalometric analysis.

Subject Descriptors:

1.4 Image Processing

Key words:

Image Processing, Cephalometry, Cephalometric Analysis, Medicine, Dental