

INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with

UNIVERSITY OF WESTMINSTER (UOW)

BEng. (Hons) in Software Engineering

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**Automated Pattern Block
Generator**

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Abstract

Body measurements taking and Drawing of the pattern block are the major parts of tailoring sector in Sri Lanka. Focusing on that there are several applications implemented for drawing purposes and some others for measurement gathering.

This research is carried out a literature study and industry survey in-depth regarding those applications and the facts that impact on measurement gathering and block drawing were identified. The image processing methods were evaluated as well.

For the solution, body measurements gathering and pattern block drawing were selected for an image based result. In the proposed system, an image processing component was used to enhance and process the image of the customer with several poses to calculate measurements. Further, image drawing component will be used to generate the pattern block. In addition to that, an expert component was used to gather some input from the tailor, if applicable for the final block. Several image enhancement components were created, and a unique methods which include an algorithm to identify measurements, an algorithm to calculate block values according to given data and drawing methods was attempted.

Subject Descriptors:

I.4 Image Processing

I.2.6 Artificial Intelligence

I.2.1 Applications and Expert Systems

Keywords: Image processing, Web application development, Body measurement gathering, Pattern block generation, Tailoring