

FAULT SIGNATURE DETECTION SYSTEM

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by

SUBASINGHE ARACHCHIGE
HARSHA PIYUMI SUBASINGHE
UWU/CST/09/0039

Computer Science and Technology Degree Program
Uva Wellassa University, Sri Lanka

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Abstract

In the current age the integration of image stitching algorithms, face detection algorithms could be used in many situations. And also the signature detection is used in many situations for diagnosis the correctness of the signatures. The research addresses to the problems with the fault signature detection and the correctness of the face detection as well using an easy way. This includes a fast algorithm of face detection for the frontal faces using haar cascade classifier. Throughout this paper the steps taken for the development of an innovative low-cost interactive fault signature detection system.

Throughout this paper the steps taken for the development of an innovative low-cost interactive, efficient and less ambiguous fault signature detection system. Fault signature detection system created using *JavaCV* and Image Processing. Image Processing module was implemented using *Java* programming language with the support of *JavaCV*(Java wrapper for *OpenCV*).All those modules and Graphical user interface (implement using Java Swing) were integrated and form a single complete system that performed the process.

There are many advantages of using this proposed system. Firstly the time effectiveness of this system is much lower than existing solutions. Secondly the ambiguous counting are reduce using this system. Thirdly Objectives of this system are successfully implemented with basic functionality of the image processing. Important parts of the system development were done successfully. Image Processing Module exhibit marginally accuracy when detecting the faces, System is basically detect the frontal faces of the students. Background light condition has limitation.

This research showed that the Digital Image Processing techniques, able to get the stitch image of the class room, identify the number of faces and signatures with acceptable accuracy level.