

**IRIS RECOGNITION FOR MULTIMODAL BASED AUTHENTICATION
SYSTEM**

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

IRIS RECOGNITION FOR MULTIMODAL BASED AUTHENTICATION SYSTEM

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In the past few years, Agency of the Assessment and Application of Technology (BPPT) and Swiss German University's students have conducted several researches regarding those biometrics aspects. In 2012, Valentina developed prototype system for iris recognition. Then, this system was enhanced by Sentanoe (2014). However, the result of the research still needs to be improved, especially in the accuracy of the segmentation module and the performance of the system. Therefore, in this research, the system is enhanced. Then, it is integrated with the iris scanner, the fingerprint scanner, and the open-source fingerprint recognition system to develop a multimodal based authentication system. In terms of result, this experiment shows quite promising results, which are 97% success rate for the iris segmentation module, 97% success rate for the matching module, and seven times faster processing speed of the iris matching module.

Keywords: Biometrics, Iris Recognition, Iris Segmentation, Iris Feature Extraction, Iris Matching, Multi-modal System



DEDICATION

I dedicate this work to my family, friends, and lecturers, which always support and encouraging me.



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