

# **SINHALA HANDWRITING AUTHER IDENTIFICATION FOR FORENSIC ANALYSIS**

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A dissertation submitted in partial fulfilment of the requirement for  
M.Sc. in Advanced Software Engineering

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**In collaboration with**  
**University Westminster, UK**

**2020**

## **Abstract**

Handwriting comparing for forensic analysis is not something new. This was an essential requirement in the past as all the formal documents were handwritten. Therefore, if someone left a note before committing suicide or someone left an unauthenticated will it was necessary to verify the authorship. Therefore, the science of handwriting comparison started and practiced for a long time. Even in the current world where everything is digital, still this is a requirement.

There are automated handwriting comparing systems available for some languages, mainly for English. Therefore, researches on this area is available mainly for English language. But for Sinhala language it is yet an untouched area. Even though there are experts who do this manually still there is no automated system or a research conducted to make this automated.

The style of writing in English is totally different for Sinhala language. Thus the methodology and features used to compare English handwriting cannot be mapped with Sinhala directly. In fact, Sinhala language provide unique challenges like letters having ascenders and descenders. Therefore, identifying a character for analysis is much harder compared to English.

This research provides a solution to the problem of verifying the author of a document by analyzing the features of words and spaces a writer keeps. The system was developed as a windows forms application as it was easy to develop to proof the concept of research. The modules were developed independently to keep the scalability of the system at a higher level.

The system was tested and evaluated thoroughly by the researcher and external evaluators. Documentation was carried out effectively to capture every aspect of the project including the implementation details, test results and evaluations