

**HANDWRITTEN TEST RECOGNITION FOR SINHALA  
LANGUAGE (ONLINE)**

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## **Abstract**

Sinhala is the official language of Sri Lanka which is widely used in the island. The Sinhala language comprises of an alphabet as well as spoken language. Sinhala has its own digital fonts where it is used in electronic devices widely. Yet, most of the documents need to be filled in the native language, many Sri Lankas prefer to use handwriting to get the tasks done. There are many attempts that had taken to find a viable solution in terms of digitizing the Sinhala HTR but in online approach it is very low.

This research aims on Online based handwriting approach, by studying other similar systems to come up with the best performing algorithm and an implemented prototype application to support the research. The research is focused to design and develop a SVC model backed by the implementation to yield the best performance and accuracy in the real time HTR process.

The final output of this research component was a SVC based application and a documentation to recognize the handwriting real-time. The model resulted in 83.2% system generated accuracy.

### **Key words:**

Support Vector Classifier, Handwriting Text Recognition, Deep Learning, Online Sinhala Text Recognition, SVC, Machine Learning