

**SWA BHASHA: MESSAGE-BASED TYPING  
TRANSLATION**

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## **Abstract**

Machine translation in natural language processing provides the ability to translate many languages into many different languages in a computational way. This makes people life easier than in the translation processors such as translating the mother language to another language. Therefore, machine translation holds an important place in modern society.

In the Sri Lankan context also language translation holds a great place when it comes to the translation of Sinhala language, the official language in Sri Lanka translates into various languages. Sinhala is a rare language in the world. In the NLP, machine translation this is one of the low resourced languages in the world. People in Sri Lanka, use informal language while texting named ‘Singlish’ which means Sinhala words typing in English words in order to make the typing process easier while texting.

This message-based typing translation system also based on the Singlish translation. The main aim behind this implementation is to reduce the complexity and the difficulties that the university students faced while typing Singlish words with vowels, without vowels and reducing the vowel count in the real Sinhala word that the existing system doesn't have supported at the moment and give a better experience in Singlish typing.

This “Swa Bhasha” translator has developed using the rule-based machine translation approach and supports the translation in word-level for Singlish words with vowels, without vowels and reducing the vowel count in the real Sinhala word and provide the relevant native Sinhala word for them as the result and try to provide a great experience for the Sri Lankan university students.

## **Keywords:**

Rule-based machine translation, language code-mixing, Singlish words, Sinhala Translation