

## INFORMATICS INSTITUTE OF TECHNOLOGY

## In Collaboration with UNIVERSITY OF WESTMINSTER

## An Expressive Text-to-Speech System for Sinhala Language

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## ABSTRACT

Text to Speech is a research area which is having a high attraction in recent years. Text To Speech can be recognized as the computer-based system which can convert text to its desired spoken form considering its grapheme to phoneme mapping. This text to speech systems can be used in many industries such as the chatbot industry, audio books, etc.

This area becomes more challenging as it needs different data sets and resources for different languages. When it comes to low resource languages, its lack of quality data and resources prevents from doing research more in the community and it is hard to find good quality data. In this research, we have built a text to speech system for Sinhala language which is a low resource language used in Sri Lanka.

This research proposes a way to build a Text to Speech system using FastSpeech2 for low resource language Sinhala. This research has used Montreal Forced Aligner to do the text and speech alignments and FastSpeech2 for speech synthesising. The data set used for this research is from UCSC and Path Nirvana Repository.

User level evaluation was conducted with 10 candidates where the intelligibility and the naturalness of the developed Sinhala TTS system receive an approximate score of 3.25 MOS.

Keywords: Text to Speech, Sinhala TTS, low-resourced languages