



INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with

UNIVERSITY OF WESTMINSTER

Sindupedia: Genre Based Sinhala Music Classification System For Automating Sinhala Music Classification

A Dissertation by

Mr. Udara Nayana Indeewara

Supervised by

Mr. Lakshan Costa

Submitted in partial fulfillment of the requirements for the BEng (Hons) in Software Engineering degree at the University of Westminster.

July 2022

Abstract

In the modern world, AI has become the main focal point of rising data analysis technologies. Because of the way ML has opened new paths in data analytics tasks, people have utilized ML for almost every sector to enhance their performance. Applying neural networks to the music classification process is one of those highly explored machine learning domains. Manually classifying music resources can be a very exhausting and laborious task. But with the ability to apply ML to automate this process has made ML researchers to dig deep and propose various design solutions to automate this task. But because of newly emerging technologies in the ML field and inventing new sub domains of music classification, there is still a lot to explore in this field. One of those above mentioned sub domains would be Sinhala music classification. Compared to its main domain, this sub domain is very underexplored due to less interest shown in this domain and the changing nature of the music. In this case the author has set a goal to design a classification system that enables automating Sinhala music classification by genres using deep neural networks and music information retrieval. A system like this will provide the ability to perform Sinhala music classification and prediction tasks to all Sinhala music enthusiasts without any prior technical knowledge. Due to very little research having been carried out in this area and no other existing systems found similar to the proposed system, this will be a valuable contribution to the Sri lankan music domain.

Keywords - Machine learning, Music Classification, Sinhala Music, Deep learning, Music Information Retrieval