



**CONVERSION NOTATION NUMBER OF SONG TO PIANO SOUND  
USING LOGISTIC REGRESSION WITH THE TELEGRAM BOT  
APPLICATION**

**UNDERGRADUATE THESIS**

**Submitted as one of the requirements to obtain  
Sarjana Komputer (S.Kom.)**

**By:**

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**FACULTY OF COMPUTING  
INFORMATION TECHNOLOGY STUDY PROGRAM**

**CIKARANG**

**MARCH, 2023**

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The Panel of Examiners declare that the undergraduate thesis entitled “**CONVERSION NOTATION NUMBER OF SONG TO PIANO SOUND USING LOGISTIC REGRESSION WITH THE TELEGRAM BOT APPLICATION**” that was submitted by Lucy Mangemba majoring in Information Technology from the faculty of Computing was assessed and approved to have passed the Oral Examination on 08 March 2023

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By

Lucy Mangemba

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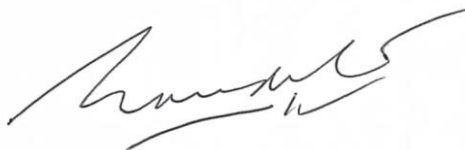
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## **ABSTRACT**

Number notes are part of the art of music. Notation or number notation is used to see musical tones with a certain frequency. This notation is written using numeric symbols, such as the numbers 1 (one), 2 (two), 3 (three), 4 (four), and so on. Reading numeral notation means reading written music and then playing it through musical instruments or singing it into vocals. It is difficult to read and recognize symbols from numeric character notation and convert them into audio which is a problem in itself. The object recognition algorithm can be used to identify numeric notation objects in order to make it easier for people to find out the number notation in music. Based on this study, an application was built to convert notation number to piano sound by implementing OCR with Logistic Regression using telegram bot. The process will be done in a telegram bot where the user will be sending the picture of the notations, and the bot will send back the result which has been integrated from the machine learning model that was executed on the backend side. The system will help in converting the number of notations from a picture or message sent on the telegram bot into piano sound format with Android-based.

*Keyword — Machine Learning, Numeric Notation, Music, Telegram bot*

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