

***Multi-Label Classification of Sahih Bukhari Hadith Translation Using Logistic Regression Method***

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***ABSTRACT***

*Hadith is a collection of sayings, actions, and approvals of the Prophet Muhammad SAW that serve as a guide for all Muslims. Along with the development of the times and the increasing number of available hadiths, the process of grouping and understanding authentic hadiths has become more complex. Modern technology, especially in the field of text classification, can be utilized to help overcome this issue. This study aims to apply the Logistic Regression method in multi-label classification of hadith translations and to evaluate the performance of the model when implemented in a digital tool. The research stages include text Pre-processing , feature extraction using the Term Frequency-Inverse Document Frequency (TF-IDF) method, and training the classification model using the Logistic Regression algorithm. The test results show that this method can classify hadiths into three categories: recommendation (anjaran), prohibition (larangan), and information, with accuracy rates of 85,00%, 95,14%, and 91,07% respectively, and an overall accuracy of 90,40%.*

*Keywords: Multi-Label Classification, Translation, Sahih Bukhari, Logistic Regression*