Abstract
In the ongoing modern era, information is rapidly disseminated, utilizing various channels for data exchange. One such platform is the social media platform Twitter, renowned for its swift and extensive information propagation. A pivotal factor contributing to information distribution on Twitter is the retweet feature, whereby users can redistribute content to their audience. A study has been conducted to forecast this retweet activity by employing the Artificial Neural Network classification method in conjunction with the Artificial Bee Colony optimization approach. The data utilized for this study was collected using data crawling techniques via the Netlytic website, with 2500 pieces of data. Data preparation, model development, and testing in this study are executed using Google Colab. This study leverages diverse features, encompassing content-based feature, user-based feature, and time-based feature. The results from this study reveal that the proposed method achieves an accuracy value of around 83% with the highest accuracy value reaching 84.40%. Based on the results, the Artificial Neural Network (ANN) method optimized by the Artificial Bee Colony algorithm performs better than the standalone ANN method. These findings indicate that the fusion of the Artificial Neural Network classification method executed with optimization using the Artificial Bee Colony algorithm yields dependable and consistent performance in predicting retweet activities. For future research, it is expected to be able to develop the ANN method by combining it with other optimization algorithms to obtain better results.

Keywords: twitter, retweet, Artificial Neural Network, Artificial Bee Colony, prediction.