ABSTRACT

In all agencies or organizations, they must have their own way of handling complaints and suggestions given by users. Telkom University has quite several service units that have various functions. Because of many students do not know the functions of the service units provided so that many students send complaints to the wrong unit, so, the handling of complaints takes time.

From these problems, we create mobile applications and websites to accommodate and handle complaints. With the help of machine learning, the application can identify to which unit the complaint is submitted by the user. Because there is more than one unit service provider, the problem faced is multiclass classification. artificial neural network is used to solve multiclass classification problems. The results obtained using the artificial neural network algorithm is the training model with performance metric F1-score of 83% and can classify complaints data from unit SAI with performance metric F1-score of 98%.

Keywords: *Artificial neural network, Complaint, Imbalanced dataset, Multiclass classification.*