Abstract

Number of drop out student in a college can give a bad name to the college. Student who potentially drop out should be predicted early so that student can be guided by lecture. This prediction should be decrease number of drop out student every year. Drop out is one of imbalance class case, that in generally, number of drop out student is smaller. Cost-Sensitive boosting methods can be used to handle imbalance class problem in drop out case. Boosting is one of ensemble methods that usually used to improve general accuracy in imbalance class problem. Cost-Sensitive learning in boosting method can decrease misclassification cost in imbalance class problem. In this final project, it built a software that implement SSTBoost method in AdaBoost algorithm that implement base classifier integrated from Classification model in Clementine 10.1. This software has abilities to predict student who potentially drop out and give visualization to user about result of the prediction. Based on testing result can be shown that implementation of SSTBoost method in AdaBoost algorithm can produce classification models that has abilities to predict IT TELKOM students who potentially drop out.

Key words : boosting, imbalance class, SSTBoost, AdaBoost.