

Abstract

To survive in the business competition in the telecommunications world needs to be done way to retain customers. Therefore, churn prediction has become an important issue in the telecommunications business. There are many methods that can be used for churn prediction. In this final project the method used to handle imbalance class problem in churn prediction is neighborhood cleaning rule and for data classification used backpropagation conjugate gradient Powell-Beale. Then get the data performance using F1-measurement. Data used in this final project is Speedy Indonesia Regional customer data 7. The best performance obtained from this final project has F1-Measure value of 44.59%.

Keywords: conjugate gradient Powell-Beale, churn prediction, F1-measurement, imbalance class, neighborhood cleaning rule.