ABSTRACT

ANALYSIS AND DETECTION OF FRAUD ON CALL DATA USING DECISION TREE ALGORITHM IN PT XYZ

By

KURNIA DWI WIRANTI RAHAYU

NIM : 1202164122

In the current era, the rapid development of technology makes emerging technologies emerge. One of them is technological sophistication in the field of telecommunications. Telecommunications fraud is one of the acts or activities that use telecommunications carried out illegally and intentionally in various forms of fraud, debate, or embezzlement by certain people or organizations intended to obtain these services and redeem payment services or payments made illegally. One type of telecommunications fraud is a SIM Box fraud. To find out about the SIM Box Fraud, it can be done by analyzing the telephone number data of one of the providers. The method used is data mining using the Decision Tree - CART algorithm. The stages in making detection and prediction in this study are data preprocessing, labeling, classification, and evaluation. The resulting model is tested and evaluated by looking at the value of accuracy, precision, recall, and f1-measure. In this study, the highest accuracy experiment Decision Tree - CART was obtained. by 95.6%.

Keywords: *Phone Number, SIM Box, Fraud, Decision Tree, Data Mining*