ABSTRACT
IMPLEMENTATION OF CLASSIFICATION AND REGRESSION TREES (CART) METHOD IN CLASSIFICATION PROCESS OF BLOOD CONTROL CANDIDATES.

Blood donation activities are routine activities carried out by the Indonesian Red Cross (PMI). Many people participate donating their blood voluntarily. To donate blood, prospective donors must go through several health tests (when the health outcome of the prospective donor is said to be good then the donor is deemed eligible to donate blood). The series of health checks is a very complex series. Starting from checking age, weight, blood pressure, pulse rate to blood tests (hemoglobin, blood type and rhesus). All of the series are carried out manually by the officer. Medical data of prospective donors is recapitulated on form paper. The implementation of classification methods can be a solution to make it easier for officers to manage and select prospective donor data. In this study, the Classification and Regression Trees (CART) method was used for the data classification process. For system development, prototype development methods are used. The final result of this research is the expert classification system of blood donor candidates using the Classification and Regression Trees (CART) method with an accuracy value of 98.03%.

Keywords: Blood donors, CART, Prototype, classification, methods, experts