

## **Abstract**

**SDN (Software Defined Network) is a technology in networking that has been present and continues to be developed. In this technology there is still the possibility of a DoS attack. However, DoS attack detection research still uses the NSL-KDD dataset and does not validate the model used, while to find out how good a model is, a validation process needs to be carried out. So with that it is necessary to validate and also use datasets originating from the SDN network. The validation method used in this research is K-Fold Cross Validation. In this validation there is a repetition of the process according to the value of K and the results are taken from the average value. From the test results obtained a validation value of 99.79% from the Support Vector Machine (SVM), 99.84% from Decision Tree and 96.84% for Naïve Bayes which is used as a model, meaning that this value indicates the model used can perform DoS detection very well and SVM model has high score under Decision Tree model.**

**Keywords: SDN, Validation, Cross Validation, DoS, NLS-KDD**