

## ***ABSTRACT***

*Research on smart room is not only focused on how the data retrieval and saving power. The addition of predictions will add to the use of smart home devices in the future. Therefore, we need a system of IOT-based smart lights that can predict the state of lamp based on the sensor data. This research aims to analyze the performance level of ANN (Artificial Neural Network) with input data from lamp system based on attendance of lecturer using door sensor (Magnetic Door Sensor) and infrared sensor as actuator. The accuracy from the application of this ANN is influenced by the lamp state pattern. With this research obtained accuracy of 58,17% for training data and 52,54% for test data in predicting the state of lamp. And power saving of 31,75%.*

*Keywords : ANN, Smart Room, Prediction*