

Detection of activity recognition at home is quite important to detect anomalous movements. The One Class SVM & Isolation Forest algorithm is an algorithm that can be applied for anomaly detection, but both algorithms have their respective advantages and disadvantages. The purpose of this final project is to compare the One Class SVM and Isolation Forest algorithms to find the best results in terms of accuracy, sensitivity, and specificity to distinguish between anomalous movements and non-residents. PIR Sensor is used in the dataset retrieval process, after the dataset is obtained it will be processed by the One Class SVM and Isolation Forest algorithms. The results of this final project test the One Class SVM algorithm has an Accuracy value of 96%, Sensitivity 100%, and Specificity 98.2%, while the Isolation Forest algorithm has an Accuracy value of 91%, Sensitivity 40%, and Specificity 91.4%.

Keywords: Anomaly, Accuracy, Sensitivity, Specificity, One Class SVM, Isolation Forest