



Intrusion Detection System using Fuzzy C Means and Support Vector Machines

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Abstract – This paper is focused on intrusion detection systems with the development of improvements based on the modeling of the messages exchanged by a communications protocol.

This research work proposes an intrusion detection framework using Fuzzy C Means (FCM) and Support Vector Machine (SVM) classifier to classify the KDD cup'99 data into five classes; NORMAL, DOS, PROBE, U2R, R2L. The data pre-processing is accomplished by Mapping and Min-Max normalization. FCM is used to select the best features of the dataset. The performance of proposed research work is evaluated using certain evaluation parameters; accuracy, sensitivity, and precision.

Keywords – FCM, IDS, SVM.