Abstract

Removal of irrelevant and redundant features is a challenging task in the field of machine learning. Efficiency of classification algorithm depends on feature selection to a great extent. Feature selection is therefore one of the key factors affecting the success of a classification algorithm. Popular feature selection methods have their own merits and demerits. We present an ensemble based multi-level hybrid (MLH) model for optimal feature subset selection. The model has been established to perform satisfactorily on several benchmark datasets as well as real life datasets. The effectiveness of the proposed model also has been established in the high dimensional network security domain on the basis of a protocol specific framework.

Keywords: *feature selection, hybrid method, optimal feature subset, MLH*