**ABSTRACT**

Big mining plays a more critical role in the real world environment due to presence of large volume of data with different varieties and type. Handling these data values and predicting the information would be the more difficult task which needs to be concerned more to obtain the useful knowledge. This is achieved in our previous research work by introducing the Enhanced Particle Swarm Optimization with Genetic Algorithm – Modified Artificial Neural Network (EPSOGA -MANN) which can select the optimal features from the big volume of data. However this research work might be reduced in its performance due to presence of missing values in the dataset. And also this method is more complex to perform due to increased computational overhead of ANN algorithm. This is resolved in the proposed research method by introducing the method namely Missing Value concerned Optimal Feature Selection Method (MV-OFSM). In this research method Improved KNN imputation algorithm is introduced to handle the missing values. And then Dynamic clustering method is introduced to cluster the dataset based on closeness measure. Then Anarchies Society Optimization (ASO) based feature selection approach is applied for performing feature selection in the given dataset. Finally a Hybrid ANN-GA classification technique is applied for implementing the classification. The overall performance evaluation of the research method is performed in the matlab simulation environment from which it is proved that the proposed research method leads to provide the better performance than the existing research technique