

# Comparison of Normal Neural Network Ensemble and Clustering Based Neural Network Ensemble

**Hnin Hnin Naing, Thi Thi Soe Nyunt**

*University of Computer Studies, Yangon*

*hnhnnaing.hhn@gmail.com*

## Abstract

*Artificial neural networks (ANNs) are computing models for information processing and pattern identification. An ANN is a network of many simple computing units called neurons or cells, which are highly interconnected and organized in layers. Ensemble neural network is a learning paradigm where several neural networks are jointly used to solve a problem. Generalization ability of a neural network can be significantly improved through ensembling neural networks, i.e. training several neural networks and combining their results in some way. Ensemble neural network is a collection of a (finite) number of neural networks that are trained for the same task. Since it behaves remarkably well and is easy to use, ensemble neural network is regarded as a promising methodology that can profit not only experts in neural computing but also ordinary engineers in real world applications. This paper presents the ensemble neural network method trained with clustering can improve the accuracy of the classifier than single neural network. The system is test with three datasets from UCI machine learning repository and results are presented.*