Abstract

Cancer is one of leading cause of death globally. Based on health agency data in 2018 around 9.6 million people died of cancer. As technology develops, there are technologies to predict cancer using microarrays. Microarrays have very large features that require dimensional reduction and classification techniques to create models of that data. The method used for dimensional reduction is the Artificial Bee Colony (ABC) and for classification techniques using Artificial Neural Network (ANN) with the Backpropagation algorithm. ANN is chosen because it can recognize different biological entities. With the implementation of ABC and ANN, the best accuracy obtained in colon tumors is 98.52% using nColony parameter 20 and in leukemia is 99.65% using nColony parameter 20 and 30.

Keywords: Microarray Data, ABC, ANN, Cancer Detection, Cancer.