

Abstract

Cancer is a dangerous disease that arises from the conversion of normal cells into tumor cells that develop into malignant tumors. According to WHO, cancer is the second deadliest disease in the world. About 70% of cancer deaths occur in low and middle income countries such as Indonesia. Cancer can be detected by recognizing patterns of expression of human genes. DNA Microarray is a technology that can find patterns of gene expression in a variety of different conditions by means of microarray data classification. Microarray data has very large dimensions and needs to be reduced in order to obtain informative genes to detect cancer optimally. In this study, the authors use the Least Absolute Shrinkage and Selection Operator (LASSO) as a feature selection method to reduce data dimensions and Functional Link Neural Network (FLNN) as a classification method with Legendre Polynomial base functions. With a series of processes that have been carried out, obtained an average accuracy of 86.41% and an average f1-score of 81.83%.