ABSTRACT

Lung cancer is the most causing death among all types of cancer for both men and women, based on World Health Organization (WHO) with 19.7% percentage from all cancer. This report presented results of a research of lung cancer prediction in imaging test using image processing Adaptive Neuro Fuzzy Inference Systems (ANFIS) to predict lung cancer. Chest X-Ray image is processed and extracted using Haralick Features in Gray Level Cooccurence Matrix. 9, 8, 7, and 6 Extracted Haralick Features used as input data in 2 Generalized Bell membership functions of ANFIS. The results are validated by comparing training and testing results with the analysis of radiologist. Moreover the results indicate that the software performance can predict the present of malignant cell of 92% accuracy in imaging test.

Keywords: ANFIS, Chest X-Ray, Gray Level Cooccurence Matrix, Haralick, Reduction Factor