

Klasifikasi Kanker Payudara Menggunakan Citra Digital Mammogram dengan Metode *Uniform Local Binary Pattern* dan *Random Forest*

Sri Frenzilino Mahayyu Akbarisena¹, Ema Rachmawati², Dody Qori Utama³

^{1,2,3}Fakultas Informatika, Universitas Telkom, Bandung

⁴Divisi Digital Service PT Telekomunikasi Indonesia

¹sfmakbarisena@students.telkomuniversity.ac.id, ²emarachmawati@telkomuniversity.ac.id,

³dodyqori@telkomuniversity.ac.id

Abstract

Cancer is the body's tissue cells that continue to grow beyond normal and out of control so that cancer cells push normal cells and cause death in normal cells. One type of cancer is cancer that attacks breast tissue or is called breast cancer. Breast cancer is a disease that causes cells in the breast to develop out of control.

The prevalence of breast cancer in Indonesia in the last five years reached 160,653 which causes prevalence of breast cancer to be one of the deadliest diseases in Indonesia. Early detection of breast cancer can reduce the risk of death caused by breast cancer. One technique in detecting early breast cancer is a mammography examination. Mammography is one technique in detecting and diagnosing breast cancer using low-dose x-rays. Mammography allows the doctor or radiologist to see whether there are breast cells suspected of being cancer cells.

To minimize human error in checking the results of mammography, a CAD system is needed in checking the results of mammography. Therefore, in this final project, a system that is built to describe the mammogram image will be described into three classes, namely normal, benign cancer and malignant cancer.

The performance of the system reaches F1-Score 74,02%, Recall 76,15% dan Precision 74,02%. The system achieves this performance by combining the Uniform Local Binary Pattern and GLCM features and the Random Forest classification method.

Keywords: Breast Cancer, Mammography, Uniform Local Binary Pattern, Random Forest.
