

MINI PROJECT – II
(2018-19)

Breast cancer detection

SYNOPSIS



Institute of Engineering & Technology

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Problem Statement

Breast cancer is cancer that develops from breast tissue. Signs of breast cancer may include a lump in the breast, a change in breast shape, dimpling of the skin, fluid coming from nipple, a newly inverted nipple, or a red scaly patch of skin. Breast cancer is cancer that develops in breast cells. Typically, the cancer forms in either the lobules or the ducts of the breast. Lobules are the glands that produce milk, and ducts are pathways that bring the milk from the glands to the nipple. Cancer can also occur in the fatty tissue or the fibrous connective tissue within your breast.

Reasoning for Selecting this topic

The outlook for women with breast cancer has improved significantly since 1989 as the mortality rate has declined steadily. A decline is attributed both to earlier detection through wider use of a mammography screening and to improved treatments. Yet breast cancer remains a major problem. Second lung cancer is a cause of death from cancer for women. This project aims to provide a simple technique to predict breast cancer.

Objectives

Developing an application using machine learning with Python which aims or objective should promote a common goal for early detection, down-staging Breast cancer detection and diagnoses to improve cancer outcomes.

Motivation

We have witnessed that women are hesitant to visit a doctor due to fear of chemotherapy, surgery, and death. Negative publicity regarding pain during mammography is prevalent. Basically, there is a lack of motivation. While breast cancer can be diagnosed early using various mobile apps and tools, one should not forget how important it is to stay positive and self-motivated no matter what the situation is.

Feasibility study

A feasibility study of breast cancer detection with computer-aided diagnosis based on machine learning. The main functionality of the application is to give the patient early detection of breast cancer.

Future Prospects

The project will help to one's to know early and complete cure about any kind of breast cancer detection.

Methodology

This application will use machine learning concept using python .In machine Learning it will use KNN and SVM,KNN algorithm is one of the simplest classification algorithms. KNN is a non-parametric, lazy learning algorithm. Its purpose is to use a database in which the data points are separated into several classes to predict the classification of a new sample point and SVM is supervised machine learning algorithm which can be used for classification or regression problems.it uses a technique called the kernel trick to transform your data and then based on these transformations it finds an optimal boundary between the possible outputs.

Technology

Fontend

- ◆ FLASK
- ◆ HTML
- ◆ CSS

Backend

- ◆ M.L. using Python

Requirements

a) Software:

- Python
- Jupyter Note book
- Anaconda