**Mansoura University**



**Faculty of Computers and Information**

**Department of Computer Science**

**Project Proposal**

# Arabic Title

# سرطان الثدي

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##### English Title

##### 

### **Breast Cancer**

### **Submitted by:**

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Project Abstract:

There are more than one million breast cancer cases are found every year. This is the main cause of the high rate of death yearly. It is a type of cancer that occurs mostly In females and in the leading cause of women’s death.

Now days, breast cancer is the most frequently diagnosed life-threatening cancer in women and the leading cause of cancer death among women. Since last two decades, researches related to the breast cancer has lead to extraordinary progress in our understanding of the disease, resulting in more efficient and less toxic treatments. Increased public awareness and improved screening have led to earlier diagnosis at stages amenable to complete surgical resection and curative therapies. Consequently, survival rates for breast cancer have improved significantly, particularly in younger women.

Project Objectives:

Breast cancer represents one of the dangerous diseases that causes a high number of deaths every year. The dataset containing the features present in the CSV format is used to identify whether the digitalized image is benign or malignant. The machine learning models such as Linear Regression, Decision Tree, Radom Forest are trained with the training dataset and used to classify. The accuracy of these classifiers is compared to get the best model. This will help the doctors to give proper treatment at the initial stage and save their lives.

Who are the project **competitive**? and how will your project be **different**

1- Wang , D. Zhang Y. H. Huang "breast cancer prediction using Machine Learning" (2018)

2- B.Akbugday "classification of breast cancer data using machine learning algorithm," 2019 medical technologies congress(TIPTEKNO), Izmir, turkey , 2019

3- Keles, M. kaya, "breast cancer prediction and detection using data mining classification algorithms : A comparative study." Tehnicki vjensik - Technical Gazette ,2019

Tools, Hardware and Software Resources:

**Tools :- numpy , pandas , matplot , sklearn , seaborn**

**Software:- anaconda , visual studio code**

**Hardware:-**

SCHEDULING PHASES:

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| **From** | **To** | **Activity** |
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References:

**(1)**

[**https://www.academia.edu/73521611/Detection\_of\_Breast\_Cancer\_Using\_Machine\_Learning\_Algorithms**](https://www.academia.edu/73521611/Detection_of_Breast_Cancer_Using_Machine_Learning_Algorithms)

**(2)** [**https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3255438/**](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3255438/)

**(3)** [**https://www.cancer.gov/types/breast/research/articles**](https://www.cancer.gov/types/breast/research/articles)

**(3)** [**https://www.sciencedirect.com/science/article/pii/S2667102621000887**](https://www.sciencedirect.com/science/article/pii/S2667102621000887)

**(4) Google**

**(5) YouTube**