**Mansoura University**



**Faculty of Computers and Information**

**Department of Computer Science**

**Project Proposal**

# Arabic Title

# سرطان الدم

### 

##### English Title

### **Leukemia Diagnosis**

### **Submitted by:**

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| --- | --- | --- |
| Student Name | Student Email | Section |
| Ziad El Sayed El Mandoh | Zr8zzezo@gmail.com | 13 |
| Rawan Ehab Gamal El Deen | Ehabrawan587@gmail.com | 13 |
| Arsany Maged Abdo | Sanomaged7@gmail.com | 2 |

Project Abstract:

The early detection and diagnosis of leukemia, i.e., the precise differentiation of malignant leukocytes with minimum costs in the early stages of the disease, is a major problem in the domain of disease diagnosis.

Despite the high prevalence of leukemia, there is a shortage of flow cytometry equipment, and the methods available at laboratory diagnostic centers are time-consuming. Motivated by the capabilities of machine learning (machine learning (ML)) in disease diagnosis.

Project Objectives:

The purpose of our project is to develop a system that can automatically detect cancer from the blood cell images.

This system uses a convolution network that inputs a blood cell images and outputs whether the cell is infected with cancer or not.

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

COMPETITVE: Medical history and physical examination: The record of present symptoms, and problems a person has had in the past. The medical history of a person’s family also helps in diagnose leukemia. Treatment with “Chemo Therapy” and “Radiation”.

Our Project will be Differnet by : Using “Machine Learning” in Detecting Leukemia in its early stages so that doctors can treat it before it spreads in the body

Tools, Hardware and Software Resources:

**Tools :-**

- Convolution Neural Network (CNN).

- Classification Algorithms (SVM, KNN, Naïve Bayes).

**- ML.**

**Software:-**

-Visual Studio.

-Brackets.

**Hardware:-**

SCHEDULING PHASES:

|  |  |  |
| --- | --- | --- |
| **From** | **To** | **Activity** |
| **10/3** | **17/3** | Research |
| **18/3** | **25/3** | Setting the basics for the project |
| **26/3** | **2/4** | Work on program coding |
| **3/4** | **10/4** | Work on frontend |
| **11/4** | **18/4** | Work on Backend |
| **19/4** | **26/4** | Finish the project |

References:

[**https://www.who.int/**](https://www.who.int/)

[**https://aihubprojects.com/blood-cancer-detection-using-cnn-ai-projects/**](https://aihubprojects.com/blood-cancer-detection-using-cnn-ai-projects/)

[**https://www.hindawi.com/journals/sp/2021/9933481/**](https://www.hindawi.com/journals/sp/2021/9933481/)

[**https://www.urmc.rochester.edu/encyclopedia/content.aspx?contenttypeid=34&contentid=17597-1**](https://www.urmc.rochester.edu/encyclopedia/content.aspx?contenttypeid=34&contentid=17597-1)