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1.	**Name of the College: University BDT College of Engineering** **Project Proposal Reference No. : 46S_BE_4138**
2.	**Project Title: Classification of B-Cell Lymphoblasts Versus Normal Cells In White Blood Cells**
3.	**Branch: Computer Science and Engineering**
4.	**Name(s) of project guide(s):** **1. Name: Dr. Mohamed Rafi** **Email id: mdrafi2km@gmail.com** **Contact No.:9844747919**
5.	**Name of Team Members (Strictly not more than four students in a batch):** *(Type names in Capital Letters as provided in your college)* (Please paste the latest passport size photograph adjacent to your respective names)  **Name: POOJA N** **USN No.: 4UB19CS038** **Email id: poojanpoojan910@gmail.com** **Mobile No:9611343393**  **Name: PRANATHI Y** **USN No.:4UB19CS039** **Email id: pranathiy1002@gmail.com**

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6.	**Scope / Objectives of the project:** Acute Lymphoblastic Leukemia (ALL) is the most common childhood cancer, and ALL is the leading cause of death in children. Chronic diseases, one of which is cancer suffered by children, can provide varied responses to families. Caring for children with cancer requires a very long and complex process, so it requires good coordination between children,parents, families and the health team. AFTER COVID 19 EFFECTS: According to research conducted by Bialek et al in 2020 that the predictor of theincidence of COVID- 19 was age <1 year with comorbidities were admitted to ICU care in 15-62% of thetotal patients. Patients with leukemia often experience immunosuppression, myelosuppression, and have lowlevels of immunoglobulin, making them potentially more susceptible to COVID-19 infection andits complications. Patients with leukemia have a higher risk of developing COVID-19 infection due to various factors relatedtothe underlying diagnosis and treatment .Checklist with selection criteria using the PICOS approach. The results of a literature review show that while caring for children with cancer, parents experience stress, anxiety about losing a child,

	uncertainty in child treatment, difficulties in caring for children and family responsibilities. Support in the form of psychosocial, material, and social support is needed for parents. Despite advances in management, the backbone of therapy remains multi-agent chemotherapy with vincristine, corticosteroids and an anthracycline with allogeneic stem cell transplantation for eligible candidates. Elderly patients are often unable to tolerate such regimens and carry a particularly poor prognosis. Here, we review the major recent advances in the treatment of ALL.
7.	**Methodology**: **Acquisition of Lympocytic cancer images:**The standard input Lympocytic cancer images used were downloaded from internet.All input Lympocytic cancer images were stored for training dataset and serve as input data to features extraction stage. **Preprocessing** : The pre-processing is by smoothing and removing noise of the image edges. Scale all of our images to argentine proportions. These images were then transformed to Matrix Format as a result of this phase. Our model now understands that a matrix is nothing more than numerical data stored in a two-dimensional array. **Segmentation :** The segmentation process is applied by entropy and canny edge methods where image gray zones are extracted from the Lympocytic cancer image. The aim at identifying points in the Lympocytic cancer image at which the Lympocytic cancer image brightness changes sharply or has discontinuities, at such points a line is draw to represent the change in brightness this helps the Hough Transform to figure out if there is a cancer cell or not. **Feature Extraction** : It's used to reduce the supplied image's size. To tackle computer vision problems like object identification, detection, and recognition, extraction, and detection are coupled. In terms of dimensionality reduction, extraction is indicated. We decrease the information when it becomes too massive to manage at a later stage. We use a technique called include selection to identify underlying highlights. To distinguish between the photos, features are extracted. In machine vision algorithms, features extraction is employed. We may also use the characteristics gathered from the image to train various algorithms. This is a common strategy in machine learning. **Classification:** The final step was to categorize fracture bone types using classifiers such as ANN, and CNN These classifiers were chosen primarily for their ability to reduce training time while increasing classification accuracy. **Data acquisition:**The individual microscopic images are three-channel images of size 450×450. They are representative of images in the real-world because they

	contain some staining noise and illumination errors, although most of these errors have been fixed using stain color normalization .
8. .	**Expected Outcome of the project:** **“Classification of B-Cell Lymphoblasts Versus Normal Cells In White Blood Cells”**