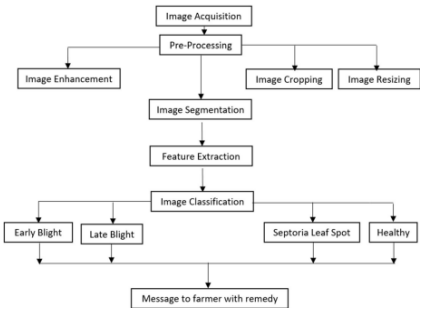
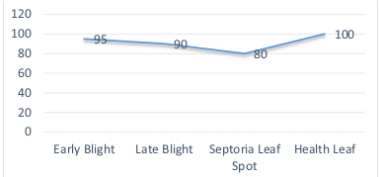
Department of Computer Science and Engineering
Bangladesh University of Business and Technology (BUBT)

CSE 498: Literature Review Records

Student's Id and Name	**Name:** Mustain Murtaza Taib and **ID:** 18193103003
Capstone Project Title	Image processing based system for the detection, identification and treatment of tomato leaf diseases.
Supervisor Name & Designation	**Name:** Mr.T.M. Amir - Ul - Haque Bhuiyan & **Designation:** Assistant Professor,Department of CSE, BUBT
Course Teacher's Name & Designation	**Name:** Khan Md. Hasib & **Designation:** Assistant Professor, Department of CSE, BUBT

Aspects	Paper # 1 (Title)
Title / Question (What is problem statement?)	Image processing based system for the detection, identification and treatment of tomato leaf diseases.
Objectives / Goal (What is looking for?)	Early detection and treatment of leaf diseases in tomato plants are crucial for optimal production. Traditional manual methods are insufficient, leading to losses in quality and quantity. This paper presents an image processing-based technique using statistical features and SVM for automatic disease detection and treatment. Experimental results show high accuracy, and the method is implemented as a cell phone application.
Methodology / Theory (How to find the solution?)	This paper proposes an image processing-based technique for automatic disease detection and treatment in tomato plants using statistical features, segmentation, and SVM. Experimental results show high accuracy, and the approach is implemented as a cell phone application, collecting data from tomato fields. Preprocessing includes cropping, resizing, and enhancement. The images are pre-processed, labeled, and stored, with SVM and K-nearest neighbor algorithm used for supervised learning, and GLCM employed for disease classification.
Software Tools (What program/software is used for design, coding and simulation?)	Google colab, keras,Tensorflow,pandas,numpy,matplot ,os.
Test / Experiment How to test and characterize the design/prototype?	
Simulation/Test Data (What parameters are determined?)	Datasets : Bacterial Spot,Early Blight,Healthy,Late Blight, Leaf Mold,Mosaic virus,Septoria Leaf Spot,Two Spotted Spider Mites,Target Spot,Yellow Leaf Curl Virus.
Result / Conclusion (What was the final result?)	
Obstacles/Challenges (List the methodological obstacles if authors mentioned in the article)	They didn't face any challenges
Terminology (List the common basic words frequently used in this research field)	Image processing . Tomato crop . Leaf diseases . Early blight, late blight . Septoria leaf spot

Review Judgment (Briefly compare the objectives and results of all the articles you reviewed)	used (SVMs) with alternate kernel functions and get 99.5%
Review Outcome	This paper didn't use updated model