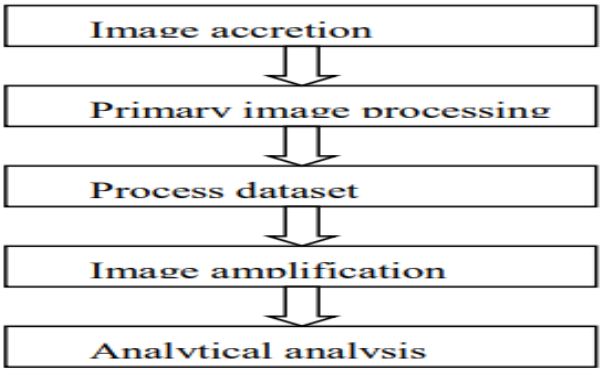
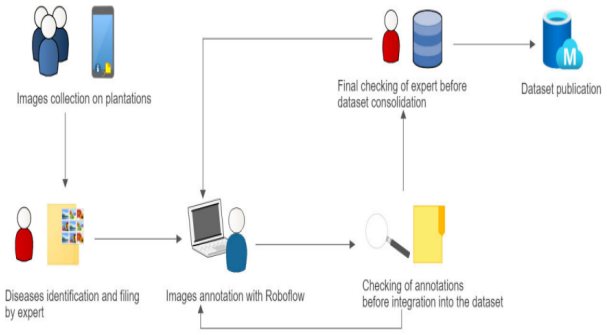
Department of Computer Science and Engineering
Bangladesh University of Business and Technology (BUBT)

CSE 498: Literature Review Records

Student's Id and Name	**Name:** Bm.Shadman Sakib Mahee and **ID:** 19201103123
Capstone Project Title	Mango Fruit Disease Detection
Supervisor Name & Designation	**Name:** M. M. Fazle Rabbi & **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 # 8 (Title)
Title / Question (What is problem statement?)	Automated Identification of Leaf Diseases in Grape, Potato, and Strawberry using Convolutional Neural Networks and Image Processing
Objectives / Goal (What is looking for?)	The purpose of this study is to detect and treat common leaf diseases in grape and strawberry plants in Bangladesh using CNN and image processing, with the aim of enhancing agricultural management and economic conditions. The approach tries to close the gap in farmers' adoption of technology.
Methodology / Theory (How to find the solution?)	
Software Tools (What program/software is used for design, coding and simulation?)	TensorFlow, Keras, OpenCV, sci-kit-learn, NumPy, Jupyter Notebook
Test / Experiment How to test and characterize the design/prototype?	
Simulation/Test Data (What parameters are determined?)	5000 Image Data
Result / Conclusion (What was the final result?)	With the help of the confusion matrix and accuracy graph, we may evaluate how well a prototype model functions. By training the model on a labeled dataset and then testing it on a held-out set, these tools are able to show the performance of the model. In response to the information provided, we can adjust the model's parameters and iterate until we get the necessary level of accuracy and generalization performance.We can test this prototype in that manner.
Obstacles/Challenges (List the methodological obstacles if authors mentioned in the article)	This paper presented no difficulties or challenges for me.
Terminology (List the common basic words frequently used in this research field)	Machine learning; Deep Learning; CNN; Computer Vision; Plant Disease.

Review Judgment (Briefly compare the objectives and results of all the articles you reviewed)	• "A Survey Paper On Crop Disease Identification And Classification Using Pattern Recognition And Digital Image Processing Techniques" had accuracy of 85.53% in distinguishing between healthy and diseased leaves which is lesser than this paper. • "Plant Disease Prediction Using Machine Learning Algorithms" had accuracy of 79.50% which is also lesser than this.
Review Outcome (Make a decision how to use/refer the obtained knowledge to prepare a separate and new methodology for your own research project)	This article may be helpful for my future research in several ways. Firstly, it highlights the importance of agriculture in Bangladesh and the challenges faced by farmers due to plant diseases. Secondly, it proposes a solution using advanced technologies such as AI and image processing to detect and cure these diseases, which i could potentially use or build upon in my research. Additionally, the article discusses the prevalence of plant diseases worldwide and how advanced technologies are being used to address them, providing insights and ideas for my future research. Overall, this article provides a valuable starting point for my research on agricultural technology and plant disease detection and control.