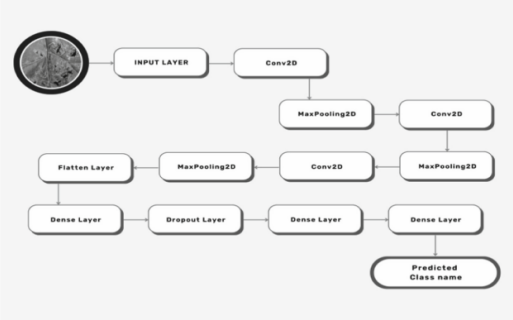
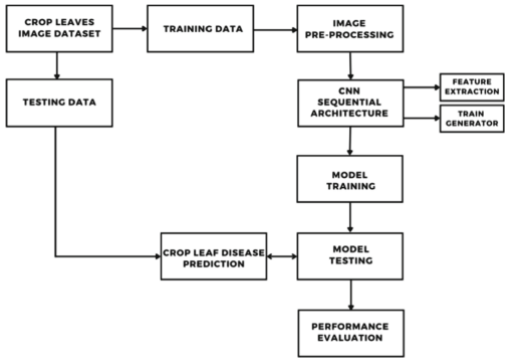
Department of Computer Science and Engineering
Bangladesh University of Business and Technology (BUBT)

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 # 4 (Title)
Title / Question (What is problem statement?)	Differentiating Crop Leaf Diseases through Convolutional Neural Networks: A Novel Approach
Objectives / Goal (What is looking for?)	The objective of this paper is to examine the potential of deep learning-based techniques in plant disease recognition for agricultural applications.
Methodology / Theory (How to find the solution?)	
Software Tools (What program/software is used for design, coding and simulation?)	Python, TensorFlow or Keras, OpenCV, NumPy, Pandas, Matplotlib or Seaborn, and Scikit-learn, Jupyter Notebook
Test / Experiment How to test and characterize the design/prototype?	
Simulation/Test Data (What parameters are determined?)	Crop: Strawberry; Diseases: 2
Result / Conclusion (What was the final result?)	**Table 4.** Performance Evaluation. Loss: 0.1896 Accuracy: 0.9525 Validation Loss: 0.0836 Validation Accuracy: 0.9736
Obstacles/Challenges (List the methodological obstacles if authors mentioned in the article)	There was no Challenges Found
Terminology (List the common basic words frequently used in this research field)	Convolutional Neural Network · Crop Disease Detection · Image Analytics

Review Judgment (Briefly compare the objectives and results of all the articles you reviewed)	• "Crop: Plant Disease Identification Using Mobile App" had accuracy of 97.44% in distinguishing between healthy and diseased leaves. • "Seasonal Crops Disease Prediction and Classification Using Deep Convolutional Encoder Network" had 100.00% and 86.78% of accuracy
Review Outcome (Make a decision how to use/refer the obtained knowledge to prepare a separate and new methodology for your own research project)	I may use this report to identify research obstacles and gaps, which will aid in my subsequent study in this area. In the paper, the dataset, preparation procedures, and model architecture for crop disease identification are described. As a guide for creating my own crop disease identification models, I can use this information.