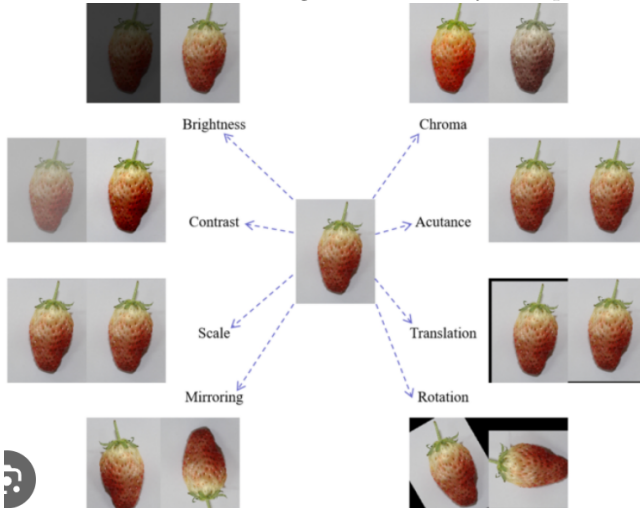


Department of Computer Science and Engineering
Bangladesh University of Business and Technology (BUBT)



CSE 498: Literature Review Records

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|--|---|
| 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 # 3 (Title) | | | | | | | | | | |
|---|---|-------------------------------------|-----------|-------------------------------------|------|-----------|------------|------|-----|------|-----------------|
| Title / Question (What is problem statement?) | Artificial Intelligence’s Contribution to the Classification of Plant Diseases | | | | | | | | | | |
| Objectives / Goal (What is looking for?) | The objective of the article is to highlight the importance of early detection and classification of plant leaf diseases in agriculture and to demonstrate how AI, ML, and DL can be used to overcome the limitations of traditional manual methods for disease detection and classification. The goal is to improve crop output and agricultural prosperity through efficient and accurate disease management. The article also provides an overview of state-of-the-art methods and their classification accuracy, along with a description of relevant datasets. | | | | | | | | | | |
| Methodology / Theory (How to find the solution?) | The project was categorized into three stages. <ul style="list-style-type: none">• Collects Data and Process it,• DCNN Architecture, and• Model Evaluation and also Validation | | | | | | | | | | |
| Software Tools (What program/software is used for design, coding and simulation?) | TensorFlow, Keras, PyTorch, OpenCV, Scikit-learn, and Pandas | | | | | | | | | | |
| Test / Experiment How to test and characterize the design/prototype? | <p>For getting better accuracy we also need better and huge amounts of dataset. For strawberry in this paper there is 1565 images of strawberry which we want to find out the accuracy of it. We are choosing Powder mildew disease. After Classification we will get the accuracy as a percentage.</p>  | | | | | | | | | | |
| Simulation/Test Data (What parameters are determined?) | In This Paper there is almost 1565 Images of Strawberries | | | | | | | | | | |
| Result / Conclusion (What was the final result?) | <table><tr><th>Leaf</th><th>Technique</th><th>Overall Classification Accuracy (%)</th><th>Year</th><th>Reference</th></tr><tr><td>Strawberry</td><td>DCNN</td><td>100</td><td>2019</td><td>(Pandian, 2019)</td></tr></table> | Leaf | Technique | Overall Classification Accuracy (%) | Year | Reference | Strawberry | DCNN | 100 | 2019 | (Pandian, 2019) |
| Leaf | Technique | Overall Classification Accuracy (%) | Year | Reference | | | | | | | |
| Strawberry | DCNN | 100 | 2019 | (Pandian, 2019) | | | | | | | |
| 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) | Deep Learning, Plant Leaf, Disease Leaf, Classification | | | | | | | | | | |

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|--|---|
| <p>Review Judgment (Briefly compare the objectives and results of all the articles you reviewed)</p> | <ul style="list-style-type: none"> • "Deep learning-based crop disease recognition using CNN" had accuracy of 99.35% in distinguishing between healthy and diseased leaves. |
| <p>Review Outcome (Make a decision how to use/refer the obtained knowledge to prepare a separate and new methodology for your own research project)</p> | <p>This study can help me with my subsequent research in this field by pointing up problems and knowledge gaps. The dataset, preparation procedures, and model architecture utilized for crop disease identification are all described in the publication. I can use this knowledge as a reference to create my own crop disease identification models.</p> |