|  |  |  |  |
| --- | --- | --- | --- |
| Title | Plant Leaf Disease Detection Using Image Processing: A Comprehensive Review | | |
| Author(s) Name | Md. Nabobi Hasan\*, Mufrad Mustavi1, Md. Abu Jubaer1, Md. Tanvir Shahriar1and Tanvir Ahmed | | |
| Contact Email(s) | tanvir.ahmed@aiub.edu | | |
| Published Journal Name | Malaysian Journal of Science and Advanced Technology | | |
| Type of Publication | Journal | | |
| Volume | 2 | Issue | 4 |
| Publisher | American International University-Bangladesh (AIUB) | | |
| Publication Date | Oct 10, 2022 | | |
| ISSN | 2785 – 8901 | | |
| DOI | https://doi.org/10.56532/mjsat.v2i4.80 | | |
| URL | https://mjsat.com.my/index.php/mjsat/article/view/80 | | |
| Other Related Info. | Page 174 - 182 | | |
|  | | | |

|  |  |
| --- | --- |
| Abstract |  |
| In this review paper, previous and current works for plant leaf disease detection have been studied. The traditional manual visual quality inspection cannot be defined systematically as this method is unpredictable and inconsistent. Moreover, it involves a remarkable amount of expertise in the field of plant disease diagnostics (phytopathology) in addition to the disproportionate processing times. Hence, image processing has been applied for the recognition of plant diseases. This paper has been divided into three main parts. In the first part, a comprehensive review based on algorithms is provided were the major algorithms and works conducted using image processing and artificial intelligence algorithms have been compared. The second part discusses the frameworks and compared the previous works. Then, a comprehensive discussion based on the accuracy of the results was provided. Based on the review conducted, a detailed explanation of the illnesses detection and classification performance is provided. Finally, the findings and challenges in plant leaf detection using image processing are summarized and discussed. | |