Literature Survey for Plant Disease Classification

Sno	Title	Year	Author	Methodology	Limitations	Journal
1	Plant Disease Detection and Classification Method Based on the Optimised Lightweight YOLOv5 Model	2022	Haiqing Wang,Shuqi Shang ,Dongwei Wang	IASM mechanism, YOLO V5,transfer learning	This approach has a higher loss function which causes decrease in accuracy	MDPI
2	Plant Disease Detection and Classification Using Machine Learning Algorithm	2022	Dhruvi Gosai Binal Kak Dweepna Garg Radhika Patel Amit Ganatra	This paper worked on the ResNets algorithm. A residual neural network (ResNet) is a subpart of the artificial neural network (ANN). ResNet algorithm contains a residual block that can be used to solve the problem of vanishing/exploding gradient. ResNet algorithm is also used for creating Residual Network.	The approach used is Transfer Learning,there is no self-constructed CNN model for image classification	IEEE Exlpore
3	Tomato Leaf Disease	2020	Gizem IRMAK;Ahmet	Convolutional Neural Networs, Data	Data used is already clean there is no	IEEE Explore

	Detection and Classification using Convolutional Neural Networks		SAYGILI	Augmentation Mechanisms like Horizontal Flip, Random_range and Vertiacla Flip	real-life data involved from actual use cases.	
4	Plant Disease Classification Using Deep Bilinear CNN	2021	D. Srinivasa Rao, Ramesh Babu Ch, V. Sravan Kiran, N. Rajasekhar	Bilinear CNN, transfer learning,Neural networks	The 10-fold cross-validation consumes high computational effort. But the effort doesn't provide satisfying results	Research Gate
5	Tomato Spotted Wilt Disease Severity Levels Detection: A Deep Learning Methodology	2021	Vikas Salonki; Anupam Baliyan; Vinay Kukreja; Khadim Moin Siddiqui	Convolutaional Neural Networks, Data Samplings, Data, K-fold Cross validation	Training Tiime is very high	IEEE Explore
6	RIC-Net: A plant disease classification model based on the fusion of Inception and residual structure and embedded attention mechanism	2021	Yun Zhaoa,ChengSun,XingXu	Deep learning,convolutional block attention module (CBAM)	This classification model faces a lot of issues during testing phase	ELSEVIER
7	PlantDiseaseNet: convolutional neural network	2021	Muammer Turkoglu, Berrin Yanikoğlu &	support vector machine (SVM) classifier	The results seem to vary for different angle of the input	Research Gate

	ensemble for plant disease and pest detection		Davut Hanbay		images.	
8	A novel method to improve computational and classification performance of rice plant disease identification	2022	K. S. Archana, S. Srinivasan, S. Prasanna Bharathi, R. Balamurugan, T. N. Prabakar & A. Sagai Francis Britto	modified K-means segmentation algorithm, novel intensity-based color feature extraction (NIBCFE), gray-level cooccurrence matrix,novel support vector machine-based probabilistic neural network	This model seems to be overfitting for the dataset which make the model inefficient to evaluate	Springer
9	Improved Multi-Plant Disease Recognition Method Using Deep Convolutional Neural Networks in Six Diseases of Apples and Pears	2022	Yeong Hyeon Gu ,Helin Yin ,ORCID,Dong Jin ,ORCID,Ri Zheng , andSeong Joon Yoo.	deep feature; fine-tuning; k-nearest neighbors;transfer learning	This model works well only for six disease of the plants but when the dataset size of the disease increase there is a fall in accuracy	MDPI
10	Plant Disease Identification from Leaf Images using Deep CNN's EfficientNet	2022	Akibur Rahman Prodeep; A S M Morshedul Hoque; Md. Mohsin Kabir; Md. Saifur Rahman; M.F.	Deep Neural Networks,CNN	In this the feature extraction of data from images are not proper.	IEEE

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11	A diverse ensemble classifier for tomato disease recognition	2022	MounesAstania MohammadHash eminejadb,Mahs aVaghefia	Ensemble Algorithms	Very Limited Data set samples	IEEE
12	Tomato crop disease classification using pre-trained deep learning algorithm	2018	Aravind Krishnaswamy, RangarajanRaja, Purushothaman, AniirudhRamesh	Transfer Learning	No novelty in building CNN	IEEE
13	Application of MobileNet-v1 for Potato Plant Disease Detection Using Transfer Learning	2021	Sumit Mishra	Transfer Learning	Model does not generalize global data	ACM
14	Potato Crop Disease Classification Using Convolutional Neural Network	2019	Amit Sinha, Suneet Kr. Gupta, Diganta Mishra & Rahul Mishra	Convolutional Neural Networks with Data Augmentation	Relatively Low test set accuracy	Science Direct
15	Potato Plant Leaves Disease Detection and Classification using Machine Learning	2021	Aditi Singh and Harjeet Kaur	Machine Learning Algorithms for Image Classificaiton	Low accuracy	IOP

	Methodologies					