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| 8.**Kutty,Suhaili Beeran(Classification of watermelon leaf diseases using neural network analysis)** | **Pre-processing:** of Image acquisition ,restoring and enhancement techniques on image size pixel 256 X 256. Converted the RGB image to grey image and trained model on the features of image | Metrics  Accuracy  Precision Recall  **Parameters:**  Batches, Epochs, learning Rate | Transfer learning  (VGG16,VGG19,Inception ,Image Net)  Best result are from ImageNet | **Watermelon** leaf disease  Classify based on 3 leaf **Downey Mildew a, Anthracnose** and **healthy leaf** | 2013 | 75.9%(highest from the colour features) |
| 9. **Sneha Patel, Dr. U.K. Jaliya and Pranay Patel**(A Survey on Plant Leaf Disease Detection) | Techniques Image pre-processing ,Extraction, Segmentation ,Classification | **Metrics:**  Accuracy  **Parameters**  Batches, Epochs , Early stopping | AlexNet , GoogLeNet | Potato, Tomato, Apple, a Grape and it’s disease detection such as (Bacterial spot, Early blight, Late blight, Mold, Septoria leaf spot) | 2020 | 93.8% (accuracy on testing data) |
| 10. **G.Sivakamasundari and Dr.V.Seenivasagam** (Classification of leaf diseases in Apple Using support Vector Machine) | Techniques  Rgb to grey color to remove noise  ,Kmeans,GLCM techniques | **Metrics**  Accuracy  **Parameters**  Value of K  ,cross validation,Epochs ,optimizers  ,Batch size | Transfer learning techniques  ( Resnet50,Alexnet) | Apple disease detection (Alternaria, Apple scab, and Healthy) | 2020 | Accuracy based on  Color and texture  (100%,88%,100% )  Accuracy based on  Color  (90%,88.88%,99.98% ) |
| 11. Rothe, P. R.,and R. V. Kshirsagar. (Cotton leaf disease identification using pattern recognition techniques) | Techniques  image processing , contour based segmentation algorithm and classification | **Metrics**  Accuracy  **Parameters**  Activation function, Epochs ,optimizers  ,Batch size | Models used are Cnn, | Cotton leaf disease ( Alternarnia, Myrothecium and Bacterial) | 2015 | Accuarcy  91.6% |
| 12.**G.Sambasivam and Geoffrey DuncanOpiyo**  (Cassava leaf detection) | **Techniques**  class weight, focal loss, SMOTE and different image dimensions | **Metrics**  Accuracy  Precision ,Recall,F1-support  **Parameter**  **Epochs ,Early stopping** | Models used  VGG16 ,VGG19,Imagenet | Cassava leaf detection  (Cassava Bacterial Blight Disease, Cassava Mosaic Disease, Bacterial Blight and Mosaic Disease ) | 2019 | accuracy 93% with below 3% loss |
| 13 **Ozichi Emuoyibofarhe1 , Justice O. Emuoyibofarhe2 , Segun Adebayo3** (Detection and Classification of Cassava Diseases Using Machine Learning) | **Techniques**  Handling imabalanced dataset(SMOTE,  Under Sampling ,Class weights)  Color convertion , image segmentation and image classification | Metrics  Accuracy | Models SVM,Cubic SVM,Vgg16 ,Resnet50,Imagenet | Detection and classification  Of cassava leaf(Cassava Mosaic Disease (CMD) and the Cassava Bacterial Blight disease (CBBD) and 2 more classes) | 2018 | Accuracy  83.9% with help of SVM and Cnn |
| 14. **K.P. Ferentinos**  (Deep learning models for plant disease detection and diagnosis) | **Techniques**  Image resizing ,image size ,SMOTE, over Sampled, image Segmentation and image classfication | Metrics  Accuarcy | Models AlexNet ,GoogLeNet, Overfeat and VGG and used multitransfer learning technique. | Used dataset of 25 distinct plant and 58 distinct classes with healthy plant disease | 2019 | performance reaching a 99.53% |
| 15. **Sannakki, Sanjeev S., et al.**(Diagnosis and classification of grape leaf diseases using neural networks) | **Techniques**  **anisotropic diffusion,K-means clustering** | Metrics  Accuracy  ,Precision ,recall | Models used googlenet,Resnet50, | Dataset have 15000 image of Grape(downy mildew and powdery mildew) | 2013 | 100%on training dataset and 93.6% on tesing dataset |
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