B.Tech – CSE (Honor's)
ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
PROJECT REPORT

TITTLE OF THE PROJECT:-

The digital image processing for plant detection using AI

TEAM MEMBERS:-

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DATASETS	CHRACTERISTIC	REFERENCE LINK	TECHNIQUES And Models
PlantVillage	It is a dataset that contains roughly 54,000 plant leaf picture	https://www.kaggle.com/abdallahalidev/plantvillage-dataset	1.Data Augmentation like:- rotation, scaling, flipping 2. image segmentation.
PlantDoc	This dataset contains the details about plant diseases and different image	https://github.com/pratikkayal/PlantDoc-Dataset	1.ResnetV2 2.MobileNet
Edible wild plant	This dataset contain 62 edible wild plant Images	https://www.kaggle.com/gverzea/edible-wild-plants	1.Resnet50 3.CNN Model
Ornamental plants	This dataset contain 500 Images of Flower	https://www.kaggle.com/abdalnassir/ornamental-plants	1.Image classification 2.Instance segmentation

1. Camargo, A., and J. S. Smith. "An image-processing based algorithm to automatically identify plant disease visual symptoms." *Biosystems engineering* 102, no. 1 (2009): 9-21.

2. Singh, Davinder, Naman Jain, Pranjali Jain, Pratik Kayal, Sudhakar Kumawat, and Nipun Batra. "PlantDoc: a dataset for visual plant disease detection." In *Proceedings of the 7th ACM IKDD CoDS and 25th COMAD*, pp. 249-253. 2020.

3. Nazki, Haseeb, Jaehwan Lee, Sook Yoon, and Dong Sun Park. "Image-to-image translation with GAN for synthetic data augmentation in plant disease datasets." *Smart Media Journal* 8, no. 2 (2019): 46-57.

4. Ahmad, Mobeen, Muhammad Abdullah, Hyeonjoon Moon, and Dongil Han. "Plant disease detection in imbalanced datasets using efficient convolutional neural networks with stepwise transfer learning." *IEEE Access* 9 (2021): 140565-140580.