Course Title: Machine Learning
Course Code: CSE475
Section: 02
Group Number: 03

Pre-Train Models Report
Medicinal Plant Diagnosis Dataset

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Model: DenseNet-201

Train: Test Ratio	Accuracy (%)	Precision (%)	Recall (%)	F1-score (%)
10:90	70.82	71.15	70.82	69.86
20:80	82.32	82.36	82.32	82.09
30:70	88.49	88.51	88.49	88.42
40:60	90.07	90.03	90.07	90.01
50:50	91.10	91.12	91.10	91.10
60:40	91.97	91.89	91.97	91.59
70:30	92.97	93.04	92.97	92.96
80:20	92.13	92.15	92.13	92.11
90:10	92.17	92.42	92.17	92.11

Model: EfficientNetB5

Train: Test Ratio	Accuracy (%)	Precision (%)	Recall (%)	F1-score (%)
10:90	18.50	15.00	18.50	12.31
20:80	32.43	31.55	32.43	24.71
30:70	48.64	44.70	48.64	41.95
40:60	55.81	53.79	55.81	51.91
50:50	63.22	62.53	63.22	61.10
60:40	69.66	68.48	69.06	67.62
70:30	72.13	71.88	72.13	70.76
80:20	75.23	74.80	75.23	74.49
90:10	78.91	78.49	78.91	78.20

Model: Vgg16

Train: Test Ratio	Accuracy (%)	Precision (%)	Recall (%)	F1-score (%)
10:90	63.61	63.92	63.61	63.19
20:80	73.62	73.30	73.62	73.29
30:70	78.10	78.75	78.10	77.63
40:60	83.14	83.20	83.14	83.07
50:50	85.49	85.45	85.49	85.36
60:40	87.82	87.81	87.82	87.79
70:30	88.46	88.59	88.46	88.47
80:20	89.87	89.92	89.87	89.87
90:10	89.59	89.63	89.59	89.52

Model: Vgg19

Train: Test Ratio	Accuracy (%)	Precision (%)	Recall (%)	F1-score (%)
10:90	91.13	91.36	91.13	91.10
20:80	94.41	94.46	94.41	94.39
30:70	95.74	95.78	95.74	95.74
40:60	95.78	95.84	95.73	95.75
50:50	96.33	96.37	96.33	96.33
60:40	96.85	96.85	96.85	96.84
70:30	96.97	96.74	96.72	96.71
80:20	96.92	96.94	96.92	96.91
90:10	97.51	97.54	97.51	97.52

Model: InceptionV3 (Best model)

Train: Test Ratio	Accuracy (%)	Precision (%)	Recall (%)	F1-score (%)
10:90	91.77	92.01	91.77	91.77
20:80	94.07	94.34	94.07	94.07
30:70	95.95	96.04	95.95	95.93
40:60	97.04	97.05	97.04	97.03
50:50	97.53	97.53	97.53	97.53
60:40	96.92	97.05	96.92	96.90
70:30	98.13	98.13	98.13	98.13
80:20	97.97	97.99	97.97	97.97
90:10	97.97	98.01	97.97	97.97

Model: MobileNet-V2

Train: Test Ratio	Accuracy (%)	Precision (%)	Recall (%)	F1-score (%)
10:90	33.38	30.60	33.38	27.52
20:80	49.55	47.65	49.55	44.96
30:70	58.31	57.40	58.31	55.57
40:60	63.45	62.76	63.45	61.83
50:50	67.64	67.14	67.64	66.53
60:40	69.64	69.30	69.64	68.98
70:30	72..44	72.22	72.44	71.84
80:20	75.51	75.53	75.51	75.20
90:10	75.14	75.25	75.14	74.93

Model: NasNet

Train: Test Ratio	Accuracy (%)	Precision (%)	Recall (%)	F1-score (%)
10:90	55.54	53.53	55.54	52.86
20:80	73.10	72.37	73.10	72.15
30:70	78.92	78.68	78.92	78.56
40:60	81.23	81.07	81.23	81.02
50:50	84.31	84.38	84.31	84.16
60:40	85.57	85.51	85.57	85.45
70:30	87.05	87.09	87.05	87.01
80:20	87.25	87.40	87.25	87.15
90:10	89.96	90.01	89.96	89.84

Model: Resnet-50

Train: Test Ratio	Accuracy (%)	Precision (%)	Recall (%)	F1-score (%)
10:90	56.95	55.55	56.95	54.45
20:80	71.97	71.54	71.97	71.28
30:70	78.88	78.71	78.88	78.56
40:60	82.19	82.10	82.19	82.05
50:50	83.90	83.87	83.90	83.70
60:40	85.91	85.85	85.91	85.82
70:30	87.85	87.97	87.85	87.76
80:20	87.98	88.02	87.98	87.93
90:10	89.04	89.08	89.04	88.95