

# TECHNICAL REPORT

## PREDICTING INVASIVE DUCTAL CARCINOMA USING CNNs

**SOFTWARE USED** - keras, OpenCV, Python and sklearn

**INPUT IMAGE DATA SHAPE** = (50, 50, 3)

**EPOCHS** = 50

**BATCH SIZE** = 32

**TOTAL TESTING/VALIDATION IMAGES** = 41629

**ACTIVATION FUNCTION USED** = “Softmax” for Output Layer and “ReLu” for Other Layers

Optimizer	Balanced Accuracy	Accuracy	Weighted Precision	Weighted Recall	Weighted F1-Score
<b>Adadelta</b>	<b>86.31</b>	<b>86.02</b>	<b>0.88</b>	<b>0.86</b>	<b>0.86</b>
Adam	85.55	85.28	0.87	0.85	0.86
Adagrad	85.67	85.21	0.87	0.85	0.86
RMSProp	84.79	84.57	0.86	0.85	0.85
Adamax	86.18	85.34	0.87	0.85	0.86