Table S1. Comparison of CNN models using dataset 2 with respect to accuracy, RMSE, weighted kappa (with standard deviation).

CNN Model	Epochs	70%-30% distribution			10-fold cross-validation		
		Accuracy (%)	RMSE	Weighted Kappa	Accuracy (%)	RMSE	Weighted Kappa
VGG-19	10	83.23 (±0.04)	0.2707 (±0.05)	0.8188 (±0.04)	86.73 (±0.03)	0.2357 (±0.04)	0.8538 (±0.03)
	20	84.52 (±0.04)	0.2578 (±0.06)	0.8317 (±0.04)	87.58 (±0.03)	0.2272 (±0.04)	0.8623 (±0.03)
	30	84.62 (±0.04)	0.2568 (±0.05)	0.8327 (±0.04)	87.95 (±0.03)	0.2235 (±0.04)	0.8660 (±0.03)
ResNet-50	10	92.28 (±0.04)	0.1802 (±0.04)	0.9093 (±0.04)	95.34 (±0.04)	0.1496 (±0.04)	0.9399 (±0.03)
	20	92.74 (±0.05)	0.1756 (±0.05)	0.9139 (±0.04)	95.89 (±0.04)	0.1441 (±0.04)	0.9454 (±0.03)
	30	93.86 (±0.04)	0.1644 (±0.03)	0.9251 (±0.04)	96.34 (±0.04)	0.1296 (±0.04)	0.9599 (±0.03)
Inception-V3	10	94.32 (±0.04)	0.1598 (±0.04)	0.9297 (±0.04)	97.25 (±0.03)	0.1305 (±0.04)	0.9590 (±0.05)
	20	96.21 (±0.03)	0.1409 (±0.04)	0.9486 (±0.04)	98.27 (±0.03)	0.1203 (±0.04)	0.9692 (±0.05)
	30	96.73 (±0.03)	0.1357 (±0.04)	0.9538 (±0.04)	98.73 (±0.05)	0.1157 (±0.04)	0.9738 (±0.05)

Table S2. Comparison of CNN models using dataset 2 with respect to TP-Rate/Recall, FP-Rate, F-measure (with standard deviation).

CNN Model	Epochs	70%-30% distribution				10-fold cross-validation			
		TP-Rate /Recall (%)	FP-Rate (%)	Precision (%)	F-measure (%)	TP-Rate /Recall (%)	FP-Rate (%)	Precision (%)	F-measure (%)
VGG-19	10	82.88 (±0.03)	16.77 (±0.04)	82.84 (±0.04)	82.86 (±0.04)	86.38 (±0.04)	13.27 (±0.04)	86.34 (±0.04)	86.36 (±0.04)
	20	84.17 (±0.05)	15.48 (±0.03)	84.13 (±0.04)	84.15 (±0.04)	87.23 (±0.04)	12.42 (±0.04)	87.19 (±0.05)	87.21 (±0.03)
	30	84.27 (±0.04)	15.38 (±0.04)	84.23 (±0.04)	84.25 (±0.04)	87.60 (±0.04)	12.05 (±0.05)	87.56 (±0.05)	87.58 (±0.03)
ResNet-50	10	91.93 (±0.04)	7.72 (±0.05)	91.89 (±0.04)	91.91 (±0.04)	94.99 (±0.03)	4.66 (±0.04)	94.95 (±0.04)	94.97 (±0.03)
	20	92.39 (±0.04)	7.26 (±0.04)	92.35 (±0.04)	92.37 (±0.04)	95.54 (±0.04)	4.11 (±0.04)	95.50 (±0.04)	95.52 (±0.03)
	30	93.51 (±0.05)	6.14 (±0.04)	93.47 (±0.04)	93.49 (±0.04)	96.99 (±0.04)	2.66 (±0.04)	96.95 (±0.04)	96.97 (±0.04)
Inception-V3	10	93.97 (±0.04)	5.68 (±0.04)	93.93 (±0.04)	93.95 (±0.04)	96.90 (±0.04)	2.75 (±0.04)	96.86 (±0.04)	96.88 (±0.03)
	20	95.86 (±0.04)	3.79 (±0.04)	95.82 (±0.04)	95.84 (±0.04)	97.92 (±0.04)	1.73 (±0.04)	97.88 (±0.04)	97.90 (±0.03)
	30	96.38 (±0.04)	3.27 (±0.05)	96.34 (±0.05)	96.36 (±0.04)	98.38 (±0.05)	1.27 (±0.04)	98.34 (±0.04)	98.36 (±0.04)