

## Target 3 – Origin (LUNAR)

K = 3		overlap_percentage								
Dataset	LUNAR	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	92.17	82.36	82.18	88.42	85.25	89.46	92.41	87.20	86.44	91.69
MI-F	84.37	79.08	85.69	82.88	86.21	81.89	82.56	79.35	77.87	80.14
MI-V	96.73	98.67	97.65	98.17	97.32	98.48	98.79	98.69	96.57	98.20
OPTDIGITS	99.76	98.38	98.85	99.27	100.00	100.00	99.99	100.00	100.00	100.00
PENDIGITS	99.81	99.71	99.94	99.96	99.87	99.88	99.96	100.00	100.00	100.00
SATELLITE	85.35	97.07	94.90	95.78	96.43	93.36	95.94	97.67	97.58	97.04
SHUTTLE	99.97	99.99	99.96	99.96	99.98	99.99	99.99	100.00	100.00	99.96
THYROID	85.44	90.32	86.54	92.21	88.40	90.87	90.06	87.41	86.47	87.04
K = 6		overlap_percentage								
Dataset	LUNAR	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	92.17	73.34	90.99	88.42	92.83	93.00	92.52	92.92	92.19	91.93
MI-F	84.37	84.00	79.94	86.41	85.09	83.61	82.26	81.43	76.90	76.76
MI-V	96.73	99.05	98.44	99.44	98.65	99.45	98.33	98.70	99.30	98.76
OPTDIGITS	99.76	95.04	99.98	99.49	99.86	100.00	100.00	100.00	100.00	100.00
PENDIGITS	99.81	93.93	93.10	99.98	99.69	99.98	100.00	100.00	100.00	100.00
SATELLITE	85.35	96.70	98.65	98.12	98.20	98.35	94.27	95.29	96.22	97.02
SHUTTLE	99.97	98.00	99.97	100.00	99.98	99.98	99.98	100.00	99.99	99.99
THYROID	85.44	83.41	88.21	84.70	84.36	92.32	81.60	88.22	86.20	82.18
K = 9		overlap_percentage								
Dataset	LUNAR	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	92.17	68.58	86.99	89.66	87.30	92.52	91.82	92.57	93.07	91.75
MI-F	84.37	81.01	87.28	85.05	82.52	78.67	79.77	81.43	79.22	76.72
MI-V	96.73	88.23	98.87	99.46	99.25	98.93	99.45	99.45	99.18	98.46
OPTDIGITS	99.76	98.66	99.81	100.00	100.00	100.00	100.00	100.00	100.00	100.00
PENDIGITS	99.81	53.71	97.60	100.00	99.73	99.81	99.95	100.00	99.99	100.00
SATELLITE	85.35	97.26	98.63	98.61	95.67	98.44	89.75	98.43	95.99	97.59
SHUTTLE	99.97	99.79	99.96	100.00	99.98	99.99	99.99	100.00	99.99	99.99
THYROID	85.44	90.72	95.80	91.39	91.86	89.83	85.74	89.86	83.41	83.41

K = 3	Target 1 : 10% anomaly data				overlap_percentage					
Dataset	P = 10	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	87.13	78.69	78.72	90.11	86.91	91.93	89.76	91.15	82.93	92.62
MI-F	50.34	51.43	48.52	48.97	52.79	46.46	54.38	56.98	52.15	53.98
MI-V	77.15	71.66	72.23	74.28	76.18	80.98	74.75	77.93	76.87	81.76
OPTDIGITS	94.57	98.34	99.42	99.41	99.90	99.78	99.53	99.97	99.93	99.29
PENDIGITS	99.56	99.65	99.93	99.53	98.33	98.37	100.00	100.00	100.00	100.00
SATELLITE	51.05	67.10	65.75	67.52	65.31	65.78	70.65	65.57	67.01	68.75
SHUTTLE	39.34	99.63	93.29	93.29	99.91	47.82	47.82	77.63	77.63	46.74
THYROID	71.36	71.50	87.63	89.75	90.74	84.35	91.00	90.43	82.87	83.34
K = 6	Target 1 : 10% anomaly data				overlap_percentage					
Dataset	P = 10	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	87.13	74.89	79.76	80.94	88.33	90.63	93.60	94.27	94.18	95.52
MI-F	50.34	46.15	50.75	49.53	51.88	48.88	52.01	49.41	50.63	53.52
MI-V	77.15	70.81	76.54	76.29	75.98	81.16	79.99	77.98	80.71	85.08
OPTDIGITS	94.57	99.59	98.42	99.91	96.83	99.86	99.98	99.93	100.00	99.26
PENDIGITS	99.56	92.03	96.20	99.88	99.42	99.69	99.97	100.00	99.27	99.72
SATELLITE	51.05	70.14	70.94	75.56	73.14	67.57	71.04	76.50	77.06	76.63
SHUTTLE	39.34	94.61	96.29	99.69	99.25	65.50	65.50	80.12	68.65	58.08
THYROID	71.36	90.55	87.38	69.18	83.41	83.72	87.94	89.35	84.97	87.32
K = 9	Target 1 : 10% anomaly data				overlap_percentage					
Dataset	P = 10	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	87.13	71.40	77.66	86.57	79.15	93.39	91.57	93.36	94.32	94.86
MI-F	50.34	51.13	49.22	49.72	55.06	52.89	52.80	53.69	53.09	51.58
MI-V	77.15	74.52	75.70	75.04	80.63	78.02	80.88	77.70	80.62	83.31
OPTDIGITS	94.57	97.61	99.76	100.00	99.48	99.74	100.00	99.99	99.95	99.90
PENDIGITS	99.56	71.60	98.51	98.42	97.58	99.32	99.97	100.00	99.52	99.83
SATELLITE	51.05	70.00	75.63	72.80	73.43	76.28	75.61	76.08	78.65	76.33
SHUTTLE	39.34	94.15	98.04	99.56	98.76	85.70	85.70	81.78	62.22	58.44
THYROID	71.36	94.95	89.98	84.52	87.25	81.35	87.70	90.82	83.10	80.08

K = 3	Target 1 : 30% anomaly data				overlap_percentage					
Dataset	P = 30	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	78.33	73.37	78.46	84.55	80.12	74.86	81.83	86.73	82.52	87.58
MI-F	46.54	43.70	47.01	45.33	48.86	44.42	42.91	50.29	46.22	45.82
MI-V	64.10	65.19	64.62	66.09	70.20	68.50	69.03	68.36	68.53	69.86
OPTDIGITS	68.44	70.13	77.14	56.40	50.33	72.88	77.91	60.94	53.54	60.55
PENDIGITS	53.95	88.25	79.64	51.61	77.51	51.36	77.64	77.93	91.88	81.62
SATELLITE	45.64	55.56	56.41	57.31	63.83	59.22	57.92	64.04	60.97	59.62
SHUTTLE	90.22	79.01	98.42	98.42	98.90	74.18	74.18	83.67	83.67	89.60
THYROID	70.09	85.00	86.15	89.39	72.04	81.98	88.45	82.14	83.01	79.89
K = 6	Target 1 : 30% anomaly data				overlap_percentage					
Dataset	P = 30	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	78.33	65.52	82.00	75.22	85.08	86.37	87.28	89.61	90.84	89.99
MI-F	46.54	42.29	42.96	49.61	44.07	44.08	44.99	44.23	44.80	45.01
MI-V	64.10	65.07	67.96	69.50	68.35	69.97	70.24	70.50	71.38	70.40
OPTDIGITS	68.44	76.27	82.46	80.18	77.00	77.53	74.34	61.61	60.52	59.60
PENDIGITS	53.95	80.45	94.67	65.05	92.42	74.56	68.86	79.95	75.41	85.23
SATELLITE	45.64	63.51	70.19	71.32	61.11	65.95	66.53	59.80	71.63	71.84
SHUTTLE	90.22	52.30	97.67	87.16	96.18	85.34	85.34	95.22	94.07	89.60
THYROID	70.09	92.26	87.99	80.71	87.97	85.33	88.10	82.57	77.62	77.99
K = 9	Target 1 : 30% anomaly data				overlap_percentage					
Dataset	P = 30	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	78.33	63.60	75.31	76.28	85.83	87.15	88.56	89.52	90.42	90.85
MI-F	46.54	44.78	42.92	45.09	42.91	46.11	44.62	42.58	44.59	45.97
MI-V	64.10	64.87	69.75	68.68	69.34	72.94	71.33	72.98	70.71	70.12
OPTDIGITS	68.44	86.11	75.88	69.78	82.99	73.40	54.39	66.59	56.04	58.68
PENDIGITS	53.95	74.63	97.30	93.69	57.93	85.62	60.36	70.66	84.85	80.93
SATELLITE	45.64	63.57	63.52	61.90	58.48	57.60	61.23	62.20	67.37	74.57
SHUTTLE	90.22	91.85	97.67	91.16	97.81	86.96	86.96	94.13	94.89	93.45
THYROID	70.09	83.57	87.04	85.41	90.32	80.16	81.32	83.12	76.40	79.88

K = 3	Target 1 : 50% anomaly data				overlap_percentage					
Dataset	P = 50	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	70.10	67.54	69.03	74.39	70.58	73.08	69.46	74.79	75.48	80.34
MI-F	47.19	40.70	42.21	39.98	41.02	43.98	39.44	41.22	43.62	40.00
MI-V	59.85	61.40	62.10	66.05	61.46	64.19	60.05	63.01	66.33	66.27
OPTDIGITS	50.49	55.40	53.28	46.22	47.06	43.43	42.63	40.11	28.91	29.44
PENDIGITS	25.20	56.99	39.89	38.38	39.51	53.42	31.84	60.03	34.07	44.77
SATELLITE	49.94	57.11	61.33	61.26	53.14	52.65	55.11	50.73	57.97	54.89
SHUTTLE	86.11	58.62	73.68	73.68	94.35	85.09	85.09	75.22	75.22	85.95
THYROID	66.38	84.78	73.13	87.70	85.21	80.44	86.05	77.50	73.58	78.38
K = 6	Target 1 : 50% anomaly data				overlap_percentage					
Dataset	P = 50	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	70.10	67.38	73.30	78.66	79.95	82.85	78.29	80.34	83.25	83.47
MI-F	47.19	43.31	37.49	43.07	39.76	44.67	40.03	39.91	38.13	37.65
MI-V	59.85	61.77	63.19	63.37	66.06	63.05	67.95	64.19	67.26	65.69
OPTDIGITS	50.49	72.39	89.00	70.36	46.83	30.67	48.14	44.05	29.17	29.76
PENDIGITS	25.20	80.88	89.79	40.76	69.07	62.89	69.77	45.38	45.27	52.43
SATELLITE	49.94	54.91	58.18	57.88	59.40	55.31	57.13	66.28	63.39	65.37
SHUTTLE	86.11	90.98	86.73	79.01	91.87	57.31	57.31	85.36	83.99	87.54
THYROID	66.38	80.94	86.63	90.73	78.72	84.80	82.02	77.65	79.16	76.58
K = 9	Target 1 : 50% anomaly data				overlap_percentage					
Dataset	P = 50	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	70.10	60.92	69.85	73.57	79.50	80.46	74.91	76.46	81.95	82.45
MI-F	47.19	42.21	49.32	39.35	38.87	42.73	40.50	45.10	38.76	41.52
MI-V	59.85	61.43	62.73	66.49	65.26	65.39	65.29	67.18	68.63	65.73
OPTDIGITS	50.49	71.20	75.15	51.40	47.56	48.14	28.64	37.83	40.68	21.00
PENDIGITS	25.20	80.65	69.82	67.23	52.32	57.59	69.38	46.04	38.02	53.40
SATELLITE	49.94	64.22	67.99	62.32	56.88	65.49	59.84	52.87	58.00	60.77
SHUTTLE	86.11	94.76	84.99	88.66	89.45	83.88	83.88	81.84	88.31	89.27
THYROID	66.38	82.51	88.11	82.44	76.71	72.60	81.89	84.00	82.76	74.97

K = 3	Target 2 : 50% training data				overlap_percentage					
Dataset	P = 50	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	82.49	73.98	73.75	73.95	75.48	80.35	80.20	79.13	79.19	78.98
MI-F	84.11	74.87	74.61	86.60	69.99	82.70	84.74	84.51	80.18	81.02
MI-V	95.33	97.19	99.20	93.42	98.55	98.50	96.59	99.13	97.64	98.03
OPTDIGITS	99.39	99.55	99.98	99.99	99.96	100.00	99.95	99.99	100.00	99.90
PENDIGITS	99.84	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
SATELLITE	84.14	93.49	97.70	97.39	95.34	93.31	92.90	96.73	96.01	92.87
SHUTTLE	99.86	99.97	100.00	100.00	99.99	99.98	99.98	99.99	99.99	99.99
THYROID	87.93	86.06	80.48	89.89	89.47	89.79	86.55	88.42	83.42	85.20
K = 6	Target 2 : 50% training data				overlap_percentage					
Dataset	P = 50	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	82.49	67.71	73.34	75.16	76.82	80.65	81.46	80.99	81.25	79.41
MI-F	84.11	78.26	75.26	80.06	78.81	86.33	82.06	82.10	82.65	77.91
MI-V	95.33	98.20	98.27	99.73	99.82	99.42	98.05	99.01	99.58	98.57
10PTDIGITS	99.39	91.91	99.97	98.76	99.96	99.98	100.00	99.96	100.00	100.00
PENDIGITS	99.84	93.85	93.12	99.98	100.00	100.00	100.00	99.98	100.00	100.00
SATELLITE	84.14	98.34	96.43	95.99	95.78	97.87	96.08	97.88	94.19	89.63
SHUTTLE	99.86	98.53	98.76	100.00	100.00	99.99	99.99	100.00	99.97	99.99
THYROID	87.93	87.55	93.74	96.74	92.66	93.63	89.15	89.98	82.41	83.87
K = 9	Target 2 : 50% training data				overlap_percentage					
Dataset	P = 50	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	82.49	92.52	73.25	79.97	72.97	81.75	78.65	80.68	80.78	79.48
MI-F	84.11	83.52	82.07	87.54	82.32	77.73	80.72	82.72	80.12	81.66
MI-V	95.33	96.98	99.70	99.63	99.61	99.91	99.32	98.91	99.42	99.40
OPTDIGITS	99.39	75.47	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00
PENDIGITS	99.84	85.27	96.92	91.50	98.81	99.61	100.00	100.00	100.00	99.99
SATELLITE	84.14	98.40	98.67	97.34	97.11	94.88	92.03	97.44	98.10	94.52
SHUTTLE	99.86	99.86	99.04	100.00	100.00	99.99	99.99	100.00	99.98	99.99
THYROID	87.93	89.43	92.18	94.14	90.43	93.58	83.07	82.65	88.64	81.01

K = 3	Target 2 : 70% training data				overlap_percentage					
Dataset	P = 70	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	86.66	77.81	79.05	78.83	79.85	79.85	86.12	80.43	85.60	86.30
MI-F	82.22	88.71	86.44	77.85	76.24	80.48	82.37	79.48	79.93	79.93
MI-V	95.61	92.41	98.49	96.91	98.79	98.01	96.67	98.85	98.74	96.67
OPTDIGITS	99.44	99.64	99.99	99.97	100.00	99.99	100.00	100.00	99.80	100.00
PENDIGITS	99.84	99.95	100.00	100.00	99.92	100.00	100.00	99.99	99.96	99.96
SATELLITE	84.61	94.98	95.64	92.66	93.43	93.04	98.00	93.83	94.20	92.61
SHUTTLE	99.97	99.97	99.99	99.99	99.98	100.00	100.00	99.99	99.99	99.98
THYROID	85.23	88.11	93.20	86.60	88.16	83.63	94.02	81.83	78.96	86.24
K = 6	Target 2 : 70% training data				overlap_percentage					
Dataset	P = 70	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	86.66	71.97	78.86	78.06	86.23	83.68	85.94	85.83	84.93	85.03
MI-F	82.22	78.69	83.77	80.54	81.34	84.77	83.49	77.56	82.12	78.46
MI-V	95.61	97.45	95.93	99.08	99.47	99.24	98.40	98.66	98.76	98.75
10PTDIGITS	99.44	97.24	97.16	99.99	99.91	100.00	99.97	100.00	100.00	100.00
PENDIGITS	99.84	89.00	97.99	99.99	100.00	100.00	100.00	100.00	99.99	100.00
SATELLITE	84.61	93.15	96.07	97.06	95.47	90.69	90.71	96.47	98.15	90.69
SHUTTLE	99.97	99.50	99.43	99.98	100.00	99.93	99.93	99.96	99.99	100.00
THYROID	85.23	89.66	94.46	76.79	84.06	92.43	89.19	88.63	84.51	77.52
K = 9	Target 2 : 70% training data				overlap_percentage					
Dataset	P = 70	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	86.66	68.11	75.46	81.30	87.35	80.30	85.58	86.49	84.77	84.83
MI-F	82.22	75.53	83.48	76.07	82.97	81.06	80.85	80.99	79.91	78.53
MI-V	95.61	95.69	98.94	98.64	99.90	99.39	97.47	99.60	99.13	99.06
OPTDIGITS	99.44	95.73	99.15	99.77	100.00	100.00	100.00	100.00	100.00	100.00
PENDIGITS	99.84	84.80	96.74	99.98	100.00	99.98	100.00	99.99	99.99	99.99
SATELLITE	84.61	96.38	97.23	96.96	98.04	95.43	97.45	98.62	97.30	95.16
SHUTTLE	99.97	99.70	99.25	100.00	100.00	99.99	99.99	99.97	99.99	100.00
THYROID	85.23	88.02	94.73	93.09	94.51	92.75	87.04	90.23	87.08	85.21

K = 3	Target 2 : 90% training data				overlap_percentage					
Dataset	P = 90	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	90.39	80.59	81.31	79.73	79.61	89.52	82.49	89.78	90.45	90.11
MI-F	84.16	78.89	80.44	77.31	78.90	82.45	82.13	82.11	80.31	79.79
MI-V	96.41	97.00	94.14	98.37	99.14	97.78	95.96	98.28	98.41	95.51
OPTDIGITS	99.44	99.80	99.03	100.00	99.99	99.86	99.79	100.00	100.00	100.00
PENDIGITS	99.83	99.93	99.94	100.00	99.98	99.84	100.00	99.99	100.00	99.99
SATELLITE	86.01	94.92	93.74	97.18	94.15	97.72	92.86	96.86	96.97	93.09
SHUTTLE	99.94	99.98	99.99	99.99	99.97	100.00	100.00	99.99	99.99	99.99
THYROID	83.68	85.44	85.72	88.30	93.10	89.25	86.35	84.14	82.90	84.24
K = 6	Target 2 : 90% training data				overlap_percentage					
Dataset	P = 90	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	90.39	73.87	80.78	82.30	88.54	86.15	91.43	89.85	90.15	90.30
MI-F	84.16	81.46	81.50	86.97	78.42	82.97	78.71	79.24	80.96	76.05
MI-V	96.41	98.79	98.13	99.80	99.79	99.05	99.06	98.90	98.74	98.78
10PTDIGITS	99.44	97.82	99.95	99.62	99.44	100.00	100.00	100.00	100.00	100.00
PENDIGITS	99.83	94.56	98.24	99.99	99.98	100.00	100.00	100.00	100.00	100.00
SATELLITE	86.01	95.65	97.48	96.74	91.46	97.49	96.40	97.06	90.35	90.79
SHUTTLE	99.94	93.84	98.88	99.94	100.00	99.97	99.97	100.00	99.99	99.99
THYROID	83.68	92.41	94.93	82.09	88.39	91.21	88.01	87.88	84.74	75.99
K = 9	Target 2 : 90% training data				overlap_percentage					
Dataset	P = 90	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HRSS	90.39	68.53	77.17	79.63	90.99	80.46	90.81	87.26	89.59	90.21
MI-F	84.16	82.46	82.42	73.73	83.63	82.34	80.89	78.82	78.86	78.94
MI-V	96.41	96.77	99.64	99.45	99.48	99.77	99.71	99.32	99.06	98.68
OPTDIGITS	99.44	97.46	96.63	100.00	100.00	100.00	100.00	100.00	100.00	100.00
PENDIGITS	99.83	86.02	99.16	99.98	99.94	100.00	100.00	100.00	100.00	100.00
SATELLITE	86.01	96.09	94.79	96.80	93.58	93.65	98.45	87.98	89.93	90.09
SHUTTLE	99.94	99.83	99.53	99.97	100.00	99.96	99.96	100.00	99.99	99.99
THYROID	83.68	90.15	84.47	60.26	92.60	77.57	79.27	89.10	78.76	74.22