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LAMPIRAN

Lampiran 1 Data Latih

Tabel 13 Data pelatihan algoritma

No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
1	4/23/2022	890	51.8	61	255	21.5	44.3	39.4	9.36	6.48	1
2	4/23/2022	865	49.7	59	253	22.1	44.4	39.7	9.59	6.37	1
3	4/23/2022	888	49.4	61	253	22.2	44.0	39.1	9.36	6.47	1
4	4/23/2022	850	48.5	60	252	22.3	44.2	39.7	9.60	6.36	1
5	4/23/2022	899	51.8	61	252	22.3	44.3	39.4	9.37	6.42	1
6	4/23/2022	867	43.7	59	249	23.4	43.6	39.0	9.60	6.38	1
7	4/23/2022	792	48.2	60	225	30.8	35.8	25	9.59	9	1
8	4/23/2022	906	51.1	73	224	31.1	30.6	23.8	10.09	9.40	1
9	4/23/2022	869	51.9	72	224	31.2	30.6	24.3	10.07	9.22	1
10	4/23/2022	988	50.7	72	221	31.9	30.4	23.5	10.10	9.42	1
11	4/23/2022	811	57.0	73	215	33.8	31.1	24.3	9.52	8.85	1
12	4/23/2022	884	52.7	73	215	33.8	30.5	23.7	9.74	9.10	1
13	4/23/2022	1,045	44.5	55	215	33.9	35.1	24.3	9.44	8.84	1
14	4/23/2022	947	52.6	74	215	33.9	30.5	23.7	9.91	9.07	1
15	4/23/2022	815	46.8	51	214	34.1	43.8	23.9	9.65	8.96	1
16	4/23/2022	828	46.4	74	214	34.2	30.3	24.2	9.54	8.85	1
17	4/28/2022	955	43.9	59	214	34.2	36.4	22.8	9.99	9.38	1
18	4/28/2022	844	56.0	73	214	34.2	30.9	24.1	9.44	8.89	1
19	4/28/2022	847	45.2	74	213	34.4	30.3	24.1	9.47	8.86	1
20	4/28/2022	840	55.7	73	213	34.4	30.9	24.1	9.48	8.85	1
21	4/28/2022	808	52.7	73	212	34.7	30.4	23.8	9.53	8.93	1
22	4/28/2022	847	49.0	74	212	34.7	30.5	24.0	9.39	8.84	1
23	4/28/2022	1,048	44.0	53	212	34.8	36.4	24.4	9.47	8.69	1
24	4/28/2022	828	48.5	74	212	34.8	30.5	24.2	9.42	8.74	1
25	4/28/2022	952	47.4	58	212	34.9	36.5	22.9	9.97	9.24	1
26	4/28/2022	784	49.7	51	211	35	43.1	23.6	9.7	8.96	1
27	4/28/2022	808	51.4	73	211	35.2	30.2	23.7	9.50	8.90	1
28	4/28/2022	807	49.7	73	211	35.2	29.8	23.5	9.74	8.96	1
29	4/28/2022	814	50.9	72	210	35.2	29.9	23.5	9.76	8.97	1
30	4/28/2022	846	55.8	51	211	35.2	43.7	23.7	9.46	8.87	1
31	4/28/2022	850	55.9	51	210	35.2	43.7	23.6	9.49	8.93	1
32	4/28/2022	852	48.8	58	211	35.2	37.3	23.4	9.78	8.99	1
33	4/28/2022	999	48.2	72	210	35.5	30.4	23	9.57	9.11	1
	/2022	781	48.5	51	210	35.5	42.9	23.3	9.69	8.99	1
	/2022	839	52.7	73	209	35.6	30.2	23.7	9.56	8.84	1
	/2022	842	56.3	51	209	35.6	43.6	23.5	9.48	8.90	1
	/2022	788	46.1	68	209	35.7	31.8	23.4	9.62	8.92	1



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Imp (A)	Remarks
38	5/10/2022	833	49.5	73	209	35.7	30.0	23.4	9.56	8.94	1
39	5/10/2022	1,026	49.0	55	209	35.8	39.9	23.5	9.5	8.87	1
40	5/10/2022	878	46.2	73	209	35.8	29.6	23.4	9.60	8.91	1
41	5/10/2022	836	52.1	73	209	35.8	30.2	23.2	9.50	9.01	1
42	5/10/2022	862	51.4	50	209	35.8	43.7	23.6	9.54	8.85	1
43	5/12/2022	1,030	48.7	55	208	35.9	39.9	23.2	9.5	8.98	1
44	5/12/2022	1,100	50.2	55	208	35.9	40	23.6	9.45	8.84	1
45	5/12/2022	785	48.6	63	208	35.9	34.3	23.5	9.59	8.87	1
46	5/12/2022	918	49.9	73	208	35.9	30.0	23.3	9.52	8.94	1
47	5/12/2022	972	57.4	72	208	35.9	30.8	23.9	9.39	8.72	1
48	5/12/2022	960	57.8	72	208	35.9	30.3	23.4	9.58	8.89	1
49	5/12/2022	964	58.1	72	208	35.9	30.3	23.4	9.55	8.91	1
50	5/12/2022	843	63.8	72	208	35.9	31.0	23.7	9.38	8.79	1
51	5/12/2022	847	45.6	58	208	35.9	36.5	23.1	9.80	9.03	1
52	5/12/2022	848	46.6	73	208	36.0	29.7	23.5	9.57	8.85	1
53	5/12/2022	958	56.8	72	208	36.0	30.7	23.7	9.41	8.76	1
54	5/12/2022	983	54.7	73	208	36.0	30.7	23.7	9.34	8.79	1
55	5/12/2022	888	49.4	73	208	36.0	29.9	23.0	9.60	9.03	1
56	5/12/2022	859	63.8	72	208	36.0	31.0	23.7	9.35	8.77	1
57	5/12/2022	932	51.8	72	208	36.0	29.9	22.9	9.63	9.11	1
58	5/12/2022	951	52.9	72	208	36.0	30.0	23.4	9.63	8.90	1
59	5/17/2022	921	48.6	73	208	36.1	29.9	23.0	9.50	9.03	1
60	5/17/2022	942	54.8	72	208	36.1	30.4	23.4	9.51	8.88	1
61	5/17/2022	840	63.4	71	208	36.1	31.0	23.9	9.33	8.70	1
62	5/17/2022	878	45.5	73	207	36.2	29.6	22.7	9.51	9.14	1
63	5/17/2022	977	54.8	73	207	36.2	30.6	23.6	9.36	8.78	1
64	5/17/2022	798	47.0	70	207	36.2	32.7	24.9	8.98	8.33	1
65	5/17/2022	946	55.6	72	207	36.2	30.5	23.7	9.51	8.74	1
66	5/17/2022	996	53.9	72	207	36.2	30.0	23.1	9.61	8.99	1
67	5/17/2022	872	46.9	58	207	36.2	36.8	22.7	9.78	9.13	1
68	5/17/2022	998	53.1	51	207	36.3	41.9	22.8	9.69	9.09	1
69	5/17/2022	990	52.5	72	207	36.3	30.0	23.4	9.61	8.86	1
70	5/17/2022	936	46.1	73	207	36.3	29.7	23.4	9.54	8.84	1
71	5/17/2022	980	51.1	72	207	36.3	30.1	23.2	9.46	8.92	1
72	5/19/2022	984	52.4	72	207	36.3	30.2	23.3	9.45	8.87	1
73	5/19/2022	983	52.9	72	207	36.3	30.3	23.5	9.50	8.82	1
74	5/19/2022	967	43.9	73	207	36.4	29.9	23.9	9.46	8.64	1
75	5/19/2022	1,059	50.5	55	207	36.4	39.8	23	9.51	8.98	1
76	5/19/2022	915	46.4	73	207	36.4	29.6	23.0	9.55	8.98	1
77	5/19/2022	955	52.3	73	207	36.4	30.3	23.4	9.35	8.82	1
	/2022	962	55.8	72	207	36.4	30.1	23.5	9.59	8.81	1
	/2022	835	49.9	73	207	36.4	29.9	23.5	9.55	8.80	1
	/2022	836	40.2	74	207	36.4	29.1	22.9	9.61	9.03	1
	/2022	984	43.5	73	206	36.5	29.9	23.6	9.43	8.75	1



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
82	5/19/2022	882	46.3	73	206	36.5	29.6	23.0	9.54	8.97	1
83	5/19/2022	992	53.6	72	206	36.5	30.3	23.5	9.42	8.80	1
84	5/23/2022	893	48.1	73	206	36.5	29.7	23.1	9.60	8.95	1
85	5/23/2022	987	54.5	72	206	36.6	30.4	23.7	9.43	8.71	1
86	5/23/2022	1,019	53.1	72	206	36.6	30.0	23.4	9.62	8.79	1
87	5/23/2022	997	54.9	72	206	36.6	30.4	23.6	9.43	8.71	1
88	5/23/2022	1,049	40.4	73	206	36.7	29.7	23.2	9.5	8.89	1
89	5/23/2022	965	56.0	72	206	36.7	30.5	23.6	9.43	8.71	1
90	5/23/2022	936	53.1	72	206	36.7	30.2	23.4	9.48	8.78	1
91	5/23/2022	996	54.9	72	206	36.7	30.4	23.6	9.42	8.73	1
92	5/23/2022	1,031	41.3	73	206	36.8	29.7	22.9	9.48	8.96	1
93	5/23/2022	997	53.0	72	205	36.8	30.2	23.2	9.45	8.83	1
94	5/23/2022	925	54.9	71	206	36.8	30.0	23.2	9.56	8.87	1
95	5/23/2022	961	47.1	73	205	36.9	29.8	22.9	9.47	8.97	1
96	5/23/2022	1,044	44.1	63	205	36.9	34.4	23.1	9.52	8.87	1
97	5/23/2022	986	53.1	51	205	36.9	41.5	22.9	9.66	8.94	1
98	5/23/2022	900	44.5	72	205	36.9	29.5	23.1	9.54	8.87	1
99	5/23/2022	979	50.3	72	205	37.0	29.7	22.7	9.65	9.01	1
100	5/23/2022	958	46.1	73	204	37.1	29.7	23.1	9.52	8.83	1
101	5/23/2022	989	54.1	72	205	37.1	30.3	23.4	9.43	8.74	1
102	5/23/2022	917	52.9	71	204	37.2	29.8	23.0	9.60	8.88	1
103	5/23/2022	900	43.5	72	203	37.4	29.1	22.7	9.64	8.98	1
104	5/23/2022	962	43.2	73	203	37.5	29.4	22.7	9.48	8.96	1
105	5/23/2022	801	50.5	52	203	37.7	41.3	22.6	9.53	8.97	1
106	5/23/2022	873	48.1	50	202	37.8	42.7	23	9.45	8.81	1
107	5/23/2022	1,049	42.7	63	202	37.8	33.9	22.6	9.53	8.93	1
108	5/23/2022	874	48.1	50	201	38.1	42.7	22.6	9.5	8.9	1
109	5/23/2022	878	49.7	49	201	38.1	42.9	23.1	9.43	8.69	1
110	5/23/2022	876	50.4	49	201	38.1	43.1	22.8	9.45	8.82	1
111	5/23/2022	981	53.1	54	201	38.1	39.2	22.9	9.57	8.79	1
112	5/23/2022	802	53.8	73	201	38.1	30.5	24.1	9.08	8.33	1
113	5/23/2022	808	55.5	51	201	38.2	42.7	23.4	9.29	8.60	1
114	5/23/2022	800	54.0	73	201	38.2	30.5	24.0	9.08	8.36	1
115	5/23/2022	910	48.3	72	201	38.2	29.2	22.9	9.62	8.78	1
116	5/23/2022	945	38.5	56	201	38.2	37.2	21.9	9.74	9.15	1
117	5/23/2022	904	48.4	61	201	38.3	34.5	22.8	9.48	8.79	1
118	5/23/2022	800	54.2	73	200	38.4	30.5	23.9	9.04	8.40	1
119	5/23/2022	800	46.3	71	200	38.4	31.1	23.9	9.02	8.38	1
120	5/23/2022	816	55.0	51	200	38.5	42.6	23.2	9.28	8.64	1
121	5/23/2022	959	0.0	53	199	38.7	28.8	22.1	9.52	9	1
	/2022	854	46.5	51	199	38.9	41.3	22.6	9.44	8.78	1
	/2022	970	44.5	54	199	38.9	38.2	22.2	9.60	8.94	1
	/2022	965	52.9	49	199	38.9	43.2	22.6	9.49	8.79	1
	/2022	820	54.1	51	198	39.0	42.2	23.0	9.21	8.64	1



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	ImpP (A)	Remarks
126	5/31/2022	972	47.8	56	198	39.0	37.3	22.5	9.46	8.81	1
127	5/31/2022	970	50.9	49	198	39.1	42.9	22.3	9.46	8.87	1
128	5/31/2022	970	46.5	56	198	39.1	37.0	22.4	9.48	8.83	1
129	5/31/2022	802	46.5	72	198	39.2	30.3	23.6	9.02	8.38	1
130	5/31/2022	881	52.4	69	197	39.3	35.7	22.3	9.48	8.86	1
131	5/31/2022	986	42.2	57	197	39.4	36.4	22.2	9.53	8.87	1
132	5/31/2022	985	49.4	53	196	39.5	38.7	22.0	9.57	8.92	1
133	5/31/2022	853	44.8	51	196	39.6	40.7	22.5	9.44	8.71	1
134	5/31/2022	844	42.5	51	196	39.7	40.1	22.3	9.47	8.79	1
135	5/31/2022	964	45.5	49	196	39.8	42.2	22.0	9.54	8.91	1
136	5/31/2022	982	36.6	52	194	40.3	39.4	21.9	9.58	8.86	1
137	5/31/2022	966	0.0	69	194	40.4	29.3	21.6	9.52	8.96	1
138	5/31/2022	976	37.6	51	192	40.8	39.3	21.6	9.54	8.92	1
139	5/31/2022	942	0.0	73	192	41.0	27.3	21.4	9.64	8.98	1
140	5/31/2022	946	0.0	73	192	41.0	27.2	21.2	9.68	9.03	1
141	5/31/2022	956	0.0	73	191	41.1	27.7	21.7	9.5	8.82	1
142	5/31/2022	978	38.9	53	191	41.1	37.2	21.3	9.63	8.99	1
143	5/31/2022	949	0.0	72	191	41.2	27.2	21.0	9.68	9.12	1
144	5/31/2022	810	0.0	73	191	41.2	27.0	21.5	9.60	8.89	1
145	5/31/2022	1,004	42.9	43	190	41.5	39.7	25.4	9.62	7.48	1
146	5/31/2022	1,020	42.1	64	118	63.8	19.5	13.3	9.44	8.84	1
147	5/31/2022	761	38.7	59	117	63.9	20.8	13.1	9.55	8.94	1
148	5/31/2022	771	46.1	64	117	64.0	19.2	13.2	9.55	8.90	1
149	6/6/2022	758	45.5	63	115	64.5	19.0	13.0	9.30	8.85	1
150	6/6/2022	1,033	42.0	64	115	64.6	18.9	13.1	9.46	8.78	1
151	6/6/2022	1,045	42.5	65	114	64.8	18.7	13.0	9.54	8.79	1
152	6/6/2022	751	39.7	61	114	64.9	19.7	12.6	9.55	9.09	1
153	6/6/2022	769	38.8	59	113	65.1	20.1	12.7	9.41	8.92	1
154	6/6/2022	840	42.3	64	114	65.1	18.5	12.6	9.66	9.01	1
155	6/6/2022	980	38.4	62	113	65.2	18.4	12.8	9.52	8.86	1
156	6/6/2022	773	39.8	60	112	65.4	19.9	12.6	9.51	8.90	1
157	6/6/2022	892	36.9	63	113	65.4	18.4	12.6	9.71	8.97	1
158	6/6/2022	1,051	43.1	65	112	65.5	18.3	12.8	9.50	8.76	1
159	6/6/2022	1,046	44.0	65	112	65.6	18.2	12.4	9.52	9.06	1
160	6/6/2022	797	40.5	60	112	65.7	19.5	12.3	9.51	9.04	1
161	6/6/2022	854	48.0	75	332	2.1	45.0	35.6	9.82	9.31	2
162	6/6/2022	800	54.5	74	318	2.1	44.8	35.5	9.54	8.96	2
163	6/10/2022	885	45.3	74	318	2.2	44.5	35.7	9.62	8.91	2
164	6/10/2022	804	37.5	77	333	2.3	45.2	36.3	9.85	9.17	2
165	6/10/2022	742	50.6	76	333	2.4	45.8	37.2	9.56	8.95	2
	/2022	1,100	49.5	77	333	2.5	44.5	35.8	9.63	9.31	2
	/2022	730	49.5	76	333	2.5	45.7	37.1	9.59	8.97	2
	/2022	883	44.8	74	317	2.5	44.5	35.3	9.58	8.97	2
	/2022	885	51.8	74	317	2.5	44.1	34.7	9.78	9.12	2



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
170	6/10/2022	845	53.4	74	317	2.5	45.1	35.5	9.47	8.92	2
171	6/10/2022	835	53.4	74	317	2.5	45.0	35.5	9.49	8.92	2
172	6/10/2022	784	45.6	75	317	2.6	44.6	35.8	9.43	8.86	2
173	6/10/2022	843	48.8	75	317	2.6	44.7	35.7	9.47	8.86	2
174	6/10/2022	844	49.8	75	317	2.6	44.9	36.2	9.43	8.75	2
175	6/10/2022	882	43.9	74	317	2.6	44.4	35.6	9.57	8.88	2
176	6/10/2022	810	52.5	74	317	2.6	44.6	35.5	9.55	8.92	2
177	6/10/2022	815	55.0	74	317	2.6	44.8	35.6	9.55	8.89	2
178	6/10/2022	783	46.0	75	316	2.8	44.8	36.2	9.42	8.72	2
179	6/10/2022	852	53.3	75	316	2.8	45.1	35.8	9.37	8.82	2
180	6/10/2022	852	52.1	75	316	2.8	44.9	35.5	9.46	8.89	2
181	6/10/2022	854	53.3	75	315	2.9	45.1	35.8	9.35	8.80	2
182	6/10/2022	730	47.4	77	335	3	45.6	37	9.52	9.04	2
183	6/10/2022	851	52.1	75	315	3.0	44.9	35.6	9.45	8.85	2
184	6/10/2022	910	50.2	74	335	3.0	45.6	35.9	9.82	9.34	2
185	6/14/2022	1,002	53.1	74	315	3.1	45.4	35.7	9.34	8.83	2
186	6/14/2022	778	46.3	75	315	3.2	44.7	35.9	9.45	8.76	2
187	6/14/2022	851	52.7	75	315	3.2	45.0	36.2	9.35	8.70	2
188	6/14/2022	854	52.1	74	315	3.2	44.9	35.8	9.39	8.79	2
189	6/14/2022	773	39.9	77	335	3.2	45.6	37.0	9.58	9.06	2
190	6/14/2022	936	54.5	73	314	3.3	44.6	35.2	9.59	8.92	2
191	6/14/2022	768	39.3	77	336	3.3	45.8	37.7	9.55	8.90	2
192	6/14/2022	842	45.2	75	314	3.4	44.2	35.0	9.49	8.98	2
193	6/14/2022	945	53.3	73	314	3.4	44.4	35.4	9.63	8.88	2
194	6/14/2022	900	49.0	75	336	3.4	45.7	35.9	9.84	9.35	2
195	6/14/2022	751	49.8	77	337	3.5	45.1	37.7	9.57	8.93	2
196	6/14/2022	1,171	43.1	74	313	3.6	44.4	34.9	9.29	8.98	2
197	6/14/2022	795	38.2	77	337	3.6	45.9	37.5	9.55	8.97	2
198	6/14/2022	994	51.2	74	313	3.7	45.1	35.6	9.36	8.79	2
199	6/14/2022	953	48.3	74	313	3.8	44.6	35.3	9.44	8.86	2
200	6/15/2022	879	46.8	74	312	3.9	43.5	34.4	9.69	9.08	2
201	6/15/2022	956	49.4	74	312	4.1	44.7	35.3	9.42	8.84	2
202	6/15/2022	883	48.3	74	312	4.1	43.7	35.0	9.66	8.92	2
203	6/15/2022	888	48.8	74	311	4.2	43.8	35.0	9.64	8.91	2
204	6/15/2022	810	49.3	75	339	4.2	45.6	36.4	9.86	9.30	2
205	6/15/2022	960	46.5	74	311	4.3	44.4	35.6	9.45	8.74	2
206	6/15/2022	1,008	52.3	74	311	4.4	45	35.6	9.32	8.73	2
207	6/15/2022	1,141	43.5	75	311	4.4	44.6	35.2	9.33	8.83	2
208	6/18/2022	802	52.5	75	310	4.5	45.2	36.4	9.10	8.53	2
209	6/18/2022	1,097	45.3	74	310	4.6	44.3	35.5	9.45	8.73	2
	/2022	818	49.7	74	310	4.6	43.9	34.8	9.51	8.92	2
	/2022	816	48.3	74	310	4.7	43.7	34.6	9.53	8.95	2
	/2022	969	56.3	73	309	4.8	44.7	35.0	9.45	8.84	2
	/2022	961	54.9	73	309	4.9	44.5	35.2	9.50	8.77	2



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
214	6/18/2022	792	37.9	77	341	4.9	46.5	37.9	9.53	9.01	2
215	6/18/2022	1,072	44.4	75	309	5	44.2	35.3	9.35	8.73	2
216	6/18/2022	1,101	50.5	74	308	5.1	44.7	34.6	9.4	8.91	2
217	6/18/2022	915	53.0	74	308	5.1	44.5	35.3	9.40	8.74	2
218	6/18/2022	802	51.3	75	308	5.2	45.0	36.1	9.11	8.54	2
219	6/18/2022	965	55.7	73	308	5.2	44.5	34.9	9.47	8.83	2
220	6/18/2022	1,017	56.1	73	308	5.3	44.6	35	9.48	8.8	2
221	6/18/2022	1,020	55.7	73	308	5.3	44.6	35.4	9.47	8.69	2
222	6/18/2022	896	52.2	74	308	5.3	44.2	34.7	9.37	8.87	2
223	6/18/2022	818	45.2	75	308	5.3	43.8	34.8	9.39	8.86	2
224	6/18/2022	820	49.4	74	307	5.4	44.1	34.9	9.43	8.80	2
225	6/18/2022	838	43.5	74	307	5.5	43.6	35.2	9.40	8.73	2
226	6/18/2022	900	52.1	74	307	5.6	44.2	34.8	9.38	8.81	2
227	6/18/2022	806	45.8	74	306	5.7	43.5	34.9	9.48	8.79	2
228	6/18/2022	810	47.3	74	306	5.7	43.8	34.4	9.44	8.91	2
229	6/18/2022	1,021	55.6	73	306	5.8	44.6	35	9.49	8.75	2
230	6/18/2022	1,011	56.0	73	306	5.8	44.9	35.5	9.34	8.63	2
231	6/18/2022	1,016	55.9	73	306	5.8	44.8	35	9.35	8.73	2
232	6/18/2022	1,018	55.4	73	306	6	44.7	35	9.34	8.72	2
233	6/18/2022	921	50.6	74	306	6.0	44.1	34.5	9.44	8.85	2
234	6/18/2022	819	45.0	74	305	6.0	43.2	34.4	9.56	8.88	2
235	6/18/2022	804	49.5	77	306	6.0	43.7	35.8	8.99	8.54	2
236	6/18/2022	802	49.4	74	345	6.3	45.5	38.2	9.55	9.04	2
237	6/18/2022	895	48.3	74	305	6.3	43.6	34.9	9.42	8.73	2
238	6/18/2022	918	47.7	74	304	6.4	43.7	34.6	9.44	8.79	2
239	6/18/2022	1,016	53.0	74	303	6.9	44.2	34.4	9.29	8.79	2
240	6/18/2022	1,013	51.8	73	302	7.1	44	34.3	9.34	8.8	2
241	6/18/2022	1,016	53.1	74	302	7.2	44.2	33.6	9.33	8.98	2
242	6/18/2022	1,014	53.2	73	302	7.2	44.2	34.2	9.31	8.82	2
243	6/18/2022	1,014	50.2	73	300	7.7	43.8	35.1	9.3	8.55	2
244	6/18/2022	1,006	48.9	74	299	7.9	43.6	33.9	9.34	8.82	2
245	6/18/2022	800	49.7	75	299	8.0	44.7	36.1	8.82	8.29	2
246	6/18/2022	807	51.5	75	299	8.0	45.0	35.8	8.81	8.35	2
247	6/21/2022	820	51.1	75	297	8.7	44.2	35.5	8.85	8.35	2
248	6/21/2022	858	0.0	74	288	11.4	40.3	32.2	9.59	8.93	2
249	6/21/2022	828	0.0	75	287	11.6	40.3	31.1	9.58	9.22	2
250	6/21/2022	857	0.0	74	287	11.8	40.3	31.7	9.57	9.05	2
251	6/21/2022	820	47.4	68	286	12.1	44.7	39	9.46	7.33	2
252	6/21/2022	780	45.2	68	285	12.4	44.4	38.7	9.49	7.36	2
253	6/21/2022	901	0.0	74	285	12.4	40.4	31.7	9.48	8.98	2
	/2022	783	44.3	68	284	12.6	44.3	38.6	9.49	7.36	2
	/2022	912	0.0	74	281	13.5	40.3	32.0	9.47	8.77	2
	/2022	916	0.0	74	281	13.5	40.3	31.6	9.49	8.89	2
	/2022	807	52.7	76	277	14.9	44.9	36.0	8.19	7.68	2



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Imp (A)	Remarks
258	6/21/2022	816	53.1	75	276	15.2	44.9	35.8	8.15	7.71	2
259	6/21/2022	839	53.4	75	275	15.4	44.9	35.6	8.15	7.72	2
260	6/21/2022	803	0.0	75	263	19.0	40.8	32.8	8.56	8.02	2
261	6/21/2022	816	0.0	75	263	19.1	40.8	32.9	8.57	7.99	2
262	6/21/2022	807	0.0	75	263	19.1	40.7	33.3	8.54	7.90	2
263	6/21/2022	958	57.4	73	318	2.2	45.2	35.6	9.56	8.94	3
264	6/21/2022	1096	47.1	74	318	2.3	44.9	35.5	9.53	8.95	3
265	6/21/2022	966	52.5	74	317	2.4	44.5	34.8	9.66	9.12	3
266	6/21/2022	1039	46.6	74	317	2.4	44.4	35.1	9.61	9.03	3
267	6/21/2022	978	50.4	73	317	2.5	44.5	35.1	9.64	9.02	3
268	6/21/2022	935	51	74	316	2.6	44.8	35.4	9.57	8.94	3
269	6/21/2022	953	53.4	74	316	2.7	45	35.3	9.5	8.95	3
270	6/21/2022	946	50.5	74	316	2.9	44.7	35.2	9.56	8.95	3
271	6/21/2022	1018	53.3	74	315	3.1	44.7	35.9	9.52	8.77	3
272	6/21/2022	942	55.6	74	315	3.2	44.9	34.9	9.59	9.02	3
273	6/21/2022	943	50.7	75	315	3.2	44.8	35.3	9.45	8.91	3
274	6/21/2022	938	53.3	74	314	3.3	45	36	9.43	8.74	3
275	6/21/2022	939	57.6	74	314	3.3	45.3	35.7	9.43	8.81	3
276	6/21/2022	954	54.9	74	314	3.4	44.9	35.8	9.5	8.77	3
277	6/21/2022	966	55.3	73	314	3.4	44.7	35.1	9.5	8.94	3
278	6/21/2022	976	53.4	72	314	3.4	44.5	34.6	9.66	9.08	3
279	6/21/2022	1134	49.4	73	314	3.4	44.4	34.8	9.64	9.02	3
280	6/21/2022	940	55	74	314	3.5	44.7	35.4	9.5	8.85	3
281	6/21/2022	963	51.7	73	314	3.5	44.2	34.6	9.71	9.08	3
282	6/21/2022	1015	53.8	74	313	3.5	44.7	35.1	9.47	8.94	3
283	6/21/2022	1032	60.8	73	314	3.5	45.3	35.2	9.48	8.91	3
284	6/21/2022	939	53.9	74	313	3.6	44.8	35.3	9.46	8.86	3
285	6/21/2022	976	55.1	73	313	3.6	44.6	35.3	9.58	8.87	3
286	6/21/2022	938	56.1	74	313	3.7	45.1	35.3	9.37	8.85	3
287	6/21/2022	939	50.6	74	313	3.7	44.6	34.4	9.53	9.11	3
288	6/21/2022	962	55.4	73	313	3.7	44.6	35.1	9.57	8.91	3
289	6/21/2022	989	54	73	313	3.7	44.3	34.8	9.65	9	3
290	6/21/2022	1036	62.2	73	313	3.7	44.8	34.6	9.55	9.04	3
291	6/21/2022	936	57.8	74	313	3.8	45	35.6	9.4	8.78	3
292	6/21/2022	939	48.4	74	313	3.8	43.9	34.8	9.67	8.98	3
293	6/21/2022	964	62.7	73	313	3.8	45.5	35.5	9.45	8.82	3
294	6/21/2022	970	56	73	313	3.8	44.8	35.6	9.5	8.78	3
295	6/21/2022	994	52.8	73	313	3.8	44.5	35	9.52	8.94	3
296	8/25/2022	1026	53.5	73	313	3.8	44.3	34.5	9.63	9.06	3
297	8/25/2022	961	57.4	73	312	3.9	45.1	35.9	9.4	8.71	3
	/2022	961	62	73	312	3.9	45.3	35.7	9.42	8.74	3
	/2022	982	52.8	74	312	3.9	44.4	34.7	9.53	8.99	3
	/2022	940	54.3	74	312	4	44.4	35.1	9.52	8.9	3
	/2022	945	55.7	74	312	4	45.1	35.3	9.41	8.83	3



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
302	8/25/2022	949	59.4	73	312	4	44.9	35.1	9.55	8.89	3
303	8/25/2022	980	58.2	73	312	4	45.1	35.6	9.47	8.77	3
304	8/25/2022	969	54.1	73	312	4.1	44.4	35.1	9.58	8.88	3
305	8/25/2022	1028	55.6	73	312	4.1	44.8	34.9	9.52	8.93	3
306	8/25/2022	949	55.9	74	311	4.3	44.8	35.2	9.42	8.84	3
307	8/25/2022	960	53.4	73	311	4.3	44.4	34.7	9.55	8.97	3
308	9/3/2022	1008	50.4	74	311	4.3	44.2	34.5	9.54	9.01	3
309	9/3/2022	945	56.7	74	311	4.4	44.9	35.2	9.43	8.82	3
310	9/3/2022	963	61.2	73	311	4.4	45.3	34.4	9.47	9.04	3
311	9/3/2022	962	60	73	311	4.5	45.1	35.5	9.43	8.76	3
312	9/3/2022	996	58.7	73	310	4.5	44.8	35.4	9.47	8.77	3
313	9/3/2022	973	55.9	74	310	4.6	44.2	34.8	9.54	8.91	3
314	9/3/2022	990	57.1	73	310	4.6	44.7	35.4	9.48	8.75	3
315	9/3/2022	991	53.8	74	310	4.6	44.3	35	9.54	8.86	3
316	9/3/2022	937	54.7	74	310	4.7	44.8	35.7	9.36	8.69	3
317	9/3/2022	1062	61.8	73	310	4.7	44.6	34.5	9.48	8.99	3
318	9/3/2022	942	53.9	74	310	4.8	44.9	35.3	9.33	8.77	3
319	9/3/2022	949	48.9	74	309	4.8	43.8	34.3	9.57	9.01	3
320	9/3/2022	964	58.1	73	309	4.8	44.8	35.5	9.39	8.71	3
321	9/3/2022	1013	51.2	73	309	4.8	44.2	34.5	9.54	8.97	3
322	9/3/2022	1158	59.7	73	309	4.8	44.9	34.7	9.49	8.92	3
323	9/3/2022	957	59.3	73	309	4.9	45	35.2	9.39	8.78	3
324	9/7/2022	938	58.9	73	309	5	44.7	35	9.46	8.83	3
325	9/7/2022	1072	61.4	73	309	5	44.7	34.4	9.47	8.97	3
326	9/7/2022	967	60.9	72	308	5.1	44.8	34.8	9.56	8.86	3
327	9/7/2022	996	54.1	73	309	5.1	44.4	34.9	9.53	8.85	3
328	9/7/2022	1169	59.1	73	309	5.1	44.6	34.9	9.44	8.84	3
329	9/7/2022	956	59.6	73	308	5.2	44.7	35.2	9.42	8.74	3
330	9/7/2022	957	58.8	73	308	5.2	45	35.8	9.41	8.62	3
331	9/7/2022	1010	58.5	73	308	5.2	44.7	35.1	9.47	8.78	3
332	9/7/2022	1024	49.9	73	308	5.2	43.8	34	9.63	9.05	3
333	9/7/2022	1049	59	73	308	5.2	44.5	34.5	9.49	8.93	3
334	9/7/2022	1008	59.9	73	308	5.3	44.9	35.2	9.45	8.74	3
335	9/7/2022	1092	54.6	73	308	5.3	44.6	34.7	9.36	8.87	3
336	9/7/2022	1067	60.8	72	307	5.4	44.7	34.7	9.47	8.85	3
337	9/7/2022	937	59.3	72	307	5.5	44.5	34.9	9.5	8.79	3
338	9/7/2022	977	59.2	73	307	5.5	44.3	35	9.5	8.77	3
339	9/7/2022	1005	56.3	73	307	5.5	44.1	34.1	9.62	9	3
340	9/7/2022	1057	55.7	73	307	5.5	44.3	34.7	9.49	8.85	3
341	9/7/2022	1135	52.3	73	307	5.5	44	34.2	9.57	8.98	3
	/2022	972	58.9	73	307	5.6	44.9	34.8	9.34	8.81	3
	/2022	1011	57.8	73	307	5.6	44.6	35	9.41	8.77	3
	/2022	937	58.6	73	306	5.7	44.4	35	9.47	8.75	3
	/2022	1004	50	73	306	5.7	43.8	34.2	9.6	8.95	3



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
346	9/10/2022	1007	56.9	72	307	5.7	44.4	34.2	9.54	8.96	3
347	9/10/2022	1134	55.8	73	306	5.7	44	34	9.59	9.02	3
348	9/10/2022	964	60.1	72	306	5.8	44.5	34.8	9.51	8.8	3
349	9/10/2022	1010	58.5	72	306	5.8	44.5	34.9	9.5	8.78	3
350	9/10/2022	1032	62.4	72	306	5.9	44.5	34.8	9.46	8.78	3
351	9/10/2022	1018	62.8	72	305	6.2	44.4	34.6	9.53	8.81	3
352	9/10/2022	1094	56.7	73	303	6.7	44.2	34.2	9.39	8.88	3
353	9/10/2022	1090	52.3	72	302	7	43.9	34.1	9.54	8.87	3
354	9/10/2022	1125	58.4	72	302	7.2	44.1	34	9.45	8.87	3
355	9/10/2022	1096	53.5	73	300	7.7	43.7	34.3	9.48	8.75	3
356	9/10/2022	1169	58.4	71	297	8.6	44.2	33.9	9.47	8.75	3
357	9/10/2022	1074	62.8	72	297	8.7	44	34.5	9.45	8.59	3
358	9/10/2022	729	48.2	73	233	28.5	33.2	25.7	9.63	9.04	4
359	9/10/2022	741	49.4	73	231	28.9	33.1	25.7	9.63	8.99	4
360	9/10/2022	749	49.0	72	230	29.1	33.1	25.6	9.58	8.98	4
361	9/10/2022	1,029	44.6	73	230	29.3	33.3	25.6	9.44	8.96	4
362	9/10/2022	792	37.3	75	229	29.6	32.7	24.9	9.75	9.18	4
363	10/15/2022	785	51.0	73	229	29.6	32.9	25.7	9.62	8.91	4
364	10/15/2022	791	39.8	70	226	30.5	33.0	26.0	9.42	8.68	4
365	10/15/2022	1,041	42.6	73	225	30.6	32.6	25.3	9.40	8.90	4
366	10/15/2022	1,045	43.2	73	222	31.6	32.3	24.9	9.44	8.94	4
367	10/15/2022	762	49.4	71	221	32.1	32.4	24.7	9.52	8.94	4
368	10/15/2022	728	45.5	72	220	32.4	32.0	24.8	9.51	8.86	4
369	10/15/2022	1,047	42.8	73	219	32.5	32.0	24.5	9.45	8.96	4
370	10/15/2022	778	49.6	70	219	32.6	32.4	24.6	9.58	8.91	4
371	10/15/2022	724	45.9	72	219	32.6	32.0	24.5	9.52	8.93	4
372	10/15/2022	1,043	43.2	72	219	32.7	31.9	24.3	9.46	9.02	4
373	10/15/2022	910	47.6	68	218	32.9	31.5	24.7	9.49	8.84	4
374	10/15/2022	727	46.0	72	218	33.0	31.9	24.2	9.55	9.01	4
375	10/15/2022	773	47.2	68	217	33.2	32.0	25.3	9.51	8.57	4
376	10/15/2022	761	47.5	71	216	33.4	31.9	24.6	9.49	8.78	4
377	10/15/2022	898	50.0	70	214	34.0	31.6	24.0	9.66	8.95	4
378	10/15/2022	887	48.7	70	213	34.4	31.4	24.2	9.66	8.81	4
379	10/15/2022	890	49.4	70	213	34.4	31.5	23.8	9.65	8.94	4
380	10/18/2022	914	46.0	64	213	34.4	35.0	24.3	9.46	8.75	4
381	10/18/2022	948	48.1	72	211	35.1	30.2	23.4	9.63	9.02	4
382	10/18/2022	956	50.1	72	211	35.1	30.4	23.4	9.60	9.01	4
383	10/18/2022	946	47.8	73	210	35.3	30.1	23.3	9.62	9.02	4
384	10/18/2022	980	51.1	72	207	36.3	30.1	23.2	9.46	8.92	4
385	10/18/2022	984	52.4	72	207	36.3	30.2	23.3	9.45	8.87	4
	10/2022	983	52.9	72	207	36.3	30.3	23.5	9.50	8.82	4
	10/2022	997	54.9	72	206	36.6	30.4	23.6	9.43	8.71	4
	10/2022	996	54.9	72	206	36.7	30.4	23.6	9.42	8.73	4
	10/2022	989	54.1	72	205	37.1	30.3	23.4	9.43	8.74	4



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
390	10/18/2022	904	48.4	61	201	38.3	34.5	22.8	9.48	8.79	4
391	10/18/2022	1,020	42.1	64	118	65.9	19.5	13.3	9.44	8.84	4
392	10/18/2022	761	38.7	59	117	66.1	20.8	13.1	9.55	8.94	4
393	10/18/2022	771	46.1	64	117	66.3	19.2	13.2	9.55	8.90	4
394	10/18/2022	758	45.5	63	115	67.0	19.0	13.0	9.30	8.85	4
395	10/18/2022	1,033	42.0	64	115	67.0	18.9	13.1	9.46	8.78	4
396	10/18/2022	1,045	42.5	65	114	67.1	18.7	13.0	9.54	8.79	4
397	10/18/2022	751	39.7	61	114	67.6	19.7	12.6	9.55	9.09	4
398	10/22/2022	769	38.8	59	113	67.4	20.1	12.7	9.41	8.92	4
399	10/22/2022	840	42.3	64	114	67.3	18.5	12.6	9.66	9.01	4
400	10/22/2022	980	38.4	62	113	67.4	18.4	12.8	9.52	8.86	4
401	10/22/2022	773	39.8	60	112	67.9	19.9	12.6	9.51	8.90	4
402	10/22/2022	892	36.9	63	113	67.5	18.4	12.6	9.71	8.97	4
403	10/22/2022	1,051	43.1	65	112	67.8	18.3	12.8	9.50	8.76	4
404	10/22/2022	1,046	44.0	65	112	68.0	18.2	12.4	9.52	9.06	4
405	10/22/2022	797	40.5	60	112	67.7	19.5	12.3	9.51	9.04	4
406	10/22/2022	1,020	42.1	64	118	63.8	24.5	13.3	9.44	8.84	4
407	10/22/2022	761	38.7	59	117	63.9	22.8	13.1	9.55	8.94	4
408	10/22/2022	771	46.1	64	117	64.0	22.2	13.2	9.55	8.90	4
409	10/22/2022	758	45.5	63	115	64.5	25.0	13.0	9.30	8.85	4
410	11/4/2022	1,033	42.0	64	115	64.6	23.9	13.1	9.46	8.78	4
411	11/4/2022	1,045	42.5	65	114	64.8	21.7	13.0	9.54	8.79	4
412	11/4/2022	751	39.7	61	114	64.9	24.7	12.6	9.55	9.09	4
413	11/4/2022	769	38.8	59	113	65.1	22.1	12.7	9.41	8.92	4
414	11/4/2022	840	42.3	64	114	65.1	21.5	12.6	9.66	9.01	4
415	11/4/2022	980	38.4	62	113	65.2	22.4	12.8	9.52	8.86	4
416	11/4/2022	773	39.8	60	112	65.4	23.9	12.6	9.51	8.90	4
417	11/4/2022	892	36.9	63	113	65.4	19.4	12.6	9.71	8.97	4
418	11/4/2022	1,051	43.1	65	112	65.5	21.3	12.8	9.50	8.76	4
419	11/4/2022	1,046	44.0	65	112	65.6	23.2	12.4	9.52	9.06	4
420	11/4/2022	797	40.5	60	112	65.7	21.5	12.3	9.51	9.04	4



Lampiran 2 Data Uji

Tabel 14 Data pengujian algoritma

No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
1	4/25/2022	899	51.8	61	252	24.4	44.3	39.4	9.37	6.42	1
2	4/25/2022	867	43.7	59	249	25.7	43.6	39.0	9.60	6.38	1
3	4/25/2022	792	48.2	60	225	33.2	35.8	25	9.59	9	1
4	4/25/2022	906	51.1	73	224	33.3	30.6	23.8	10.09	9.40	1
5	4/25/2022	869	51.9	72	224	33.0	30.6	24.3	10.07	9.22	1
6	4/25/2022	988	50.7	72	221	33.8	30.4	23.5	10.10	9.42	1
7	4/25/2022	1,048	44.0	53	212	36.4	36.4	24.4	9.47	8.69	1
8	4/25/2022	828	48.5	74	212	37.0	30.5	24.2	9.42	8.74	1
9	4/25/2022	952	47.4	58	212	37.0	36.5	22.9	9.97	9.24	1
10	4/25/2022	784	49.7	51	211	36.7	43.1	23.6	9.7	8.96	1
11	4/25/2022	808	51.4	73	211	37.0	30.2	23.7	9.50	8.90	1
12	4/25/2022	807	49.7	73	211	37.1	29.8	23.5	9.74	8.96	1
13	4/25/2022	814	50.9	72	210	37.3	29.9	23.5	9.76	8.97	1
14	5/11/2022	801	50.5	52	203	40.0	41.3	22.6	9.53	8.97	1
15	5/11/2022	873	48.1	50	202	40.2	42.7	23	9.45	8.81	1
16	5/11/2022	1,049	42.7	63	202	40.0	33.9	22.6	9.53	8.93	1
17	5/11/2022	874	48.1	50	201	39.9	42.7	22.6	9.5	8.9	1
18	5/11/2022	878	49.7	49	201	40	42.9	23.1	9.43	8.69	1
19	5/11/2022	981	53.1	54	201	39.7	39.2	22.9	9.57	8.79	1
20	5/11/2022	802	53.8	73	201	40.3	30.5	24.1	9.08	8.33	1
21	5/11/2022	840	42.3	64	114	67.2	18.5	12.6	9.66	9.01	1
22	5/11/2022	980	38.4	62	113	66.9	18.4	12.8	9.52	8.86	1
23	5/11/2022	773	39.8	60	112	67.2	19.9	12.6	9.51	8.90	1
24	6/17/2022	892	36.9	63	113	67.3	18.4	12.6	9.71	8.97	1
25	6/17/2022	1,051	43.1	65	112	67.6	18.3	12.8	9.50	8.76	1
26	6/17/2022	783	46.0	75	316	5.1	44.8	36.2	9.42	8.72	2
27	6/17/2022	852	52.1	75	316	5.2	44.9	35.5	9.46	8.89	2
28	6/17/2022	854	53.3	75	315	5.1	45.1	35.8	9.35	8.80	2
29	6/17/2022	730	47.4	77	335	4.8	45.6	37	9.52	9.04	2
30	6/17/2022	851	52.1	75	315	4.9	44.9	35.6	9.45	8.85	2
31	6/17/2022	910	50.2	74	335	4.6	45.6	35.9	9.82	9.34	2
32	6/17/2022	1,002	53.1	74	315	5.3	45.4	35.7	9.34	8.83	2
33	6/24/2022	852	52.1	75	316	4.9	44.9	35.5	9.46	8.89	2
34	6/24/2022	854	53.3	75	315	4.6	45.1	35.8	9.35	8.80	2
35	6/24/2022	730	47.4	77	335	4.8	45.6	37	9.52	9.04	2
36	6/24/2022	851	52.1	75	315	4.9	44.9	35.6	9.45	8.85	2
37	6/24/2022	783	46.0	75	316	4.9	44.8	36.2	9.42	8.72	2
	2022	852	53.3	75	316	5.1	45.1	35.8	9.37	8.82	2
	2022	854	53.3	75	315	5.3	45.1	35.8	9.35	8.80	2
	2022	730	47.4	77	335	5.2	45.6	37	9.52	9.04	2
	2022	910	50.2	74	335	4.8	45.6	35.9	9.82	9.34	2



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
42	7/3/2022	1,002	53.1	74	315	5	45.4	35.7	9.34	8.83	2
43	7/3/2022	778	46.3	75	315	4.8	44.7	35.9	9.45	8.76	2
44	7/3/2022	1,013	51.8	73	302	9.3	44	34.3	9.34	8.8	2
45	7/3/2022	800	49.7	75	299	10.1	44.7	36.1	8.82	8.29	2
46	7/3/2022	828	0.0	75	287	13.3	40.3	31.1	9.58	9.22	2
47	7/3/2022	901	0.0	74	285	14.2	40.4	31.7	9.48	8.98	2
48	7/3/2022	916	0.0	74	281	15.4	40.3	31.6	9.49	8.89	2
49	7/3/2022	839	53.4	75	275	17.5	44.9	35.6	8.15	7.72	2
50	7/3/2022	816	0.0	75	263	21.4	40.8	32.9	8.57	7.99	2
51	7/3/2022	1049	59	73	308	7.6	44.5	34.5	9.49	8.93	3
52	7/10/2022	1008	59.9	73	308	7.5	44.9	35.2	9.45	8.74	3
53	7/10/2022	1092	54.6	73	308	7.1	44.6	34.7	9.36	8.87	3
54	7/10/2022	1067	60.8	72	307	7.3	44.7	34.7	9.47	8.85	3
55	7/10/2022	937	59.3	72	307	7.1	44.5	34.9	9.5	8.79	3
56	7/10/2022	977	59.2	73	307	7.7	44.3	35	9.5	8.77	3
57	7/10/2022	1005	56.3	73	307	7.6	44.1	34.1	9.62	9	3
58	7/10/2022	1057	55.7	73	307	7.2	44.3	34.7	9.49	8.85	3
59	7/10/2022	1135	52.3	73	307	7.3	44	34.2	9.57	8.98	3
60	7/10/2022	972	58.9	73	307	7.5	44.9	34.8	9.34	8.81	3
61	7/10/2022	1011	57.8	73	307	7.7	44.6	35	9.41	8.77	3
62	7/10/2022	937	58.6	73	306	8	44.4	35	9.47	8.75	3
63	7/10/2022	1004	50	73	306	8.1	43.8	34.2	9.6	8.95	3
64	7/10/2022	1007	56.9	72	307	7.9	44.4	34.2	9.54	8.96	3
65	7/27/2022	1134	55.8	73	306	7.5	44	34	9.59	9.02	3
66	7/27/2022	964	60.1	72	306	7.7	44.5	34.8	9.51	8.8	3
67	7/27/2022	1010	58.5	72	306	7.4	44.5	34.9	9.5	8.78	3
68	7/27/2022	1032	62.4	72	306	8.1	44.5	34.8	9.46	8.78	3
69	7/27/2022	1018	62.8	72	305	8.3	44.4	34.6	9.53	8.81	3
70	7/27/2022	1094	56.7	73	303	8.4	44.2	34.2	9.39	8.88	3
71	7/27/2022	1090	52.3	72	302	8.8	43.9	34.1	9.54	8.87	3
72	7/27/2022	1125	58.4	72	302	9.1	44.1	34	9.45	8.87	3
73	7/27/2022	1096	53.5	73	300	9.8	43.7	34.3	9.48	8.75	3
74	7/27/2022	1169	58.4	71	297	10.9	44.2	33.9	9.47	8.75	3
75	7/27/2022	1074	62.8	72	297	11.1	44	34.5	9.45	8.59	3
76	8/2/2022	749	49.0	72	230	31.3	33.1	25.6	9.58	8.98	4
77	8/2/2022	1,029	44.6	73	230	31.1	33.3	25.6	9.44	8.96	4
78	8/2/2022	792	37.3	75	229	31.5	32.7	24.9	9.75	9.18	4
79	8/2/2022	785	51.0	73	229	31.2	32.9	25.7	9.62	8.91	4
80	8/2/2022	791	39.8	70	226	32.7	33.0	26.0	9.42	8.68	4
81	8/2/2022	1,045	43.2	73	222	33.7	32.3	24.9	9.44	8.94	4
	2022	762	49.4	71	221	33.8	32.4	24.7	9.52	8.94	4
	2022	728	45.5	72	220	34.2	32.0	24.8	9.51	8.86	4
	2022	914	46.0	64	213	36.3	35.0	24.3	9.46	8.75	4
	2022	948	48.1	72	211	37.2	30.2	23.4	9.63	9.02	4



No.	Date	Irr (W/m ²)	Tpv (°C)	FF	Pmpp (Wp)	Deg (%)	Voc (V)	Vmpp (V)	Isc (A)	Impp (A)	Remarks
86	8/23/2022	956	50.1	72	211	37.4	30.4	23.4	9.60	9.01	4
87	8/23/2022	946	47.8	73	210	37.7	30.1	23.3	9.62	9.02	4
88	8/23/2022	984	52.4	72	207	38.5	30.2	23.3	9.45	8.87	4
89	8/23/2022	983	52.9	72	207	38.1	30.3	23.5	9.50	8.82	4
90	8/23/2022	997	54.9	72	206	38.5	30.4	23.6	9.43	8.71	4
91	8/23/2022	773	39.8	60	112	69.5	19.9	12.6	9.51	8.90	4
92	9/7/2022	1,051	43.1	65	112	70.0	18.3	12.8	9.50	8.76	4
93	9/7/2022	1,046	44.0	65	112	70.1	18.2	12.4	9.52	9.06	4
94	9/7/2022	797	40.5	60	112	69.4	19.5	12.3	9.51	9.04	4
95	9/7/2022	1,020	42.1	64	118	65.6	24.5	13.3	9.44	8.84	4
96	9/7/2022	761	38.7	59	117	65.8	22.8	13.1	9.55	8.94	4
97	9/7/2022	771	46.1	64	117	66.1	22.2	13.2	9.55	8.90	4
98	9/7/2022	773	39.8	60	112	67.7	23.9	12.6	9.51	8.90	4
99	9/7/2022	892	36.9	63	113	67.8	19.4	12.6	9.71	8.97	4
100	9/7/2022	1,046	44.0	65	112	67.8	23.2	12.4	9.52	9.06	4



Lampiran 3 Algoritma SVM-NB

```

clc;

% Step 1: Load training dataset from an Excel file
trainData = xlsread('Data_Train.xlsx');
XTrain = trainData(:, 1:9); % Input features for training
YTrain = trainData(:, 10); % Target labels for training

% Step 2: Load testing dataset from an Excel file
testData = xlsread('Data_Test.xlsx');
XTest = testData(:, 1:9); % Input features for testing
YTest = testData(:, 10); % Target labels for testing

% Step 3: Train the multi-classification SVM model
svmModel = fitcecoc(XTrain, YTrain, 'Learners',
templateSVM('Standardize', true, 'KernelFunction',
'polynomial', 'PolynomialOrder', 4));

% Step 4: Predict labels for the test set using SVM
YPredSVM = predict(svmModel, XTest);

% Step 5: Train the multi-classification Naive Bayes model
nbModel = fitcnb(XTrain, YTrain, 'DistributionNames',
{'kernel', 'kernel', 'kernel', 'kernel', 'kernel', 'kernel',
'kernel', 'kernel', 'kernel'});

% Step 6: Predict labels for the training set using SVM
YTrainPredSVM = predict(svmModel, XTrain);

% Step 7: Predict labels for the training set using Naive
Bayes
YTrainPredNB = predict(nbModel, XTrain);

% Step 8: Predict labels for the training set using the
mixed ensemble model
ensemblePredTrain = mode([YTrainPredSVM, YTrainPredNB], 2);

% Step 9: Predict labels for the test set using Naive Bayes
YPredNB = predict(nbModel, XTest);

% Step 10: Combine SVM and Naive Bayes predictions using
voting
ensemblePred = mode([YPredSVM, YPredNB], 2);

% Step 11: Evaluate the performance of the ensemble model
ensembleAccuracy = sum(ensemblePred == YTest) /
numel(YTest);
fprintf('SVM-NB Accuracy (Test): %.2f%%\n', ensembleAccuracy

% Step 12: Evaluate the performance of the individual models
svmAccuracy = sum(YPredSVM == YTest) / numel(YTest);
nbAccuracy = sum(YPredNB == YTest) / numel(YTest);
fprintf('SVM Accuracy (Test): %.2f%%\n', svmAccuracy * 100);

```



```

fprintf('NB Accuracy (Test): %.2f%%\n', nbAccuracy * 100);

% Step 13: Train accuracy calculation
YTrainPredSVM = predict(svmModel, XTrain);
svmTrainAccuracy = sum(YTrainPredSVM == YTrain) /
numel(YTrain);
fprintf('SVM Accuracy (Train): %.2f%%\n', svmTrainAccuracy *
100);

YTrainPredNB = predict(nbModel, XTrain);
nbTrainAccuracy = sum(YTrainPredNB == YTrain) /
numel(YTrain);
fprintf('NB Accuracy (Train): %.2f%%\n', nbTrainAccuracy *
100);

% Step 14: Calculate the training accuracy for the mixed
ensemble model
ensembleTrainAccuracy = sum(ensemblePredTrain == YTrain) /
numel(YTrain);
fprintf('SVM-NB Accuracy (Train): %.2f%%\n',
ensembleTrainAccuracy * 100);

% Step 15: Calculate precision, recall, and F1-score for the
SVM model
C = confusionmat(YTest, YPredSVM);
classLabels = unique(YTest);
numClasses = numel(classLabels);
precisionSVM = zeros(1, numClasses);
recallSVM = zeros(1, numClasses);
f1ScoreSVM = zeros(1, numClasses);

for i = 1:numClasses
    truePositives = C(i, i);
    falsePositives = sum(C(:, i)) - truePositives;
    falseNegatives = sum(C(i, :)) - truePositives;

    precisionSVM(i) = truePositives / (truePositives +
falsePositives);
    recallSVM(i) = truePositives / (truePositives +
falseNegatives);
    f1ScoreSVM(i) = 2 * (precisionSVM(i) * recallSVM(i)) /
(precisionSVM(i) + recallSVM(i));
end

fprintf('SVM Precision: %.2f%%\n', mean(precisionSVM) *
100);
fprintf('SVM Recall: %.2f%%\n', mean(recallSVM) * 100);
fprintf('SVM F1-Score: %.2f%%\n', mean(f1ScoreSVM) * 100);

```



```

16: Calculate precision, recall, and F1-score for the
1
confusionmat(YTest, YPredNB);
onNB = zeros(1, numClasses);
NB = zeros(1, numClasses);

```

```

f1ScoreNB = zeros(1, numClasses);

for i = 1:numClasses
    truePositives = C(i, i);
    falsePositives = sum(C(:, i)) - truePositives;
    falseNegatives = sum(C(i, :)) - truePositives;

    precisionNB(i) = truePositives / (truePositives +
falsePositives);
    recallNB(i) = truePositives / (truePositives +
falseNegatives);
    f1ScoreNB(i) = 2 * (precisionNB(i) * recallNB(i)) /
(precisionNB(i) + recallNB(i));
end

fprintf('NB Precision: %.2f%%\n', mean(precisionNB) * 100);
fprintf('NB Recall: %.2f%%\n', mean(recallNB) * 100);
fprintf('NB F1-Score: %.2f%%\n', mean(f1ScoreNB) * 100);

% Step 17: Calculate precision, recall, and F1-score for the
SVM-KNN model
C = confusionmat(YTest, ensemblePred);
precisionEnsemble = zeros(1, numClasses);
recallEnsemble = zeros(1, numClasses);
f1ScoreEnsemble = zeros(1, numClasses);

for i = 1:numClasses
    truePositives = C(i, i);
    falsePositives = sum(C(:, i)) - truePositives;
    falseNegatives = sum(C(i, :)) - truePositives;

    precisionEnsemble(i) = truePositives / (truePositives +
falsePositives);
    recallEnsemble(i) = truePositives / (truePositives +
falseNegatives);
    f1ScoreEnsemble(i) = 2 * (precisionEnsemble(i) *
recallEnsemble(i)) / (precisionEnsemble(i) +
recallEnsemble(i));
end

fprintf('SVM-NB Precision: %.2f%%\n',
mean(precisionEnsemble) * 100);
fprintf('SVM-NB Recall: %.2f%%\n', mean(recallEnsemble) *
100);
fprintf('SVM-NB F1-Score: %.2f%%\n', mean(f1ScoreEnsemble) *
100);

% Step 18: Plot the confusion matrix for the SVM model
confusionmat(YTest, YPredSVM);
classes = unique(YTest);

plot(classNames, classNames, C);
Confusion Matrix - SVM Model');
'Predicted Class');

```



```

ylabel('True Class');
colorbar;

% Step 19: Plot the confusion matrix for the NB model
C = confusionmat(YTest, YPredNB);
classNames = unique(YTest);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - NB Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

% Step 20: Plot the confusion matrix for the SVM-NB model
C = confusionmat(YTest, ensemblePred);
classNames = unique(YTest);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - SVM-NB Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

% Step 21: Plot the confusion matrix for the SVM Train model
C = confusionmat(YTrain, YTrainPredSVM);
classNames = unique(YTrain);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - SVM Train Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

% Step 22: Plot the confusion matrix for the NB Train model
C = confusionmat(YTrain, YTrainPredNB);
classNames = unique(YTrain);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - NB Train Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

% Step 23: Plot the confusion matrix for the SVM-NB Train
model
C = confusionmat(YTrain, ensemblePredTrain);
classNames = unique(YTrain);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - SVM-NB Train Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

```



Lampiran 4 Algoritma SVM-KNN

```

clc;

% Step 1: Load training dataset from an Excel file
trainData = xlsread('Data_Train.xlsx');
XTrain = trainData(:, 1:9); % Input features for training
YTrain = trainData(:, 10); % Target labels for training

% Step 2: Load testing dataset from an Excel file
testData = xlsread('Data_Test.xlsx');
XTest = testData(:, 1:9); % Input features for testing
YTest = testData(:, 10); % Target labels for testing

% Step 3: Train the multi-classification SVM model
svmModel = fitcecoc(XTrain, YTrain, 'Learners',
templateSVM('Standardize', true, 'KernelFunction',
'polynomial','PolynomialOrder', 4));

% Step 4: Predict labels for the test set using SVM
YPredSVM = predict(svmModel, XTest);

% Step 5: Train the multi-classification KNN model
knnModel = fitcknn(XTrain, YTrain, 'NumNeighbors', 1);

% Step 6: Predict labels for the training set using SVM
YTrainPredSVM = predict(svmModel, XTrain);

% Step 7: Predict labels for the training set using KNN
YTrainPredKNN = predict(knnModel, XTrain);

% Step 8: Predict labels for the training set using the
mixed ensemble model
ensemblePredTrain = mode([YTrainPredSVM, YTrainPredKNN], 2);

% Step 9: Predict labels for the test set using KNN
YPredKNN = predict(knnModel, XTest);

% Step 10: Combine SVM and KNN predictions using voting
ensemblePred = mode([YPredSVM, YPredKNN], 2);

% Step 11: Evaluate the performance of the ensemble model
ensembleAccuracy = sum(ensemblePred == YTest) /
numel(YTest);
fprintf('SVM-KNN Accuracy (Test): %.2f%%\n',
ensembleAccuracy * 100);

% Step 12: Evaluate the performance of the individual models
svmAccuracy = sum(YPredSVM == YTest) / numel(YTest);
knnAccuracy = sum(YPredKNN == YTest) / numel(YTest);
fprintf('SVM Accuracy (Test): %.2f%%\n', svmAccuracy * 100);
fprintf('KNN Accuracy (Test): %.2f%%\n', knnAccuracy * 100);

% Step 13: Train accuracy calculation
YTrainPredSVM = predict(svmModel, XTrain);

```



```
svmTrainAccuracy = sum(YTrainPredSVM == YTrain) /
numel(YTrain);
fprintf('SVM Accuracy (Train): %.2f%%\n', svmTrainAccuracy *
100);
```

```
YTrainPredKNN = predict(knnModel, XTrain);
knnTrainAccuracy = sum(YTrainPredKNN == YTrain) /
numel(YTrain);
fprintf('KNN Accuracy (Train): %.2f%%\n', knnTrainAccuracy *
100);
```

```
% Step 14: Calculate the training accuracy for the mixed
ensemble model
ensembleTrainAccuracy = sum(ensemblePredTrain == YTrain) /
numel(YTrain);
fprintf('SVM-KNN Accuracy (Train): %.2f%%\n',
ensembleTrainAccuracy * 100);
```

```
% Step 15: Calculate precision, recall, and F1-score for the
SVM model
```

```
C = confusionmat(YTest, YPredSVM);
classLabels = unique(YTest);
numClasses = numel(classLabels);
precisionSVM = zeros(1, numClasses);
recallSVM = zeros(1, numClasses);
f1ScoreSVM = zeros(1, numClasses);
```

```
for i = 1:numClasses
    truePositives = C(i, i);
    falsePositives = sum(C(:, i)) - truePositives;
    falseNegatives = sum(C(i, :)) - truePositives;

    precisionSVM(i) = truePositives / (truePositives +
falsePositives);
    recallSVM(i) = truePositives / (truePositives +
falseNegatives);
    f1ScoreSVM(i) = 2 * (precisionSVM(i) * recallSVM(i)) /
(precisionSVM(i) + recallSVM(i));
end
```

```
fprintf('SVM Precision: %.2f%%\n', mean(precisionSVM) *
100);
fprintf('SVM Recall: %.2f%%\n', mean(recallSVM) * 100);
fprintf('SVM F1-Score: %.2f%%\n', mean(f1ScoreSVM) * 100);
```

```
% Step 16: Calculate precision, recall, and F1-score for the
KNN model
```

```
C = confusionmat(YTest, YPredKNN);
precisionKNN = zeros(1, numClasses);
recallKNN = zeros(1, numClasses);
f1ScoreKNN = zeros(1, numClasses);
```

```
for i = 1:numClasses
    truePositives = C(i, i);
```



```

falsePositives = sum(C(:, i)) - truePositives;
falseNegatives = sum(C(i, :)) - truePositives;

precisionKNN(i) = truePositives / (truePositives +
falsePositives);
recallKNN(i) = truePositives / (truePositives +
falseNegatives);
f1ScoreKNN(i) = 2 * (precisionKNN(i) * recallKNN(i)) /
(precisionKNN(i) + recallKNN(i));
end

fprintf('KNN Precision: %.2f%%\n', mean(precisionKNN) *
100);
fprintf('KNN Recall: %.2f%%\n', mean(recallKNN) * 100);
fprintf('KNN F1-Score: %.2f%%\n', mean(f1ScoreKNN) * 100);

% Step 17: Calculate precision, recall, and F1-score for the
SVM-KNN model
C = confusionmat(YTest, ensemblePred);
precisionEnsemble = zeros(1, numClasses);
recallEnsemble = zeros(1, numClasses);
f1ScoreEnsemble = zeros(1, numClasses);

for i = 1:numClasses
    truePositives = C(i, i);
    falsePositives = sum(C(:, i)) - truePositives;
    falseNegatives = sum(C(i, :)) - truePositives;

    precisionEnsemble(i) = truePositives / (truePositives +
falsePositives);
    recallEnsemble(i) = truePositives / (truePositives +
falseNegatives);
    f1ScoreEnsemble(i) = 2 * (precisionEnsemble(i) *
recallEnsemble(i)) / (precisionEnsemble(i) +
recallEnsemble(i));
end

fprintf('SVM-KNN Precision: %.2f%%\n',
mean(precisionEnsemble) * 100);
fprintf('SVM-KNN Recall: %.2f%%\n', mean(recallEnsemble) *
100);
fprintf('SVM-KNN F1-Score: %.2f%%\n', mean(f1ScoreEnsemble)
* 100);

% Step 18: Plot the confusion matrix for the SVM model
C = confusionmat(YTest, YPredSVM);
classNames = unique(YTest);
figure;
subplot(2,2,1), (classNames, classNames, C);
title('Confusion Matrix - SVM Model');
subplot(2,2,2), title('Predicted Class');
subplot(2,2,3), title('True Class');
subplot(2,2,4), title('');

```



```

% Step 19: Plot the confusion matrix for the KNN model
C = confusionmat(YTest, YPredKNN);
classNames = unique(YTest);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - KNN Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

% Step 20: Plot the confusion matrix for the SVM-KNN model
C = confusionmat(YTest, ensemblePred);
classNames = unique(YTest);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - SVM-KNN Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

% Step 21: Plot the confusion matrix for the SVM Train model
C = confusionmat(YTrain, YTrainPredSVM);
classNames = unique(YTrain);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - SVM Train Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

% Step 22: Plot the confusion matrix for the KNN Train model
C = confusionmat(YTrain, YTrainPredKNN);
classNames = unique(YTrain);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - KNN Train Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

% Step 23: Plot the confusion matrix for the SVM-KNN Train
model
C = confusionmat(YTrain, ensemblePredTrain);
classNames = unique(YTrain);
figure;
heatmap(classNames, classNames, C);
title('Confusion Matrix - SVM-KNN Train Model');
xlabel('Predicted Class');
ylabel('True Class');
colorbar;

```



Lampiran 5 Hasil Klasifikasi Data Latih

Tabel 15 Persentase hasil klasifikasi pada data latih

No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
1	1	1	1	1	1	1	1	1	1	1	1	1	0%
2	1	1	1	1	1	1	1	1	1	1	1	1	0%
3	1	1	1	1	1	1	1	1	1	1	1	1	0%
4	1	1	1	1	1	1	1	1	1	1	1	1	0%
5	1	1	1	1	1	1	1	1	1	1	1	1	0%
6	1	1	1	1	1	1	1	1	1	1	1	1	0%
7	1	1	1	1	1	1	1	1	1	1	4	1	9%
8	1	1	1	1	1	1	1	1	1	1	1	1	0%
9	1	1	1	1	1	1	1	1	1	1	1	1	0%
10	1	1	1	1	1	1	1	1	1	1	1	1	0%
11	1	1	1	1	1	1	1	1	1	1	1	1	0%
12	1	1	1	1	1	1	1	1	1	1	1	1	0%
13	1	1	1	1	1	1	1	1	1	1	1	1	0%
14	1	1	1	1	1	1	1	1	1	1	1	1	0%
15	1	1	1	1	1	1	1	1	1	1	1	1	0%
16	1	1	1	1	1	1	1	1	1	1	1	1	0%
17	1	1	1	1	1	1	1	1	1	1	1	1	0%
18	1	1	1	1	1	1	1	1	1	1	1	1	0%
19	1	1	1	1	1	1	1	1	1	1	1	1	0%
20	1	1	1	1	1	1	1	1	1	1	1	1	0%
21	1	1	1	1	1	1	1	1	1	1	1	1	0%
22	1	1	1	1	1	1	1	1	1	1	1	1	0%
23	1	1	1	1	1	1	1	1	1	1	1	1	0%
24	1	1	1	1	1	1	1	1	1	1	1	1	0%
25	1	1	1	1	1	1	1	1	1	1	1	1	0%
26	1	1	1	1	1	1	1	1	1	1	1	1	0%
27	1	1	1	1	1	1	1	1	1	1	1	1	0%
28	1	1	1	1	1	1	1	1	1	1	1	1	0%
29	1	1	1	1	1	1	1	1	1	1	1	1	0%
30	1	1	1	1	1	1	1	1	1	1	1	1	0%
31	1	1	1	1	1	1	1	1	1	1	1	1	0%
32	1	1	1	1	1	1	1	1	1	1	1	1	0%
33	1	1	1	1	1	1	1	1	1	1	1	1	0%
34	1	1	1	1	1	1	1	1	1	1	1	1	0%
35	1	1	1	1	1	1	1	1	1	1	1	1	0%
36	1	1	1	1	1	1	1	1	1	1	1	1	0%
37	1	1	1	1	1	1	1	1	1	1	1	1	0%
38	1	1	1	1	1	1	1	1	1	1	1	1	0%
39	1	1	1	1	1	1	1	1	1	1	1	1	0%
40	1	1	1	1	1	1	1	1	1	1	1	1	0%



No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
40	1	1	1	1	1	1	1	1	1	1	1	1	0%
41	1	1	1	1	1	1	1	1	1	1	1	1	0%
42	1	1	1	1	1	1	1	1	1	1	1	1	0%
43	1	1	1	1	1	1	1	1	1	1	1	1	0%
44	1	1	1	1	1	1	1	1	1	1	1	1	0%
45	1	1	1	1	1	1	1	1	1	1	1	1	0%
46	1	1	1	1	1	1	1	1	1	1	1	1	0%
47	1	1	1	1	1	1	1	1	1	1	1	1	0%
48	1	1	1	1	1	1	1	1	1	1	1	1	0%
49	1	1	1	1	1	1	1	1	1	1	1	1	0%
50	1	1	1	1	1	1	1	1	1	1	1	1	0%
51	1	1	1	1	1	1	1	1	1	1	1	1	0%
52	1	1	1	1	1	1	1	1	1	1	1	1	0%
53	1	1	1	1	1	1	1	1	1	1	1	1	0%
54	1	1	1	1	1	1	1	1	1	1	1	1	0%
55	1	1	1	1	1	1	1	1	1	1	1	1	0%
56	1	1	1	1	1	1	1	1	1	1	1	1	0%
57	1	1	1	1	1	1	1	1	1	1	1	1	0%
58	1	1	1	1	1	1	1	1	1	1	1	1	0%
59	1	1	1	1	1	1	1	1	1	1	1	1	0%
60	1	1	1	1	1	1	1	1	1	1	1	1	0%
61	1	1	1	1	1	1	1	1	1	1	1	1	0%
62	1	1	1	1	1	1	1	1	1	1	1	1	0%
63	1	1	1	1	1	1	1	1	1	1	1	1	0%
64	1	1	1	1	1	1	1	1	1	1	1	1	0%
65	1	1	1	1	1	1	1	1	1	1	1	1	0%
66	1	1	1	1	1	1	1	1	1	1	1	1	0%
67	1	1	1	1	1	1	1	1	1	1	1	1	0%
68	1	1	1	1	1	1	1	1	1	1	1	1	0%
69	1	1	1	1	1	1	1	1	1	1	1	1	0%
70	1	1	1	1	1	1	1	1	1	1	1	1	0%
71	1	1	1	1	1	1	1	1	1	1	1	1	0%
72	1	1	1	1	1	1	1	1	1	1	1	1	0%
73	1	1	1	1	1	1	1	1	1	1	1	1	0%
74	1	1	1	1	1	1	1	1	1	1	1	1	0%
75	1	1	1	1	1	1	1	1	1	1	1	1	0%
76	1	1	1	1	1	1	1	1	1	1	1	1	0%
77	1	1	1	1	1	1	1	1	1	1	1	1	0%
		1	1	1	1	1	1	1	1	1	1	1	0%
		1	1	1	1	1	1	1	1	1	1	1	0%
		1	1	1	1	1	1	1	1	1	1	1	0%
		1	1	1	1	1	1	1	1	1	1	1	0%



No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
82	1	1	1	1	1	1	1	1	1	1	1	1	0%
83	1	1	1	1	1	1	1	1	1	1	1	1	0%
84	1	1	1	1	1	1	1	1	1	1	1	1	0%
85	1	1	1	1	1	1	1	1	1	1	1	1	0%
86	1	1	1	1	1	1	1	1	1	1	1	1	0%
87	1	1	1	1	1	1	1	1	1	1	1	1	0%
88	1	1	1	1	1	1	1	1	1	1	1	1	0%
89	1	1	1	1	1	1	1	1	1	1	1	1	0%
90	1	1	1	1	1	1	1	1	1	1	1	1	0%
91	1	1	1	1	1	1	1	1	1	1	1	1	0%
92	1	1	1	1	1	1	1	1	1	1	1	1	0%
93	1	1	1	1	1	1	1	1	1	1	1	1	0%
94	1	1	1	1	1	1	1	1	1	1	1	1	0%
95	1	1	1	1	1	1	1	1	1	1	1	1	0%
96	1	1	1	1	1	1	1	1	1	1	1	1	0%
97	1	1	1	1	1	1	1	1	1	1	1	1	0%
98	1	1	1	1	1	1	1	1	1	1	1	1	0%
99	1	1	1	1	1	1	1	1	1	1	1	1	0%
100	1	1	1	1	1	1	1	1	1	1	1	1	0%
101	1	1	1	1	1	1	1	1	1	1	1	1	0%
102	1	1	1	1	1	1	1	1	1	1	1	1	0%
103	1	1	1	1	1	1	1	1	1	1	1	1	0%
104	1	1	1	1	1	1	1	1	1	1	1	1	0%
105	1	1	1	1	1	1	1	1	1	1	1	1	0%
106	1	1	1	1	1	1	1	1	1	1	1	1	0%
107	1	1	1	1	1	1	1	1	1	1	1	1	0%
108	1	1	1	1	1	1	1	1	1	1	1	1	0%
109	1	1	1	1	1	1	1	1	1	1	1	1	0%
110	1	1	1	1	1	1	1	1	1	1	1	1	0%
111	1	1	1	1	1	1	1	1	1	1	1	1	0%
112	1	1	1	1	1	1	1	1	1	1	1	1	0%
113	1	1	1	1	1	1	1	1	1	1	1	1	0%
114	1	1	1	1	1	1	1	1	1	1	1	1	0%
115	1	1	1	1	1	1	1	1	1	1	1	1	0%
116	1	1	1	1	1	1	1	1	1	1	1	1	0%
117	1	1	1	1	1	1	1	1	1	1	1	1	0%
118	1	1	1	1	1	1	1	1	1	1	1	1	0%
119	1	1	1	1	1	1	1	1	1	1	1	1	0%
		1	1	1	1	1	1	1	1	1	1	1	0%
		1	1	1	1	1	1	1	1	1	1	1	0%
		1	1	1	1	1	1	1	1	1	1	1	0%
		1	1	1	1	1	1	1	1	1	1	1	0%



No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
124	1	1	1	1	1	1	1	1	1	1	1	1	0%
125	1	1	1	1	1	1	1	1	1	1	1	1	0%
126	1	1	1	1	1	1	1	1	1	1	1	1	0%
127	1	1	1	1	1	1	1	1	1	1	1	1	0%
128	1	1	1	1	1	1	1	1	1	1	1	1	0%
129	1	1	1	1	1	1	1	1	1	1	1	1	0%
130	1	1	1	1	1	1	1	1	1	1	1	1	0%
131	1	1	1	1	1	1	1	1	1	1	1	1	0%
132	1	1	1	1	1	1	1	1	1	1	1	1	0%
133	1	1	1	1	1	1	1	1	1	1	1	1	0%
134	1	1	1	1	1	1	1	1	1	1	1	1	0%
135	1	1	1	1	1	1	1	1	1	1	1	1	0%
136	1	1	1	1	1	1	1	1	1	1	1	1	0%
137	1	1	1	1	1	1	1	1	1	1	1	1	0%
138	1	1	1	1	1	1	1	1	1	1	1	1	0%
139	1	1	1	1	1	1	1	1	1	1	1	1	0%
140	1	1	1	1	1	1	1	1	1	1	1	1	0%
141	1	1	1	1	1	1	1	1	1	1	1	1	0%
142	1	1	1	1	1	1	1	1	1	1	1	1	0%
143	1	1	1	1	1	1	1	1	1	1	1	1	0%
144	1	1	1	1	1	1	1	1	1	1	1	1	0%
145	1	1	1	1	1	1	1	1	1	1	1	1	0%
146	1	4	4	1	1	1	1	4	4	1	4	1	45%
147	1	4	4	1	1	1	1	4	4	1	4	1	45%
148	1	4	4	1	1	1	1	4	4	1	4	1	45%
149	1	4	4	1	1	1	1	4	4	1	4	1	45%
150	1	4	4	1	1	1	1	4	4	1	4	1	45%
151	1	4	4	1	1	1	1	4	4	1	4	1	45%
152	1	4	4	1	1	1	1	4	4	1	4	1	45%
153	1	4	4	1	1	1	1	4	4	1	4	1	45%
154	1	4	4	1	1	1	1	4	4	1	4	1	45%
155	1	4	4	1	1	1	1	4	4	1	4	1	45%
156	1	4	4	1	1	1	1	4	4	1	4	1	45%
157	1	4	4	1	1	1	1	4	4	1	4	1	45%
158	1	4	4	1	1	1	1	4	4	1	4	1	45%
159	1	4	4	1	1	1	1	4	4	1	4	1	45%
160	1	4	4	1	1	1	1	4	4	1	4	1	45%
161	2	2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	2	2	0%



No.	Target	LSVM	LSVM-NB	LSVM-KNN	PSVM	PSVM-NB	PSVM-KNN	GSVM	GSVM-NB	GSVM-KNN	NB	KNN	Misprediction
166	2	2	2	2	2	2	2	2	2	2	2	2	0%
167	2	2	2	2	2	2	2	2	2	2	2	2	0%
168	2	2	2	2	2	2	2	2	2	2	2	2	0%
169	2	3	2	2	2	2	2	2	2	2	2	2	9%
170	2	2	2	2	2	2	2	2	2	2	2	2	0%
171	2	2	2	2	2	2	2	2	2	2	2	2	0%
172	2	2	2	2	2	2	2	2	2	2	2	2	0%
173	2	2	2	2	2	2	2	2	2	2	2	2	0%
174	2	2	2	2	2	2	2	2	2	2	2	2	0%
175	2	2	2	2	2	2	2	2	2	2	2	2	0%
176	2	2	2	2	2	2	2	2	2	2	2	2	0%
177	2	2	2	2	2	2	2	2	2	2	2	2	0%
178	2	2	2	2	2	2	2	2	2	2	2	2	0%
179	2	2	2	2	2	2	2	2	2	2	2	2	0%
180	2	2	2	2	2	2	2	2	2	2	2	2	0%
181	2	2	2	2	2	2	2	2	2	2	2	2	0%
182	2	2	2	2	2	2	2	2	2	2	2	2	0%
183	2	2	2	2	2	2	2	2	2	2	2	2	0%
184	2	2	2	2	2	2	2	2	2	2	2	2	0%
185	2	3	2	2	2	2	2	2	2	2	2	2	9%
186	2	2	2	2	2	2	2	2	2	2	2	2	0%
187	2	2	2	2	2	2	2	2	2	2	2	2	0%
188	2	2	2	2	2	2	2	2	2	2	2	2	0%
189	2	2	2	2	2	2	2	2	2	2	2	2	0%
190	2	3	3	2	2	2	2	3	3	2	3	2	45%
191	2	2	2	2	2	2	2	2	2	2	2	2	0%
192	2	2	2	2	2	2	2	2	2	2	2	2	0%
193	2	3	3	2	2	2	2	2	2	2	3	2	27%
194	2	2	2	2	2	2	2	2	2	2	2	2	0%
195	2	2	2	2	2	2	2	2	2	2	2	2	0%
196	2	2	2	2	2	2	2	2	2	2	2	2	0%
197	2	2	2	2	2	2	2	2	2	2	2	2	0%
198	2	2	2	2	2	2	2	2	2	2	3	2	9%
199	2	2	2	2	2	2	2	2	2	2	3	2	9%
200	2	2	2	2	2	2	2	2	2	2	2	2	0%
201	2	2	2	2	2	2	2	2	2	2	3	2	9%
202	2	2	2	2	2	2	2	2	2	2	2	2	0%
203	2	2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	3	2	9%
		2	2	2	2	2	2	2	2	2	3	2	9%
		2	2	2	2	2	2	2	2	2	2	2	0%



No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
208	2	2	2	2	2	2	2	2	2	2	2	2	0%
209	2	2	2	2	2	2	2	2	2	2	3	2	9%
210	2	2	2	2	2	2	2	2	2	2	2	2	0%
211	2	2	2	2	2	2	2	2	2	2	2	2	0%
212	2	3	3	2	2	3	2	3	3	2	3	2	55%
213	2	3	3	2	2	2	2	3	3	2	3	2	45%
214	2	2	2	2	2	2	2	2	2	2	2	2	0%
215	2	2	2	2	2	2	2	2	2	2	2	2	0%
216	2	3	3	2	2	2	2	2	2	2	3	2	27%
217	2	2	2	2	2	2	2	2	2	2	3	2	9%
218	2	2	2	2	2	2	2	2	2	2	2	2	0%
219	2	3	3	2	2	3	2	3	3	2	3	2	55%
220	2	3	3	2	2	3	2	3	3	2	3	2	55%
221	2	3	3	2	2	2	2	2	2	2	3	2	27%
222	2	2	2	2	2	2	2	2	2	2	2	2	0%
223	2	2	2	2	2	2	2	2	2	2	2	2	0%
224	2	2	2	2	2	2	2	2	2	2	2	2	0%
225	2	2	2	2	2	2	2	2	2	2	2	2	0%
226	2	2	2	2	2	2	2	2	2	2	2	2	0%
227	2	2	2	2	2	2	2	2	2	2	2	2	0%
228	2	2	2	2	2	2	2	2	2	2	2	2	0%
229	2	3	3	2	2	2	2	2	2	2	3	2	27%
230	2	3	3	2	2	2	2	2	2	2	3	2	27%
231	2	3	3	2	2	2	2	2	2	2	3	2	27%
232	2	3	3	2	2	2	2	2	2	2	3	2	27%
233	2	2	2	2	2	2	2	2	2	2	3	2	9%
234	2	2	2	2	2	2	2	2	2	2	2	2	0%
235	2	2	2	2	2	2	2	2	2	2	2	2	0%
236	2	2	2	2	2	2	2	2	2	2	2	2	0%
237	2	2	2	2	2	2	2	2	2	2	2	2	0%
238	2	2	2	2	2	2	2	2	2	2	2	2	0%
239	2	2	2	2	2	2	2	2	2	2	2	2	0%
240	2	2	2	2	2	2	2	2	2	2	2	2	0%
241	2	2	2	2	2	2	2	2	2	2	2	2	0%
242	2	2	2	2	2	2	2	2	2	2	2	2	0%
243	2	2	2	2	2	2	2	2	2	2	2	2	0%
244	2	2	2	2	2	2	2	2	2	2	2	2	0%
245	2	2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	2	2	0%
		2	2	2	2	2	2	2	2	2	2	2	0%



No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
250	2	2	2	2	2	2	2	2	2	2	2	2	0%
251	2	2	2	2	2	2	2	2	2	2	2	2	0%
252	2	2	2	2	2	2	2	2	2	2	2	2	0%
253	2	2	2	2	2	2	2	2	2	2	2	2	0%
254	2	2	2	2	2	2	2	2	2	2	2	2	0%
255	2	2	2	2	2	2	2	2	2	2	2	2	0%
256	2	2	2	2	2	2	2	2	2	2	2	2	0%
257	2	2	2	2	2	2	2	2	2	2	2	2	0%
258	2	2	2	2	2	2	2	2	2	2	2	2	0%
259	2	2	2	2	2	2	2	2	2	2	2	2	0%
260	2	2	2	2	2	2	2	2	2	2	2	2	0%
261	2	2	2	2	2	2	2	2	2	2	2	2	0%
262	2	2	2	2	2	2	2	2	2	2	2	2	0%
263	3	3	3	3	3	3	3	3	3	3	3	3	0%
264	3	3	2	3	3	2	3	3	2	3	2	3	36%
265	3	3	3	3	3	3	3	3	3	3	3	3	0%
266	3	3	2	3	3	2	3	3	2	3	2	3	36%
267	3	3	3	3	3	3	3	3	3	3	3	3	0%
268	3	3	3	3	3	3	3	3	3	3	3	3	0%
269	3	3	3	3	3	3	3	3	3	3	3	3	0%
270	3	3	3	3	3	3	3	3	3	3	3	3	0%
271	3	3	3	3	3	3	3	3	3	3	3	3	0%
272	3	3	3	3	3	3	3	3	3	3	3	3	0%
273	3	2	2	2	3	3	3	3	3	3	3	3	27%
274	3	2	2	2	3	3	3	3	3	3	3	3	27%
275	3	3	3	3	3	3	3	3	3	3	3	3	0%
276	3	3	3	3	3	3	3	3	3	3	3	3	0%
277	3	3	3	3	3	3	3	3	3	3	3	3	0%
278	3	3	3	3	3	3	3	3	3	3	3	3	0%
279	3	3	3	3	3	3	3	3	3	3	3	3	0%
280	3	3	3	3	3	3	3	3	3	3	3	3	0%
281	3	3	3	3	3	3	3	3	3	3	3	3	0%
282	3	3	3	3	3	3	3	3	3	3	3	3	0%
283	3	3	3	3	3	3	3	3	3	3	3	3	0%
284	3	3	3	3	3	3	3	3	3	3	3	3	0%
285	3	3	3	3	3	3	3	3	3	3	3	3	0%
286	3	3	3	3	3	3	3	3	3	3	3	3	0%
287	3	3	3	3	3	3	3	3	3	3	3	3	0%
		3	3	3	3	3	3	3	3	3	3	3	0%
		3	3	3	3	3	3	3	3	3	3	3	0%
		3	3	3	3	3	3	3	3	3	3	3	0%
		3	3	3	3	3	3	3	3	3	3	3	0%



No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
292	3	2	2	2	3	3	3	3	3	3	3	3	27%
293	3	3	3	3	3	3	3	3	3	3	3	3	0%
294	3	3	3	3	3	3	3	3	3	3	3	3	0%
295	3	3	3	3	3	3	3	3	3	3	3	3	0%
296	3	3	3	3	3	3	3	3	3	3	3	3	0%
297	3	3	3	3	3	3	3	3	3	3	3	3	0%
298	3	3	3	3	3	3	3	3	3	3	3	3	0%
299	3	3	3	3	3	3	3	3	3	3	3	3	0%
300	3	3	3	3	3	3	3	3	3	3	3	3	0%
301	3	3	3	3	3	3	3	3	3	3	3	3	0%
302	3	3	3	3	3	3	3	3	3	3	3	3	0%
303	3	3	3	3	3	3	3	3	3	3	3	3	0%
304	3	3	3	3	3	3	3	3	3	3	3	3	0%
305	3	3	3	3	3	3	3	3	3	3	3	3	0%
306	3	3	3	3	3	3	3	3	3	3	3	3	0%
307	3	3	3	3	3	3	3	3	3	3	3	3	0%
308	3	3	3	3	3	3	3	3	3	3	3	3	0%
309	3	3	3	3	3	3	3	3	3	3	3	3	0%
310	3	3	3	3	3	3	3	3	3	3	3	3	0%
311	3	3	3	3	3	3	3	3	3	3	3	3	0%
312	3	3	3	3	3	3	3	3	3	3	3	3	0%
313	3	3	3	3	3	3	3	3	3	3	3	3	0%
314	3	3	3	3	3	3	3	3	3	3	3	3	0%
315	3	3	3	3	3	3	3	3	3	3	3	3	0%
316	3	2	2	2	3	3	3	3	3	3	3	3	27%
317	3	3	3	3	3	3	3	3	3	3	3	3	0%
318	3	2	2	2	3	3	3	3	3	3	3	3	27%
319	3	2	2	2	3	3	3	3	3	3	3	3	27%
320	3	3	3	3	3	3	3	3	3	3	3	3	0%
321	3	3	3	3	3	3	3	3	3	3	3	3	0%
322	3	3	3	3	3	3	3	3	3	3	3	3	0%
323	3	3	3	3	3	3	3	3	3	3	3	3	0%
324	3	3	3	3	3	3	3	3	3	3	3	3	0%
325	3	3	3	3	3	3	3	3	3	3	3	3	0%
326	3	3	3	3	3	3	3	3	3	3	3	3	0%
327	3	3	3	3	3	3	3	3	3	3	3	3	0%
328	3	3	3	3	3	3	3	3	3	3	3	3	0%
329	3	3	3	3	3	3	3	3	3	3	3	3	0%
330	3	3	3	3	3	3	3	3	3	3	3	3	0%
331	3	3	3	3	3	3	3	3	3	3	3	3	0%
332	3	3	3	3	3	3	3	3	3	3	3	3	0%
333	3	3	3	3	3	3	3	3	3	3	3	3	0%
334	3	3	3	3	3	3	3	3	3	3	3	3	0%



No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
334	3	3	3	3	3	3	3	3	3	3	3	3	0%
335	3	3	3	3	3	3	3	3	3	3	3	3	0%
336	3	3	3	3	3	3	3	3	3	3	3	3	0%
337	3	3	3	3	3	3	3	3	3	3	3	3	0%
338	3	3	3	3	3	3	3	3	3	3	3	3	0%
339	3	3	3	3	3	3	3	3	3	3	3	3	0%
340	3	3	3	3	3	3	3	3	3	3	3	3	0%
341	3	3	3	3	3	3	3	3	3	3	3	3	0%
342	3	3	3	3	3	3	3	3	3	3	3	3	0%
343	3	3	3	3	3	3	3	3	3	3	3	3	0%
344	3	3	3	3	3	3	3	3	3	3	3	3	0%
345	3	3	3	3	3	3	3	3	3	3	3	3	0%
346	3	3	3	3	3	3	3	3	3	3	3	3	0%
347	3	3	3	3	3	3	3	3	3	3	3	3	0%
348	3	3	3	3	3	3	3	3	3	3	3	3	0%
349	3	3	3	3	3	3	3	3	3	3	3	3	0%
350	3	3	3	3	3	3	3	3	3	3	3	3	0%
351	3	3	3	3	3	3	3	3	3	3	3	3	0%
352	3	3	3	3	3	3	3	3	3	3	3	3	0%
353	3	3	3	3	3	3	3	3	3	3	3	3	0%
354	3	3	3	3	3	3	3	3	3	3	3	3	0%
355	3	3	3	3	3	3	3	3	3	3	3	3	0%
356	3	3	3	3	3	3	3	3	3	3	3	3	0%
357	3	3	3	3	3	3	3	3	3	3	3	3	0%
358	4	1	1	1	4	4	4	4	4	4	4	4	27%
359	4	1	1	1	4	4	4	4	4	4	4	4	27%
360	4	1	1	1	4	4	4	4	4	4	4	4	27%
361	4	1	1	1	4	4	4	4	4	4	4	4	27%
362	4	1	1	1	4	4	4	4	4	4	4	4	27%
363	4	1	1	1	4	4	4	4	4	4	4	4	27%
364	4	1	1	1	4	4	4	4	4	4	4	4	27%
365	4	1	1	1	4	4	4	4	4	4	4	4	27%
366	4	1	1	1	4	4	4	4	4	4	4	4	27%
367	4	1	1	1	4	4	4	4	4	4	4	4	27%
368	4	1	1	1	4	4	4	4	4	4	4	4	27%
369	4	1	1	1	4	4	4	4	4	4	4	4	27%
370	4	1	1	1	4	4	4	4	4	4	4	4	27%
371	4	1	1	1	4	4	4	4	4	4	4	4	27%
		1	1	1	4	4	4	4	4	4	4	4	27%
		1	1	1	4	4	4	4	4	4	4	4	27%
		1	1	1	4	4	4	4	4	4	4	4	27%
		1	1	1	4	4	4	4	4	4	4	4	27%



No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
376	4	1	1	1	4	4	4	4	4	4	4	4	27%
377	4	1	1	1	4	1	4	4	1	4	1	4	55%
378	4	1	1	1	4	1	4	4	1	4	1	4	55%
379	4	1	1	1	4	1	4	4	1	4	1	4	55%
380	4	1	1	1	4	1	4	4	1	4	1	4	55%
381	4	1	1	1	4	1	4	1	1	1	1	4	73%
382	4	1	1	1	4	1	4	1	1	1	1	4	73%
383	4	1	1	1	4	1	4	1	1	1	1	4	73%
384	4	1	1	1	1	1	1	1	1	1	1	1	100%
385	4	1	1	1	1	1	1	1	1	1	1	1	100%
386	4	1	1	1	1	1	1	1	1	1	1	1	100%
387	4	1	1	1	1	1	1	1	1	1	1	1	100%
388	4	1	1	1	1	1	1	1	1	1	1	1	100%
389	4	1	1	1	1	1	1	1	1	1	1	1	100%
390	4	1	1	1	1	1	1	1	1	1	1	1	100%
391	4	4	4	4	4	4	4	4	4	4	4	4	0%
392	4	4	4	4	4	4	4	4	4	4	4	4	0%
393	4	4	4	4	4	4	4	4	4	4	4	4	0%
394	4	4	4	4	4	4	4	4	4	4	4	4	0%
395	4	4	4	4	4	4	4	4	4	4	4	4	0%
396	4	4	4	4	4	4	4	4	4	4	4	4	0%
397	4	4	4	4	4	4	4	4	4	4	4	4	0%
398	4	4	4	4	4	4	4	4	4	4	4	4	0%
399	4	4	4	4	4	4	4	4	4	4	4	4	0%
400	4	4	4	4	4	4	4	4	4	4	4	4	0%
401	4	4	4	4	4	4	4	4	4	4	4	4	0%
402	4	4	4	4	4	4	4	4	4	4	4	4	0%
403	4	4	4	4	4	4	4	4	4	4	4	4	0%
404	4	4	4	4	4	4	4	4	4	4	4	4	0%
405	4	4	4	4	4	4	4	4	4	4	4	4	0%
406	4	4	4	4	4	4	4	4	4	4	4	4	0%
407	4	4	4	4	4	4	4	4	4	4	4	4	0%
408	4	4	4	4	4	4	4	4	4	4	4	4	0%
409	4	4	4	4	4	4	4	4	4	4	4	4	0%
410	4	4	4	4	4	4	4	4	4	4	4	4	0%
411	4	4	4	4	4	4	4	4	4	4	4	4	0%
412	4	4	4	4	4	4	4	4	4	4	4	4	0%
413	4	4	4	4	4	4	4	4	4	4	4	4	0%
		4	4	4	4	4	4	4	4	4	4	4	0%
		4	4	4	4	4	4	4	4	4	4	4	0%
		4	4	4	4	4	4	4	4	4	4	4	0%
		4	4	4	4	4	4	4	4	4	4	4	0%



No.	Target	LSVM	LSVM- NB	LSVM- KNN	PSVM	PSVM- NB	PSVM- KNN	GSVM	GSVM- NB	GSVM- KNN	NB	KNN	Misprediction
418	4	4	4	4	4	4	4	4	4	4	4	4	0%
419	4	4	4	4	4	4	4	4	4	4	4	4	0%
420	4	4	4	4	4	4	4	4	4	4	4	4	0%



Lampiran 6 Hasil Klasifikasi Data Uji

Tabel 16 Persentase hasil klasifikasi pada data uji

No.	Target	LSVM	LSVM-NB	LSVM-KNN	PSVM	PSVM-NB	PSVM-KNN	GSVM	GSVM-NB	GSVM-KNN	NB	KNN	Misprediction
1	1	1	1	1	1	1	1	1	1	1	1	1	0%
2	1	1	1	1	1	1	1	1	1	1	1	1	0%
3	1	1	1	1	1	1	1	1	1	1	4	1	9%
4	1	1	1	1	1	1	1	1	1	1	1	1	0%
5	1	1	1	1	1	1	1	1	1	1	1	1	0%
6	1	1	1	1	1	1	1	1	1	1	1	1	0%
7	1	1	1	1	1	1	1	1	1	1	1	1	0%
8	1	1	1	1	1	1	1	1	1	1	1	1	0%
9	1	1	1	1	1	1	1	1	1	1	1	1	0%
10	1	1	1	1	1	1	1	1	1	1	1	1	0%
11	1	1	1	1	1	1	1	1	1	1	1	1	0%
12	1	1	1	1	1	1	1	1	1	1	1	1	0%
13	1	1	1	1	1	1	1	1	1	1	1	1	0%
14	1	1	1	1	1	1	1	1	1	1	1	1	0%
15	1	1	1	1	1	1	1	1	1	1	1	1	0%
16	1	1	1	1	1	1	1	1	1	1	1	1	0%
17	1	1	1	1	1	1	1	1	1	1	1	1	0%
18	1	1	1	1	1	1	1	1	1	1	1	1	0%
19	1	1	1	1	1	1	1	1	1	1	1	1	0%
20	1	1	1	1	1	1	1	1	1	1	1	1	0%
21	1	4	4	4	1	4	4	4	4	4	4	4	91%
22	1	4	4	4	4	4	4	4	4	4	4	4	100%
23	1	4	4	4	4	4	4	4	4	4	4	4	100%
24	1	4	4	4	4	4	4	4	4	4	4	4	100%
25	1	4	4	4	4	4	4	4	4	4	4	4	100%
26	2	2	2	2	2	2	2	2	2	2	2	2	0%
27	2	2	2	2	2	2	2	2	2	2	2	2	0%
28	2	2	2	2	2	2	2	2	2	2	2	2	0%
29	2	2	2	2	2	2	2	2	2	2	2	2	0%
30	2	2	2	2	2	2	2	2	2	2	2	2	0%
31	2	2	2	2	2	2	2	2	2	2	2	2	0%
32	2	2	2	2	2	2	2	2	2	2	3	2	9%
33	2	2	2	2	2	2	2	2	2	2	2	2	0%
34	2	2	2	2	2	2	2	2	2	2	2	2	0%
35	2	2	2	2	2	2	2	2	2	2	2	2	0%
36	2	2	2	2	2	2	2	2	2	2	2	2	0%
37	2	2	2	2	2	2	2	2	2	2	2	2	0%
38	2	2	2	2	2	2	2	2	2	2	2	2	0%
39	2	2	2	2	2	2	2	2	2	2	2	2	0%



No.	Target	LSVM	LSVM-NB	LSVM-KNN	PSVM	PSVM-NB	PSVM-KNN	GSVM	GSVM-NB	GSVM-KNN	NB	KNN	Misprediction
40	2	2	2	2	2	2	2	2	2	2	2	2	0%
41	2	2	2	2	2	2	2	2	2	2	2	2	0%
42	2	2	2	2	2	2	2	2	2	2	3	2	9%
43	2	2	2	2	2	2	2	2	2	2	2	2	0%
44	2	2	2	2	2	2	2	2	2	2	2	2	0%
45	2	2	2	2	2	2	2	2	2	2	2	2	0%
46	2	2	2	2	2	2	2	2	2	2	2	2	0%
47	2	2	2	2	2	2	2	2	2	2	2	2	0%
48	2	2	2	2	2	2	2	2	2	2	2	2	0%
49	2	2	2	2	2	2	2	2	2	2	2	2	0%
50	2	2	2	2	2	2	2	2	2	2	2	2	0%
51	3	3	3	3	3	3	3	3	3	3	3	3	0%
52	3	3	3	3	3	3	3	3	3	3	3	3	0%
53	3	2	2	2	3	2	2	3	3	3	3	3	46%
54	3	3	3	3	3	3	3	3	3	3	3	3	0%
55	3	3	3	3	3	3	3	3	3	3	3	3	0%
56	3	3	3	3	3	3	3	3	3	3	3	3	0%
57	3	3	3	3	3	3	3	3	3	3	3	3	0%
58	3	3	3	3	3	3	3	3	3	3	3	3	0%
59	3	3	3	3	3	3	3	3	3	3	3	3	0%
60	3	2	2	2	3	3	3	3	3	3	3	3	27%
61	3	2	2	2	3	2	2	2	2	2	3	3	73%
62	3	2	2	2	3	3	3	3	3	3	3	3	27%
63	3	2	2	2	3	3	3	3	3	3	3	3	27%
64	3	3	3	3	3	3	3	3	3	3	3	3	0%
65	3	3	3	3	3	3	3	3	3	3	3	3	0%
66	3	3	3	3	3	3	3	3	3	3	3	3	0%
67	3	3	3	3	3	3	3	3	3	3	3	3	0%
68	3	3	3	3	3	3	3	3	3	3	3	3	0%
69	3	3	3	3	3	3	3	3	3	3	3	3	0%
70	3	3	3	3	3	3	3	3	3	3	3	3	0%
71	3	3	3	3	3	3	3	3	3	3	3	3	0%
72	3	3	3	3	3	3	3	3	3	3	3	3	0%
73	3	2	2	2	3	2	2	3	2	3	2	3	65%
74	3	3	3	3	3	3	3	3	3	3	3	3	0%
75	3	3	2	3	3	2	3	3	2	3	2	3	36%
76	4	1	1	1	4	4	4	4	4	4	4	4	27%
77	4	1	1	1	4	4	4	4	4	4	4	4	27%
		1	1	1	4	4	4	4	4	4	4	4	27%
		1	1	1	4	4	4	4	4	4	4	4	27%
		1	1	1	4	4	4	4	4	4	4	4	27%
		1	1	1	4	4	4	4	4	4	4	4	27%



No.	Target	LSVM	LSVM-NB	LSVM-KNN	PSVM	PSVM-NB	PSVM-KNN	GSVM	GSVM-NB	GSVM-KNN	NB	KNN	Misprediction
82	4	1	1	1	4	4	4	4	4	4	4	4	27%
83	4	1	1	1	4	4	4	4	4	4	4	4	27%
84	4	1	1	1	4	1	4	4	1	4	1	4	55%
85	4	1	1	1	4	1	4	1	1	1	1	4	73%
86	4	1	1	1	4	1	1	1	1	1	1	4	82%
87	4	1	1	1	4	1	1	1	1	1	1	4	82%
88	4	1	1	1	1	1	1	1	1	1	1	1	100%
89	4	1	1	1	1	1	1	1	1	1	1	1	100%
90	4	1	1	1	4	1	1	1	1	1	1	1	91%
91	4	4	4	4	4	4	4	4	4	4	4	4	0%
92	4	4	4	4	4	4	4	4	4	4	4	4	0%
93	4	4	4	4	4	4	4	4	4	4	4	4	0%
94	4	4	4	4	4	4	4	4	4	4	4	4	0%
95	4	4	4	4	4	4	4	4	4	4	4	4	0%
96	4	4	4	4	4	4	4	4	4	4	4	4	0%
97	4	4	4	4	4	4	4	4	4	4	4	4	0%
98	4	4	4	4	4	4	4	4	4	4	4	4	0%
99	4	4	4	4	4	4	4	4	4	4	4	4	0%
100	4	4	4	4	4	4	4	4	4	4	4	4	0%

