

## LAMPIRAN

Lampiran 1. 40 dataset

<b>UHML (inch)</b>	<b>Micronaire</b>	<b>Strength (g/tex)</b>	<b>Elongation (%)</b>	<b>UI (%)</b>	<b>Kekuatan Benang (cN/tex)</b>
<b>FL</b>	<b>FF</b>	<b>FS</b>	<b>FE</b>	<b>LU</b>	
1.18	4.37	29.6	6.0	81.5	18.97
1.15	4.22	30.3	6.4	82.2	17.33
1.12	3.40	29.1	6.3	80.2	16.98
1.15	3.41	29.7	6.5	81.9	17.27
1.15	3.31	30.1	6.4	80.1	17.22
1.18	4.19	30.4	6.5	80.3	19.98
1.18	4.46	30.7	6.2	81.4	18.75
1.21	4.24	30.8	6.4	80.8	16.77
1.17	3.86	31.0	6.2	80.0	18.04
1.14	3.62	30.6	6.4	82.7	16.32
1.10	4.00	28.1	5.9	81.7	17.12
1.12	3.43	29.1	6.6	79.8	14.99
1.15	3.81	31.0	6.9	82.4	15.84
1.14	3.81	28.1	6.7	81.5	18.37
1.18	3.65	32.3	6.6	84.0	16.24
1.16	4.29	29.4	7.8	81.1	18.65
1.19	4.24	29.8	6.5	81.0	18.10
1.15	4.14	29.1	7.0	82.1	18.26
1.18	3.84	29.6	6.5	81.4	15.66
1.16	3.29	30.8	6.7	80.9	16.93
1.14	4.67	28.5	5.7	79.9	17.42
1.100	4.44	28.5	5.9	79.5	17.10
1.166	4.26	28.6	6.9	77.2	16.56
1.179	3.66	31.8	5.9	82.6	18.18
1.153	4.06	29.7	7.2	82.1	18.11
1.152	3.88	29.5	6.5	80.0	16.23
1.135	3.98	27.6	6.8	79.6	16.33
1.172	4.15	28.8	6.7	82.1	18.00
1.121	4.06	29.1	7.1	80.8	17.07
1.126	4.06	28.2	5.8	79.2	16.69
1.141	3.66	29.5	5.9	79.8	16.97
1.171	4.11	28.6	6.0	78.5	17.58
1.155	3.79	29.5	6.5	81.3	17.39
1.107	3.73	27.5	7.0	78.8	17.22
1.115	4.60	26.8	5.2	78.6	18.18
1.174	3.98	28.8	6.1	80.3	19.38
1.157	4.59	27.8	6.2	80.9	18.87
1.166	4.14	29.0	7.1	81.9	19.45
1.157	4.46	28.0	7.4	83.2	19.22
1.114	4.82	27.0	5.4	78.8	17.70

Lampiran 2. 4 Data uji

<b>UHML (inch)</b>	<b>Micronaire</b>	<b>Strength (g/tex)</b>	<b>Elongation (%)</b>	<b>UI (%)</b>	<b>Kekuatan Benang (cN/tex)</b>
<b>FL</b>	<b>FF</b>	<b>FS</b>	<b>FE</b>	<b>LU</b>	
1.12	3.40	29.1	6.3	80.2	16.98
1.16	4.29	29.4	7.8	81.1	18.65
1.153	4.06	29.7	7.2	82.1	18.11
1.155	3.79	29.5	6.5	81.3	17.39

Lampiran 3. 36 Data latih

<b>UHML (inch)</b>	<b>Micronaire</b>	<b>Strength (g/tex)</b>	<b>Elongation (%)</b>	<b>UI (%)</b>	<b>Kekuatan Benang (cN/tex)</b>
<b>FL</b>	<b>FF</b>	<b>FS</b>	<b>FE</b>	<b>LU</b>	
1.18	4.37	29.6	6.0	81.5	18.97
1.15	4.22	30.3	6.4	82.2	17.33
1.15	3.41	29.7	6.5	81.9	17.27
1.15	3.31	30.1	6.4	80.1	17.22
1.18	4.19	30.4	6.5	80.3	19.98
1.18	4.46	30.7	6.2	81.4	18.75
1.21	4.24	30.8	6.4	80.8	16.77
1.17	3.86	31.0	6.2	80.0	18.04
1.14	3.62	30.6	6.4	82.7	16.32
1.10	4.00	28.1	5.9	81.7	17.12
1.12	3.43	29.1	6.6	79.8	14.99
1.15	3.81	31.0	6.9	82.4	15.84
1.14	3.81	28.1	6.7	81.5	18.37
1.18	3.65	32.3	6.6	84.0	16.24
1.19	4.24	29.8	6.5	81.0	18.10
1.15	4.14	29.1	7.0	82.1	18.26
1.18	3.84	29.6	6.5	81.4	15.66
1.16	3.29	30.8	6.7	80.9	16.93
1.14	4.67	28.5	5.7	79.9	17.42
1.100	4.44	28.5	5.9	79.5	17.10
1.166	4.26	28.6	6.9	77.2	16.56
1.179	3.66	31.8	5.9	82.6	18.18
1.152	3.88	29.5	6.5	80.0	16.23
1.135	3.98	27.6	6.8	79.6	16.33
1.172	4.15	28.8	6.7	82.1	18.00
1.121	4.06	29.1	7.1	80.8	17.07
1.126	4.06	28.2	5.8	79.2	16.69
1.141	3.66	29.5	5.9	79.8	16.97
1.171	4.11	28.6	6.0	78.5	17.58
1.107	3.73	27.5	7.0	78.8	17.22

1.115	4.60	26.8	5.2	78.6	18.18
1.174	3.98	28.8	6.1	80.3	19.38
1.157	4.59	27.8	6.2	80.9	18.87
1.166	4.14	29.0	7.1	81.9	19.45
1.157	4.46	28.0	7.4	83.2	19.22
1.114	4.82	27.0	5.4	78.8	17.70

Lampiran 4 Hasil evaluasi metrik data *output* actual dan prediksi mf [3 3 3 3 3 ] gbellmf iterasi 100

<b>m33333gb100</b>		<i>eror</i>	
aktual	prediksi	se	ape
18.97	18.9699	0.000012110399999973	0.018348218
17.33	17.3305	0.000019360000000004	0.025382321
16.98	16.6674	0.096475466024999300	1.829455228
17.27	17.27	0.000013823524000021	0.021524029
17.22	17.2198	0.000008602489000013	0.017029818
19.98	19.976	0.000000005929000000	0.000385464
18.75	18.75	0.000005212089000009	0.012174518
16.77	16.7706	0.000012006224999990	0.020656889
18.04	18.0406	0.000004439448999995	0.011680577
16.32	16.32	0.000023039999999995	0.029420418
17.12	17.1198	0.000000927368999998	0.005624749
14.99	14.99	0.000000168100000000	0.002735232
15.84	15.8398	0.000014891881000002	0.024368618
18.37	18.3696	0.000029095236000028	0.029355112
16.24	16.2402	0.000013111640999993	0.022291553
18.65	21.5955	8.674126464969000000	15.79162237
18.10	18.1013	0.000002640624999991	0.008978062
18.26	18.2607	0.000004524129000007	0.011646609
15.66	15.6608	0.000003211264000000	0.011441274
16.93	16.9299	0.000008294399999986	0.017014218
17.42	17.4201	0.000013133376000015	0.020807883
17.10	17.0998	0.000000323761000003	0.003327414
16.56	16.5599	0.000000000784000000	0.000169083
18.18	18.1794	0.000003426200999994	0.010180818
18.11	19.2073	1.204348215183990000	6.059833002
16.23	16.2323	0.000001752976000010	0.008155911
16.33	16.3304	0.000025030008999985	0.030645503
18.00	17.999	0.000001677024999997	0.007195362
17.07	17.0699	0.000000014884000000	0.000714713
16.69	16.69	0.000006195121000003	0.014910898
16.97	16.9697	0.000003579663999992	0.011150527
17.58	17.5799	0.000000073983999999	0.001547245

17.39	16.5192	0.751142889225001000	4.984992136
17.22	17.2198	0.000008602489000013	0.017029818
18.18	18.1799	0.000001825200999999	0.007430732
19.38	19.3792	0.000028058209000025	0.027325961
18.87	18.87	0.000021594609000019	0.024620328
19.45	19.4496	0.000015374240999987	0.020163863
19.22	19.2199	0.000002088025000011	0.007517684
17.70	17.7	0.000003968064000005	0.011252971
			29.18010712

Lampiran 5 Hasil evaluasi metrik data *output* actual dan prediksi mf [2 3 3 4 5 ] gbellmf iterasi 100

<b>m23345gb100</b>		<i>eror</i>	
aktual	prediksi	se	ape
18.97	18.97	0.00001281640000	0.018875465
17.33	17.3301	0.00002304000000	0.027689805
16.98	16.4871	0.24098771902500	2.891417455
17.27	17.27	0.00001382352400	0.021524029
17.22	17.2199	0.00000802588900	0.01644919
19.98	19.9786	0.00000716632900	0.013401133
18.75	18.7496	0.00000719848900	0.014307591
16.77	16.7703	0.00001417522500	0.022445364
18.04	18.04	0.00000227104900	0.008354356
16.32	16.3199	0.00002209000000	0.028807492
17.12	17.12	0.00000058216900	0.004456577
14.99	14.99	0.00000016810000	0.002735232
15.84	15.8399	0.00001567368100	0.025000093
18.37	18.3699	0.00002594883600	0.027722458
16.24	16.2399	0.00001537424100	0.024138409
18.65	14.6411	16.07378887936900	21.49675987
18.10	18.1005	0.00000068062500	0.004558093
18.26	18.2605	0.00000541492900	0.012741729
15.66	15.6606	0.00000396806400	0.012718201
16.93	16.93	0.00000888040000	0.017604989
17.42	17.42	0.00001241857600	0.020233714
17.10	17.0999	0.00000021996100	0.002742631
16.56	16.5599	0.00000000078400	0.000169083
18.18	18.1799	0.00000182520100	0.007430732
18.11	17.8571	0.06389368398400	1.395769114
16.23	16.2304	0.00001039417600	0.019860014
16.33	16.33	0.00002118760900	0.028195333
18.00	17.9994	0.00000287302500	0.009417867
17.07	17.07	0.00000004928400	0.001300544

16.69	16.69	0.00000619512100	0.014910898
16.97	16.97	0.00000480486400	0.012918581
17.58	17.5799	0.00000007398400	0.001547245
17.39	19.5597	4.72547165422499	12.50333244
17.22	17.2199	0.00000802588900	0.01644919
18.18	18.1799	0.00000182520100	0.007430732
19.38	19.38	0.00002022300900	0.023198951
18.87	18.8699	0.00002253400900	0.025150139
19.45	19.4496	0.00001537424100	0.020163863
19.22	19.2198	0.00000238702500	0.008037939
17.70	17.7001	0.00000357966400	0.010688063
			38.82065461

Lampiran 6 Hasil Perhitungan Matrik evaluasi antara m3333gb100 dan m23345gb100

M3333GB100	
MSE	0.268160130469400000
RMSE	0.517841801
MAPE	0.729502678
R SQU	0.8503

M23345GB100	
MSE	0.52761158065440
RMSE	0.726368764
MAPE	0.970516365
R SQU	0.6618

Lampiran 7 hasil evaluasi matrik jenis fungsi keanggotaan ANFIS

C44		=AVERAGE(C3:C42)																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	aktual	prediksi	se	ape	aktual	prediksi	se	ape	aktual	prediksi	se	ape	aktual	prediksi	se	ape	aktual	prediksi	se	ape
1	m3gaus100				m3gb100				m3tria100				m3trape							
2	18.97	18.97	0.00001011233999998	0.0168	18.97	18.97	0.000012110399999973	0.0183	18.97	18.97	0.000012816399999971	0.0189	18.97	18.97	0.000014288399999966	0.0199	18.97	18.97	0.0000160000000000	0.0288
3	17.33	17.33	0.00002116000000000	0.0265	17.33	17.331	0.000019360000000004	0.0254	17.33	17.33	0.000026100000000024	0.0294	17.33	17.33	0.000025000000000026	0.0288	17.33	17.33	0.000025000000000026	0.0288
4	16.98	16.59	0.15047028902500000	2.2848	16.98	16.667	0.0964754660249999300	1.8295	16.98	16.253	1.6263773370250000000	7.5115	16.98	14.99	3.952163880025000000	11.709	16.98	14.99	3.952163880025000000	11.709
5	17.27	17.27	0.00001382352400002	0.0215	17.27	17.27	0.000013823524000021	0.0215	17.27	17.27	0.000013823524000021	0.0215	17.27	17.27	0.000013823524000021	0.0215	17.27	17.27	0.000013823524000021	0.0215
6	17.22	17.22	0.00000860248900001	0.0177	17.22	17.22	0.000008602489000013	0.0177	17.22	17.22	0.000008602489000014	0.0164	17.22	17.22	0.000008602489000014	0.0164	17.22	17.22	0.000008602489000014	0.0164
7	19.98	19.978	0.00000281232899999	0.0084	19.98	19.978	0.000000005929000000	0.0004	19.98	19.979	0.000012089528999977	0.0174	19.98	18.272	2.902331326129000000	8.5284	19.98	18.272	2.902331326129000000	8.5284
8	18.75	18.75	0.00000521206900001	0.0122	18.75	18.75	0.000005212069000009	0.0122	18.75	18.75	0.000004338889000010	0.0111	18.75	18.75	0.000006165289000008	0.0132	18.75	18.75	0.000006165289000008	0.0132
9	16.77	16.77	0.00001417522500001	0.0224	16.77	16.771	0.0000120062249999990	0.0207	16.77	16.77	0.000017347225000004	0.0248	16.77	16.77	0.000003478224999995	0.0111	16.77	16.77	0.000003478224999995	0.0111
10	18.04	18.041	0.00000443944899999	0.0117	18.04	18.041	0.000004439448999995	0.0117	18.04	18.04	0.000003265248999985	0.01	18.04	18.039	0.00000011448999999	0.0006	18.04	18.039	0.00000011448999999	0.0006
11	16.32	16.32	0.00002303999999999	0.0294	16.32	16.32	0.000023039999999995	0.0294	16.32	16.32	0.000022089999999997	0.0288	16.32	16.32	0.000024999999999990	0.0306	16.32	16.32	0.000024999999999990	0.0306
12	17.12	17.12	0.00000074476900000	0.005	17.12	17.12	0.0000009273689999998	0.0056	17.12	17.12	0.0000005821689999999	0.0045	17.12	17.12	0.0000005821689999999	0.0045	17.12	17.12	0.0000005821689999999	0.0045
13	14.99	14.99	0.00000016810000000	0.0027	14.99	14.99	0.000000168100000000	0.0027	14.99	14.99	0.000000261000000000	0.0034	14.99	14.99	0.000000168100000000	0.0027	14.99	14.99	0.000000168100000000	0.0027
14	15.84	15.84	0.00001567368100000	0.025	15.84	15.84	0.000014891881000002	0.0244	15.84	15.84	0.0000164754809999999	0.0256	15.84	15.84	0.0000164754809999999	0.0256	15.84	15.84	0.0000164754809999999	0.0256
15	18.37	18.37	0.00002909523600003	0.0294	18.37	18.37	0.000029095236000028	0.0294	18.37	18.369	0.000031292836000024	0.0304	18.37	18.37	0.0000249400359999999	0.0272	18.37	18.37	0.0000249400359999999	0.0272
16	16.24	16.24	0.00001384584099999	0.0229	16.24	16.24	0.000013116409999993	0.0223	16.24	16.24	0.000014600041000016	0.0235	16.24	16.24	0.000013116409999993	0.0223	16.24	16.24	0.000013116409999993	0.0223
17	18.65	21.565	8.49714921016900000	15.63	18.65	21.536	8.67412646496900000	15.792	18.65	22.464	14.54268309916900000	20.4477	18.65	20.914	5.123826106569100000	12.137	18.65	20.914	5.123826106569100000	12.137
18	18.10	18.101	0.00000264062499999	0.009	18.10	18.101	0.000002640624999991	0.009	18.10	18.1	0.00000105625000000	0.0018	18.10	18.308	0.043316015624999600	1.1499	18.10	18.308	0.043316015624999600	1.1499
19	18.26	18.261	0.00000410872900001	0.0111	18.26	18.261	0.000004524129000007	0.0116	18.26	18.26	0.000005890329000004	0.0133	18.26	18.26	0.000007991929000000	0.0155	18.26	18.26	0.000007991929000000	0.0155
20	15.66	15.66	0.00000525326400000	0.0146	15.66	15.661	0.000003211264000000	0.014	15.66	15.66	0.000005721664000002	0.0153	15.66	18.272	6.81057584526400000	16.662	15.66	18.272	6.81057584526400000	16.662
21	16.93	16.93	0.00000829439999999	0.0177	16.93	16.93	0.000008294399999986	0.0177	16.93	16.93	0.000008294399999986	0.0177	16.93	16.93	0.000008880399999984	0.0176	16.93	16.93	0.000008880399999984	0.0176
22	17.42	17.42	0.00001313337600002	0.0208	17.42	17.42	0.000013133376000015	0.0208	17.42	17.42	0.0000117237759999933	0.0197	17.42	17.42	0.000012418576000016	0.0202	17.42	17.42	0.000012418576000016	0.0202
23	17.10	17.1	0.00000032376100000	0.0033	17.10	17.1	0.000000323761000003	0.0033	17.10	17.1	0.0000002199609999999	0.0027	17.10	17.1	0.0000002199609999999	0.0027	17.10	17.1	0.0000002199609999999	0.0027
24	16.56	16.56	0.00000001638400000	0.0008	16.56	16.56	0.000000000784000000	0.0002	16.56	16.56	0.000000016384000000	0.0008	16.56	16.56	0.000000000784000000	0.0002	16.56	16.56	0.000000000784000000	0.0002
25	18.18	18.18	0.00000272580100000	0.0091	18.18	18.179	0.0000034262009999994	0.0102	18.18	18.18	0.000002105400999998	0.008	18.18	18.18	0.000003066000999996	0.0096	18.18	18.18	0.000003066000999996	0.0096
26	18.11	18.944	0.69627008718399300	4.6076	18.11	19.207	1.204348215183990000	6.0598	18.11	20.266	4.647594365583980000	11.904	18.11	18.471	0.130341216783998000	1.9395	18.11	18.471	0.130341216783998000	1.9395
27	16.23	16.231	0.00000540097600001	0.0143	16.23	16.232	0.000001752976000010	0.0082	16.23	16.231	0.000009759376000020	0.0192	16.23	16.245	0.000138674175999943	0.0725	16.23	16.245	0.000138674175999943	0.0725
28	16.33	16.33	0.00002503000899999	0.0306	16.33	16.33	0.000025030008999985	0.0306	16.33	16.33	0.000025030008999985	0.0306	16.33	16.33	0.000021876089999962	0.0282	16.33	16.33	0.000021876089999962	0.0282
29	18.00	17.999	0.00000254402500001	0.0089	18.00	17.999	0.0000016770249999937	0.0072	18.00	18	0.000005736025000000	0.0133	18.00	18	0.000004818025000002	0.0122	18.00	18	0.000004818025000002	0.0122
30	17.07	17.07	0.00000001488400000	0.0007	17.07	17.07	0.000000014884000000	0.0007	17.07	17.07	0.000000049284000000	0.0013	17.07	17.07	0.000000049284000000	0.0013	17.07	17.07	0.000000049284000000	0.0013
31	16.69	16.69	0.00000570732100000	0.0143	16.69	16.69	0.000006195121000003	0.0149	16.69	16.69	0.000006195121000003	0.0149	16.69	16.69	0.000007230721000001	0.0161	16.69	16.69	0.000007230721000001	0.0161
32	16.97	16.97	0.00000396806399999	0.0117	16.97	16.97	0.0000035796639999992	0.0112	16.97	16.97	0.0000043764639999990	0.0123	16.97	16.97	0.0000043764639999990	0.0123	16.97	16.97	0.0000043764639999990	0.0123
33	17.58	17.58	0.00000007398400000	0.0015	17.58	17.58	0.0000000739839999999	0.0015	17.58	17.58	0.0000000739839999999	0.0015	17.58	17.58	0.0000001383839999999	0.0021	17.58	17.58	0.0000001383839999999	0.0021
34	17.39	16.269	1.24854923822501000	6.427	17.39	16.519	0.751142889225001000	4.965	17.39	16.055	1.770190335225010000	7.8527	17.39	16.358	1.05895876722500000	5.9133	17.39	16.358	1.05895876722500000	5.9133
35	17.22	17.22	0.00000860248900001	0.0177	17.22	17.22	0.000008602489000013	0.0177	17.22	17.22	0.000009199089000013	0.0176	17.22	17.22	0.000008025889000014	0.0164	17.22	17.22	0.000008025889000014	0.0164
36	18.18	18.18	0.00001825201000000	0.0074	18.18	18.18	0.000018252009999999	0.0074	18.18	18.18	0.000018252009999999	0.0074	18.18	18.18	0.00001565001000000	0.0063	18.18	18.18	0.00001565001000000	0.0063
37	19.38	19.379	0.00002597940900003	0.0263	19.38	19.379	0.000028058209000025	0.0273	19.38	19.38	0.000022061809000035	0.0242	19.38	18.252	1.28345561260900000	5.8443	19.38	18.252	1.28345561260900000	5.8443
38	18.87	18.87	0.00002159460900002	0.0246	18.87	18.87	0.000021594609000019	0.0246	18.87	18.87	0.000021594609000019	0.0246	18.87	18.87	0.000021594609000019	0.0246	18.87	18.87	0.000021594609000019	0.0246
39	19.45	19.45	0.00001460004099999	0.0196	19.45	19.45	0.0000153742409999987	0.0202	19.45	19.45	0.0000153742409999987	0.0202	19.45	19.45	0.0000186710409999977	0.0222	19.45	19.45	0.0000186710409999977	0.0222
40	19.22	19.22	0.00000208802500001	0.0075	19.22	19.22	0.000002088025000011	0.0075	19.22	19.22	0.000002088025000011	0.0075	19.22	19.22	0.000002088025000011	0.0075	19.22	19.22	0.000002088025000011	0.0075
41	17.70	17.7	0.00000357966400001	0.0107	17.70	17.7	0.000003579664000005	0.0113	17.70	17.7	0.000003968064000005	0.0113	17.70	17.7	0.000003968064000005	0.0113	17.70	17.7	0.000003968064000005	0.0113
42				29.481				29.18				48.066				64.461				

Lampiran 8 hasil evaluasi matrik nilai iterasi (epochs) ANFIS

m3gb10				m3gb50				m3gb100			
Aktual	Prediksi	se	ape	aktual	prediksi	se	ape	aktual	prediksi	se	ape
18.97	18.97	1.211E-05	0.0183	18.97	18.97	1.211E-05	0.0183	18.97	18.97	1.21104E-05	0.0183
17.33	17.331	1.936E-05	0.0254	17.33	17.331	1.936E-05	0.0254	17.33	17.331	1.936E-05	0.0254
16.98	16.667	0.09647547	1.8295	16.98	16.667	0.0964755	1.8295	16.98	16.667	0.096475466	1.8295
17.27	17.27	1.3824E-05	0.0215	17.27	17.27	1.382E-05	0.0215	17.27	17.27	1.38235E-05	0.0215
17.22	17.22	8.6025E-06	0.017	17.22	17.22	8.602E-06	0.017	17.22	17.22	8.60249E-06	0.017
19.96	19.976	5.929E-09	0.0004	19.96	19.976	5.929E-09	0.0004	19.96	19.976	5.929E-09	0.0004
18.75	18.75	5.212E-06	0.0122	18.75	18.75	5.212E-06	0.0122	18.75	18.75	5.21209E-06	0.0122
16.77	16.771	1.2006E-05	0.0207	16.77	16.771	1.201E-05	0.0207	16.77	16.771	1.20062E-05	0.0207
18.04	18.041	4.4394E-06	0.0117	18.04	18.041	4.439E-06	0.0117	18.04	18.041	4.43945E-06	0.0117
16.32	16.32	2.304E-05	0.0294	16.32	16.32	2.304E-05	0.0294	16.32	16.32	2.304E-05	0.0294
17.12	17.12	9.2737E-07	0.0056	17.12	17.12	9.274E-07	0.0056	17.12	17.12	9.27369E-07	0.0056
14.99	14.99	1.681E-07	0.0027	14.99	14.99	1.681E-07	0.0027	14.99	14.99	1.681E-07	0.0027
15.84	15.84	1.4892E-05	0.0244	15.84	15.84	1.489E-05	0.0244	15.84	15.84	1.48919E-05	0.0244
18.37	18.37	2.9095E-05	0.0294	18.37	18.37	2.91E-05	0.0294	18.37	18.37	2.90952E-05	0.0294
16.24	16.24	1.3112E-05	0.0223	16.24	16.24	1.311E-05	0.0223	16.24	16.24	1.31116E-05	0.0223
18.65	21.596	8.67412646	15.792	18.65	21.596	8.6741265	15.792	18.65	21.596	8.674126465	15.792
18.10	18.101	2.6406E-06	0.009	18.10	18.101	2.641E-06	0.009	18.10	18.101	2.64062E-06	0.009
18.26	18.261	4.5241E-06	0.0116	18.26	18.261	4.524E-06	0.0116	18.26	18.261	4.52413E-06	0.0116
15.66	15.661	3.2113E-06	0.0114	15.66	15.661	3.211E-06	0.0114	15.66	15.661	3.21126E-06	0.0114
16.93	16.93	8.2944E-06	0.017	16.93	16.93	8.294E-06	0.017	16.93	16.93	8.2944E-06	0.017
17.42	17.42	1.3133E-05	0.0208	17.42	17.42	1.313E-05	0.0208	17.42	17.42	1.31334E-05	0.0208
17.10	17.1	3.2376E-07	0.0033	17.10	17.1	3.238E-07	0.0033	17.10	17.1	3.23761E-07	0.0033
16.56	16.56	7.84E-10	0.0002	16.56	16.56	7.84E-10	0.0002	16.56	16.56	7.84E-10	0.0002
18.18	18.179	3.4262E-06	0.0102	18.18	18.179	3.426E-06	0.0102	18.18	18.179	3.4262E-06	0.0102
18.11	19.207	1.20434822	6.0598	18.11	19.207	1.2043482	6.0598	18.11	19.207	1.204348215	6.0598
16.23	16.232	1.753E-06	0.0082	16.23	16.232	1.753E-06	0.0082	16.23	16.232	1.75298E-06	0.0082
16.33	16.33	2.503E-05	0.0306	16.33	16.33	2.503E-05	0.0306	16.33	16.33	2.503E-05	0.0306
18.00	17.999	1.677E-06	0.0072	18.00	17.999	1.677E-06	0.0072	18.00	17.999	1.67702E-06	0.0072
17.07	17.07	1.4884E-08	0.0007	17.07	17.07	1.488E-08	0.0007	17.07	17.07	1.4884E-08	0.0007
16.69	16.69	6.1951E-06	0.0149	16.69	16.69	6.195E-06	0.0149	16.69	16.69	6.19512E-06	0.0149
16.97	16.97	3.5797E-06	0.0112	16.97	16.97	3.58E-06	0.0112	16.97	16.97	3.57966E-06	0.0112
17.58	17.58	7.3984E-08	0.0015	17.58	17.58	7.398E-08	0.0015	17.58	17.58	7.3984E-08	0.0015
17.39	16.519	0.75114289	4.985	17.39	16.519	0.7511429	4.985	17.39	16.519	0.751142889	4.985
17.22	17.22	8.6025E-06	0.017	17.22	17.22	8.602E-06	0.017	17.22	17.22	8.60249E-06	0.017
18.18	18.18	1.8252E-06	0.0074	18.18	18.18	1.825E-06	0.0074	18.18	18.18	1.8252E-06	0.0074
19.38	19.379	2.8058E-05	0.0273	19.38	19.379	2.806E-05	0.0273	19.38	19.379	2.80582E-05	0.0273
18.87	18.87	2.1595E-05	0.0246	18.87	18.87	2.159E-05	0.0246	18.87	18.87	2.15946E-05	0.0246
19.45	19.45	1.5374E-05	0.0202	19.45	19.45	1.537E-05	0.0202	19.45	19.45	1.53742E-05	0.0202
19.22	19.22	2.088E-06	0.0075	19.22	19.22	2.088E-06	0.0075	19.22	19.22	2.08803E-06	0.0075
17.70	17.7	3.9681E-06	0.0113	17.70	17.7	3.968E-06	0.0113	17.70	17.7	3.96806E-06	0.0113
			29.18				29.18				29.18
	MSE	0.26816013			MSE	0.2681601			MSE	0.26816013	
	RMSE	0.5178418			RMSE	0.5178418			RMSE	0.517841801	
	MAPE	0.72950268			MAPE	0.7295027			MAPE	0.729502678	
	R SQU	0.8503			R SQU	0.8503			R SQU	0.8503	