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LAMPIRAN

Lampiran 1. Data Curah Hujan dan Data Deret Input Curah Hujan

Tanggal	Temperatur (°C)	Kelembaban (%)	Kecepatan Angin (m/s)	Curah Hujan (mm)
01 Jan. 2022	25.6	90.0	1	110.4
02 Jan. 2022	26.3	88.0	2	12.4
03 Jan. 2022	27.4	86.0	2	27.9
04 Jan. 2022	26.5	86.0	2	11.7
05 Jan. 2022	27.5	80.0	2	0.9
06 Jan. 2022	26.7	87.0	2	50.2
07 Jan. 2022	27.3	84.0	2	4
08 Jan. 2022	27.5	83.5	2	2.6
09 Jan. 2022	28.3	82.0	2	0.1
10 Jan. 2022	27.6	81.0	2	2
11 Jan. 2022	28.0	78.0	3	0.3
12 Jan. 2022	26.4	86.0	3	29
13 Jan. 2022	27.1	83.0	2	4.2
14 Jan. 2022	25.2	88.0	2	38.5
15 Jan. 2022	26.5	86.0	4	24.7
16 Jan. 2022	26.6	86.0	3	48.8
17 Jan. 2022	28.3	82.0	2	0.1
18 Jan. 2022	26.2	89.0	2	6.2
19 Jan. 2022	25.5	91.0	2	91.9
20 Jan.2022	24.2	96.0	2	123.1
21 Jan. 2022	24.6	94.0	2	99.3
22 Jan. 2022	26.8	88.0	2	20.3
23 Jan. 2022	27.2	86.0	3	4.8
24 Jan. 2022	28.7	80.0	3	0.7
25 Jan. 2022	25.7	88	2	30.5
26 Jan. 2022	27.2	82	2	10.3
⋮	⋮	⋮	⋮	⋮
24 Jan. 2023	27.2	86	2	19.2
25 Jan. 2023	27.4	86	3	14.3
26 Jan. 2023	27.0	86	3	9.1
27 Jan. 2023	26.5	87	3	30.4
28 Jan. 2023	26.5	90	3	34.0
29 Jan. 2023	25.4	93	2	45.7
30 Jan. 2023	24.9	94	2	38.5
31 Jan. 2023	26.6	88	2	42.9

Lampiran 2. Ramalan Curah Hujan (mm) Harian Kota Makassar Menggunakan Model Fungsi Multi Input dan Fungsi Transfer *Single* Input

t	Tanggal	Data Aktual	Ramalan			
			Fungsi Transfer Multi Input	Fungsi Transfer *Single* Input		
				Input Suhu Udara	Input Kelembaban Udara	Input Kecepatan Angin
1	01 Jan. 2023	1.0	20.5311	28.7128	19.9837	14.3571
2	02 Jan. 2023	0.0	11.3071	18.3757	11.9539	-0.7899
3	03 Jan. 2023	9.6	35.8831	26.0757	20.9665	14.4354
4	04 Jan. 2023	42.1	54.7789	49.1431	27.6342	29.3379
5	05 Jan. 2023	90.7	75.6112	48.7013	43.3536	50.6850
6	06 Jan. 2023	28.0	32.8229	38.1577	40.3523	37.1982
7	07 Jan. 2023	27.8	25.9960	24.4633	26.4546	23.0937
8	08 Jan. 2023	22.6	21.7394	21.3382	25.6253	15.7830
9	09 Jan. 2023	12.5	35.3673	31.6209	21.2334	19.3096
10	10 Jan. 2023	30.5	27.9842	18.2946	22.5271	29.0131
11	11 Jan. 2023	10.3	22.5594	21.1956	20.1094	25.2106
12	12 Jan. 2023	5.2	3.1862	13.3404	7.1418	7.2196
13	13 Jan. 2023	0.0	0.1702	10.6392	3.0847	5.1830
14	14 Jan. 2023	0.0	8.0784	8.3195	7.9994	7.4979
15	15 Jan. 2023	2.0	13.9548	14.7692	11.1667	1.5561
16	16 Jan. 2023	0.0	0.3528	10.5943	7.3637	-1.1561
17	17 Jan. 2023	9.3	2.9566	8.9258	0.3393	1.9249
18	18 Jan. 2023	18.6	21.2797	11.0519	17.0191	19.6603
19	19 Jan. 2023	87.9	73.4030	40.3639	38.7023	30.3276
20	20 Jan.2023	6.6	30.7551	36.6870	34.8819	36.6546
21	21 Jan. 2023	16.3	5.7320	3.9562	13.9184	13.7770
22	22 Jan. 2023	0.4	15.6379	10.6655	17.7629	12.4430
23	23 Jan. 2023	7.3	29.7109	13.1567	20.7927	15.7006
24	24 Jan. 2023	19.2	22.9164	11.0560	21.6061	18.4095
25	25 Jan. 2023	14.3	20.0535	14.0037	21.3766	16.7793
26	26 Jan. 2023	9.1	27.7306	19.0156	20.8183	17.8951
27	27 Jan. 2023	30.4	31.1879	19.6344	21.4779	21.7952
28	28 Jan. 2023	34.0	38.0928	27.5756	30.6200	27.0461
29	29 Jan. 2023	45.7	46.0977	29.6402	37.1530	33.7645
30	30 Jan. 2023	38.5	46.2954	26.8940	41.7515	42.7298
31	31 Jan. 2023	1.0	32.8443	22.6329	31.1944	31.2018

Lampiran 3. *Output Software R* Uji Signifikansi dan Estimasi Parameter Model ARIMA Suhu Udara

```
> #Model tentatif ARIMA SUHU UDARA
> coeftest(arima(suhu,order = c(1,0,0),method = "ML"))
z test of coefficients:
            Estimate Std. Error z value  Pr(>|z|)
ar1       0.50068811 0.04553285  10.996 < 2.2e-16 ***
intercept 0.03596124 0.00014233 252.661 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
> coeftest(arima(suhu,order = c(1,0,1),method = "ML"))
z test of coefficients:
             Estimate  Std. Error  z value Pr(>|z|)
ar1        0.70388807  0.07953166   8.8504  < 2e-16 ***
ma1       -0.27621354  0.11009314  -2.5089  0.01211 *
intercept  0.03597214  0.00016833 213.6958  < 2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
> coeftest(arima(suhu,order = c(1,0,2),method = "ML"))
z test of coefficients:
             Estimate  Std. Error  z value  Pr(>|z|)
ar1        0.98124130  0.01914836  51.2441 < 2.2e-16 ***
ma1       -0.60928905  0.05394952 -11.2937 < 2.2e-16 ***
ma2       -0.24693172  0.05116116  -4.8265 1.389e-06 ***
intercept  0.03628129  0.00052711  68.8307 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> coeftest(arima(suhu,order = c(1,0,3),method = "ML"))
z test of coefficients:
             Estimate  Std. Error  z value  Pr(>|z|)
ar1        0.98617211  0.01362073  72.4023 < 2.2e-16 ***
ma1       -0.59725420  0.05419344 -11.0208 < 2.2e-16 ***
ma2       -0.16730847  0.06480174  -2.5819  0.009827 **
ma3       -0.11717699  0.05141424  -2.2791  0.022663 *
intercept  0.03631826  0.00055322  65.6485 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
> coeftest(arima(suhu,order = c(2,0,0),method = "ML"))
z test of coefficients:
            Estimate Std. Error  z value Pr(>|z|)
ar1       0.44108268 0.05208363   8.4687  < 2e-16 ***
ar2       0.12135697 0.05264662   2.3051  0.02116 *
intercept 0.03596847 0.00015866 226.7067  < 2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
> coeftest(arima(suhu,order = c(2,0,1),method = "ML"))
z test of coefficients:
             Estimate  Std. Error  z value  Pr(>|z|)
ar1        1.33421667  0.06039200  22.0926 < 2.2e-16 ***
ar2       -0.34222914  0.05768703  -5.9325 2.983e-09 ***
ma1       -0.92745456  0.02891033 -32.0804 < 2.2e-16 ***
intercept  0.03636139  0.00059416  61.1979 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
> coeftest(arima(suhu,order = c(2,0,2),method = "ML"))
z test of coefficients:
             Estimate  Std. Error z value  Pr(>|z|)
ar1        1.39634508  0.14274823  9.7819 < 2.2e-16 ***
ar2       -0.40406541  0.13986953 -2.8889  0.003866 **
ma1       -0.99664750  0.14981817 -6.6524 2.884e-11 ***
ma2        0.06214617  0.12985492  0.4786  0.632236
intercept  0.03633618  0.00056032 64.8494 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

Lampiran 3. *Output Software R* Uji Signifikansi dan Estimasi Parameter Model ARIMA Suhu Udara (Lanjutan**)**

```
z test of coefficients:
            Estimate Std. Error z value  Pr(>|z|)
ar1        1.2903104  0.2384831  5.4105 6.285e-08 ***
ar2       -0.2980650  0.2352750 -1.2669 0.2051985
ma1       -0.8981884  0.2383023 -3.7691 0.0001638 ***
ma2        0.0295945  0.1599652  0.1850 0.8532246
ma3       -0.0564132  0.0823625 -0.6849 0.4933832
intercept  0.0365097  0.0007545 48.3892 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
> #Mendefinisikan model ARIMA yg memenuhi uji siignifikansi
paramater
> mt1<-arima(suhu,order = c(1,0,0))
> mt2<-arima(suhu,order = c(1,0,1))
> mt3<-arima(suhu,order = c(1,0,2))
> mt4<-arima(suhu,order = c(1,0,3))
> mt5<-arima(suhu,order = c(2,0,0))
> mt6<-arima(suhu,order = c(2,0,1))
> Menentukan nilai AIC menggunakan data awal X1(SUHU UDARA)
> #Menentukan nilai AIC menggunakan data awal X1(SUHU UDARA)
> mt1$aic
[1] -3828.423
> mt2$aic
[1] -3832.549
> mt3$aic
[1] -3837.271
> mt4$aic
[1] -3840.323
> mt5$aic
[1] -3831.697
> mt6$aic
[1] -3842.536
```

Lampiran 4. *Output Software R* Perhitungan MSE model ARIMA Suhu Udara

```
> #Menghitung MSE dari model ARIMA
> residu1<-mt1$residuals
> mse <- mean(residu1^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 1,0,0:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 1,0,0: 1.602514e-06
> residuals1 <- mt2$residuals
> mse <- mean(residuals1^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 1,0,1:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 1,0,1: 1.57566e-06
> residuals2 <- mt3$residuals
> mse <- mean(residuals2^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 1,0,2:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 1,0,2: 1.54469e-06
> residuals3 <- mt4$residuals
> mse <- mean(residuals3^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 1,0,3:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 1,0,3: 1.523309e-06
> residuals4 <- mt5$residuals
> mse <- mean(residuals4^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 2,0,0:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 2,0,0: 1.579391e-06
> residuals5 <- mt6$residuals
> mse <- mean(residuals5^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 2,0,1:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 2,0,1: 1.522401e-06
```

Lampiran 5. *Output Software R* Uji Signifikansi dan Estimasi Parameter Model ARIMA Kelembaban Udara

```
#Model tentatif ARIMA KELEMBABAN UDARA
> coeftest(arima(kelembaban,order = c(1,0,0),method = "ML"))

z test of coefficients:

            Estimate Std. Error z value  Pr(>|z|)
ar1       6.3155e-01 4.1343e-02 15.2760 < 2.2e-16 ***
intercept 1.5573e-04 5.3335e-05  2.9198  0.003503 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> coeftest(arima(kelembaban,order = c(1,0,1),method = "ML"))

z test of coefficients:

             Estimate  Std. Error z value  Pr(>|z|)
ar1        8.1965e-01  5.4115e-02 15.1463 < 2.2e-16 ***
ma1       -3.2659e-01  8.5680e-02 -3.8117  0.000138 ***
intercept  1.5539e-04  6.0738e-05  2.5583  0.010518 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> coeftest(arima(kelembaban,order = c(1,0,2),method = "ML"))

z test of coefficients:

             Estimate  Std. Error z value  Pr(>|z|)
ar1        8.4111e-01  7.2707e-02 11.5685 < 2.2e-16 ***
ma1       -3.4300e-01  9.3450e-02 -3.6704 0.0002422 ***
ma2       -3.7496e-02  7.9569e-02 -0.4712 0.6374706
intercept  1.5539e-04  6.5529e-05  2.3712 0.0177280 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> coeftest(arima(kelembaban,order = c(2,0,0),method = "ML"))

z test of coefficients:

            Estimate Std. Error z value  Pr(>|z|)
ar1       5.1607e-01 5.1456e-02 10.0294 < 2.2e-16 ***
ar2       1.8454e-01 5.3034e-02  3.4797 0.0005019 ***
intercept 1.5554e-04 5.5331e-05  2.8111 0.0049370 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> #Menentukan nilai AIC menggunakan data awal X2(KELEMBABAN
UDARA)
> c100$aic
[1] -7005.35
> c101$aic
[1] -7018.117
> c102$aic
[1] -7016.38
> c200$aic
[1] -7015.858
```

Lampiran 6. *Output Software R* Perhitungan MSE model ARIMA Kelembaban Udara

```
#Menghitung MSE dari model ARIMA kelembaban udara
> residu1<-c100$residuals
> mse <- mean(residu1^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 1,0,0:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 1,0,0: 2.657545e-10
> residu2<-c101$residuals
> mse <- mean(residu2^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 1,0,1:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 1,0,1: 2.551504e-10
> residu3<-c102$residuals
> mse <- mean(residu3^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 1,0,2:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 1,0,2: 2.549615e-10
> residu4<-c200$residuals
> mse <- mean(residu4^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 2,0,0:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 2,0,0: 2.567508e-10
```

Lampiran 7. *Output Software R* Uji Signifikansi dan Estimasi Parameter Model ARIMA Kecepatan Angin

```
#Model tentatif ARIMA SUHU UDARA
> a100<-arima(kecangin,order = c(1,0,0))
> a101<-arima(kecangin,order = c(1,0,1))
> a103<-arima(kecangin,order = c(1,0,3))
> a104<-arima(kecangin,order = c(1,0,4))
> #Uji signifikansi parameter
> coeftest(a100,method="ML")

z test of coefficients:

          Estimate Std. Error  z value  Pr(>|z|)
ar1       0.258267   0.051083   5.0558 4.286e-07 ***
intercept 1.430031   0.012480 114.5875 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> coeftest(a101,method="ML")

z test of coefficients:

           Estimate Std. Error z value  Pr(>|z|)
ar1        0.690613   0.191431  3.6076  0.000309 ***
ma1       -0.489754   0.237288 -2.0640  0.039021 *
intercept  1.429964   0.015187 94.1595 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> coeftest(a103,method="ML")

z test of coefficients:

           Estimate Std. Error z value  Pr(>|z|)
ar1        0.817661   0.124732  6.5554 5.551e-11 ***
ma1       -0.582924   0.132798 -4.3895 1.136e-05 ***
ma2       -0.120993   0.066108 -1.8302   0.06721 .
ma3        0.037441   0.055385  0.6760   0.49903
intercept  1.430299   0.016735 85.4676 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> coeftest(a104,method="ML")

z test of coefficients:

           Estimate Std. Error z value  Pr(>|z|)
ar1        0.764115   0.195910  3.9003 9.606e-05 ***
ma1       -0.525730   0.203145 -2.5880  0.009655 **
ma2       -0.115918   0.074707 -1.5516  0.120750
ma3        0.023279   0.059354  0.3922  0.694901
ma4        0.041733   0.058775  0.7100  0.477673
intercept  1.429969   0.016419 87.0933 < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

Lampiran 8. *Output Software R* Perhitungan MSE model ARIMA Kecepatan Angin

```
#Menghitung MSE dari model ARIMA kelembaban udara
> residu1<-a100$residuals
> mse <- mean(residu1^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 1,0,0:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 1,0,0: 0.03103436
> residu2<-a101$residuals
> mse <- mean(residu2^2)
> cat("Mean Squared Error (MSE) dari model ARIMA 1,0,1:", mse,
"\n")
Mean Squared Error (MSE) dari model ARIMA 1,0,1: 0.03116436
```

Lampiran 9. *Output Software R* uji ADF untuk deret input suhu udara

```
Augmented Dickey-Fuller Test

data:  suhu
Dickey-Fuller = -3.6717, Lag order = 7, p-value = 0.02632
alternative hypothesis: stationary
```

Lampiran 10. *Output Software R* uji ADF untuk deret input Kelembaban udara

```
Augmented Dickey-Fuller Test

data:  kelembaban
Dickey-Fuller = -4.6167, Lag order = 7, p-value = 0.01
alternative hypothesis: stationary
```

Lampiran 11. *Output Software R* uji ADF untuk deret input Kecepatan Angin

```
Augmented Dickey-Fuller Test

data:  kecangin
Dickey-Fuller = -5.0848, Lag order = 7, p-value = 0.01
alternative hypothesis: stationary
```

Lampiran 12. Deret Input dan Deret Output Setelah dilakukan Prewhitening

t	α_{1t}	β_{1t}	α_{2t}	β_{2t}	α_{3t}	β_{3t}
1	25.56	110.36	90.00	110.40	-0.43	108.97
2	-8.82	-138.95	43.62	-42.03	0.68	-17.14
3	16.34	118.77	28.12	4.01	0.39	30.89
4	13.70	-18.38	24.69	-9.86	0.47	2.30
5	17.02	11.80	17.57	-11.91	0.45	-1.12
6	13.93	59.38	27.17	45.57	0.45	49.06
7	16.64	-64.34	21.56	-22.26	0.45	-10.09
8	15.20	46.13	21.69	-7.95	0.45	3.77
9	16.34	-1.37	20.64	-4.63	0.45	-2.30
10	14.72	4.29	20.53	0.41	0.45	1.16
11	16.85	-2.47	18.31	-1.21	1.45	-1.43
12	13.99	30.51	28.05	28.36	1.20	27.94
13	17.30	-35.36	21.67	-10.31	0.26	-4.44
14	12.86	61.04	27.05	31.69	0.50	38.22
15	17.51	-25.03	22.70	3.49	2.44	13.41
16	13.94	52.43	22.92	29.70	0.94	43.91
17	16.84	-44.05	19.00	-30.20	0.33	-12.66
18	12.46	52.89	27.99	-3.75	0.49	8.04
19	16.30	81.76	27.19	85.59	0.44	88.40
20	13.85	3.22	30.29	75.73	0.46	98.86
21	15.42	20.14	25.21	23.13	0.45	72.36
22	15.82	1.21	19.18	-53.54	0.45	0.20
23	13.65	69.73	20.14	-29.32	1.45	3.32
24	16.73	10.55	16.09	-12.81	1.20	-1.59
25	14.99	3.10	21.68	-4.76	1.26	-1.02
26	16.34	0.50	19.87	-1.55	0.24	-1.17
27	16.33	-0.05	18.92	-0.51	0.51	-1.13
28	13.57	27.27	29.25	27.13	0.44	26.16
29	18.81	-13.85	17.24	10.09	0.46	15.42
30	14.52	9.10	20.88	-1.25	0.45	9.39
31	15.50	1.77	26.25	-12.54	1.45	-3.85
32	15.20	21.93	23.70	4.20	0.20	7.86
⋮	⋮	⋮	⋮	⋮	⋮	⋮
361	12.37	34.29	23.93	6.75	1.24	29.40
362	15.53	83.74	32.32	73.55	0.25	92.98
363	14.65	-69.29	25.69	-24.38	0.51	9.78
364	14.59	106.92	24.16	19.98	0.44	52.85
365	15.88	-6.87	16.48	0.17	1.46	25.14

Lampiran 13. Nilai Covarian $\left(\hat{\gamma}_{\alpha\beta}(k)\right)$, CCF $\left(\hat{\rho}_{\alpha\beta}(k)\right)$, dan Respon Impuls $(\hat{v}_k)$ Fungsi Transfer untuk Masing-Masing Deret Input

	FTSI X1			FTSI X2			FTSI X3		
k	$\hat{\gamma}_{\alpha\beta}(k)$	$\hat{\rho}_{\alpha\beta}(k)$	$\hat{v}_k$	$\hat{\gamma}_{\alpha\beta}(k)$	$\hat{\rho}_{\alpha\beta}(k)$	$\hat{v}_k$	$\hat{\gamma}_{\alpha\beta}(k)$	$\hat{\rho}_{\alpha\beta}(k)$	$\hat{v}_k$
0	-12.47	-0.46	-8.19	57.73	0.48	1.89	1.52	0.12	4.83
1	-9.67	-0.36	-6.35	46.58	0.39	1.52	3.12	0.26	9.92
2	-4.65	-0.17	-3.06	28.98	0.24	0.95	1.54	0.13	4.91
3	-3.04	-0.11	-2.00	21.51	0.18	0.70	2.07	0.17	6.59
4	-2.28	-0.08	-1.50	13.65	0.11	0.45	2.50	0.20	7.96
5	-3.44	-0.13	-2.26	17.40	0.14	0.57	2.54	0.21	8.07
6	-3.44	-0.13	-2.26	15.93	0.13	0.52	1.46	0.12	4.64
7	-3.15	-0.12	-2.07	15.47	0.13	0.50	1.56	0.13	4.97
8	-3.64	-0.14	-2.39	16.89	0.14	0.55	0.79	0.06	2.51
9	-2.84	-0.11	-1.87	9.81	0.08	0.32	0.69	0.06	2.20
10	-2.85	-0.11	-1.87	10.67	0.09	0.35	-0.22	-0.02	-0.71
11	-3.39	-0.13	-2.23	19.63	0.16	0.64	-0.17	-0.01	-0.53
12	-2.81	-0.10	-1.85	16.23	0.13	0.53	0.33	0.03	1.06
13	-3.07	-0.11	-2.02	20.24	0.17	0.66	-0.38	-0.03	-1.20
14	-2.33	-0.09	-1.53	14.04	0.12	0.46	0.14	0.01	0.44
15	-0.45	-0.02	-0.29	13.84	0.11	0.45	0.29	0.02	0.94
16	-0.87	-0.03	-0.57	11.27	0.09	0.37	0.53	0.04	1.69
17	-0.80	-0.03	-0.53	10.36	0.09	0.34	0.14	0.01	0.44
18	-2.12	-0.08	-1.39	11.88	0.10	0.39	-0.81	-0.07	-2.58
19	-1.25	-0.05	-0.82	6.69	0.06	0.22	-0.55	-0.05	-1.76
20	-1.72	-0.06	-1.13	5.67	0.05	0.19	-0.21	-0.02	-0.67
21	-0.37	-0.01	-0.24	1.00	0.01	0.03	0.48	0.04	1.54
22	-1.19	-0.04	-0.78	2.39	0.02	0.08	0.31	0.03	1.00
23	-0.51	-0.02	-0.34	-0.71	-0.01	-0.02	1.27	0.10	4.05
24	-1.20	-0.04	-0.79	0.69	0.01	0.02	0.72	0.06	2.29
25	-0.59	-0.02	-0.38	-3.54	-0.03	-0.12	0.15	0.01	0.49
26	-0.24	-0.01	-0.16	2.57	0.02	0.08	-0.14	-0.01	-0.45
27	0.00	0.00	0.00	3.01	0.02	0.10	0.85	0.07	2.70
28	0.03	0.00	0.02	4.43	0.04	0.14	0.82	0.07	2.61
29	-0.98	-0.04	-0.64	7.63	0.06	0.25	1.21	0.10	3.84
30	0.44	0.02	0.29	8.75	0.07	0.29	0.89	0.07	2.82
31	2.47	0.09	1.63	18.39	0.15	0.60	0.71	0.06	2.26
32	-1.52	-0.06	-1.00	8.26	0.07	0.27	1.22	0.10	3.87
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
363	-0.18	-0.01	-0.12	0.74	0.01	0.02	-0.08	-0.01	-0.27
364	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
365	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Lampiran 14. *Output SAS* Estimasi Parameter Model Awal Model Fungsi Transfer Suhu Udara dan Curah Hujan Kota Makassar

Conditional Least Squares Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > |t|	Lag	Variable	Shift
MU	293.10750	30.64924	9.56	<.0001	0	Y	0
NUM1	-6.40575	0.86476	-7.41	<.0001	0	X1	0
NUM1,1	4.07548	0.90312	4.51	<.0001	1	X1	0
DEN1,1	-0.03639	0.10013	-0.36	0.7165	2	X1	0

Lampiran 15. *Output SAS* Estimasi Parameter Model Awal Model Fungsi Transfer Kelembaban Udara dan Curah Hujan Kota Makassar

Conditional Least Squares Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > |t|	Lag	Variable	Shift
MU	-155.52325	21.18364	-7.34	<.0001	0	Y	0
AR1,1	0.21426	0.05191	4.13	<.0001	1	Y	0
NUM1	1.35118	0.21257	6.36	<.0001	0	X2	0
NUM1,1	-0.84195	0.21427	-3.93	0.0001	1	X2	0
DEN1,1	-0.05996	0.12212	-0.49	0.6238	2	X2	0

Lampiran 16. *Output SAS* Estimasi Parameter Model Awal Model Fungsi Transfer Kecepatan Angin dan Curah Hujan Kota Makassar

Conditional Least Squares Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > |t|	Lag	Variable	Shift
MU	-5.58465	5.73536	-0.97	0.3308	0	Y	0
AR1,1	0.35573	0.04961	7.17	<.0001	1	Y	0
NUM1	8.42496	1.92572	4.37	<.0001	0	X3	1
DEN1,1	-0.03827	0.22615	-0.17	0.8657	1	X3	1

Lampiran 17. *Output SAS* Estimasi Parameter Model Awal Model Fungsi Transfer Multi Input

Conditional Least Squares Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > |t|	Lag	Variable	Shift
NUM1	-4.07993	0.69111	-5.90	<.0001	0	X1	0
NUM1,1	2.08242	0.73230	2.84	0.0047	1	X1	0
DEN1,1	-0.29453	0.12651	-2.33	0.0205	2	X1	0
NUM2	1.12373	0.19241	5.84	<.0001	0	X2	0
NUM1,1	-0.63088	0.20924	-3.02	0.0028	1	X2	0
DEN1,1	-0.10204	0.12836	-0.79	0.4272	2	X2	0
NUM3	8.33781	1.68217	4.96	<.0001	0	X3	1
DEN1,1	-0.11442	0.20483	-0.56	0.5768	1	X3	1

Lampiran 18. *Output SAS* Estimasi Parameter Model Akhir Fungsi Transfer Multi Input

Conditional Least Squares Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > |t|	Lag	Variable	Shift
AR1,1	0.13302	0.05291	2.51	0.0124	1	Y	0
NUM1	-4.04592	0.68146	-5.94	<.0001	0	X1	0
NUM1,1	2.06257	0.69714	2.96	0.0033	1	X1	0
DEN1,1	-0.28325	0.12872	-2.20	0.0284	2	X1	0
NUM2	1.10757	0.19049	5.81	<.0001	0	X2	0
NUM1,1	-0.63340	0.19771	-3.20	0.0015	1	X2	0
DEN1,1	-0.08696	0.13205	-0.66	0.5106	2	X2	0
NUM3	8.09431	1.67314	4.84	<.0001	0	X3	1
DEN1,1	-0.13791	0.20508	-0.67	0.5017	1	X3	1