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LAMPIRAN

Lampiran 1 : Data Curah Hujan

TAHUN/MUSIM	JAS	ASO	SON	OND	NDJ	DJF
1950	59.31	114.54	183.98	412.59	516.67	593.60
1951	17.96	30.94	45.19	142.66	296.09	581.36
1952	23.55	53.87	156.59	342.33	457.67	431.61
1953	13.59	16.30	88.53	199.62	417.39	565.15
1954	49.94	75.57	186.76	470.22	581.79	480.75
1955	102.45	93.38	261.48	395.98	630.91	685.19
1956	88.20	118.75	163.41	371.59	464.83	588.13
1957	26.17	16.11	76.10	271.67	410.85	642.42
1958	42.93	87.07	127.10	365.31	576.83	507.99
1959	46.06	13.43	80.87	303.21	573.25	625.21
1960	53.60	37.44	130.37	238.60	543.93	798.62
1961	6.37	32.22	100.13	240.26	516.15	676.49
1962	26.42	49.91	139.10	397.74	677.93	658.89
1963	1.29	1.23	28.49	148.83	322.58	752.53
1964	67.88	101.69	217.87	421.32	729.58	462.45
1965	0.00	8.94	58.30	301.74	561.11	837.26
1966	0.00	33.68	121.49	275.68	639.27	755.16
1967	40.75	42.60	108.06	247.36	596.07	763.75
1968	102.57	61.25	106.24	301.54	423.65	691.33
1969	19.31	31.60	86.17	235.28	412.90	501.64
1970	36.05	60.87	142.73	381.46	526.91	558.98
1971	66.53	150.35	277.77	441.31	722.87	675.93
1972	0.78	2.49	50.82	175.26	369.04	771.21
1973	134.39	114.39	335.52	465.15	585.85	400.27
1974	95.70	141.46	269.22	436.04	528.15	630.92
1975	91.50	145.93	254.99	433.01	646.11	534.60
1976	1.39	67.61	143.37	309.88	608.86	748.23
1977	17.98	16.60	83.34	216.12	413.61	900.33
1978	104.65	65.16	134.12	330.71	610.36	511.62
1979	19.92	29.88	97.93	283.61	521.39	763.66
1980	20.53	31.85	86.73	359.08	577.30	660.08
1981	61.72	26.77	146.62	380.83	624.93	695.29
1982	8.66	7.47	19.69	153.49	259.33	686.16
1983	11.53	62.66	247.89	386.12	562.90	314.86

TAHUN/MUSIM	JAS	ASO	SON	OND	NDJ	DJF
1984	97.34	88.85	169.41	334.45	501.21	611.14
1985	37.30	23.26	164.10	269.37	667.26	540.24
1986	22.63	41.08	139.30	208.18	479.13	700.74
1987	9.82	12.09	46.21	443.54	646.92	552.12
1988	65.67	85.97	202.93	413.06	647.22	850.49
1989	41.82	46.20	104.67	248.29	462.99	747.36
1990	27.11	79.99	158.95	349.82	596.55	523.04
1991	18.10	18.89	58.58	180.28	327.26	658.10
1992	31.56	59.36	140.44	263.84	458.41	382.35
1993	10.93	25.34	85.97	383.79	635.90	537.94
1994	9.18	15.17	68.16	141.17	477.47	754.39
1995	48.69	40.83	201.36	425.93	680.53	657.31
1996	37.83	88.94	157.86	495.97	643.00	910.92
1997	12.91	11.55	32.14	113.93	161.17	870.59
1998	163.37	150.27	343.66	559.07	902.38	170.77
1999	48.83	108.40	202.66	488.77	625.36	972.52
2000	34.17	72.30	216.51	336.72	572.94	823.00
2001	28.89	80.41	251.31	536.98	755.11	679.13
2002	14.35	11.73	63.01	226.08	475.90	725.28
2003	32.24	34.28	131.10	460.11	642.14	612.21
2004	13.84	14.41	75.90	244.00	421.04	764.54
2005	20.82	96.64	191.80	353.97	500.95	428.41
2006	14.77	10.88	37.73	192.99	428.45	614.28
2007	24.29	39.06	109.80	352.72	525.77	651.53
2008	30.97	55.23	195.96	413.42	726.88	731.58
2009	41.01	31.24	78.52	200.29	511.80	849.00
2010	226.24	220.79	321.79	429.98	613.81	624.42
2011	13.04	68.52	191.01	474.56	625.23	660.57
2012	30.12	33.73	83.78	215.06	562.73	651.26
2013	76.64	59.39	149.54	379.56	619.72	663.86
2014	25.24	12.74	52.79	261.77	598.93	605.36
2015	12.68	14.73	52.34	255.95	386.90	691.38
2016	77.18	182.14	258.52	375.88	448.96	538.01
2017	67.98	96.27	236.64	476.46	693.62	527.26
2018	27.87	17.39	149.09	423.04	665.47	746.09
2019	13.92	11.94	33.53	101.26	147.68	609.84

Lampiran 2 : Data ENSO Index 3.4

Tahun	JAS	ASO	SON	OND	NDJ	DJF
1950	-0.4	-0.4	-0.4	-0.6	-0.8	**-1.5**
1951	**0.9**	**1.0**	**1.2**	**1.0**	**0.8**	-0.8
1952	0.0	0.2	0.1	0.0	0.1	**0.5**
1953	**0.7**	**0.8**	**0.8**	**0.8**	**0.8**	0.4
1954	**-0.8**	**-0.9**	**-0.8**	**-0.7**	**-0.7**	**0.8**
1955	**-0.7**	**-1.1**	**-1.4**	**-1.7**	**-1.5**	**-0.7**
1956	**-0.6**	**-0.5**	-0.4	-0.4	-0.4	**-1.1**
1957	**1.3**	**1.3**	**1.4**	**1.5**	**1.7**	-0.2
1958	0.4	0.4	0.4	**0.5**	**0.6**	**1.8**
1959	-0.3	-0.1	0.0	0.0	0.0	**0.6**
1960	0.2	0.3	0.2	0.1	0.1	-0.1
1961	-0.1	-0.3	-0.3	-0.2	-0.2	0.0
1962	-0.1	-0.1	-0.2	-0.3	-0.4	-0.2
1963	**1.1**	**1.2**	**1.3**	**1.4**	**1.3**	-0.4
1964	**-0.7**	**-0.8**	**-0.8**	**-0.8**	**-0.8**	**1.1**
1965	**1.5**	**1.9**	**2.0**	**2.0**	**1.7**	**-0.6**
1966	0.1	-0.1	-0.1	-0.2	-0.3	**1.4**
1967	-0.2	-0.3	-0.4	-0.3	-0.4	-0.4
1968	0.5	0.4	**0.5**	**0.7**	**1.0**	-0.6
1969	**0.5**	**0.8**	**0.9**	**0.8**	**0.6**	**1.1**
1970	**-0.8**	**-0.8**	**-0.7**	**-0.9**	**-1.1**	**0.5**
1971	**-0.8**	**-0.8**	**-0.9**	**-1.0**	**-0.9**	**-1.4**
1972	**1.4**	**1.6**	**1.8**	**2.1**	**2.1**	**-0.7**
1973	**-1.3**	**-1.5**	**-1.7**	**-1.9**	**-2.0**	**1.8**
1974	-0.4	-0.4	**-0.6**	**-0.8**	**-0.6**	**-1.8**
1975	**-1.2**	**-1.4**	**-1.4**	**-1.6**	**-1.7**	**-0.5**
1976	0.4	**0.6**	**0.8**	**0.9**	**0.8**	**-1.6**
1977	0.4	**0.6**	**0.7**	**0.8**	**0.8**	**0.7**
1978	-0.4	-0.4	-0.3	-0.1	0.0	**0.7**
1979	0.2	0.3	**0.5**	**0.5**	**0.6**	0.0
1980	0.0	-0.1	0.0	0.1	0.0	**0.6**
1981	-0.2	-0.2	-0.1	-0.2	-0.1	-0.3
1982	**1.1**	**1.6**	**2.0**	**2.2**	**2.2**	0.0
1983	-0.1	**-0.5**	**-0.8**	**-1.0**	**-0.9**	**2.2**
1984	-0.2	-0.2	**-0.6**	**-0.9**	**-1.1**	**-0.6**
1985	**-0.5**	-0.4	-0.3	-0.3	-0.4	**-1.0**
1986	0.4	**0.7**	**0.9**	**1.1**	**1.2**	-0.5
1987	**1.7**	**1.6**	**1.5**	**1.3**	**1.1**	**1.2**

Tahun	JAS	ASO	SON	OND	NDJ	DJF
1988	**-1.1**	**-1.2**	**-1.5**	**-1.8**	**-1.8**	**0.8**
1989	-0.3	-0.2	-0.2	-0.2	-0.1	**-1.7**
1990	0.4	0.4	0.3	0.4	0.4	0.1
1991	**0.6**	**0.6**	**0.8**	**1.2**	**1.5**	0.4
1992	0.1	-0.1	-0.2	-0.3	-0.1	**1.7**
1993	0.3	0.2	0.1	0.0	0.1	0.1
1994	0.4	**0.6**	**0.7**	**1.0**	**1.1**	0.1
1995	**-0.5**	**-0.8**	**-1.0**	**-1.0**	**-1.0**	**1.0**
1996	-0.3	-0.4	-0.4	-0.4	-0.5	**-0.9**
1997	**1.9**	**2.1**	**2.3**	**2.4**	**2.4**	-0.5
1998	**-1.1**	**-1.3**	**-1.4**	**-1.5**	**-1.6**	**2.2**
1999	**-1.1**	**-1.2**	**-1.3**	**-1.5**	**-1.7**	**-1.5**
2000	**-0.5**	**-0.5**	**-0.6**	**-0.7**	**-0.7**	**-1.7**
2001	-0.1	-0.2	-0.3	-0.3	-0.3	**-0.7**
2002	**0.9**	**1.0**	**1.2**	**1.3**	**1.1**	-0.1
2003	0.2	0.3	0.3	0.4	0.4	**0.9**
2004	**0.6**	**0.7**	**0.7**	**0.7**	**0.7**	0.4
2005	-0.1	-0.1	-0.3	**-0.6**	**-0.8**	**0.6**
2006	0.3	**0.5**	**0.8**	**0.9**	**0.9**	**-0.9**
2007	**-0.8**	**-1.1**	**-1.3**	**-1.5**	**-1.6**	**0.7**
2008	-0.2	-0.2	-0.4	**-0.6**	**-0.7**	**-1.6**
2009	**0.6**	**0.7**	**1.0**	**1.4**	**1.6**	**-0.8**
2010	**-1.3**	**-1.6**	**-1.6**	**-1.6**	**-1.6**	**1.5**
2011	**-0.6**	**-0.8**	**-1.0**	**-1.1**	**-1.0**	**-1.4**
2012	0.4	0.4	0.3	0.1	-0.2	**-0.9**
2013	-0.3	-0.3	-0.2	-0.2	-0.3	-0.4
2014	0.1	0.2	**0.5**	**0.6**	**0.7**	-0.4
2015	**1.9**	**2.2**	**2.4**	**2.6**	**2.6**	**0.5**
2016	**-0.5**	**-0.6**	**-0.7**	**-0.7**	**-0.6**	**2.5**
2017	-0.1	-0.4	**-0.7**	**-0.8**	**-1.0**	-0.3
2018	0.2	**0.5**	**0.8**	**0.9**	**0.8**	**-0.9**
2019	0.1	0.2	0.3	0.5	0.5	**0.7**

Lampiran 3 : Script MATLAB (Halide, 2018)

```
clear
load onis2019.txt %data ENSO
load rr19502019.txt %data curah hujan

y=onis2019(:,1);year=1950:2019;year=year';
jas=onis2019(:,9);
aso=onis2019(:,10);
son=onis2019(:,11);
ond=onis2019(:,12);
ndj=onis2019(:,13);

hjas=rr19502019(:,8);
haso=rr19502019(:,9);
hson=rr19502019(:,10);
hond=rr19502019(:,11);
hndj=rr19502019(:,12);

prod=hjas; %hujan JAS (jul-agu-sep)
prod=haso; %hujan ASO (agu-sep-okt)
prod=hson; %hujan SON (sep-okt-nov)
prod=hond; %hujan OND (okt-nov-des)
prod=hndj; %hujan NDJ (nov-des-jan)

opol = 2; %1-10
[p,s,mu] = polyfit(year,prod,opol);
f_y = polyval(p,year,[],mu); %fitting pakai polinomial orde-2

dt_prod = prod - f_y;
% dt_prod=prod;

plot(year,prod,'o',year,f_y)
legend('Observasi','Polinomial orde 2','Location','NorthWest')
ylabel('Curah Hujan musiman OND [mm]')
xlabel('Tahun')
%  exitt
clf

mprod=mean(dt_prod);
sprod=std(dt_prod);
aprod=(dt_prod-mprod)./sprod;
aprod1=pearmse1(aprod,ond)
%untuk menentukan batas-batas anomali curah hujan terstandar: rendah, sedang,
tinggi
```

```
yy = prctile(aprod,[33.33 66.67]); %-0.6315    0.5422
% exitt

atas=0.5422.*ones(70); %angka 70 adalah jumlah data
bawah=-0.6315.*ones(70);
plot(year,aprod,year,atas,'-r',year,bawah,'-g','LineWidth',2)
ylabel('Anomali Curah Hujan OND terstandar')
xlabel('Tahun')
set(gca,'Ytick',[-2.5,-0.6315,0.5422,2.5])
%  exitt

%plot(year,aprod)
clf
enso=jas;
enso=aso;
enso=son;
enso=ond;
enso=ndj;
x=-2.5:2.5;y=-2.5:2.5;
yy = prctile(aprod,[33.33 66.67]); %-0.6315    0.5422

n=70;
A=zeros(n,1);
for m=1:n;
   if enso(m,1)<-0.5
      if aprod(m,1)<-0.6315
        A(m,1)=1;
      end
   end
end
A1=sum(A);

B=zeros(n,1);
for m=1:n;
   if enso(m,1)>=-0.5 & enso(m,1)<=0.5
      if aprod(m,1)<-0.6315
        B(m,1)=1;
      end
   end
end
B1=sum(B);

%-0.6315    0.5422

C=zeros(n,1);
for m=1:n;
```

```
   if enso(m,1)>0.5
      if aprod(m,1)<-0.6315
        C(m,1)=1;
      end
   end
end
C1=sum(C);

%-0.6315    0.5422

D=zeros(n,1);
for m=1:n;
   if enso(m,1)<-0.5
      if aprod(m,1)>=-0.6315 & aprod(m,1)<=0.5422
        D(m,1)=1;
      end
   end
end
D1=sum(D);


E=zeros(n,1);
for m=1:n;
   if enso(m,1)>=-0.5 & enso(m,1)<=0.5
      if aprod(m,1)>-0.6315 & aprod(m,1)<.5422
        E(m,1)=1;
      end
   end
end
E1=sum(E);

F=zeros(n,1);
for m=1:n;
   if enso(m,1)>0.5
      if aprod(m,1)>=-0.6315 & aprod(m,1)<=0.5422
        F(m,1)=1;
      end
   end
end
F1=sum(F);


G=zeros(n,1);
for m=1:n;
   if enso(m,1)<-0.5
      if aprod(m,1)>.5422
```

```
        G(m,1)=1;
      end
   end
end
G1=sum(G);

%[-0.6538,0.0326]
H=zeros(n,1);
for m=1:n;
   if enso(m,1)>=-0.5 & enso(m,1)<=0.5
      if aprod(m,1)>0.5422
        H(m,1)=1;
      end
   end
end
H1=sum(H);


I=zeros(n,1);
for m=1:n;
   if enso(m,1)>0.5
      if aprod(m,1)>.5422
        I(m,1)=1;
      end
   end
end
I1=sum(I);

ADG1=(A1+D1+G1);BEH1=(B1+E1+H1);CFI1=(C1+F1+I1);
PA=A1/ADG1*100;
PB=B1/BEH1*100;
PC=C1/CFI1*100;
PD=D1/ADG1*100;
PE=E1/BEH1*100;
PF=F1/CFI1*100;
PG=G1/ADG1*100;
PH=H1/BEH1*100;
PI=I1/CFI1*100;
PADG=PA+PD+PG;
PBEH=PB+PE+PH;
pgda=[PG PD PA];%nina [70.83,29.16,0]
pheb=[PH PE PB];%netr [16.66,54.16,29.16]
pifc=[PI PF PC];%nino [9.0909   18.1818   72.72]
%exitt

p=[PG PH PI;PD PE PF;PA PB PC];
```

```
%%%----
opol1 = 1; %membuat garis linear
[p1,s1] = polyfit(enso,aprod,opol1);
%p1= -0.6521   0.0075 %persamaan garis lurus antara anomali CH terstandar
%vs ENSO
%exitt
[f_y1,delta] = polyval(p1,enso,s1);
ensocontoh=[-3 0 3];
[Y,delta] = polyval(p1,ensocontoh,s1);

Yup=[Y+delta];%
Ylow=[Y-delta];%
%exitt
anom_max=Yup*sprod; % ()
anom_mean=Y*sprod;% ()
anom_min=Ylow*sprod; % ()
nina=[anom_max(1) anom_mean(1) anom_min(1)];
%[2.9951e+02,2.16216e+02,1.3291e+02]
netr=[anom_max(2) anom_mean(2) anom_min(2)]; %[79.8734,0.82051,-78.2322]
nino=[anom_max(3) anom_mean(3) anom_min(3)]; %[-1.31331e+02,-
2.1457e+02,-2.9781e+02]

%%%----
plot(enso,aprod,'o',enso,f_y1)%,hold on
xlabel('X (ENSO OND) [^oC]')
ylabel('Y (Anomali Curah Hujan OND terstandar)')
title('Periode tahun 1950-2019 (n=70), Y = -0.6549*X - 0.0327')
% text(-2.8,-2.5,'r = -0.3565   RMSE = 129.23 mm')
%plot(x,y,':')
%p1= -0.6574   0.0094 %persamaan garis lurus antara anomali CH terstandar
%vs ENSO
% text(-1.8,1.2,'ANOM-CH-STD -0.6486* ENSO 0.0093')
axis('square')
axis([-3 3 -3 3])
%axis([-1.5 1.5 -1.5 1.5])
grid on

%-0.6315    0.5422
set(gca,'Xtick',[-3,-0.5,0.5,3])
set(gca,'Ytick',[-3,-0.6315,0.5422,3])

text(-2.2,-1.5,[num2str(PA,'%.2f'),'%'])
text(-2.2,-1.25,[num2str(A1)])
text(-2.2,-0.05,[num2str(PD,'%.2f'),'%'])
```

```
text(-2.2,0.25,[num2str(D1)])
text(-2.2,2,[num2str(PG,'%.2f'),'%'])
text(-2.2,2.2,[num2str(G1)])

text(-.25,-1.5,[num2str(PB,'%.2f'),'%'])
text(-.25,-1.25,[num2str(B1)])
text(-.25,-0.05,[num2str(PE,'%.2f'),'%'])
text(-.25,.25,[num2str(E1)])
text(-.25,2,[num2str(PH,'%.2f'),'%'])
text(-.25,2.2,[num2str(H1)])

text(1.5,-1.5,[num2str(PC,'%.2f'),'%'])
text(1.5,-1.25,[num2str(C1)])
text(1.5,-0.05,[num2str(PF,'%.2f'),'%'])
text(1.5,.25,[num2str(F1)])
text(1.5,2,[num2str(PI,'%.2f'),'%'])
text(1.5,2.2,[num2str(I1)])

%hold off
%exitt
```

Lampiran 4 : Hasil Standar Deviasi dari Proses Pencocokan Kurva Orde 1-10

ORDE	STANDAR DEVIASI					
	JAS	ASO	SON	OND	NDJ	DJF
1	40.4527	46.4336	78.8914	109.9290	134.5688	142.2454
2	40.4376	46.3791	78.8327	109.8922	133.1697	141.4713
3	40.4069	46.3677	78.8042	109.5199	133.1495	141.3713
4	40.3727	46.3597	78.7994	109.3011	130.2155	139.2937
5	39.9910	45.6384	78.3589	109.1880	130.0935	139.2144
6	39.8243	45.6317	78.3498	109.1880	129.6467	138.3805
7	39.7630	45.6307	78.1344	109.1710	128.8479	138.2484
8	39.4463	44.6741	76.0068	106.8627	128.2964	137.9621
9	39.4030	44.3838	75.3759	104.3359	126.7690	137.6669
10	38.3371	43.5719	75.1057	104.2672	126.7048	137.3386

Lampiran 5 : Anomali Curah Hujan

Tahun/Musim	JAS	ASO	SON	OND	NDJ	DJF
1950	14.9844	53.8851	54.5383	106.704	72.5451	8.7147
1951	-26.174	-29.337	-84.98	-164.18	-138.02	-7.1844
1952	-20.398	-6.0423	25.708	34.5538	16.5705	-160.5078
1953	-30.179	-43.259	-43.047	-109.08	-40.47	-30.4556
1954	6.3448	16.3513	54.5039	160.616	102.76	-118.2576
1955	59.0224	34.4898	128.562	85.4848	130.1	82.8660
1956	44.9339	60.176	29.846	60.2194	-55.859	-17.4247
1957	-16.941	-42.16	-58.093	-40.561	-126.33	33.7202
1958	-0.031	29.0918	-7.7057	52.235	27.2417	-103.7691
1959	3.24256	-44.269	-54.532	-10.694	15.4296	10.4772
1960	10.9201	-19.991	-5.6112	-76.118	-18.265	180.9992
1961	-36.178	-24.956	-36.414	-75.256	-47.151	56.0669
1962	-16.003	-7.0235	2.0095	81.4419	116.056	35.7502
1963	-41.013	-55.473	-109.13	-168.24	-236.12	126.7593
1964	25.6901	45.2055	79.7364	103.503	175.047	-165.8660
1965	-42.082	-47.338	-80.33	-16.813	11.0606	206.4844
1966	-41.981	-22.404	-17.62	-43.594	93.4659	122.0104
1967	-1.1355	-13.303	-31.514	-72.619	53.8573	128.3122
1968	60.7739	5.51672	-33.781	-19.128	-115.89	53.6896
1969	-22.403	-23.976	-54.282	-86.063	-125.03	-138.1173
1970	-5.5852	5.43892	1.86443	59.4586	-10.447	-82.8085
1971	24.9662	95.0517	136.507	118.665	185.142	32.1959
1972	-40.718	-52.688	-90.824	-148.01	-169.8	125.6161
1973	92.951	59.3205	193.512	141.265	45.3947	-247.0981
1974	54.3144	86.4865	126.864	111.558	-14.134	-18.1366
1975	50.1617	91.0404	112.303	107.947	102.06	-116.0595
1976	-39.907	12.7919	0.36832	-15.749	63.3654	96.0534
1977	-23.282	-38.159	-59.96	-110.06	-132.79	246.7219
1978	63.4178	10.4484	-9.4613	3.9958	63.7341	-143.3339
1979	-21.289	-24.797	-45.916	-43.624	-24.688	107.4460
1980	-20.662	-22.804	-57.365	31.3423	32.544	2.6915
1981	20.5398	-27.874	2.2934	52.6038	82.1938	36.8128
1982	-32.515	-47.175	-124.85	-175.21	-280.84	26.6797
1983	-29.646	8.00058	103.149	56.9632	25.6398	-345.5378
1984	56.1577	34.1643	24.4871	4.85114	-33.067	-50.0895
1985	-3.8951	-31.464	19.0114	-60.655	135.75	-121.7355

Tahun/Musim	JAS	ASO	SON	OND	NDJ	DJF
1986	-18.584	-13.695	-5.9377	-122.26	-50.13	38.1041
1987	-31.419	-42.748	-99.16	112.708	119.103	-111.0906
1988	24.4007	31.0569	57.4437	81.8475	119.788	186.7903
1989	0.51394	-8.8005	-40.916	-83.287	-65.314	83.2570
1990	-14.239	24.8898	13.2813	17.8936	66.0015	-141.3807
1991	-23.298	-36.322	-87.155	-151.98	-206.93	-6.5527
1992	-9.8924	4.02383	-5.3448	-68.738	-80.75	-282.4490
1993	-30.583	-30.133	-59.848	50.9088	90.6378	-126.9196
1994	-32.4	-40.451	-77.675	-192	-74.738	89.5554
1995	7.03715	-14.952	55.5251	92.4896	120.919	-7.4139
1996	-3.9017	32.985	12.0415	162.273	75.9931	246.3925
1997	-28.907	-44.59	-113.65	-220.01	-412.71	206.3446
1998	121.463	93.9322	197.924	224.907	322.671	-493.1077
1999	6.82576	51.8525	56.99	154.397	41.3717	309.0958
2000	-7.9371	15.5305	70.9226	2.15243	-13.354	160.1149
2001	-13.326	23.4063	105.822	202.233	168.784	16.8697
2002	-27.981	-45.52	-82.363	-108.83	-108.06	63.7301
2003	-10.212	-23.229	-14.14	125.052	62.8507	-48.5437
2004	-28.739	-43.37	-69.191	-91.191	-151.63	104.6681
2005	-21.892	38.5771	46.8739	18.6622	-63.771	-230.4944
2006	-28.081	-47.478	-107.01	-142.42	-127.9	-43.5713
2007	-18.706	-19.606	-34.746	17.2244	-22.925	-5.1824
2008	-12.176	-3.7557	51.6293	77.8537	183.832	76.0921
2009	-2.2934	-28.078	-65.579	-135.33	-28.926	194.8223
2010	182.774	161.128	177.939	94.3188	70.9412	-28.3618
2011	-30.595	8.50139	47.4237	138.875	75.0857	9.2698
2012	-13.69	-26.657	-59.525	-120.63	0.36786	1.5270
2013	32.6486	-1.3784	6.53275	43.8725	41.762	15.7799
2014	-18.938	-48.422	-89.903	-73.895	5.59558	-40.9815
2015	-31.691	-46.837	-90.022	-79.678	-215.13	46.8628
2016	32.6096	120.155	116.505	40.3055	-144.74	-104.5973
2017	23.2045	33.8553	94.9894	140.954	140.785	-113.3517
2018	-17.117	-45.467	7.81996	87.6182	208.187	107.5596
2019	-31.284	-51.371	-107.34	-234.06	-128.72	-26.5234

Lampiran 6 : Hasil Anomali Curah Hujan Standar

Tahun/Musim	JAS	ASO	SON	OND	NDJ	DJF
1950	0.37056	1.16184	0.69182	0.97099	0.57255	0.0616
1951	-0.6473	-0.6326	-1.078	-1.494	-1.0893	-0.0508
1952	-0.5044	-0.1303	0.32611	0.31443	0.13078	-1.1346
1953	-0.7463	-0.9327	-0.5461	-0.9926	-0.3194	-0.2153
1954	0.1569	0.35256	0.69139	1.46157	0.81102	-0.8359
1955	1.45959	0.74365	1.63082	0.7779	1.02679	0.5857
1956	1.11119	1.29748	0.3786	0.54799	-0.4409	-0.1232
1957	-0.4189	-0.909	-0.7369	-0.3691	-0.997	0.2384
1958	-0.0008	0.62726	-0.0977	0.47533	0.215	-0.7335
1959	0.08019	-0.9545	-0.6917	-0.0973	0.12178	0.0741
1960	0.27005	-0.431	-0.0712	-0.6927	-0.1442	1.2794
1961	-0.8947	-0.5381	-0.4619	-0.6848	-0.3721	0.3963
1962	-0.3957	-0.1514	0.02549	0.74111	0.91595	0.2527
1963	-1.0142	-1.1961	-1.3843	-1.5309	-1.8635	0.8960
1964	0.6353	0.9747	1.01146	0.94186	1.38153	-1.1724
1965	-1.0407	-1.0207	-1.019	-0.153	0.08729	1.4596
1966	-1.0382	-0.4831	-0.2235	-0.3967	0.73767	0.8624
1967	-0.0281	-0.2868	-0.3998	-0.6608	0.42506	0.9070
1968	1.50291	0.11895	-0.4285	-0.1741	-0.9147	0.3795
1969	-0.554	-0.517	-0.6886	-0.7832	-0.9868	-0.9763
1970	-0.1381	0.11727	0.02365	0.54106	-0.0825	-0.5853
1971	0.6174	2.04945	1.7316	1.07983	1.46121	0.2276
1972	-1.0069	-1.136	-1.1521	-1.3469	-1.3402	0.8879
1973	2.29863	1.27903	2.45472	1.28549	0.35827	-1.7466
1974	1.34316	1.86477	1.60928	1.01516	-0.1116	-0.1282
1975	1.24047	1.96296	1.42457	0.9823	0.80549	-0.8204
1976	-0.9869	0.27581	0.00467	-0.1433	0.5001	0.6790
1977	-0.5757	-0.8228	-0.7606	-1.0015	-1.0481	1.7440
1978	1.56829	0.22528	-0.12	0.03636	0.50301	-1.0132
1979	-0.5265	-0.5347	-0.5825	-0.397	-0.1948	0.7595
1980	-0.5109	-0.4917	-0.7277	0.28521	0.25685	0.0190
1981	0.50794	-0.601	0.02909	0.47869	0.6487	0.2602
1982	-0.8041	-1.0172	-1.5838	-1.5944	-2.2165	0.1886
1983	-0.7331	0.1725	1.30846	0.51836	0.20236	-2.4425
1984	1.38875	0.73663	0.31062	0.04414	-0.261	-0.3541
1985	-0.0963	-0.6784	0.24116	-0.552	1.07139	-0.8605

Tahun/Musim	JAS	ASO	SON	OND	NDJ	DJF
1986	-0.4596	-0.2953	-0.0753	-1.1125	-0.3956	0.2693
1987	-0.777	-0.9217	-1.2579	1.02562	0.94001	-0.7853
1988	0.60342	0.66963	0.72868	0.7448	0.94541	1.3203
1989	0.01271	-0.1898	-0.519	-0.7579	-0.5155	0.5885
1990	-0.3521	0.53666	0.16847	0.16283	0.52091	-0.9994
1991	-0.5761	-0.7832	-1.1056	-1.383	-1.6332	-0.0463
1992	-0.2446	0.08676	-0.0678	-0.6255	-0.6373	-1.9965
1993	-0.7563	-0.6497	-0.7592	0.46326	0.71535	-0.8971
1994	-0.8012	-0.8722	-0.9853	-1.7472	-0.5899	0.6330
1995	0.17402	-0.3224	0.70434	0.84164	0.95433	-0.0524
1996	-0.0965	0.7112	0.15275	1.47666	0.59977	1.7416
1997	-0.7148	-0.9614	-1.4416	-2.002	-3.2573	1.4586
1998	3.0037	2.02531	2.51068	2.04661	2.54663	-3.4856
1999	0.1688	1.11801	0.72292	1.40499	0.32652	2.1849
2000	-0.1963	0.33486	0.89966	0.01959	-0.1054	1.1318
2001	-0.3295	0.50467	1.34236	1.84029	1.3321	0.1192
2002	-0.692	-0.9815	-1.0448	-0.9903	-0.8528	0.4505
2003	-0.2525	-0.5008	-0.1794	1.13795	0.49604	-0.3431
2004	-0.7107	-0.9351	-0.8777	-0.8298	-1.1967	0.7399
2005	-0.5414	0.83178	0.5946	0.16982	-0.5033	-1.6293
2006	-0.6944	-1.0237	-1.3575	-1.296	-1.0094	-0.3080
2007	-0.4626	-0.4227	-0.4408	0.15674	-0.1809	-0.0366
2008	-0.3011	-0.081	0.65492	0.70846	1.45087	0.5379
2009	-0.0567	-0.6054	-0.8319	-1.2315	-0.2283	1.3771
2010	4.51989	3.47415	2.25717	0.85828	0.55989	-0.2005
2011	-0.7566	0.1833	0.60157	1.26373	0.5926	0.0655
2012	-0.3386	-0.5748	-0.7551	-1.0978	0.0029	0.0108
2013	0.80738	-0.0297	0.08287	0.39923	0.3296	0.1115
2014	-0.4683	-1.044	-1.1404	-0.6724	0.04416	-0.2897
2015	-0.7837	-1.0099	-1.1419	-0.7251	-1.6979	0.3313
2016	0.80642	2.59072	1.47788	0.36677	-1.1423	-0.7394
2017	0.57384	0.72997	1.20495	1.28266	1.11113	-0.8012
2018	-0.4233	-0.9803	0.0992	0.79731	1.64308	0.7603
2019	-0.7736	-1.1076	-1.3617	-2.1299	-1.0159	-0.1875

Lampiran 7 : Hasil Estimasi Curah Hujan

La Nina			
Anomali	Max (mm)	Mean (mm)	Min (mm)
JAS	59.6343	27.4848	-4.6646
ASO	66.1548	33.0377	-0.0794
SON	107.9730	61.8686	-15.7642
OND	151.0319	71.2540	8.5239
NDJ	170.2757	72.4339	-25.4079
DJF	175.7311	56.2829	-63.1652
Netral			
Anomali	Max (mm)	Mean (mm)	Min (mm)
JAS	33.3989	1.5134	-30.3722
ASO	34.8581	1.9724	-30.9133
SON	49.7982	3.9915	-41.8152
OND	82.8972	3.5987	-75.6999
NDJ	107.9346	2.6223	-102.6900
DJF	118.9091	-0.1089	-119.1269
El Nino			
Anomali	Max (mm)	Mean (mm)	Min (mm)
JAS	7.6365	-24.4581	-56.5526
ASO	3.9722	-29.0929	-62.1580
SON	-7.8531	-53.8855	-99.9180
OND	15.6293	-64.0567	-143.7426
NDJ	30.5394	-67.2291	-164.9975
DJF	62.9508	-56.5007	-175.9521