

LAMPIRAN

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% data Pelatihan
filename= 'Rekap Data Variabel progress.xlsx';
sheet=2;
xlRange='A2:D81';
Data=xlsread(filename,sheet,xlRange);
P=Data(:,1:3)';
T=Data(:,4)';
[pn,meanp,stdp,tn,meant,stdt]=prestd(P,T);
net=newff(minmax(pn),[15,1],{'tansig','purelin'},'traingdm');
BobotAwal_Input=net.IW{1,1};
BobotAwal_Bias_Input=net.b{1,1};
BobotAwal_Lapisan=net.LW{2,1};
BobotAwal_Bias_Lapisan=net.b{2,1};
net.trainParam.epochs=300;
net.trainParam.goal=0;
net.trainParam.lr=0.2;
net.trainParam.show=25;
net.trainParam.mc=0.75;
net=train(net,pn,tn);
BobotAkhir_Input=net.IW{1,1};
BobotAkhir_Bias_Input=net.b{1,1};
BobotAkhir_Lapisan = net.LW{2,1};
BobotAkhir_Lapisan=net.LW{2,1};
BobotAkhir_Bias_Lapisan=net.b{2,1};
an=sim(net,pn);
a=poststd(an,meant,stdt);

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H=[(1:size(P,2))' T' a' (T'-a)];
sprintf('%2d %9.2f %7.2f %5.2f\n',H)
[m1,a1,r1] = postreg(a,T);
plot([1:size(P,2)]',T,'bo',[1:size(P,2)]',a,'r*');
title('Hasil pengujian dengan data pelatihan: Target (o), Output (*)');
xlabel('Data ke-'); ylabel('Target/Output');
E=T-a
MSE=mse(E)
mape=[abs(((T-a)./T).*100)];

% data Pengujian
filename= 'Rekap Data Variabel progress.xlsx';
sheet=2;
xlRange='A82:D96';
Data = xlsread(filename, sheet, xlRange);
Q=Data(:,1:3)';
TQ=Data(:,4)';
Qn=trastd(Q,meanp,stdp);
bn=sim(net,Qn);
b = poststd(bn,meant,stdt);
L = [(1:size(Q,2))' TQ' b' (TQ'-b)'];
sprintf('%2d %11.2f %9.2f %7.2f\n',L)
[m2,b1,r2] = postreg(b,TQ);
k = [1:size(Q,2)]';
plot(k,TQ,'bo',k,b,'r*');
title ('Hasil Pengujian dengan Data Pengujian: Target (o), Output (*)');
xlabel ('Data ke-'); ylabel ('Target/Output');
E1=TQ-b;
MSE1=mse(E1)
mape1=[abs(((TQ-b)./TQ).*100)];

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MAPE1=sum(mape)/15
% prediksi time series
filename= 'Rekap Data Variabel progress.xlsx';
sheet=2;
xlRange='A2:D96';
Data=xlsread(filename,sheet,xlRange);
P=Data(:,1:3)';
T=Data(:,4)';
[pn,meanp,stdp,tn,meant,stdt]=prestd(P,T);
net=newff(minmax(pn),[15,1],{'tansig','purelin'},'traingdm');
BobotAwal_Input=net.IW{1,1};
BobotAwal_Bias_Input=net.b{1,1};
BobotAwal_Lapisan=net.LW{2,1};
BobotAwal_Bias_Lapisan=net.b{2,1};
net.trainParam.epochs=300;
net.trainParam.goal=0;
net.trainParam.lr=0.2;
net.trainParam.show=25;
net.trainParam.mc=0.75;
net=train(net,pn,tn);
vji=net.IW{1,1};
vj0=net.b{1,1};
wkj=net.LW{2,1};
wk0=net.b{2,1};
xi=0.815098852;

znet1=vj0(1,:)+sum((xi*vji(1,:)));
znet2=vj0(2,:)+sum((xi*vji(2,:)));
znet3=vj0(3,:)+sum((xi*vji(3,:)));
znet4=vj0(4,:)+sum((xi*vji(4,:)));

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znet5=vj0(5,:)+sum((xi*vji(5,:)));
znet6=vj0(6,:)+sum((xi*vji(6,:)));
znet7=vj0(7,:)+sum((xi*vji(7,:)));
znet8=vj0(8,:)+sum((xi*vji(8,:)));
znet9=vj0(9,:)+sum((xi*vji(9,:)));
znet10=vj0(10,:)+sum((xi*vji(10,:)));
znet11=vj0(11,:)+sum((xi*vji(11,:)));
znet12=vj0(12,:)+sum((xi*vji(12,:)));
znet13=vj0(13,:)+sum((xi*vji(13,:)));
znet14=vj0(14,:)+sum((xi*vji(14,:)));
znet15=vj0(15,:)+sum((xi*vji(15,:)));

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z1=(1-exp(znet1))/(1+exp(znet1));
z2=(1-exp(znet2))/(1+exp(znet2));
z3=(1-exp(znet3))/(1+exp(znet3));
z4=(1-exp(znet4))/(1+exp(znet4));
z5=(1-exp(znet5))/(1+exp(znet5));
z6=(1-exp(znet6))/(1+exp(znet6));
z7=(1-exp(znet7))/(1+exp(znet7));
z8=(1-exp(znet8))/(1+exp(znet8));
z9=(1-exp(znet9))/(1+exp(znet8));
z10=(1-exp(znet10))/(1+exp(znet10));
z11=(1-exp(znet11))/(1+exp(znet11));
z12=(1-exp(znet12))/(1+exp(znet12));
z13=(1-exp(znet13))/(1+exp(znet13));
z14=(1-exp(znet14))/(1+exp(znet14));
z15=(1-exp(znet15))/(1+exp(znet15));

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A1=(wkj(:,1)*z1);
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A2=(wkj(:,2)*z2);
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A3=(wkj(:,3)*z3);
A4=(wkj(:,4)*z4);
A5=(wkj(:,5)*z5);
A6=(wkj(:,6)*z6);
A7=(wkj(:,7)*z7);
A8=(wkj(:,8)*z8);
A9=(wkj(:,9)*z9);
A10=(wkj(:,10)*z10);
A11=(wkj(:,11)*z11);
A12=(wkj(:,12)*z12);
A13=(wkj(:,13)*z13);
A14=(wkj(:,14)*z14);
A15=(wkj(:,15)*z15);
A16=A1+A2+A3+A4+A5+A6+A7+A8+A9+A10+A11+A12
ynet=wk0+A16;
yk=ynet
hasilperamalan=poststd(yk,meant,stdt)
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