LAMPIRAN A
LIST PROGRAM PADA MATLAB UNTUK JENIS
BASELINE TASK

Program untuk pengolahan data

subyek 1

```
load s1b3.mat
load s1b4.mat
load s1b5.mat
load s1b6.mat
load s1b7.mat

%bases1b3:coeff dari s1b3
b_s1b3=s1b3(1:6,:)';
[bases1b3,latent1]=princomp(b_s1b3);
s1base1=[bases1b3(:,1);bases1b3(:,2);bases1b3(:,3);bases1b3(:,4);
bases1b3(:,5);bases1b3(:,6)];

%bases1b4:coeff dari s1b4
b_s1b4=s1b4(1:6,:)';
[bases1b4,latent2]=princomp(b_s1b4);
s1base2=[bases1b4(:,1);bases1b4(:,2);bases1b4(:,3);bases1b4(:,4);
bases1b4(:,5);bases1b4(:,6)];

%bases1b5:coeff dari s1b5
b_s1b5=s1b5(1:6,:)';
[bases1b5,latent3]=princomp(b_s1b5);
s1base3=[bases1b5(:,1);bases1b5(:,2);bases1b5(:,3);bases1b5(:,4);
bases1b5(:,5);bases1b5(:,6)];

%bases1b6:coeff dari s1b6
b_s1b6=s1b6(1:6,:)';
[bases1b6,latent4]=princomp(b_s1b6);
s1base4=[bases1b6(:,1);bases1b6(:,2);bases1b6(:,3);bases1b6(:,4);
bases1b6(:,5);bases1b6(:,6)];

%bases1b7:coeff dari s1b7
b_s1b7=s1b7(1:6,:)';
[bases1b7,latent5]=princomp(b_s1b7);
s1base5=[bases1b7(:,1);bases1b7(:,2);bases1b7(:,3);bases1b7(:,4);
bases1b7(:,5);bases1b7(:,6)];

inputs1base=[s1base1 s1base2 s1base3 s1base4 s1base5];
```

subyek 3

```
load s3b2.mat
load s3b4.mat
load s3b5.mat
load s3b7.mat
load s3b10.mat

%bases3b2:coeff dari s3b2
b_s3b2=s3b2(1:6,:)';
[bases3b2,latent1]=princomp(b_s3b2);
s3base1=[bases3b2(:,1);bases3b2(:,2);bases3b2(:,3);bases3b2(:,4);
bases3b2(:,5);bases3b2(:,6)];

%bases3b4:coeff dari s3b4
b_s3b4=s3b4(1:6,:)';
[bases3b4,latent2]=princomp(b_s3b4);
```

```
s3base2=[bases3b4(:,1);bases3b4(:,2);bases3b4(:,3);bases3b4(:,4);
bases3b4(:,5);bases3b4(:,6)];

%bases3b5:coeff dari s3b5
b_s3b5=s3b5(1:6,:)';
[bases3b5,latent3]=princomp(b_s3b5);
s3base3=[bases3b5(:,1);bases3b5(:,2);bases3b5(:,3);bases3b5(:,4);
bases3b5(:,5);bases3b5(:,6)];

%bases3b7:coeff dari s3b7
b_s3b7=s3b7(1:6,:)';
[bases3b7,latent4]=princomp(b_s3b7);
s3base4=[bases3b7(:,1);bases3b7(:,2);bases3b7(:,3);bases3b7(:,4);
bases3b7(:,5);bases3b7(:,6)];

%bases3b10:coeff dari s3b10
b_s3b10=s3b10(1:6,:)';
[bases3b10,latent5]=princomp(b_s3b10);
s3base5=[bases3b10(:,1);bases3b10(:,2);bases3b10(:,3);bases3b10(:
,4);bases3b10(:,5);bases3b10(:,6)];

inputs3base=[s3base1 s3base2 s3base3 s3base4 s3base5];
```

subyek 5

```
load s5b6.mat
load s5b7.mat
load s5b8.mat
load s5b9.mat
load s5b10.mat

%bases5b6:coeff dari s5b6
b_s5b6=s5b6(1:6,:)';
[bases5b6,latent1]=princomp(b_s5b6);
s5base1=[bases5b6(:,1);bases5b6(:,2);bases5b6(:,3);bases5b6(:,4);
bases5b6(:,5);bases5b6(:,6)];

%bases5b7:coeff dari s5b7
b_s5b7=s5b7(1:6,:)';
[bases5b7,latent2]=princomp(b_s5b7);
s5base2=[bases5b7(:,1);bases5b7(:,2);bases5b7(:,3);bases5b7(:,4);
bases5b7(:,5);bases5b7(:,6)];

%bases5b8:coeff dari s5b8
b_s5b8=s5b8(1:6,:)';
[bases5b8,latent3]=princomp(b_s5b8);
s5base3=[bases5b8(:,1);bases5b8(:,2);bases5b8(:,3);bases5b8(:,4);
bases5b8(:,5);bases5b8(:,6)];

%bases5b9:coeff dari s5b9
b_s5b9=s5b9(1:6,:)';
[bases5b9,latent4]=princomp(b_s5b9);
s5base4=[bases5b9(:,1);bases5b9(:,2);bases5b9(:,3);bases5b9(:,4);
bases5b9(:,5);bases5b9(:,6)];

%bases5b10:coeff dari s5b10
b_s5b10=s5b10(1:6,:)';
[bases5b10,latent5]=princomp(b_s5b10);
s5base5=[bases5b10(:,1);bases5b10(:,2);bases5b10(:,3);bases5b10(:
,4);bases5b10(:,5);bases5b10(:,6)];
```

```
inputs5base=[s5base1 s5base2 s5base3 s5base4 s5base5];
```

List Program untuk proses pengujian

```
load trainnetA.mat
s1base
s3base
s5base

uji_base=[inputs1base inputs3base inputs5base];
base1_A=sim(netA,uji_base)


%n=baris ke
%m=kolom ke
for m=1:15
    total=0;
    for n=1:5
        total=total+base1_A(n,m);
    end;
    rata=total/5;
    jumlah=0;
    for n=1:5
        jumlah=jumlah+(base1_A(n,m)-rata)^2;
    end;
    deviasi=sqrt(jumlah/4);
    deviasi=0.4*deviasi;
    for n=1:5
        if base1_A(n,m)<=deviasi
            base1_A(n,m)=0;
        else base1_A(n,m)=1;
        end;
    end;
end;

base1_A

ob=[1;0;0;0;0];
v=0;
for i=1:15
    if base1_A(:,i)==ob(:,:)
        v=v+1;
    else v=v;
    end;
end;
Persen=(v/15)*100 ;
hasil=num2str(Persen);
disp(['persentase=' hasil ,'%']);
```

nb: program yang ditampilkan pada lampiran hanya beberapa dari keseluruhan program, untuk keseluruhan program dapat dilihat pada CD laporan Tugas Akhir

LAMPIRAN B

LIST PROGRAM PADA MATLAB UNTUK JENIS

VISUAL COUNTING TASK

Program untuk pengolahan data

Subyek 1

```
load s1c3.mat
load s1c4.mat
load s1c5.mat
load s1c6.mat
load s1c7.mat

%countings1c3:coeff dari s1c3
c_s1c3=s1c3(1:6,:)';
[countings1c3,latent1]=princomp(c_s1c3);
s1counting1=[countings1c3(:,1);countings1c3(:,2);countings1c3(:,3
);countings1c3(:,4);countings1c3(:,5);countings1c3(:,6)];

%countings1c4:coeff dari s1c4
c_s1c4=s1c4(1:6,:)';
[countings1c4,latent2]=princomp(c_s1c4);
s1counting2=[countings1c4(:,1);countings1c4(:,2);countings1c4(:,3
);countings1c4(:,4);countings1c4(:,5);countings1c4(:,6)];

%countings1c5:coeff dari s1c5
c_s1c5=s1c5(1:6,:)';
[countings1c5,latent3]=princomp(c_s1c5);
s1counting3=[countings1c5(:,1);countings1c5(:,2);countings1c5(:,3
);countings1c5(:,4);countings1c5(:,5);countings1c5(:,6)];

%countings1c6:coeff dari s1c6
c_s1c6=s1c6(1:6,:)';
[countings1c6,latent4]=princomp(c_s1c6);
s1counting4=[countings1c6(:,1);countings1c6(:,2);countings1c6(:,3
);countings1c6(:,4);countings1c6(:,5);countings1c6(:,6)];

%countings1c7:coeff dari s1c7
c_s1c7=s1c7(1:6,:)';
[countings1c7,latent5]=princomp(c_s1c7);
s1counting5=[countings1c7(:,1);countings1c7(:,2);countings1c7(:,3
);countings1c7(:,4);countings1c7(:,5);countings1c7(:,6)];

inputs1counting=[s1counting1 s1counting2 s1counting3 s1counting4
s1counting5];
```

subyek 3

```
load s3c2.mat
load s3c4.mat
load s3c5.mat
load s3c7.mat
load s3c10.mat

%countings3c2:coeff dari s3c2
c_s3c2=s3c2(1:6,:)';
[countings3c2,latent1]=princomp(c_s3c2);
s3counting1=[countings3c2(:,1);countings3c2(:,2);countings3c2(:,3
);countings3c2(:,4);countings3c2(:,5);countings3c2(:,6)];

%countings3c4:coeff dari s3c4
c_s3c4=s3c4(1:6,:)';
[countings3c4,latent2]=princomp(c_s3c4);
s3counting2=[countings3c4(:,1);countings3c4(:,2);countings3c4(:,3
);countings3c4(:,4);countings3c4(:,5);countings3c4(:,6)];
```

```
%countings3c5:coeff dari s3c5
c_s3c5=s3c5(1:6,:)';
[countings3c5,latent3]=princomp(c_s3c5);
s3counting3=[countings3c5(:,1);countings3c5(:,2);countings3c5(:,3
);countings3c5(:,4);countings3c5(:,5);countings3c5(:,6)];

%countings3c7:coeff dari s3c7
c_s3c7=s3c7(1:6,:)';
[countings3c7,latent4]=princomp(c_s3c7);
s3counting4=[countings3c7(:,1);countings3c7(:,2);countings3c7(:,3
);countings3c7(:,4);countings3c7(:,5);countings3c7(:,6)];

%countings3c10:coeff dari s3c10
c_s3c10=s3c10(1:6,:)';
[countings3c10,latent5]=princomp(c_s3c10);
s3counting5=[countings3c10(:,1);countings3c10(:,2);countings3c10(
:,3);countings3c10(:,4);countings3c10(:,5);countings3c10(:,6)];

inputs3counting=[s3counting1 s3counting2 s3counting3 s3counting4
s3counting5];
```

subyek 5

```
load s5c6.mat
load s5c7.mat
load s5c8.mat
load s5c9.mat
load s5c10.mat

%countings5c6:coeff dari s5c6
c_s5c6=s5c6(1:6,:)';
[countings5c6,latent1]=princomp(c_s5c6);
s5counting1=[countings5c6(:,1);countings5c6(:,2);countings5c6(:,3
);countings5c6(:,4);countings5c6(:,5);countings5c6(:,6)];

%coutings5c7:coeff dari s5c7
c_s5c7=s5c7(1:6,:)';
[countings5c7,latent2]=princomp(c_s5c7);
s5counting2=[countings5c7(:,1);countings5c7(:,2);countings5c7(:,3
);countings5c7(:,4);countings5c7(:,5);countings5c7(:,6)];

%countings5c8:coeff dari s5c8
c_s5c8=s5c8(1:6,:)';
[countings5c8,latent3]=princomp(c_s5c8);
s5counting3=[countings5c8(:,1);countings5c8(:,2);countings5c8(:,3
);countings5c8(:,4);countings5c8(:,5);countings5c8(:,6)];

%countings5c9:coeff dari s5c9
c_s5c9=s5c9(1:6,:)';
[countings5c9,latent4]=princomp(c_s5c9);
s5counting4=[countings5c9(:,1);countings5c9(:,2);countings5c9(:,3
);countings5c9(:,4);countings5c9(:,5);countings5c9(:,6)];

%countings5c10:coeff dari s5c10
c_s5c10=s5c10(1:6,:)';
[countings5c10,latent5]=princomp(c_s5c10);
s5counting5=[countings5c10(:,1);countings5c10(:,2);countings5c10(
:,3);countings5c10(:,4);countings5c10(:,5);countings5c10(:,6)];
```

```
inputs5counting=[s5counting1 s5counting2 s5counting3 s5counting4
s5counting5];
```

List program untuk proses pengujian

```
load trainnetA.mat
s1counting
s3counting
s5counting

uji_counting=[inputs1counting inputs3counting inputs5counting];
count1_A=sim(netA,uji_counting)


%n=baris ke
%m=kolom ke
for m=1:15
    total=0;
    for n=1:5
        total=total+count1_A(n,m);
    end;
    rata=total/5;
    jumlah=0;
    for n=1:5
        jumlah=jumlah+(count1_A(n,m)-rata)^2;
    end;
    deviasi=sqrt(jumlah/4);
    deviasi=0.4*deviasi;
    for n=1:5
        if count1_A(n,m)<=deviasi
            count1_A(n,m)=0;
        else count1_A(n,m)=1;
        end;
    end;
end;

count1_A

oc=[0;1;0;0;0];
v=0;
for i=1:15
    if count1_A(:,i)==oc(:,:)
        v=v+1;
    else v=v;
    end;
end;
Persen=(v/15)*100 ;
hasil=num2str(Persen);
disp(['persentase=' hasil ,'%']);
```

nb: program yang ditampilkan pada lampiran hanya beberapa dari keseluruhan program, untuk keseluruhan program dapat dilihat pada CD laporan Tugas Akhir

LAMPIRAN C
LIST PROGRAM PADA MATLAB UNTUK JENIS
LETTER TASK

Program untuk pengolahan data
Subyek 1

```
load s1l3.mat
load s1l4.mat
load s1l5.mat
load s1l6.mat
load s1l7.mat

%letters1l3:coeff dari s1l3
l_s1l3=s1l3(1:6,:)';
[letters1l3,latent1]=princomp(l_s1l3);
s1letter1=[letters1l3(:,1);letters1l3(:,2);letters1l3(:,3);letter
s1l3(:,4);letters1l3(:,5);letters1l3(:,6)];

%letters1l4:coeff dari s1l4
l_s1l4=s1l4(1:6,:)';
[letters1l4,latent2]=princomp(l_s1l4);
s1letter2=[letters1l4(:,1);letters1l4(:,2);letters1l4(:,3);letter
s1l4(:,4);letters1l4(:,5);letters1l4(:,6)];

%letters1l5:coeff dari s1l5
l_s1l5=s1l5(1:6,:)';
[letters1l5,latent3]=princomp(l_s1l5);
s1letter3=[letters1l5(:,1);letters1l5(:,2);letters1l5(:,3);letter
s1l5(:,4);letters1l5(:,5);letters1l5(:,6)];

%letters1l6:coeff dari s1l6
l_s1l6=s1l6(1:6,:)';
[letters1l6,latent4]=princomp(l_s1l6);
s1letter4=[letters1l6(:,1);letters1l6(:,2);letters1l6(:,3);letter
s1l6(:,4);letters1l6(:,5);letters1l6(:,6)];

%letters1l7:coeff dari s1l7
l_s1l7=s1l7(1:6,:)';
[letters1l7,latent5]=princomp(l_s1l7);
s1letter5=[letters1l7(:,1);letters1l7(:,2);letters1l7(:,3);letter
s1l7(:,4);letters1l7(:,5);letters1l7(:,6)];

inputs1letter=[s1letter1 s1letter2 s1letter3 s1letter4
s1letter5];
```

subyek 3

```
load s3l2.mat
load s3l4.mat
load s3l5.mat
load s3l7.mat
load s3l10.mat

%letters3l2:coeff dari s3l2
l_s3l2=s3l2(1:6,:)';
[letters3l2,latent1]=princomp(l_s3l2);
s3letter1=[letters3l2(:,1);letters3l2(:,2);letters3l2(:,3);letter
s3l2(:,4);letters3l2(:,5);letters3l2(:,6)];

%letters3l4:coeff dari s3l4
```

```
l_s3l4=s3l4(1:6,:)';
[letters3l4,latent2]=princomp(l_s3l4);
s3letter2=[letters3l4(:,1);letters3l4(:,2);letters3l4(:,3);letter
s3l4(:,4);letters3l4(:,5);letters3l4(:,6)];

%letters3l5:coeff dari s3l5
l_s3l5=s3l5(1:6,:)';
[letters3l5,latent3]=princomp(l_s3l5);
s3letter3=[letters3l5(:,1);letters3l5(:,2);letters3l5(:,3);letter
s3l5(:,4);letters3l5(:,5);letters3l5(:,6)];

%letters3l7:coeff dari s3l7
l_s3l7=s3l7(1:6,:)';
[letters3l7,latent4]=princomp(l_s3l7);
s3letter4=[letters3l7(:,1);letters3l7(:,2);letters3l7(:,3);letter
s3l7(:,4);letters3l7(:,5);letters3l7(:,6)];

%letters3l10:coeff dari s3l10
l_s3l10=s3l10(1:6,:)';
[letters3l10,latent5]=princomp(l_s3l10);
s3letter5=[letters3l10(:,1);letters3l10(:,2);letters3l10(:,3);let
ters3l10(:,4);letters3l10(:,5);letters3l10(:,6)];

inputs3letter=[s3letter1 s3letter2 s3letter3 s3letter4
s3letter5];
```

subyek 5

```
load s5l6.mat
load s5l7.mat
load s5l8.mat
load s5l9.mat
load s5l10.mat

%letters5l6:coeff dari s5l6
l_s5l6=s5l6(1:6,:)';
[letters5l6,latent1]=princomp(l_s5l6);
s5letter1=[letters5l6(:,1);letters5l6(:,2);letters5l6(:,3);letter
s5l6(:,4);letters5l6(:,5);letters5l6(:,6)];

%letters5l7:coeff dari s5l7
l_s5l7=s5l7(1:6,:)';
[letters5l7,latent2]=princomp(l_s5l7);
s5letter2=[letters5l7(:,1);letters5l7(:,2);letters5l7(:,3);letter
s5l7(:,4);letters5l7(:,5);letters5l7(:,6)];

%letters5l8:coeff dari s5l8
l_s5l8=s5l8(1:6,:)';
[letters5l8,latent3]=princomp(l_s5l8);
s5letter3=[letters5l8(:,1);letters5l8(:,2);letters5l8(:,3);letter
s5l8(:,4);letters5l8(:,5);letters5l8(:,6)];

%letters5l9:coeff dari s5l9
l_s5l9=s5l9(1:6,:)';
[letters5l9,latent4]=princomp(l_s5l9);
s5letter4=[letters5l9(:,1);letters5l9(:,2);letters5l9(:,3);letter
s5l9(:,4);letters5l9(:,5);letters5l9(:,6)];

%letters5l10:coeff dari s5l10
l_s5l10=s5l10(1:6,:)';
```

```
[letters5l10,latent5]=princomp(l_s5l10);
s5letter5=[letters5l10(:,1);letters5l10(:,2);letters5l10(:,3);let
ters5l10(:,4);letters5l10(:,5);letters5l10(:,6)];


inputs5letter=[s5letter1 s5letter2 s5letter3 s5letter4
s5letter5];
```

List program untuk proses pengujian

```
load trainnetA.mat
s1letter
s3letter
s5letter

uji_letter=[inputs1letter inputs3letter inputs5letter];
letter1_A=sim(netA,uji_letter)


%n=baris ke
%m=kolom ke
for m=1:15
    total=0;
    for n=1:5
        total=total+letter1_A(n,m);
    end;
    rata=total/5;
    jumlah=0;
    for n=1:5
        jumlah=jumlah+(letter1_A(n,m)-rata)^2;
    end;
    deviasi=sqrt(jumlah/4);
    deviasi=0.4*deviasi;
    for n=1:5
        if letter1_A(n,m)<=deviasi
            letter1_A(n,m)=0;
        else letter1_A(n,m)=1;
        end;
    end;
end;

letter1_A

ol=[0;0;1;0;0];
v=0;
for i=1:15
    if letter1_A(:,i)==ol(:,:)
        v=v+1;
    else v=v;
    end;
end;
Persen=(v/15)*100 ;
hasil=num2str(Persen);
disp(['persentase=' hasil ,'%']);
```

nb: program yang ditampilkan pada lampiran hanya beberapa dari keseluruhan program, untuk keseluruhan program dapat dilihat pada CD laporan Tugas Akhir

LAMPIRAN D

LIST PROGRAM PADA MATLAB UNTUK JENIS

MATH TASK

Program untuk pengolahan data

Subyek 1

```
load s1m3.mat
load s1m4.mat
load s1m5.mat
load s1m6.mat
load s1m7.mat

%maths1m3:coeff dari s1m3
m_s1m3=s1m3(1:6,:)';
[maths1m3,latent1]=princomp(m_s1m3);
s1math1=[maths1m3(:,1);maths1m3(:,2);maths1m3(:,3);maths1m3(:,4);
maths1m3(:,5);maths1m3(:,6)];

%maths1m4:coeff dari s1m4
m_s1m4=s1m4(1:6,:)';
[maths1m4,latent2]=princomp(m_s1m4);
s1math2=[maths1m4(:,1);maths1m4(:,2);maths1m4(:,3);maths1m4(:,4);
maths1m4(:,5);maths1m4(:,6)];

%maths1m5:coeff dari s1m5
m_s1m5=s1m5(1:6,:)';
[maths1m5,latent3]=princomp(m_s1m5);
s1math3=[maths1m5(:,1);maths1m5(:,2);maths1m5(:,3);maths1m5(:,4);
maths1m5(:,5);maths1m5(:,6)];

%maths1m6:coeff dari s1m6
m_s1m6=s1m6(1:6,:)';
[maths1m6,latent4]=princomp(m_s1m6);
s1math4=[maths1m6(:,1);maths1m6(:,2);maths1m6(:,3);maths1m6(:,4);
maths1m6(:,5);maths1m6(:,6)];

%maths1m7:coeff dari s1m7
m_s1m7=s1m7(1:6,:)';
[maths1m7,latent5]=princomp(m_s1m7);
s1math5=[maths1m7(:,1);maths1m7(:,2);maths1m7(:,3);maths1m7(:,4);
maths1m7(:,5);maths1m7(:,6)];

inputs1math=[s1math1 s1math2 s1math3 s1math4 s1math5];
```

Subyek 3

```
load s3m2.mat
load s3m4.mat
load s3m5.mat
load s3m7.mat
load s3m10.mat

%maths3m2:coeff dari s3m2
m_s3m2=s3m2(1:6,:)';
[maths3m2,latent1]=princomp(m_s3m2);
s3math1=[maths3m2(:,1);maths3m2(:,2);maths3m2(:,3);maths3m2(:,4);
maths3m2(:,5);maths3m2(:,6)];

%maths3m4:coeff dari s3m4
m_s3m4=s3m4(1:6,:)';
[maths3m4,latent2]=princomp(m_s3m4);
```

```
s3math2=[maths3m4(:,1);maths3m4(:,2);maths3m4(:,3);maths3m4(:,4);
maths3m4(:,5);maths3m4(:,6)];

%maths3m5:coeff dari s3m5
m_s3m5=s3m5(1:6,:)';
[maths3m5,latent3]=princomp(m_s3m5);
s3math3=[maths3m5(:,1);maths3m5(:,2);maths3m5(:,3);maths3m5(:,4);
maths3m5(:,5);maths3m5(:,6)];

%maths3m7:coeff dari s3m7
m_s3m7=s3m7(1:6,:)';
[maths3m7,latent4]=princomp(m_s3m7);
s3math4=[maths3m7(:,1);maths3m7(:,2);maths3m7(:,3);maths3m7(:,4);
maths3m7(:,5);maths3m7(:,6)];

%maths3m10:coeff dari s3m10
m_s3m10=s3m10(1:6,:)';
[maths3m10,latent5]=princomp(m_s3m10);
s3math5=[maths3m10(:,1);maths3m10(:,2);maths3m10(:,3);maths3m10(:
,4);maths3m10(:,5);maths3m10(:,6)];

inputs3math=[s3math1 s3math2 s3math3 s3math4 s3math5];
```

Subyek 5

```
load s5m6.mat
load s5m7.mat
load s5m8.mat
load s5m9.mat
load s5m10.mat

%maths5m6:coeff dari s5m6
m_s5m6=s5m6(1:6,:)';
[maths5m6,latent1]=princomp(m_s5m6);
s5math1=[maths5m6(:,1);maths5m6(:,2);maths5m6(:,3);maths5m6(:,4);
maths5m6(:,5);maths5m6(:,6)];

%maths5m7:coeff dari s5m7
m_s5m7=s5m7(1:6,:)';
[maths5m7,latent2]=princomp(m_s5m7);
s5math2=[maths5m7(:,1);maths5m7(:,2);maths5m7(:,3);maths5m7(:,4);
maths5m7(:,5);maths5m7(:,6)];

%maths5m8:coeff dari s5m8
m_s5m8=s5m8(1:6,:)';
[maths5m8,latent3]=princomp(m_s5m8);
s5math3=[maths5m8(:,1);maths5m8(:,2);maths5m8(:,3);maths5m8(:,4);
maths5m8(:,5);maths5m8(:,6)];

%maths5m9:coeff dari s5m9
m_s5m9=s5m9(1:6,:)';
[maths5m9,latent4]=princomp(m_s5m9);
s5math4=[maths5m9(:,1);maths5m9(:,2);maths5m9(:,3);maths5m9(:,4);
maths5m9(:,5);maths5m9(:,6)];

%maths5m10:coeff dari s5m10
m_s5m10=s5m10(1:6,:)';
[maths5m10,latent5]=princomp(m_s5m10);
s5math5=[maths5m10(:,1);maths5m10(:,2);maths5m10(:,3);maths5m10(:
,4);maths5m10(:,5);maths5m10(:,6)];
```

```
inputs5math=[s5math1 s5math2 s5math3 s5math4 s5math5];
```

List program untuk proses pengujian

```
load trainnetA.mat
s1math
s3math
s5math

uji_math=[inputs1math inputs3math inputs5math];
math1_A=sim(netA,uji_math)


%n=baris ke
%m=kolom ke
for m=1:15
    total=0;
    for n=1:5
        total=total+math1_A(n,m);
    end;
    rata=total/5;
    jumlah=0;
    for n=1:5
        jumlah=jumlah+(math1_A(n,m)-rata)^2;
    end;
    deviasi=sqrt(jumlah/4);
    deviasi=0.4*deviasi;
    for n=1:5
        if math1_A(n,m)<=deviasi
            math1_A(n,m)=0;
        else math1_A(n,m)=1;
        end;
    end;
end;

math1_A

om=[0;0;0;1;0];
v=0;
for i=1:15
    if math1_A(:,i)==om(:,:)
        v=v+1;
    else v=v;
    end;
end;
Persen=(v/15)*100 ;
hasil=num2str(Persen);
disp(['persentase=' hasil ,'%']);
```

nb: program yang ditampilkan pada lampiran hanya beberapa dari keseluruhan program, untuk keseluruhan program dapat dilihat pada CD laporan Tugas Akhir

LAMPIRAN E

LIST PROGRAM PADA MATLAB UNTUK JENIS

GEOMETRIC FIGURE ROTATION

Program untuk pengolahan data

Subyek 1

```
load s1r3.mat
load s1r4.mat
load s1r5.mat
load s1r6.mat
load s1r7.mat

%rotates1r3:coeff dari s1r3
r_s1r3=s1r3(1:6,:)';
[rotates1r3,latent1]=princomp(r_s1r3);
s1rotate1=[rotates1r3(:,1);rotates1r3(:,2);rotates1r3(:,3);rotate
s1r3(:,4);rotates1r3(:,5);rotates1r3(:,6)];

%rotates1r4:coeff dari s1r4
r_s1r4=s1r4(1:6,:)';
[rotates1r4,latent2]=princomp(r_s1r4);
s1rotate2=[rotates1r4(:,1);rotates1r4(:,2);rotates1r4(:,3);rotate
s1r4(:,4);rotates1r4(:,5);rotates1r4(:,6)];

%rotates1r5:coeff dari s1r5
r_s1r5=s1r5(1:6,:)';
[rotates1r5,latent3]=princomp(r_s1r5);
s1rotate3=[rotates1r5(:,1);rotates1r5(:,2);rotates1r5(:,3);rotate
s1r5(:,4);rotates1r5(:,5);rotates1r5(:,6)];

%rotates1r6:coeff dari s1r6
r_s1r6=s1r6(1:6,:)';
[rotates1r6,latent4]=princomp(r_s1r6);
s1rotate4=[rotates1r6(:,1);rotates1r6(:,2);rotates1r6(:,3);rotate
s1r6(:,4);rotates1r6(:,5);rotates1r6(:,6)];

%rotates1r7:coeff dari s1r7
r_s1r7=s1r7(1:6,:)';
[rotates1r7,latent5]=princomp(r_s1r7);
s1rotate5=[rotates1r7(:,1);rotates1r7(:,2);rotates1r7(:,3);rotate
s1r7(:,4);rotates1r7(:,5);rotates1r7(:,6)];

inputs1rotate=[s1rotate1 s1rotate2 s1rotate3 s1rotate4
s1rotate5];
```

Subyek 3

```
load s1r2.mat
load s1r4.mat
load s1r5.mat
load s1r7.mat
load s1r10.mat

%rotates1r2:coeff dari s1r2
r_s1r2=s1r2(1:6,:)';
[rotates1r2,latent1]=princomp(r_s1r2);
s3rotate1=[rotates1r2(:,1);rotates1r2(:,2);rotates1r2(:,3);rotate
s1r2(:,4);rotates1r2(:,5);rotates1r2(:,6)];

%rotates1r4:coeff dari s1r4
r_s1r4=s1r4(1:6,:)';
```

```
[rotates1r4,latent2]=princomp(r_s1r4);
s3rotate2=[rotates1r4(:,1);rotates1r4(:,2);rotates1r4(:,3);rotate
s1r4(:,4);rotates1r4(:,5);rotates1r4(:,6)];

%rotates1r5:coeff dari s1r5
r_s1r5=s1r5(1:6,:)';
[rotates1r5,latent3]=princomp(r_s1r5);
s3rotate3=[rotates1r5(:,1);rotates1r5(:,2);rotates1r5(:,3);rotate
s1r5(:,4);rotates1r5(:,5);rotates1r5(:,6)];

%rotates1r7:coeff dari s1r7
r_s1r7=s1r7(1:6,:)';
[rotates1r7,latent5]=princomp(r_s1r7);
s3rotate4=[rotates1r7(:,1);rotates1r7(:,2);rotates1r7(:,3);rotate
s1r7(:,4);rotates1r7(:,5);rotates1r7(:,6)];

%rotates1r10:coeff dari s1r10
r_s1r10=s1r10(1:6,:)';
[rotates1r10,latent4]=princomp(r_s1r10);
s3rotate5=[rotates1r10(:,1);rotates1r10(:,2);rotates1r10(:,3);rot
ates1r10(:,4);rotates1r10(:,5);rotates1r10(:,6)];

inputs3rotate=[s3rotate1 s3rotate2 s3rotate3 s3rotate4
s3rotate5];
```

Subyek 5

```
load s1r6.mat
load s1r7.mat
load s1r8.mat
load s1r9.mat
load s1r10.mat

%rotates1r6:coeff dari s1r6
r_s1r6=s1r6(1:6,:)';
[rotates1r6,latent4]=princomp(r_s1r6);
s5rotate1=[rotates1r6(:,1);rotates1r6(:,2);rotates1r6(:,3);rotate
s1r6(:,4);rotates1r6(:,5);rotates1r6(:,6)];

%rotates1r7:coeff dari s1r7
r_s1r7=s1r7(1:6,:)';
[rotates1r7,latent5]=princomp(r_s1r7);
s5rotate2=[rotates1r7(:,1);rotates1r7(:,2);rotates1r7(:,3);rotate
s1r7(:,4);rotates1r7(:,5);rotates1r7(:,6)];

%rotates1r8:coeff dari s1r8
r_s1r8=s1r8(1:6,:)';
[rotates1r8,latent1]=princomp(r_s1r8);
s5rotate3=[rotates1r8(:,1);rotates1r8(:,2);rotates1r8(:,3);rotate
s1r8(:,4);rotates1r8(:,5);rotates1r8(:,6)];

%rotates1r9:coeff dari s1r9
r_s1r9=s1r9(1:6,:)';
[rotates1r9,latent2]=princomp(r_s1r9);
s5rotate4=[rotates1r9(:,1);rotates1r9(:,2);rotates1r9(:,3);rotate
s1r9(:,4);rotates1r9(:,5);rotates1r9(:,6)];

%rotates1r10:coeff dari s1r10
r_s1r10=s1r10(1:6,:)';
[rotates1r10,latent3]=princomp(r_s1r10);
```

```
s5rotate5=[rotates1r10(:,1);rotates1r10(:,2);rotates1r10(:,3);rot
ates1r10(:,4);rotates1r10(:,5);rotates1r10(:,6)];

inputs5rotate=[s5rotate1 s5rotate2 s5rotate3 s5rotate4
s5rotate5];
```

List program untuk proses pengujian

```
load trainnetA.mat
s1rotate
s3rotate
s5rotate

uji_rotate=[inputs1rotate inputs3rotate inputs5rotate];
rotate1_A=sim(netA,uji_rotate)


%n=baris ke
%m=kolom ke
for m=1:15
    total=0;
    for n=1:5
        total=total+rotate1_A(n,m);
    end;
    rata=total/5;
    jumlah=0;
    for n=1:5
        jumlah=jumlah+(rotate1_A(n,m)-rata)^2;
    end;
    deviasi=sqrt(jumlah/4);
    deviasi=0.4*deviasi;
    for n=1:5
        if rotate1_A(n,m)<=deviasi
            rotate1_A(n,m)=0;
        else rotate1_A(n,m)=1;
        end;
    end;
end;

rotate1_A

or=[0;0;0;0;1];
v=0;
for i=1:15
    if rotate1_A(:,i)==or(:,:)
        v=v+1;
    else v=v;
    end;
end;
Persen=(v/15)*100 ;
hasil=num2str(Persen);
disp(['persentase=' hasil ,'%']);
```

nb: program yang ditampilkan pada lampiran hanya beberapa dari keseluruhan program, untuk keseluruhan program dapat dilihat pada CD laporan Tugas Akhir