DAFTAR PUSTAKA

Abdul Fadlil,Ikhson Hidayat,Sunardi, *Sistem pengenalan wajah manusia real-time menggunakan algoritma jaringan saraf tiruan* , Journal

Jimmy E Purwanto, (2003). *Prototype mengenal wajah melalui webcam dengan menggunakan algoritma principal component analysis (PCA) dan Linier discriminant analisis (LDA)*, Journal

Agus Buono,Amad Ridha,Harief Batian, *Sistem pengenalan wajah real-time ruang eigen dengan segmentasi berdasarkan warna kulit*, Journal

Booch,G. Rumbaugh,J. Jacobson,I. (1999). *The Unified Modeling Language - User Guide*. Addison Wesley.

Kendall, K. and Kendall, J., (2005) *Systems Analysis and Design*, 6th Ed. Prentice Hall.

Nugroho, A. (2010). *Rekayasa Perangkat Lunak Berorientasi Objek dan USDP*. ANDI.

Oetomo, Budi Sutedjo Dharma, (2006), *Perencanaan dan Pembangunan Sistem Informasi*,ANDI, Yogyakarta.

Alan Budi (2007) *Pengolahan Citra (on line)* (elib,unikom.ac.id/files/disk 1/ 126/jbtunikom pp-gdl-SL-2007-alanbudiha-babii-pdf)

Pressman, R. S. (2010). *Software Engineering : A Practitioner's Approach, Seventh Edition*. New York: McGraw-Hill.

Sobottka,K dan Piters,I. (1996). *Looking for face and facial features in color Image.*http://citescer.lcs.mit edu/sobottka96looking.html.(19 meri 2013)

Kusumadewi,S. (2004). *Membangun Jaringan Saraf Tiruan Menggunakan Matlab & Exel* link.Yogyakarta Garah Imu.

Fausett.L.(1994). *Fundamental of Neural Network.Archtectures,Algorithm, and Application.*New jersey :Prentice_Hall.

Brenda Palit (2011). Pendeteksi wajah dengan pengaruh cahaya, Skripsi, UNSRAT. Manado

LAMPIRAN 1

Listing Program Pengenalan Pola Wajah Manusia.

```
function varargout = ETA(varargin)
% ETA M-file for ETA.fig
%      ETA, by itself, creates a new ETA or raises the existing
%      singleton*.
%
%      H = ETA returns the handle to a new ETA or the handle to
%      the existing singleton*.
%
%      ETA('CALLBACK',hObject,eventData,handles,...) calls the
local
%      function named CALLBACK in ETA.M with the given input
arguments.
%
%      ETA('Property','Value',...) creates a new ETA or raises the
%      existing singleton*.  Starting from the left, property
value pairs are
%      applied to the GUI before ETA_OpeningFcn gets called.  An
%      unrecognized property name or invalid value makes property
application
%      stop.  All inputs are passed to ETA_OpeningFcn via
varargin.
%
%      *See GUI Options on GUIDE's Tools menu.  Choose "GUI allows
only one
%      instance to run (singleton)".
%
% See also: GUIDE, GUIDATA, GUIHANDLES

% Edit the above text to modify the response to help ETA

% Last Modified by GUIDE v2.5 04-May-2008 22:39:34

% Begin initialization code - DO NOT EDIT
gui_Singleton = 1;
gui_State = struct('gui_Name',       mfilename, ...
                   'gui_Singleton',  gui_Singleton, ...
                   'gui_OpeningFcn', @ETA_OpeningFcn, ...
                   'gui_OutputFcn',  @ETA_OutputFcn, ...
                   'gui_LayoutFcn',  [] , ...
                   'gui_Callback',   []);
if nargin && ischar(varargin{1})
    gui_State.gui_Callback = str2func(varargin{1});
end

if nargout
    [varargout{1:nargout}] = gui_mainfcn(gui_State, varargin{:});
else
    gui_mainfcn(gui_State, varargin{:});
end
% End initialization code - DO NOT EDIT
```

```
% --- Executes just before ETA is made visible.
function ETA_OpeningFcn(hObject, eventdata, handles, varargin)
% This function has no output args, see OutputFcn.
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
% varargin   command line arguments to ETA (see VARARGIN)

% Choose default command line output for ETA
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

% UIWAIT makes ETA wait for user response (see UIRESUME)
% uiwait(handles.figure1);


% --- Outputs from this function are returned to the command line.
function varargout = ETA_OutputFcn(hObject, eventdata, handles)
% varargout  cell array for returning output args (see VARARGOUT);
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Get default command line output from handles structure
varargout{1} = handles.output;
%axes(handles.axes5); imshow('picture0015.jpg');
%axes(handles.axes6); imshow('picture0017.jpg');

global vid
vid = videoinput('winvideo');
start(vid);
%vidRes = get(vid, 'VideoResolution');
%imWidth = vidRes(1);
%imHeight = vidRes(2);
%nBands = get(vid, 'NumberOfBands');
%hImage = image( zeros(imHeight, imWidth, nBands) );
preview(vid);%(vid, hImage);
%axes(handles.axes1); imshow(vid);


% --- Executes on button press in CAPTURE1.
function CAPTURE1_Callback(hObject, eventdata, handles)
% hObject    handle to CAPTURE1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
global vid rgb
%pause(30);
```

```
rgb = getsnapshot(vid);
axes(handles.axes1);imshow(rgb);


% --- Executes on button press in SAVE.
function SAVE_Callback(hObject, eventdata, handles)
% hObject    handle to SAVE (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
global rgb D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16
D17 D17 D18 D19 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29 D30 D31 32
D3 D34 D35
gambar a
b=1;
gambar=a+b;
%set(handles.edit8,'string',gambar);
if (gambar==1)
    a=gambar;
D1 = rgb;
    else if (gambar==2)B
    a=gambar;
    D2 = rgb;
        else if (gambar==3)
    a=gambar;
        D3 = rgb;
            else if (gambar==4)
    a=gambar;
            D4 = rgb;
            else if (gambar==5)
    a=gambar;
            D5 = rgb;
            else if (gambar==6)
    a=gambar;
            D6 = rgb;
            else if (gambar==7)
    a=gambar;
            D7 = rgb;
            else if (gambar==8)
    a=gambar;
            D8 = rgb;
            else if (gambar==9)
    a=gambar;
            D9 = rgb;


                else if (gambar==10)
    a=0;
                D10 = rgb;
                gambar=0;

                    end
                end
            end
                end
```

```
                end
                end
                end
            end
        end

end


image1=uiputfile(...
{'*.bmp','file citra (*.bmp)';
'*.bmp','citra bmp (*.bmp)';...
'*.*','Semua File (*.*)'},...
'Menyimpan Citra');
imwrite(rgb,fullfile(image1),'BMP');



function edit2_Callback(hObject, eventdata, handles)
% hObject    handle to edit2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit2 as text
%        str2double(get(hObject,'String')) returns contents of
edit2 as a double


% --- Executes during object creation, after setting all
properties.
function edit2_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end


% --- Executes on button press in pushbutton7.
function pushbutton7_Callback(hObject, eventdata, handles)
% hObject    handle to pushbutton7 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
selection = questdlg(['Tutup ' get(handles.figure1,'Name')
'?'],...
```

```
['Tutup ' get(handles.figure1,'Name') '...'],...
'Ya','Tidak','Ya');
if strcmp(selection,'Tidak')
return;
end
delete(handles.figure1)



% --- Executes on button press in IMANGE_PROCC.
function IMANGE_PROCC_Callback(hObject, eventdata, handles)
% hObject    handle to IMANGE_PROCC (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
global  rgb1 data2 BW1

I1 = rgb2gray(rgb1);
BW1 = im2bw(I1);%(I2,graythresh(I2));

axes(handles.axes1);imshow(BW1);
data2=bwarea(BW1);
%=======set(handles.edit8,'string',data2);

%I = rgb2gray(rgb);
%BW = im2bw(I);%(I2,graythresh(I2));
%axes(handles.axes1);imshow(BW);
%data1=bwarea(BW)
%set(handles.edit7,'string',data1);

% --- Executes on button press in TRAINING.
function TRAINING_Callback(hObject, eventdata, handles)
% hObject    handle to TRAINING (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
global Maxepoh TEror Lr EpohSow D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11
D12 D13 D14 D15 D16 D17 D17 D18 D19 D20 D21 D22 D23 D24 D25 D26
D27 D28 D29 D30 D31 32 D3 D34 D35
Y Bobotakhir_Bias_Lapisan P data2
Maxepoh=str2num(get(handles.edit3, 'String'));
TEror=str2num(get(handles.edit4, 'String'));
Lr=str2num(get(handles.edit5, 'String'));
EpohSow=str2num(get(handles.edit6, 'String'));



global Maxepoh TEror Lr EpohSow D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11
D12 D13 D14 D15 D16 D17 D17 D18 D19 D20 D21 D22 D23 D24 D25 D26
D27 D28 D29 D30 D31 32 D3 D34 D35
P= [D1 D2 D3 D4 D5; D6 D7 D8 D9 D10];     %[1 2 3 4 5;2 4 6 8 10];
%[0 1 2 1 10 12 -5 -8 -10 -15; 0 1 -1 6 3 -1 -2 2 -5 2];
T=[D1 D2 D3 D4 D5 ]; % 15916 16048 15852 16328 16361];   %0 0 1 1
2 2 -1 -1 -2 -2];
```

```
%membangun jaringan saraf feedforward
net = newff(minmax(P),[5 1],{'tansig' 'purelin'},'trainrp');

%melihat bobotawal input, lapidsan dan bias
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}

%set max epoh , goal,learning rate, show step
net.trainParam.epochs    = Maxepoh;%1500;
net.trainParam.goal      = TEror; %1e-3;
net.trainParam.lr        = Lr; %0.1;
net.trainParam.show      = EpohSow; %100;

%melakukan pembelajaran
net = train(net,P,T);

%melihat bobot2 awal input, lapisan dan , bias
Bobotakhir_input         = net.IW{1,1}
Bobotakhir_Bias_Input    = net.b{1,1}
Bobotakhir_Lapisan       = net.LW{2,1}
Bobotakhir_Bias_Lapisan  = net.b{2,1}

%Melakukan Simulasi
Y = sim(net,P)


%gambar Grafik
pause;
subplot(211)
plot(P(1,:),T,'bo',P(1,:),y,'r*');
title('Perbandingan antara target (0) dan Output Jaringan (*)');
xlabel('Input Pertama');
ylabel('Target atau Output');
grid;

subplot(212)
plot(P(2,:),T,'bo',P(2,:),y,'r*');
title('Perbandingan antara target (0) dan Output Jaringan (*)');
xlabel('Input Kedua');
ylabel('Target atau Output');
grid;
set(handles.edit2,'string',Y);


% --- Executes on button press in TESTING.
function TESTING_Callback(hObject, eventdata, handles)
% hObject    handle to TESTING (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
global D1  D6  data2 %rgb
%axes(handles.axes3); imshow(rgb);
```

```
data=data2-D1;
%set(handles.edit4,'string',data);
if(data>300)
    %set(handles.edit2,'string','tdk sama');
    data=data2-D6;
    if(data>300)
        set(handles.edit2,'string','Tidak Terdeteksi/CLOUSE');
    else if(data<-300)
        set(handles.edit2,'string','Tidak Terdeteksi/CLOUSE');
        else
            set(handles.edit2,'string','Wajah Terdeteksi/OPEN');
            delete(instrfind);
            %clear all;
            s = serial('COM15');

set(s,'Baudrate',9600,'DataBits',8,'Parity','none','StopBits',1,'F
lowControl','none','Terminator','CR/LF');
            fopen(s);
            fprintf(s,'%s','1');
%out = fscanf(s);
            fclose(s);
            delete(s);
            clear s;



        end
    end
else if(data<-300)
    %set(handles.edit2,'string','Tidak Terdeteksi/CLOUSE');
        data=data2-D6;
    if(data>300)
        set(handles.edit2,'string','Tidak Terdeteksi/CLOUSE');
    else if(data<-300)
        set(handles.edit2,'string','Tidak Terdeteksi/CLOUSE');
        else
            set(handles.edit2,'string','Wajah Terdeteksi/OPEN');
            delete(instrfind);
            %clear all;
            s = serial('COM15');

set(s,'Baudrate',9600,'DataBits',8,'Parity','none','StopBits',1,'F
lowControl','none','Terminator','CR/LF');
            fopen(s);
            fprintf(s,'%s','1');
%out = fscanf(s);
            fclose(s);
            delete(s);
            clear s;

        end
    end

else
    set(handles.edit2,'string','Wajah Terdeteksi/OPEN');
delete(instrfind);
%clear all;
```

```
s = serial('COM15');
set(s,'Baudrate',9600,'DataBits',8,'Parity','none','StopBits',1,'F
lowControl','none','Terminator','CR/LF');
fopen(s);
fprintf(s,'%s','1');
%out = fscanf(s);
fclose(s);
delete(s);
clear s;
    end
end

% --- Executes on button press in CAPTURE2.
function CAPTURE2_Callback(hObject, eventdata, handles)
% hObject    handle to CAPTURE2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
global vid rgb1 %gambar2
%image2=uigetfile('*.jpg');
%gambar2=imread(image2);
%axes(handles.axes2);imshow(gambar2);

rgb1 = getsnapshot(vid);
axes(handles.axes1);imshow(rgb1);


function edit3_Callback(hObject, eventdata, handles)
% hObject    handle to edit3 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit3 as text
%        str2double(get(hObject,'String')) returns contents of
edit3 as a double


% --- Executes during object creation, after setting all
properties.
function edit3_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit3 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end
```

```
function edit4_Callback(hObject, eventdata, handles)
% hObject    handle to edit4 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit4 as text
%        str2double(get(hObject,'String')) returns contents of
edit4 as a double


% --- Executes during object creation, after setting all
properties.
function edit4_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit4 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit5_Callback(hObject, eventdata, handles)
% hObject    handle to edit5 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit5 as text
%        str2double(get(hObject,'String')) returns contents of
edit5 as a double


% --- Executes during object creation, after setting all
properties.
function edit5_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit5 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
```

```
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit6_Callback(hObject, eventdata, handles)
% hObject    handle to edit6 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit6 as text
%        str2double(get(hObject,'String')) returns contents of
edit6 as a double


% --- Executes during object creation, after setting all
properties.
function edit6_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit6 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit7_Callback(hObject, eventdata, handles)
% hObject    handle to edit7 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit7 as text
%        str2double(get(hObject,'String')) returns contents of
edit7 as a double


% --- Executes during object creation, after setting all
properties.
function edit7_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit7 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
```

```
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit8_Callback(hObject, eventdata, handles)
% hObject    handle to edit8 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit8 as text
%        str2double(get(hObject,'String')) returns contents of
edit8 as a double


% --- Executes during object creation, after setting all
properties.
function edit8_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit8 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end


% --- Executes on button press in START.
function START_Callback(hObject, eventdata, handles)
% hObject    handle to START (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hint: get(hObject,'Value') returns toggle state of START
global a
a=0;


% --- Executes on button press in INPUT_IMANGE.
function INPUT_IMANGE_Callback(hObject, eventdata, handles)
```

```
% hObject    handle to INPUT_IMANGE (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
global  D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16 D17
D17 D18 D19 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29 D30 D31 32 D3
D34 D35
image1=uigetfile('a.bmp');
E1=imread(image1);
I1 = rgb2gray(E1);
%axes(handles.axes3);imshow(D1);
citra1=im2bw(I1);
D1=bwarea(citra1);

image2=uigetfile('b.bmp');
E2=imread(image2);
I2 = rgb2gray(E2);
%axes(handles.axes3);imshow(D1);
citra2=im2bw(I2);
D2=bwarea(citra2);

image3=uigetfile('c.bmp');
E3=imread(image3);
I3 = rgb2gray(E3);
%axes(handles.axes3);imshow(D1);
citra3=im2bw(I3);
D3=bwarea(citra3);

image4=uigetfile('d.bmp');
E4=imread(image4);
I4 = rgb2gray(E4);
%axes(handles.axes3);imshow(D1);
citra4=im2bw(I4);
D4=bwarea(citra4);

image5=uigetfile('e.bmp');
E5=imread(image5);
I5 = rgb2gray(E5);
%axes(handles.axes3);imshow(D1);
citra5=im2bw(I5);
D5=bwarea(citra5);

image6=uigetfile('f.bmp');
E6=imread(image6);
I6 = rgb2gray(E6);
%axes(handles.axes3);imshow(D1);
citra6=im2bw(I6);
D6=bwarea(citra6);

image7=uigetfile('g.bmp');
E7=imread(image7);
I7 = rgb2gray(E7);
%axes(handles.axes3);imshow(D1);
citra7=im2bw(I7);
D7=bwarea(citra7);
```

```
image8=uigetfile('h.bmp');
E8=imread(image8);
I8 = rgb2gray(E8);
%axes(handles.axes3);imshow(D1);
citra8=im2bw(I8);
D8=bwarea(citra8);

image9=uigetfile('i.bmp');
E9=imread(image9);
I9 = rgb2gray(E9);
%axes(handles.axes3);imshow(D1);
citra9=im2bw(I9);
D9=bwarea(citra9);

image10=uigetfile('j.bmp');
E10=imread(image10);
I10 = rgb2gray(E10);
%axes(handles.axes3);imshow(D1);
citra10=im2bw(I10);
D10=bwarea(citra10);

%========rgb=D3;
%I = rgb2gray(rgb);
%BW = im2bw(I);%(I2,graythresh(I2));
%axes(handles.axes1);imshow(BW);
%=========data1=rgb %bwarea(BW)
%=========set(handles.edit7,'string',data1);
%=========set(handles.edit3,'string',D8);

function edit9_Callback(hObject, eventdata, handles)
% hObject    handle to edit9 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit9 as text
%        str2double(get(hObject,'String')) returns contents of
edit9 as a double


% --- Executes during object creation, after setting all
properties.
function edit9_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit9 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
```

```
end
```

2.SIMULATOR M- FILE

```
function varargout = simulationEta(varargin)
% SIMULATIONETA M-file for simulationEta.fig
%      SIMULATIONETA, by itself, creates a new SIMULATIONETA or
raises the existing
%      singleton*.
%
%      H = SIMULATIONETA returns the handle to a new SIMULATIONETA
or the handle to
%      the existing singleton*.
%
%      SIMULATIONETA('CALLBACK',hObject,eventData,handles,...)
calls the local
%      function named CALLBACK in SIMULATIONETA.M with the given
input arguments.
%
%      SIMULATIONETA('Property','Value',...) creates a new
SIMULATIONETA or raises the
%      existing singleton*.  Starting from the left, property
value pairs are
%      applied to the GUI before simulationEta_OpeningFcn gets
called.  An
%      unrecognized property name or invalid value makes property
application
%      stop.  All inputs are passed to simulationEta_OpeningFcn
via varargin.
%
%      *See GUI Options on GUIDE's Tools menu.  Choose "GUI allows
only one
%      instance to run (singleton)".
%
% See also: GUIDE, GUIDATA, GUIHANDLES

% Edit the above text to modify the response to help simulationEta

% Last Modified by GUIDE v2.5 05-May-2008 22:38:15

% Begin initialization code - DO NOT EDIT
gui_Singleton = 1;
gui_State = struct('gui_Name',       mfilename, ...
                   'gui_Singleton',  gui_Singleton, ...
                   'gui_OpeningFcn', @simulationEta_OpeningFcn,
...
                   'gui_OutputFcn',  @simulationEta_OutputFcn, ...
                   'gui_LayoutFcn',  [] , ...
                   'gui_Callback',   []);
if nargin && ischar(varargin{1})
    gui_State.gui_Callback = str2func(varargin{1});
end
```

```
if nargout
    [varargout{1:nargout}] = gui_mainfcn(gui_State, varargin{:});
else
    gui_mainfcn(gui_State, varargin{:});
end
% End initialization code - DO NOT EDIT


% --- Executes just before simulationEta is made visible.
function simulationEta_OpeningFcn(hObject, eventdata, handles,
varargin)
% This function has no output args, see OutputFcn.
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
% varargin   command line arguments to simulationEta (see
VARARGIN)

% Choose default command line output for simulationEta
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);

% UIWAIT makes simulationEta wait for user response (see UIRESUME)
% uiwait(handles.figure1);


% --- Outputs from this function are returned to the command line.
function varargout = simulationEta_OutputFcn(hObject, eventdata,
handles)
% varargout  cell array for returning output args (see VARARGOUT);
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Get default command line output from handles structure
varargout{1} = handles.output;



function edit1_Callback(hObject, eventdata, handles)
% hObject    handle to edit1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit1 as text
%        str2double(get(hObject,'String')) returns contents of
edit1 as a double
```

```
% --- Executes during object creation, after setting all
properties.
function edit1_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit1 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit2_Callback(hObject, eventdata, handles)
% hObject    handle to edit2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit2 as text
%        str2double(get(hObject,'String')) returns contents of
edit2 as a double


% --- Executes during object creation, after setting all
properties.
function edit2_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit2 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit3_Callback(hObject, eventdata, handles)
% hObject    handle to edit3 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit3 as text
```

```
%        str2double(get(hObject,'String')) returns contents of
edit3 as a double


% --- Executes during object creation, after setting all
properties.
function edit3_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit3 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit4_Callback(hObject, eventdata, handles)
% hObject    handle to edit4 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit4 as text
%        str2double(get(hObject,'String')) returns contents of
edit4 as a double


% --- Executes during object creation, after setting all
properties.
function edit4_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit4 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit5_Callback(hObject, eventdata, handles)
% hObject    handle to edit5 (see GCBO)
```

```
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit5 as text
%        str2double(get(hObject,'String')) returns contents of
edit5 as a double


% --- Executes during object creation, after setting all
properties.
function edit5_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit5 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end


% --- Executes on button press in Start.
function Start_Callback(hObject, eventdata, handles)
% hObject    handle to Start (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
global D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16 D17
D17 D18 D19 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29 D30 D31 D32
D33 D34 D35

image1=uigetfile('a.bmp');
E1=imread(image1);
I1 = rgb2gray(E1);
axes(handles.axes1);imshow(E1);
citra1=im2bw(I1);
D1=bwarea(citra1);
set(handles.edit1,'string',D1);

image2=uigetfile('b.bmp');
E2=imread(image2);
I2 = rgb2gray(E2);
axes(handles.axes2);imshow(E2);
citra2=im2bw(I2);
D2=bwarea(citra2);
set(handles.edit2,'string',D2);

image3=uigetfile('c.bmp');
E3=imread(image3);
I3 = rgb2gray(E3);
```

```
axes(handles.axes3);imshow(E3);
citra3=im2bw(I3);
D3=bwarea(citra3);
set(handles.edit3,'string',D3);

image4=uigetfile('d.bmp');
E4=imread(image4);
I4 = rgb2gray(E4);
axes(handles.axes4);imshow(E4);
citra4=im2bw(I4);
D4=bwarea(citra4);
set(handles.edit4,'string',D4);

image5=uigetfile('e.bmp');
E5=imread(image5);
I5 = rgb2gray(E5);
axes(handles.axes5);imshow(E5);
citra5=im2bw(I5);
D5=bwarea(citra5);
set(handles.edit5,'string',D5);

image6=uigetfile('f.bmp');
E6=imread(image6);
I6 = rgb2gray(E6);
axes(handles.axes6);imshow(E6);
citra6=im2bw(I6);
D6=bwarea(citra6);
set(handles.edit7,'string',D6);

image7=uigetfile('g.bmp');
E7=imread(image7);
I7 = rgb2gray(E7);
axes(handles.axes7);imshow(E7);
citra7=im2bw(I7);
D7=bwarea(citra7);
set(handles.edit8,'string',D7);

image8=uigetfile('h.bmp');
E8=imread(image8);
I8 = rgb2gray(E8);
axes(handles.axes8);imshow(E8);
citra8=im2bw(I8);
D8=bwarea(citra8);
set(handles.edit9,'string',D8);

image9=uigetfile('i.bmp');
E9=imread(image9);
I9 = rgb2gray(E9);
axes(handles.axes9);imshow(E9);
citra9=im2bw(I9);
D9=bwarea(citra9);
set(handles.edit10,'string',D9);

image10=uigetfile('j.bmp');
E10=imread(image10);
```

```
I10 = rgb2gray(E10);
axes(handles.axes10);imshow(E10);
citra10=im2bw(I10);
D10=bwarea(citra10);
set(handles.edit11,'string',D10);

% --- Executes on button press in compailer.
function compailer_Callback(hObject, eventdata, handles)
% hObject    handle to compailer (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)
global D1 D2 %D3  D4 D5%rgb
%axes(handles.axes3); imshow(rgb);
data=D1-D2;
%set(handles.edit4,'string',data);
if(data>400)
    set(handles.edit6,'string','tdk sama');
    delete(instrfind);
%clear all;
s = serial('COM15');
set(s,'Baudrate',9600,'DataBits',8,'Parity','none','StopBits',1,'F
lowControl','none','Terminator','CR/LF');
fopen(s);
fprintf(s,'%s','1');
%out = fscanf(s);
fclose(s);
delete(s);
clear s;
else if(data<-400)
    set(handles.edit6,'string','tdk tdk sama');
    delete(instrfind);
%clear all;
s = serial('COM15');
set(s,'Baudrate',9600,'DataBits',8,'Parity','none','StopBits',1,'F
lowControl','none','Terminator','CR/LF');
fopen(s);
fprintf(s,'%s','1');
%out = fscanf(s);
fclose(s);
delete(s);
clear s;
else
    set(handles.edit6,'string','sama');
%delete(instrfind);
%clear all;
%s = serial('COM7');
%set(s,'Baudrate',9600,'DataBits',8,'Parity','none','StopBits',1,'
FlowControl','none','Terminator','CR/LF');
%fopen(s);
%fprintf(s,'%s','a');
%fclose(s);
%delete(s);
%clear s;
    end
end
```

```
function edit6_Callback(hObject, eventdata, handles)
% hObject    handle to edit6 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit6 as text
%        str2double(get(hObject,'String')) returns contents of
edit6 as a double


% --- Executes during object creation, after setting all
properties.
function edit6_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit6 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit7_Callback(hObject, eventdata, handles)
% hObject    handle to edit7 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit7 as text
%        str2double(get(hObject,'String')) returns contents of
edit7 as a double


% --- Executes during object creation, after setting all
properties.
function edit7_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit7 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
```

```
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit8_Callback(hObject, eventdata, handles)
% hObject    handle to edit8 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit8 as text
%        str2double(get(hObject,'String')) returns contents of
edit8 as a double


% --- Executes during object creation, after setting all
properties.
function edit8_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit8 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit9_Callback(hObject, eventdata, handles)
% hObject    handle to edit9 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit9 as text
%        str2double(get(hObject,'String')) returns contents of
edit9 as a double


% --- Executes during object creation, after setting all
properties.
function edit9_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit9 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
```

```
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit10_Callback(hObject, eventdata, handles)
% hObject    handle to edit10 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit10 as text
%        str2double(get(hObject,'String')) returns contents of
edit10 as a double


% --- Executes during object creation, after setting all
properties.
function edit10_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit10 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end



function edit11_Callback(hObject, eventdata, handles)
% hObject    handle to edit11 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit11 as text
%        str2double(get(hObject,'String')) returns contents of
edit11 as a double


% --- Executes during object creation, after setting all
properties.
```

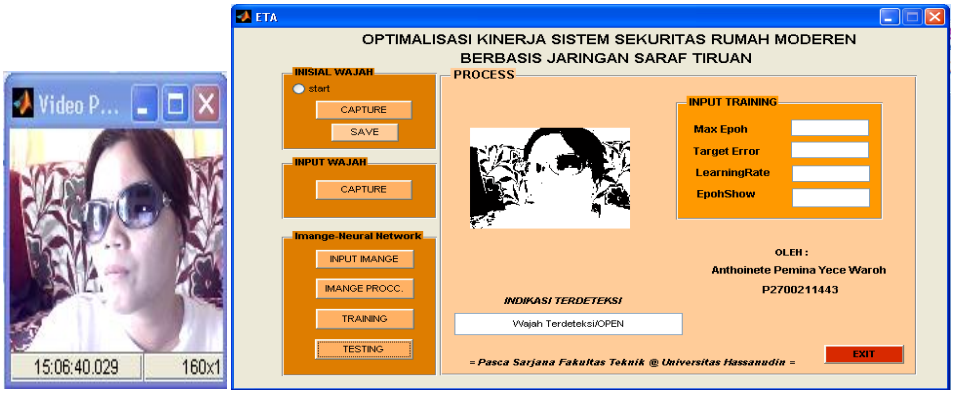
```
function edit11_CreateFcn(hObject, eventdata, handles)
% hObject    handle to edit11 (see GCBO)
% eventdata  reserved - to be defined in a future version of
MATLAB
% handles    empty - handles not created until after all
CreateFcns called

% Hint: edit controls usually have a white background on Windows.
%       See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'),
get(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end
```

LAMPIRAN 2

Pengambilan citra wajah pada video dan diproses menghasilkan output indentikasih terdeteksi

a. Inisial Eta




Video P...
15:15:32.982
160x1
ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
INISIAL WAJAH
start
CAPTURE
SAVE
INPUT WAJAH
CAPTURE
Imange-Neural Network
INPUT IMANGE
IMANGE PROCC.
TRAINING
TESTING
PROCESS
INPUT TRAINING
Max Epoh
Target Error
LearningRate
EpohShow
OLEH :
Anthoinete Pemina Yece Waroh
P2700211443
INDIKASI TERDETEKSI
Wajah Terdeteksi/OPEN
= Pasca Sarjana Fakultas Teknik @ Universitas Hassanudin =
EXIT


ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
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Max Epoh
Target Error
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P2700211443
INDIKASI TERDETEKSI
Wajah Terdeteksi/OPEN
= Pasca Sarjana Fakultas Teknik @ Universitas Hassanudin =
EXIT


Video P...
15:41:18.582
160x1
ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
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Target Error
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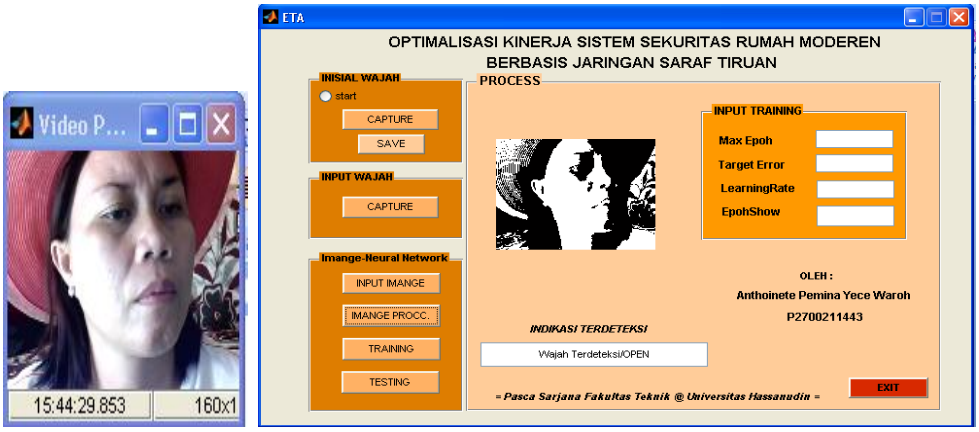
Anthoinete Pemina Yece Waroh
P2700211443
INDIKASI TERDETEKSI
Wajah Terdeteksi/OPEN
= Pasca Sarjana Fakultas Teknik @ Universitas Hassanudin =
EXIT


Video P...
15:44:29.853
160x1
ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
INISIAL WAJAH
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INPUT WAJAH
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Imange-Neural Network
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IMANGE PROCC.
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Anthoinete Pemina Yece Waroh
P2700211443
INDIKASI TERDETEKSI
Wajah Terdeteksi/OPEN
= Pasca Sarjana Fakultas Teknik @ Universitas Hassanudin =
EXIT


Video P...
15:49:46.006
160x1
ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
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Anthoinete Pemina Yece Waroh
P2700211443
INDIKASI TERDETEKSI
Wajah Terdeteksi/OPEN
- Pasca Sarjana Fakultas Teknik @ Universitas Hassanudin -
EXIT


Video P...
13:48:23.355
160x1
ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
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Wajah Terdeteksi/OPEN
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EXIT


ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
INISIAL WAJAH
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Imange-Neural Network
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IMANGE PROCC.
TRAINING
TESTING
PROCESS
INPUT TRAINING
Max Epoh
Target Error
LearningRate
EpohShow
OLEH :
Anthoinete Pemina Yece Waroh
P2700211443
INDIKASI TERDETEKSI
Wajah Terdeteksi/OPEN
- Pasca Sarjana Fakultas Teknik @ Universitas Hassanudin -
EXIT


Video P...
14:19:21.833
160x1
ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
INISIAL WAJAH
start
CAPTURE
SAVE
INPUT WAJAH
CAPTURE
Imange-Neural Network
INPUT IMANGE
IMANGE PROCC.
TRAINING
TESTING
PROCESS
INPUT TRAINING
Max Epoh
Target Error
LearningRate
EpohShow
OLEH :
Anthoinete Pemina Yece Waroh
P2700211443
INDIKASI TERDETEKSI
Wajah Terdeteksi/OPEN
- Pasca Sarjana Fakultas Teknik @ Universitas Hassanudin -
EXIT


Video P...
14:20:21.522
160x1
ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
INISIAL WAJAH
start
CAPTURE
SAVE
INPUT WAJAH
CAPTURE
Imange-Neural Network
INPUT IMANGE
IMANGE PROCC.
TRAINING
TESTING
PROCESS
INPUT TRAINING
Max Epoh
Target Error
LearningRate
EpohShow
OLEH :
Anthoinete Pemina Yece Waroh
P2700211443
INDIKASI TERDETEKSI
Wajah Terdeteksi/OPEN
= Pasca Sarjana Fakultas Teknik @ Universitas Hassanudin =
EXIT


Video P...
14:56:36.569
160x1
ETA
OPTIMALISASI KINERJA SISTEM SEKURITAS RUMAH MODEREN
BERBASIS JARINGAN SARAF TIRUAN
INISIAL WAJAH
start
CAPTURE
SAVE
INPUT WAJAH
CAPTURE
Imange-Neural Network
INPUT IMANGE
IMANGE PROCC.
TRAINING
TESTING
PROCESS
INPUT TRAINING
Max Epoh
Target Error
LearningRate
EpohShow
OLEH :
Anthoinete Pemina Yece Waroh
P2700211443
INDIKASI TERDETEKSI
Wajah Terdeteksi/OPEN
= Pasca Sarjana Fakultas Teknik @ Universitas Hassanudin =
EXIT


Video P...
15:00:52.230
160x1
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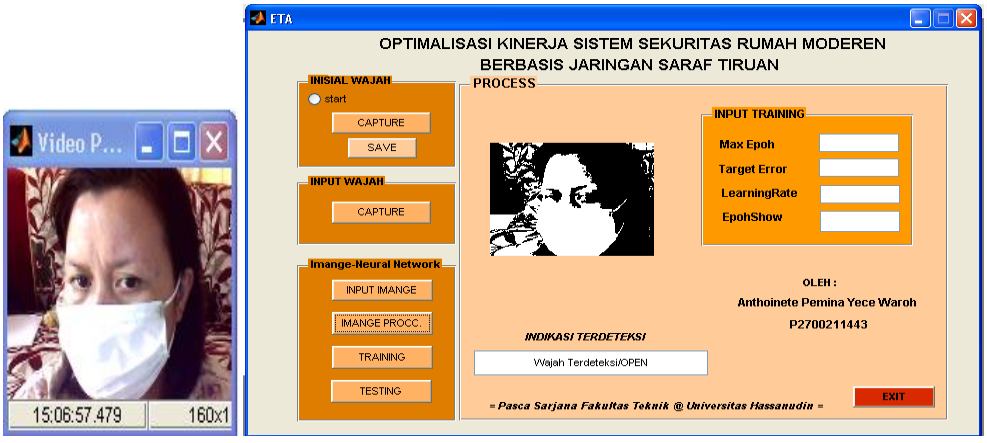
EXIT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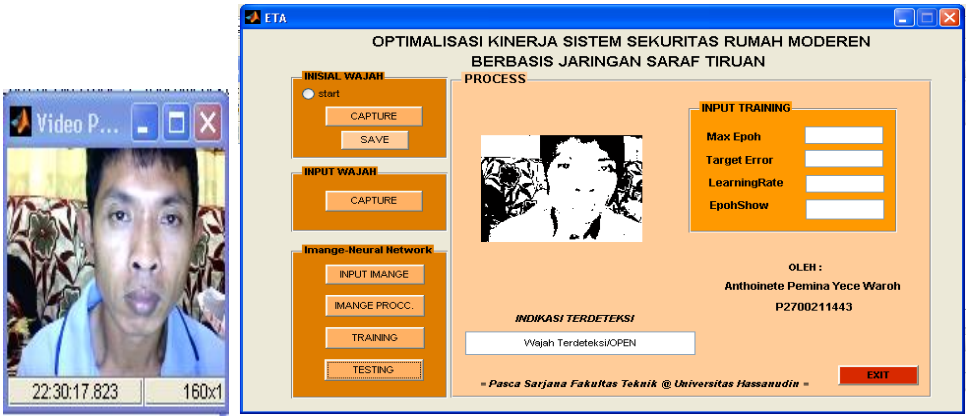
EXIT

b. Inisial Saul



c. Inisial hoa

d. Inisial mami

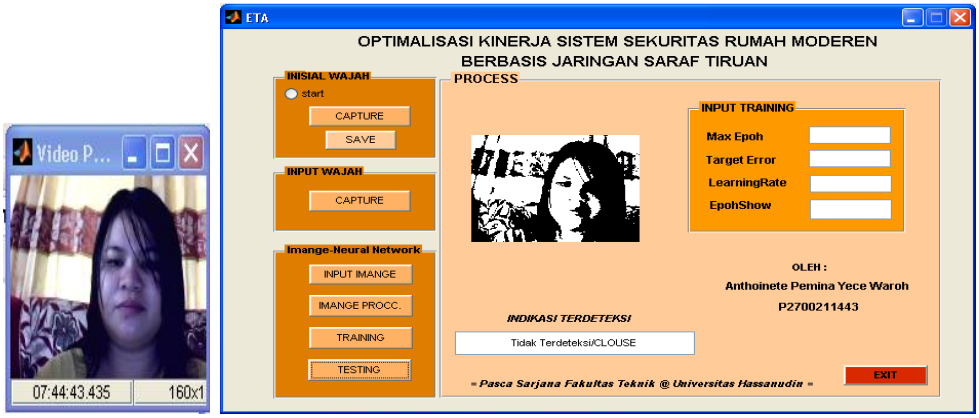
LAMPIRAN 3

Hasil pengujian wajah yang mirip

- **Proses input**

- **Proses mengirim dan menerima gambar pada PC**

- **Tampilan out put wajah mirip yang tidak terdeteksi**



- **Inisial priskila tidak terdeteksi**

- **Inisial feliks tidak terdeteksi**

- **Inisial bela tidak terdeteksi**

- **Inisial rosye**

- **Inisial asrid**

- **Inisial indri**

- **Hasil Pelatihan data training**

Learning Rate	: 0.1
Maksimum Epoch	: 1500
Target Eror	: 0.001
Epok show	: 100
Erorr performansi	: 0.000789

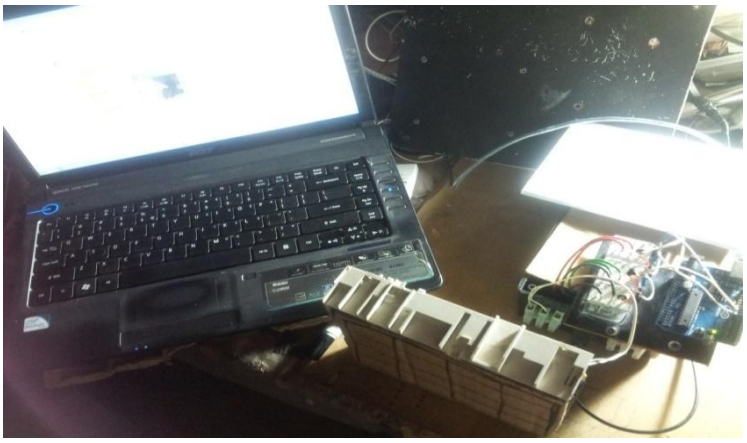
- **Bobot akhir koneksi dari lapisan input**

Input	Z_1	Z_2	Z_3	Z_4	Z_5
X_1	0.0075	-0.0008	-0.0008	-0.0622	-0.0065
X_2	-0.0085	0.0020	0.0018	0.0017	0.0025
X_3	0.0057	0.0013	0.0032	0.0013	0.0011
X_4	0.0023	0.0016	0.0042	0.0031	0.0021
X_5	0.0065	-0.0051	-0.0041	-0.0045	-0.0064
X_6	0.0032	0.0028	0.0028	0.0029	0.0028
X_7	0.0024	0.0019	0.0015	0.0019	0.0017
X_8	0.0045	0.0035	0.0035	0.0035	0.0035
X_9	0.0024	0.0052	0.0052	0.0052	0.0052
X_{10}	0.0032	0.0029	0.0007	0.0010	-0.0065
X_n	...	...	...	...	...

- **Matriks Bobot koreksi dari lapisan output**

Bobot	Y_1	Y_2	Y_3
Z_1	-0.2008	-0.1911	-0,1749
Z_2	-0,0138	-0.0511	-0.0128
Z_3	0.1852	-0.0959	-0.1586
Z_4	-0.0611	-0.009	-0.0243
Z_5	0.1581	0.1086	0.3112

- **Gambar Sistem mendeteksi wajah yang tidak sama pintu tertutup**



- **Gambar Sistem mendeteksi wajah yang sama pintu membuka**