**Source Code:**

**//DEVELOPMENT OF VLSI FILTER ARCHITECTURE FOR SPEECH RECOGNITION OF COVID PATIENT USING MOBILE COMMUNICATION//**

function speechrecognition(filename)

%Speech Recognition Using Correlation Method

%Write Following Command On Command Window

%speechrecognition('test.wav')

voice=wavread(filename);

x=voice;

x=x';

x=x(1,:);

x=x';

y1=wavread('one.wav');

y1=y1';

y1=y1(1,:);

y1=y1';

z1=xcorr(x,y1);

m1=max(z1);

l1=length(z1);

t1=-((l1-1)/2):1:((l1-1)/2);

t1=t1';

%subplot(3,2,1);

plot(t1,z1);

y2=wavread('two.wav');

y2=y2';

y2=y2(1,:);

y2=y2';

z2=xcorr(x,y2);

m2=max(z2);

l2=length(z2);

t2=-((l2-1)/2):1:((l2-1)/2);

t2=t2';

%subplot(3,2,2);

figure

plot(t2,z2);

y3=wavread('three.wav');

y3=y3';

y3=y3(1,:);

y3=y3';

z3=xcorr(x,y3);

m3=max(z3);

l3=length(z3);

t3=-((l3-1)/2):1:((l3-1)/2);

t3=t3';

%subplot(3,2,3);

figure

plot(t3,z3);

y4=wavread('four.wav');

y4=y4';

y4=y4(1,:);

y4=y4';

z4=xcorr(x,y4);

m4=max(z4);

l4=length(z4);

t4=-((l4-1)/2):1:((l4-1)/2);

t4=t4';

%subplot(3,2,4);

figure

plot(t4,z4);

y5=wavread('five.wav');

y5=y5';

y5=y5(1,:);

y5=y5';

z5=xcorr(x,y5);

m5=max(z5);

l5=length(z5);

t5=-((l5-1)/2):1:((l5-1)/2);

t5=t5';

%subplot(3,2,5);

figure

plot(t5,z5);

m6=300;

a=[m1 m2 m3 m4 m5 m6];

m=max(a);

h=wavread('allow.wav');

if m<=m1

soundsc(wavread('one.wav'),50000)

soundsc(h,50000)

elseif m<=m2

soundsc(wavread('two.wav'),50000)

soundsc(h,50000)

elseif m<=m3

soundsc(wavread('three.wav'),50000)

soundsc(h,50000)

elseif m<=m4

soundsc(wavread('four.wav'),50000)

soundsc(h,50000)

elseif m<m5

soundsc(wavread('five.wav'),50000)

soundsc(h,50000)

else

{soundsc(wavread('denied.wav'),50000)}

end