ECE 438 Lab, division 1

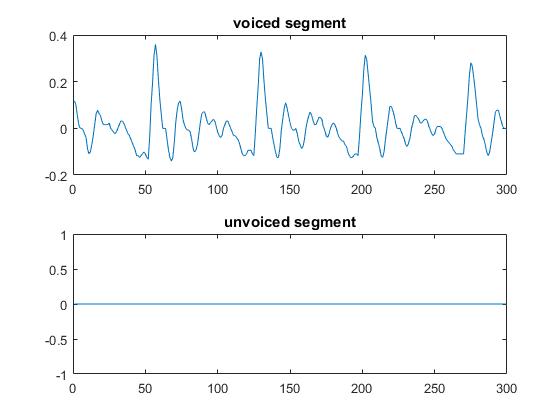
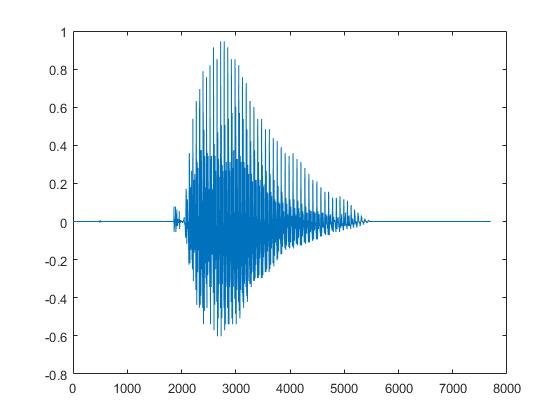
Lab 09, Speech Processing

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April 14 , 2016

Section 2.2



1. Pitch period = 8 ms

Speaker is male

1. For voiced segment, P = 0.0087, # zeros = 13

For unvoiced segment, P = 0, # zeros = 0

function [y] = zero\_cross(x)

%ZERO\_CROSS Summary of this function goes here

% Detailed explanation goes here

y = 0;

for i = 1:length(x)-1

if (x(i)\*x(i+1)<0)

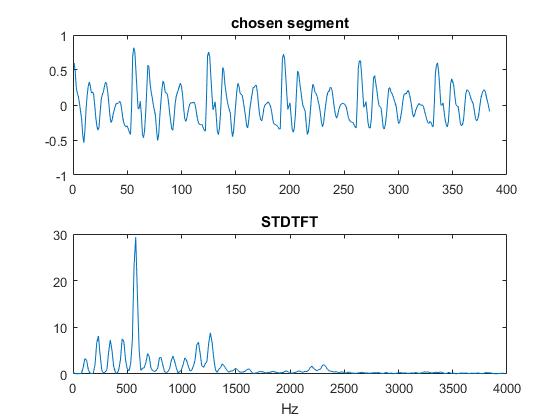
y = y + 1;

end

end

end

Section 3.1



F1 = 550 Hz, F2 = 1300 Hz

function [A] = Specgm(x,L,overlap,N)

%SPECGM Summary of this function goes here

% Detailed explanation goes here

A = zeros(N,ceil(2\*length(x)/L));

inds = 1;

inde = L;

cnt = 1;

while(inde < length(x))

X = DFTwin(x(inds:inde)',L,1,N);

A(:,cnt) = X ;

cnt = cnt + 1;

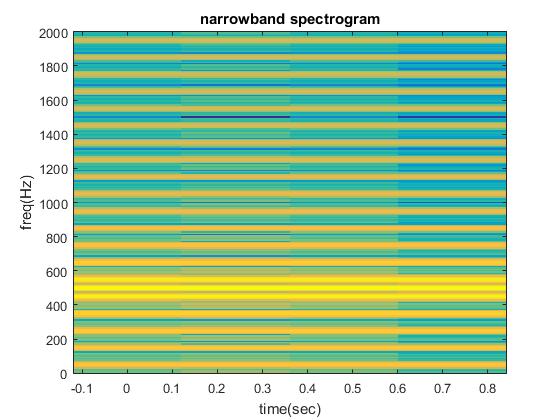
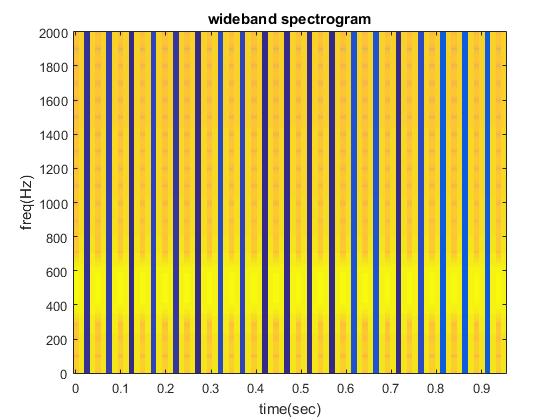
inds = inde - overlap + 1;

inde = inds + L - 1;

end

A = A(1:N/2+1,1:cnt-2);

end



Section 3.3

