DTSP Experiment – 7

{name}

TE {classNo}

{roll\_no}

clear all;

clc;

close;

M=7;

Wc=%pi/4;

Tuo=(M-1)/2

for n=1:M

if(n==Tuo+1)

hd(n)=1-Wc/%pi;

else

hd(n)=(sin(%pi\*((n-1)-Tuo))-sin(Wc\*((n-1)-Tuo)))/(((n-1)-Tuo)\*%pi);

end

end

for n=1 M

W(n)=1;

end

h=hd\*W;

disp('Filter Coefficients are')

h;

[hzm,fr]=frmag(h,256);

hzm\_dB=20\*log10(hzm)/max(hzm);

plot(fr,hzm\_dB)

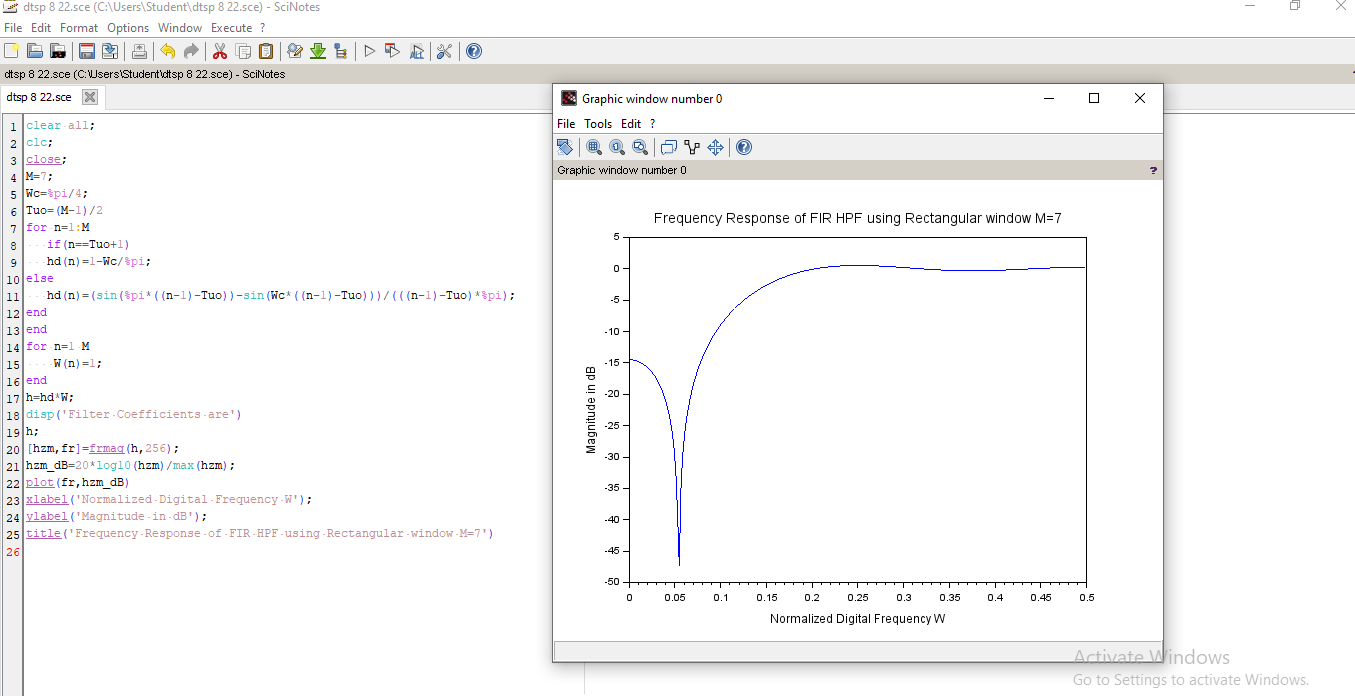
xlabel('Normalized Digital Frequency W');

ylabel('Magnitude in dB');

title('Frequency Response of FIR HPF using Rectangular window M=7')

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