```matlab
function [ fundamental, zcr_avg, sum_short_avg] = Charac_features( my2,fs )

%   Detailed explanation goes here
myrecording = my2(:,1);%Taking only one sample of the test
%plot(myrecording);
length_samp=length(myrecording);%Taking the length of the recording

%Filter Low Pass
d=fdesign.lowpass('N,Fc',100,1000,fs);%Designing the low pass fiter with cutoff fr
 %designmethods(d);
 Hd = design(d);
 %fvtool(Hd);
 [h,t] = impz(Hd);%Finding the impulse response of the filter
 myrecording=filter(Hd,myrecording);%Filtering the input

 %Rectangular Windowing
num_of_samples=fs*30*0.001;% 30 milisecond of the frame
num_over=fs*10*0.001;% 10 milisecond of the overlapping
num_samp=num_of_samples-num_over;%Number of new samples in each frame
n=ceil((length_samp-num_of_samples)/num_samp);%Find the number of iterations

        Error using Charac_features (line 4)
        Not enough input arguments.

for i=1:n % 30 milisecond of the frame and 10 milisecond of the overlapping
    if i==1
        samp(:,1)=myrecording(1:num_of_samples);
    else
        samp(:,i)=myrecording(num_samp*(i-1)+1:num_samp*(i-1)+num_of_samples);
    end

end

short_energy=zeros(1,n);
zcr_sum=zeros(1,n);
for i=1:n
    auto(:,i)=xcorr(samp(:,i));
    [aut, loc]=findpeaks(auto(:,i));%Finding the peaks
    sum1(i)=mean(diff(loc));%Finding the difference in the location of peaks
    dummy=0;
    short_en=transpose(samp(:,i).*samp(:,i));
    for j=1:num_of_samples
        dummy=dummy+short_en(j);%Adding all the energy in the frame
    end
    short_energy(i)=dummy;

    zcr_dummy=0;
    zcr_sample=samp(:,i);
    for j=2:num_of_samples
        zcr_dummy=zcr_dummy+abs(sign(zcr_sample(j))-sign(zcr_sample(j-1)));
        %Counting number of zero crossing
    end
    zcr_sum(i)=zcr_dummy;
```

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end
zcr_avg=mean((zcr_sum/2));%Taking the average zero crossing frequency of all the f
sum_short_avg=mean(short_energy);%Taking the average short energy of all the frame

period=max(sum1);%Finding the period of the
fundamental=fs/period;%Finding the fundamental frequency

end
```

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