```
clc , clear all
filename='20160702.xlsx';
[num txt]=xlsread(filename);
Time=num(:,1);u=num(:,3);v=num(:,4);w=num(:,5);S=num(:,7);T=num(:,8);
n=numel(u);  % number of elements in the excel sheet
hr=hour(Time);mi=minute(Time);SECOND=second(Time);
%%%%%%% Mean %%%%%%%%%%%
h=1;
   index=find(hr==0&mi<=9);

u_10(1)=nanmean(u(index));v_10(1)=nanmean(v(index));w_10(1)=nanmean(w(in
dex));
   s_10(1)=nanmean(S(index));T_10(1)=nanmean(T(index));
for i=1:n-1
if hr(i)==hr(i+1)
   continue
else
   h=h+1;
   index=find(hr==hr(i)&mi>=55);
   index2=find(hr==hr(i+1)&mi<=4);
u1=nanmean(u(index));v1=nanmean(v(index));w1=nanmean(w(index));
s1=nanmean(S(index));T1=nanmean(T(index));
u2=nanmean(u(index2));v2=nanmean(v(index2));w2=nanmean(w(index2));
s2=nanmean(S(index2));T2=nanmean(T(index2));
u_10(h)=(u1+u2)/2;v_10(h)=(v1+v2)/2;w_10(h)=(w1+w2)/2;s_10(h)=(s1+s2)/2;
```

```
T_10(h)=(T1+T2)/2;
end
end
label={'Date' 'U_10' 'V_10' 'W_10' 'S_10' 'T_10'};
hr1=0:23;mint1=0;sec1=0;
date=datetime(2016,07,02,hr1,mint1,sec1);
time = cellstr(date);
xlswrite(filename,label,2,'A1')
xlswrite(filename,time',2,'A2')
xlswrite(filename,[u_10' v_10' w_10' s_10' T_10' ],2,'B2')
```