%HOMEWORK1 %MATLAB program to read data for long wave radiation in %table (1) %from excel sheet file to calculate the mean of the numerical values,

%hourly, daily and monthly.

clear all , clc

[A date]=xlsread('long\_w.xlsx');

C=A(:,3); % Read data

h=0; % new index for the new values

n=numel(C); % number of elements in the excel sheet

Time=date(3:end,2);

formatIn={'mm/dd/yyyy HH:MM:SS AM'}

%dt = datestr(now,'mmmm dd, yyyy HH:MM:SS.FFF AM')

dt=datenum(Time,formatIn);

yy=year(dt);mm=month(dt);dd=day(dt);hr=hour(dt);mint=minute(dt);

%%%%%%%Hourly Mean %%%%%%%%%%%

h=0;

for i=1:n-1

if hr(i)==hr(i+1)

continue

else

h=h+1;

index=find(hr==hr(i)&dd==dd(i)&mm==mm(i)&yy==yy(i));

C\_4(h)=nanmean(C(index)); datevector\_hourly(h,:)=[yy(i) mm(i) dd(i) hr(i) 0 0];

end

end

index=find(hr==hr(n)&dd==dd(n)&mm==mm(n)&yy==yy(n))

C\_4(h+1)=nanmean(C(index));

datevector\_hourly(h+1,:)=[yy(n) mm(n) dd(n) hr(n) 0 0];

filename='long\_w.xlsx';

sheet = 2;

label={'year','month','day','hour','Hourly-DATA'};

xlswrite(filename,label,sheet,'A1')

xlswrite(filename,datevector\_hourly(:,1:4),sheet,'A2')

xlswrite(filename,C\_4',sheet,'E2')