```
sim_time=3600 ;

number_of_mobile =40000;
average_interarrival=7.01; %its the average time between calls in second
interracial=poisoned(average_interarrival,number_of_mobile,1);
plot(interarrival)
xlabel('mobile index')
ylabel('interarrival time [second ]')
grid
figure
hist(interarrival,100)
xlabel('interarrival time [second]')
ylabel('number of mobile')
grid
arrival_time=cumsum(interarrival)
figure
plot(arrival_time)
xlabel('mobile index')
ylabel('arrival time [second]')
grid
figure
hist(interarrival,100)
xlabel('arrival time [second]')
ylabel('number of mobile')
grid
call duration=exprnd(108,number_of_mobile,1)
  count_user=0
  tt=call_duration+arrival_time
for t=1:sim_time
  if (arrival_time<t)&(tt<t)
count_user=count_user+1
end
 if (arrival_time<t)&(tt>t)
%        count_user=count_user-1
    end
%energy_per_noise=1250000/(19530*((count_user-1)*0.4/2.55))
%if energy_per_noise >=3.98
    %status='this suitable spectral efficiency'
end
```