Appendix:

```
clc,clear,closeall
B=(10*10^6); %MHZ %Bandwidth of LTE
thHomax=.9*B;
thvoipmax=0.4*B;
thvoipmin=.1*B;
thHo=[(thHomax-thvoipmax)*.9]
thvoip=[(thvoipmax-thvoipmin)/2]
breq= (96*10^3); % Required Bandwidth for handoff calls;
bho=0;
bvoip=0;
breq2=(96*10^3); % Required Bandwidth for voip calls;
breq3= (480*10^3); % Required Bandwidth for vedio calls;
bvideo=0;

s=0;%count for handover
a=0;%cont for ne call
b=0;%count for voice calls
v=0;%count for vedio calls
h=0;    %count for reject handoff calls
voip=0;  %count for reject voip calls
vedio=0; %count for reject vedio calls
ho=0;
for i=1:10

%     c(i)=input('no of user');
c(i)=15;
for u=1:c(i)

ct(u)=randi(2);
if ct(u)==1
s=s+1;
disp('The request is handoff ')
if (breq+bho)<=(B-thHo)
disp('accept the call')
bho=bho+breq;

else
disp('reject the call')
    h=h+1;
end
else
a=a+1;
```

```
disp('the request is new call')
nt(a)=randi(2);
ifnt(a)==1
   b=b+1;
disp('the call is voip')
if (breq2+bvoip)<=(thHo-thvoip)
disp('accept the call')
bvoip=bvoip+breq2;
if (breq2 + bvoip)>=(thHo-thvoip)  && (bho<= B - thHo - breq2)

thHo=thHo+breq2;
end

else
disp('reject the call')
voip=voip+1;
end
else
   v=v+1;
disp('the call is vedio')
if (bvideo+breq3)<=thvoip
disp('accept the call')
bvideo=bvideo+breq3;

else
disp('reject the call')
vedio=vedio+1;

end
end
end

end

disp(s)
disp(a)

pho(i)=h/s   %drobingbropapility
bo(i)=voip/b  %blocking bropapilityvoip calls
pvedio(i)=vedio/v  %blocking bropapility of vedio calls

end
```

```
time=1:10;

 B=(10*10^6); %MHZ %Bandwidth of LTE
thHo=.45*B ;   % threshold of handoff
thvideo=.15*B
breq= (96*10^3); % Required Bandwidth for handoff calls
bho= 0;     %Ocupied bandwidth for handoff
bvoip= 0;    % bandwidth of voip calls
breq2= (96*10^3);    % Required bandwidth for voip calls
breq3= (480*10^3);    % Required bandwidth for vedio calls
bvideo= 0;   % bandwidth of vedio calls

for i=1:10

    c=15;
for u=1:c
ct(u)=randi(2);
if ct(u)==1
 s1=s1+1 ;
disp('handoff');
if (breq+bho)<=B-thHo
disp('accept');
bho=bho+breq ;
else
disp('reject');
     ho1=ho1+1;

end

else
a1=a1+1;
disp('new call');
nt(a1)=randi(2);
ifnt(a1)==1
     b1=b1+1 ;
disp('the call is voip');
if (breq2+bvoip)<=thHo-thvideo
disp('accept');
bvoip=bvoip+breq2 ;

else
disp('reject') ;
voip1=voip1+1;
```

```
end

else
    v1=v1+1;
disp('the call is vedio');
if (bvideo+breq3)<=thvideo
disp('accept');
bvideo=bvideo+breq3;

else
disp('reject');
 vedio1=vedio1+1;

end

end
end
end

pho1(i)=ho1/s1 %drobing handoff bropapility
bo1(i)=voip1/b1 %blocking bropapility of voip calls
pvedio1(i)=vedio1/v1 %blocking bropapility of vedio calls

end
disp (['No. of  handoff calls= ' num2str(s)])
disp (['No. of voip calls = ' num2str(b)])
disp (['No. of vedio calls = ' num2str(v)])

disp (['No. of  handoff calls= ' num2str(s1)])
disp (['No. of voip calls = ' num2str(b1)])
disp (['No. of vedio calls = ' num2str(v1)])

plot(time,pho,'o:black')
holdon
plot(time,bo,'o:r')
holdon
plot(time,pvedio,'o:b')
plot(time,pho1,'*black:')
holdon
plot(time,bo1,'*r:')
holdon
plot(time,pvedio1,'*b:')
```

```
title('Dropping & Blocking Probability VS Arrivall Rate  ')
xlabel('Arrival Rate (15calls/sec)')
ylabel('Dropping & Blocking Probability ')
legend(' droping probability of HO ',' blocking probability of voip',' blocking
probability of video',' d p of HO fix th ',' b p of voip fix th',' b p of video fix th')
```