function [Y,LLR] = BPSK\_AWGN\_channel(C)

Sn=C;

n=size(C,2);

for i =1:n

Sn(i)=(2\*Sn(i))-1;

end

dB=4;

SNR=10^(dB/10);

No\_org=1/SNR;

No=No\_org;

for z=1:length(SNR)

sigma=sqrt(No(z)/2);

Y=Sn + sigma\*randn(1,length(Sn));

end

fprintf(' - \n - \n - \nRECIEVED CODEWORD : \n');

disp(Y)

LLR=(4/No(z))\*Y;

end