CONVOLUTION CODE

clc;

clear all;

close all;

k=input('Enter the no of input message');

n=input('Enter the no of bits in codeword');

m=input('Enter the no of shift register');

g=zeros(n,m)

for i=1:n

disp(i);

g(i,1:m)=input('Generator matrix: ');

end

disp('Generator matrix');

disp(g);

mx=input('Enter the input data sequence');

[row column]=size(mx);

length=m+column-1;

v=zeros(n,length);

for i=1:n

v(i,1:length)=conv(mx,g(i,1:m));

v=rem(v,2);

end

disp('Output matrix');

disp(v);

v=v';

disp('codeword');

disp(v);

OUTPUT

Enter the no of input message1

Enter the no of bits in codeword3

Enter the no of shift register3

g =

0 0 0

0 0 0

0 0 0

Generator matrix: [1 0 0]

Generator matrix: [1 1 1]

Generator matrix: [1 0 1]

Generator matrix

1 0 0

1 1 1

1 0 1

Enter the input data sequence[1 0 1 1 0]

Output matrix

1 0 1 1 0 0 0

1 1 0 0 0 1 0

1 0 0 1 1 1 0

codeword

1 1 1

0 1 0

1 0 0

1 0 1

0 0 1

0 1 1

0 0 0

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