List of experiments in computer networks

CSA0734

Experiment no:11

### 

### AIM:

### To write c program to implement bit stuffing

**Procedure:**

* [Initialize the array **brr[]**](https://www.geeksforgeeks.org/arrays-in-c-cpp/) which stores the stuffed array. Also, create a variable count which maintains the count of the consecutive 1’s.
* [Traverse in a while loop](https://www.geeksforgeeks.org/c-c-while-loop-with-examples/) using a variable **i** in the range **[0, N)** and perform the following tasks:
  + If **arr[i]** is **1** then check for the next **4** bits if they are set bits as well. If they are, then insert a 0 bit after inserting all the 5 set bits into the array **brr[]**.
  + Otherwise, insert the value of **arr[i]** into the array **brr[]**.

**Program:**

#include<stdio.h>

#include<string.h>

int main()

{

int a[20],b[30],i,j,k,count,n;

printf("Enter frame size (Example: 8):");

scanf("%d",&n);

printf("Enter the frame in the form of 0 and 1 :");

for(i=0; i<n; i++)

scanf("%d",&a[i]);

i=0;

count=1;

j=0;

while(i<n)

{

if(a[i]==1)

{

b[j]=a[i];

for(k=i+1; a[k]==1 && k<n && count<5; k++)

{

j++;

b[j]=a[k];

count++;

if(count==5)

{

j++;

b[j]=0;

}

i=k;

}

}

else

{

b[j]=a[i];

}

i++;

j++;

}

printf("After Bit Stuffing :");

for(i=0; i<j; i++)

printf("%d",b[i]);

return 0;

}

**Result:**The execution of bit stuffing using c programming is verified successfully.