

DATA COMMUNICATION PROJECT 1

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In collaboration with:

IFRAH SYED 2019BITE041

PROJECT REPORT

Implementation of line coding encoder and scrambler in C++.

Program generates random binary stream or data with sequences (based on user's input). Additionally, it generates longest palindrome. We get output as per the encoding scheme chosen by user. Available encoding schemes are NRZ-L, NRZ-I, MANCHESTER, DIFFERENTIAL MANCHESTER, AMI (with B8ZS AND HDB3 scrambling schemes).

Language used: C++;

Libraries used:

1) `#include <bits/stdc++.h>`

Includes all the standard library.

2) `#include <graphics.h>`

Provides access to a graphics library that makes it possible for us to create diagrams.

Assumptions considered:

- 1) We are using GE Thomas representation of Manchester encoding scheme.
- 2) Positive logic encoding scheme considered.

References:

Youtube and geeks for geeks (for graphics programming)

How to run the code:

- 1) Create project.
- 2) Write the code.
- 3) Use TDM-GCC 4.9.2 32-bit release.
- 4) Compile and run.