Line Encoder & Scrambler

Group:

AGRIM SANGOTRA (2020BITE029)
ADARSH KUMAR (2020BITE040)
GOUTAM MECH (2020BITE079)

Submitted To: Dr Iqra Altaf Gilani

Introduction

Line encoding is the process of converting digital data to digital signals and decoding is the process of converting digital signals into digital data.
The Line encoding schemes and scrambling techniques implemented in this project are:

NRZ-I , NRZ-L,Manchester, Differential Manchester, AMI

HDB3,B8ZS

Implementation

We have plotted the digital signals using matplotlib and numpy libraries in python and further implemented the logic behind the encoding schemes.

Instructions

I. Install the required packages: pip install matplotlib

pip install numpy

II. Implement the code by running the file in terminal (python filename), then follow the steps given: type 1 for random generation, if you want to give user input type 2 and then type the required decimal value you want to encode.

III. Press ENTER and you'll see the graphical interface along with the codes for that user input.

IV. close the window for next encoding scheme to display

References:

- **gfg-for Longest Palindromic subsequence**
- **Github for graph plotting library and code logic**
- **gfg-sliding window for scrambling**

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