



National Institute of Technology Srinagar
Department of Information Technology

Implementation of Line encoder and Scrambler

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Assumptions:

The format used is Manchester and differential Manchester is G.E Thomas format

Objectives:

Generates completely random data sequence and a random sequence with some fixed sub-sequences like eight or four consecutive zeros

Line coding schemes implemented: NRZ-L, NRZ-I, Manchester, Differential Manchester, AMI

Scrambling schemes: B8ZS, HDB3

Language used: Python

Libraries used: Matplotlib, Numpy, Random, Timedata

References: Geekforgeeks, javapoint, freecodercamp, different youtube channels, Stackoverflow