



**NATIONAL INSTITUTE OF TECHNOLOGY
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**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 subsequences 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, different youtube channels, Stackoverflow