

SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY

ICHCHANATH, PIPLOD, SURAT-395007



LABORATORY MANUAL

**ELECTRONICS ENGINEERING DEPARTMENT
EC: 303: DIGITAL COMMUNICATION
B.TECH III-SEMESTER V**

NAME: SUTHAR HARSH MUKESHBHAI

ROLL NO: U19EC046

BATCH: A-2

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CERTIFICATE

This is to certify that Mr. SUTHAR HARSH MUKESHBHAI Roll no. U19EC046 has satisfactorily completed the lab exercises for EC: 303: DIGITAL COMMUNICATION of B.TECH III- SEMESTER V in the academic Year 2020-2021

SUBJECT CO-ORDINATOR
DATE:

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Sr. No.	Practical Name	Date
1.	To study and simulate Sampling theorem. Also observe the effect of over and under-sampling.	02/08/2021
2.	Using Matlab Find: 1. Entropy of symbols given probability of each symbol 2. Convert an image to greyscale image and find the entropy of the image	09/08/2021
3.	To determine Channel Capacity and Mutual Information for a Binary Symmetric Channel.	16/08/2021
4.	Write Matlab code to implement the Huffman coding, find average codeword length and efficiency	23/08/2021
5.	To study and simulate Shanon-fano coding as a source coding technique.	06/09/2021
6.	To study and simulate Hamming and Convolutional code as a channel coding technique.	13/09/2021
7.	To study and simulate Linear Block Code.	11-10-2021
8.	To Study and simulate various Line Coding Techniques	18-10-2021
9.	To study and simulate ASK, FSK and PSK.	25-10-2021
10.	To study and simulate Quadrature Phase Shift Keying (QPSK).	08-11-2021
11.	To study and simulate Quadrature Amplitude Modulation and Demodulation and also plot its Constellation and Eye diagram	15-11-2021
12.	To study the effect of ISI and implement Raised Cosine Filter.	15-11-2021