**NAME MD MISTER ALI ID. M202261024 HOME-WORK: 01 DEP. INFROMATIN & COMMUNICATION ENGINEERING**

**CLASS SUMMARIZE**

**Introduction:** This class was very important and sophisticated meaningful. I really found something from here.

**Description: I have followed read about in your video class very interesting under bellow which I have learn.**

* Linear Time Invariant Filter Channel:

Found this equation from your provided video, The equation about Linearity and Time invariance (LTI) Are discussed. The formulate Ly the work of calculation signal of work view as a real or complex value function and the carry on is x(n), n=0,1, 2, even x(n) n is the real number of signals and t is the time represent.

* Multi path Propagation

The equation of the below Multipath propagation through the travels of material multiple directions. This very important to understand multipath used of radio signals for communication.

* Morse code (1837) Networking
* Variable length of binary code for telegraph.
* Dashes and dots
* Linear Time variant Filter Channel

Determine The maximum signals rate without inters symbols interface and over telegraph channel.

* Morse Code (1837)
* Mark and space
* Nyquist (1924)
* Digital Communication Nyquist Rate 2W pulses/second

Sampling theorem

A signal W can be reconstructed from sample taken from the Nyquist (=22)

Channel capacity Gaussian Noise.

* Shannon (1948)
* Channel Capacity Gaussian noise.

Nyquist rate and sampling rate

* Bandpass and lowpass Signal:

High signal and low pass signals:

* **Key Point:**

1. Nyquist Shoot
2. Interpolation formula
3. Hamming
4. Bandpass signal
5. Analytic signal

Conclusion: Point of my view this class was very helpful and very informative and high-top analysis.

Thanks.