**Assignment 2: Pulse Wide Modulation**

* Analog Modulation
* It is also known as Pulse Duration Modulation(PDM)
* width of the pulse carrier is varied in accordance with the sample values of message signal or modulating signal or modulating voltage.
* amplitude is made constant and width of pulse and position of pulse is made proportional to the amplitude of the signal.
* We can vary the pulse width in three ways

1. By keeping the leading edge constant and vary the pulse width with respect to leading edge
2. By keeping the tailing constant.
3. By keeping the center of the pulse constant.

* 555 timer as monostable or astable multivibrartor, PIC, 8051, AVR, ARM etc, are the some ways

Adantages:

* + Noise Interface is less due to amplitude has been made constant.
  + Signal and Noise can be seprated very easily.
  + No Synchronization between transmitter and receiver required

Disadvantage

* Power will be variable.