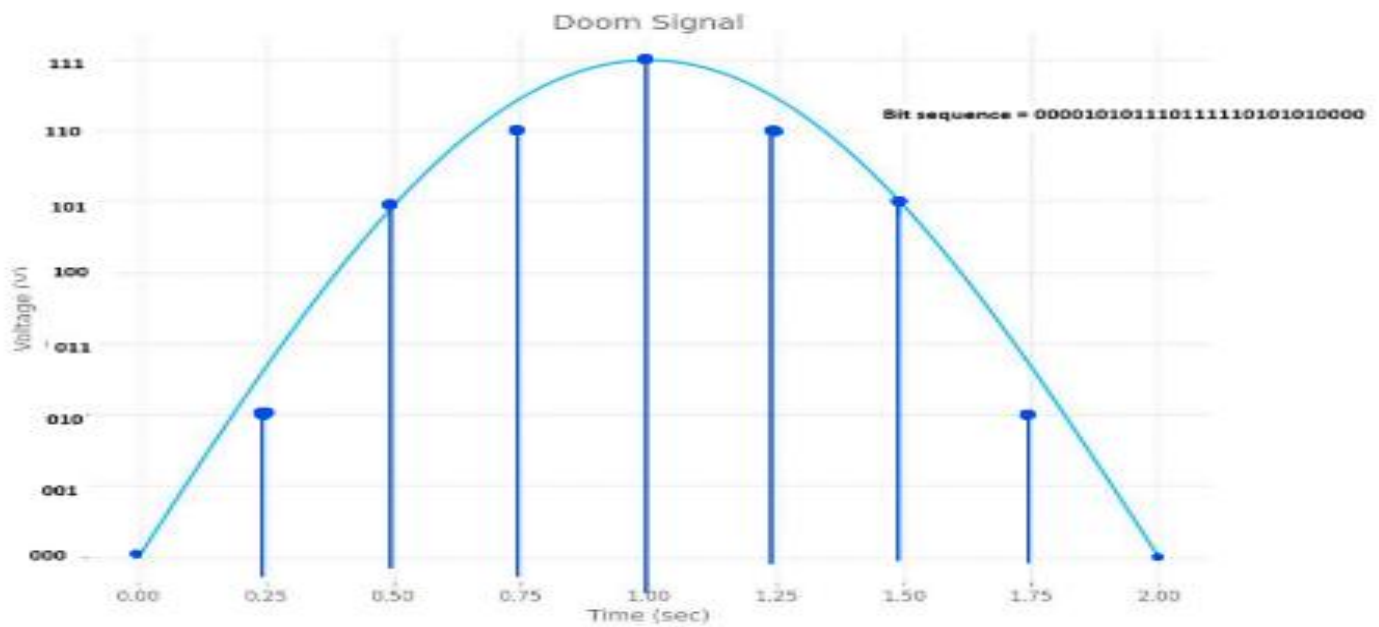
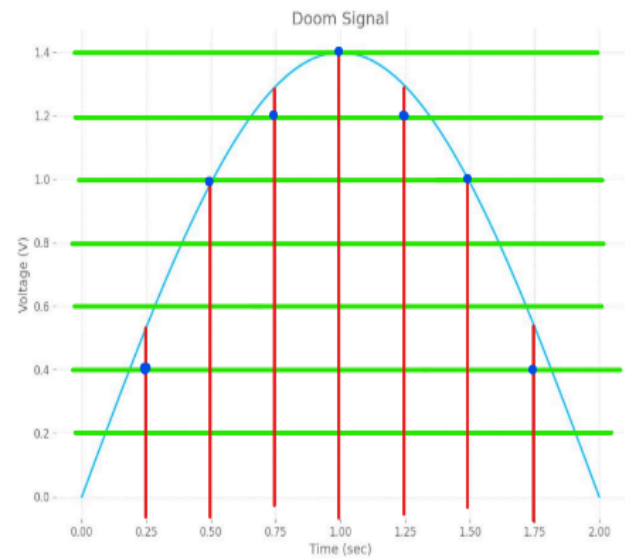
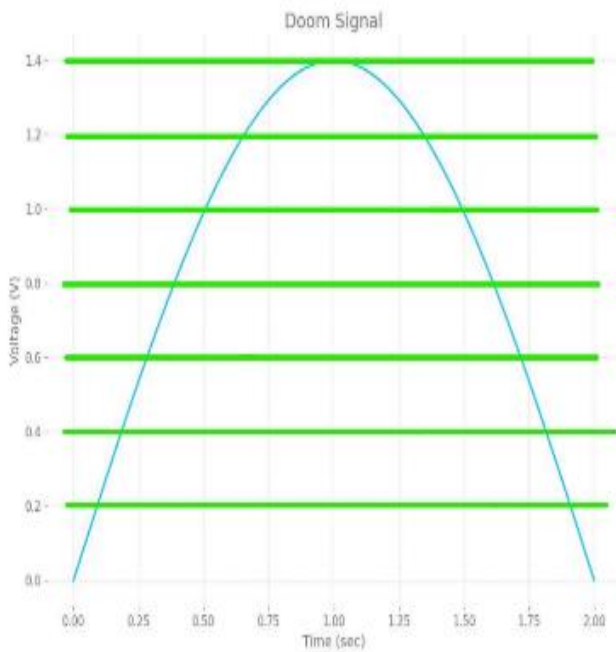


Task 5.2

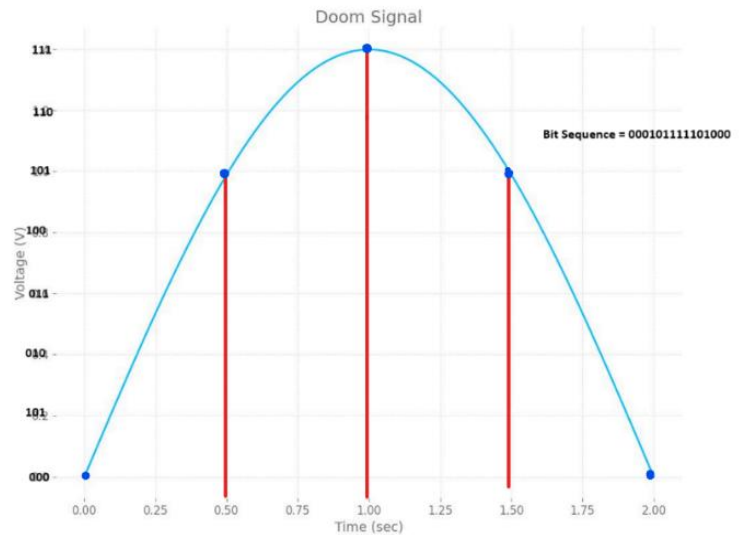
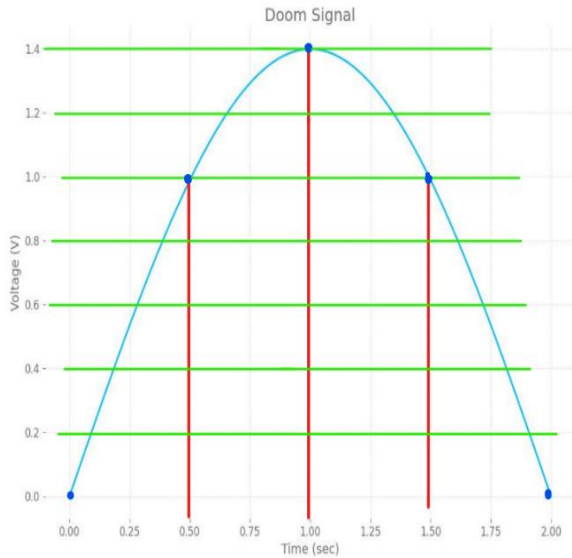
- 3-bit encoder with Sampling Time = 0.25sec:



Bit Sequence = 00001010111011110101010000

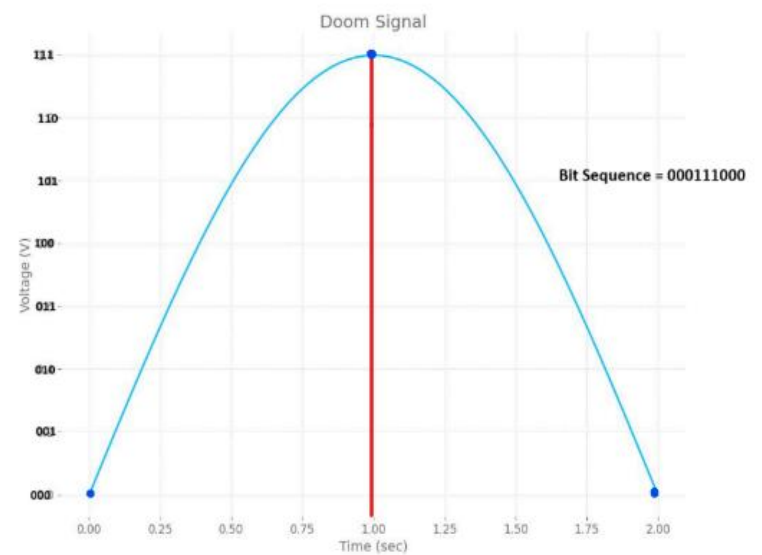
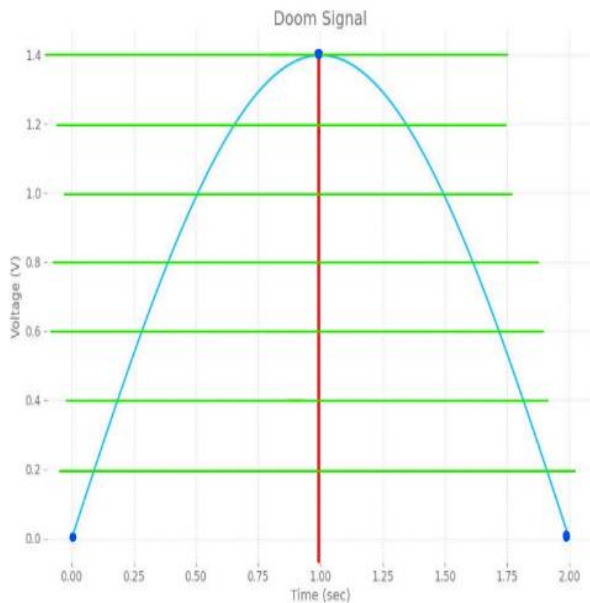
Task 5.2

- 3-bit encoder with Sampling Time = 0.5sec:



Bit Sequence = 000101111101000

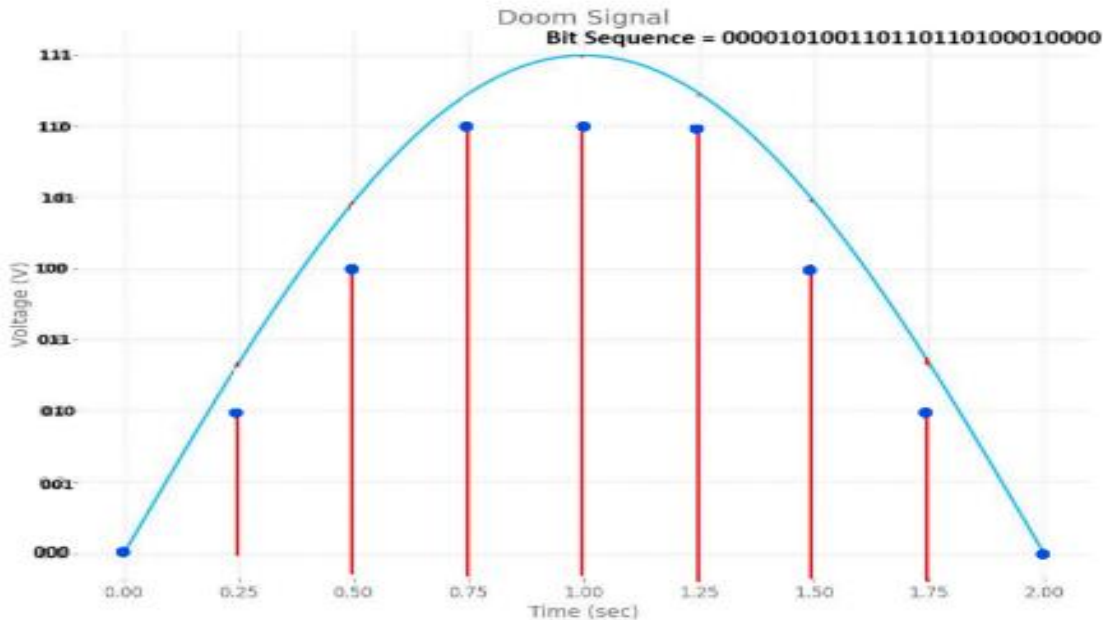
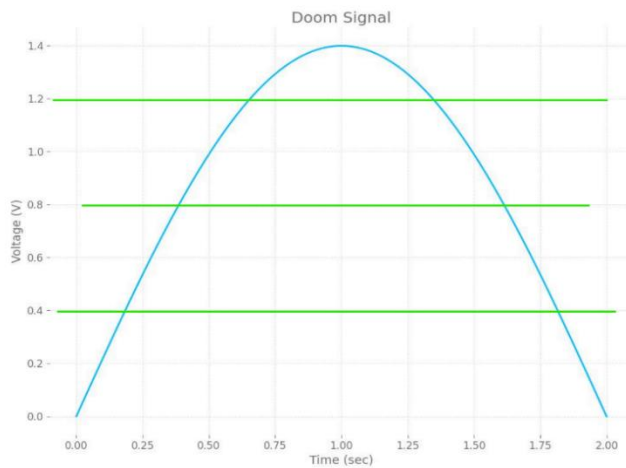
- 3-bit encoder with Sampling Time = 1sec:



Bit Sequence = 000111000

Task 5.2

- 2-bit encoder with Sampling Time = 0.25sec:



Bit Sequence = 000010100110110110100010000

- Conclusion:

As we increasing Time sampling or decreasing number of bits per sampling that mean data loss and low accuracy

So to increase the resolution of the signal we should decrease T_s and increase bits.