Topic : Staircase ramp ADC Date:11.05.19 Name: Serkan Özel Number: 2015400123

Links:

1- http://www.eeeguide.com/principles-of-adc/

In this link staircase ramp ADC is explained beautifully because this is the first link I am reading and I understand the topic very well. In the site there are figures, such as internal circutry of staircase ramp adc, illustration of the "stair" concept. I liked these figures.

2- https://www.allaboutcircuits.com/textbook/digital/chpt-13/digital-ramp-adc/

In this site there is a figure that is very good. It shows an anolog circuit in green color and digital staircase steps as red under it. Another plot under it shows the corresponding digital points decided. This helped me to understand how the circuit works when input analog signal is not stationary. Moreover, I also understood that faster counters are better. Second, since this site has a figure that is describing the internal representation of the circuit in a more detailed way, I understood counter is resetted when the signal exceeds input signal. Third, this site gave this insight: the lower the input's signal power is lower the shorter distance between the corresponding digital points. Fourth, I found two different and good disadvanteges of the staircase ramp adc with good justification.

3- http://hyperphysics.phy-astr.gsu.edu/hbase/Electronic/adc.html#c2

I liked this explanation because there are explanatory texts in the image of internal representation of the circuit. Next to every component in the circuit, the explanation exists.

Videos:

1-https://www.youtube.com/watch?v=ktn7w8yv4Tg

In this video, there is a woman describing the concept very well and slowly. I liked the explanation. Also she points out the "digital" and "analog" concepts very well. Again, she explains why we call counter type to this type perfectly. The diagram, fluence, everything was good.

2-https://www.youtube.com/watch?v=mj7rNMPopCA

In this video, diagrams and text that are written on the notebook are very clear, this is plus. Another upvote that I give to this video is, he follows through circuit and explains what happens where. At the end, he explains what resolution is and what is its formula. The conversion from analog

sinusoidal signal is shown by drawing analog signal and stair underneath it.

3-https://www.youtube.com/watch?v=UUBz-8PNZhA

The sound is good, fluency is good also. There is not a face looking to you, you follow it from paper,

but quality is good. First, classification of adcs is done which is good. He gave example of truth table

to show how conversion results would be.