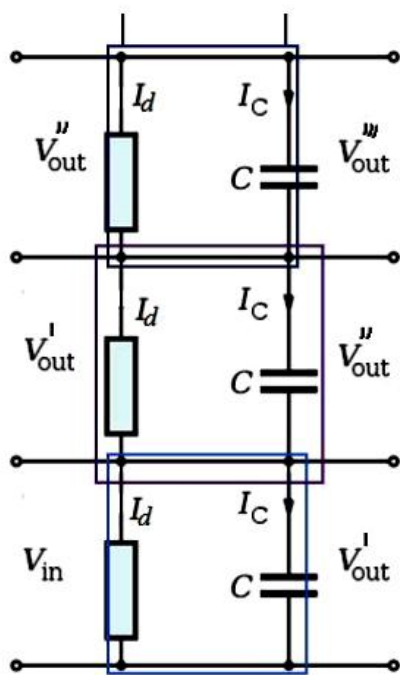
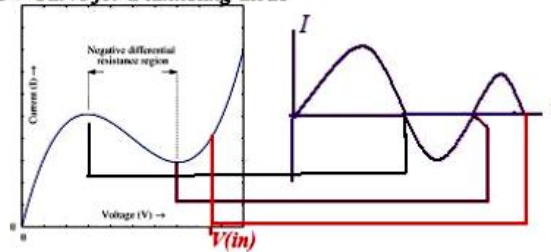


## These are some of my applications.

The negative differential resistance has some similar properties with the tunneling diode or the (Esaki diode). Leo Esaki won the Nobel prize for this very similar type diode and the curve that produces a negative resistance. So a dc bias has a cycling in current in opposite direction after the maxima and reverses back again after the minima.



*I-V Curve for a tunneling diode*

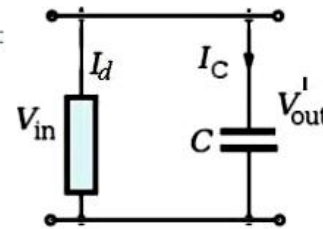


With complex impedances:

$$I_R = \frac{V_{in}}{R}$$

and

$$I_C = j\omega C V_{in}.$$



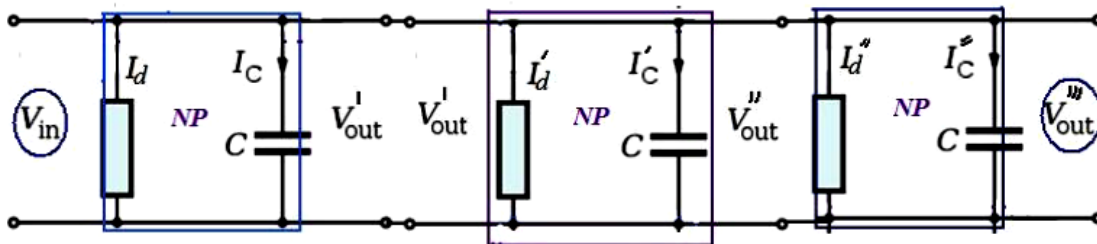
$$I_R = \frac{V_{in}}{R}$$

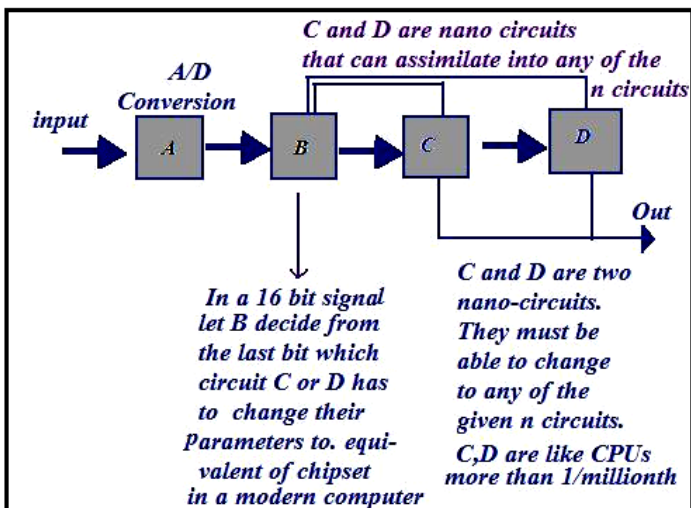
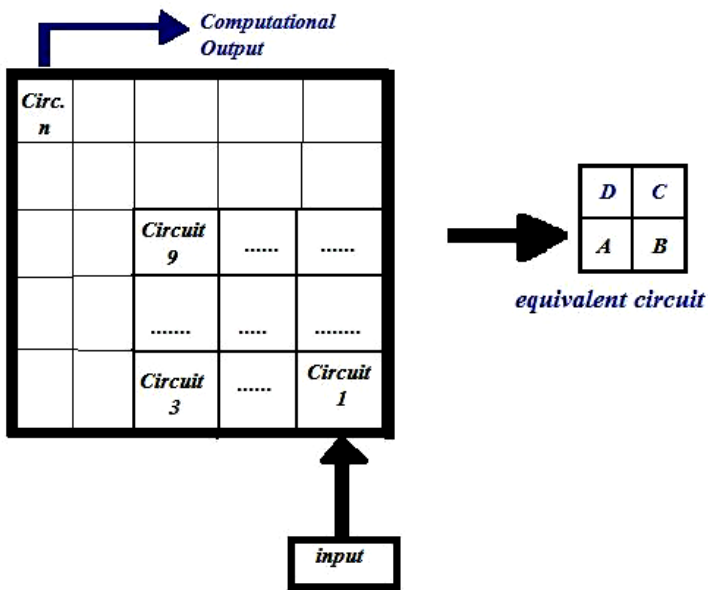
and

$$I_C = C \frac{dV_{in}}{dt}.$$

∞

●●● *equivalent circuit (below)*





*of complexity of a modern CPU  
 Since in this case each computation  
 is done by one nano-circuit which can change into an infinite #*