Moore's law stopped being true for the reasons as following.

1. Transistor has electrical leakage, when it comes to nano degree, the physical channel that carries the electrical current through the transistor cannot always contain it.

2. With the density gets higher, the more heat generated by chips, making them weaker to electrical leakage. The processor must reduce the amount of voltage it takes in or throttle the number of transistors in use to pervert overheating, therefore limiting the computation capability of the chip.

3. However, transistor needs a minimum voltage called threshold voltage to work properly and switch current level, and this brings a lower bound of voltage reduction in order to resist signal interference by noise