



Electrical and Computer Systems Engineering Department
ENCS333
Homework 1

Due Sep 25th

1. Define CMOS ? What are the two types of transistor? How do they work, show operation region of each device? Draw the I_D vs V_{D_s} curve
2. In parallel with the increase of IC operating frequencies, how do the roles of parasitic C and L change?
3. What are the trends of power consumption related to IC evolution?
4. What are the basic steps for CMOS IC fabrication?
5. What are the main IC Characteristics? Power , Area, speed, timing
6. What are the main IC parasitic?
7. Explain what do we mean by process node? And how does that affect IC characteristics