Lecture 09 -- Emitter Degeneration, Emitter Followers, Multistage Amplifiers

Draw a modified common emitter amplifier which uses a capacitor to bypass the tradeoff between gain and offset voltage in the mid-band.

Draw a common emitter amplifier with an active load.

Draw an emitter degenerated common emitter amplifier.

What are Rin and Av for an emitter degenerated common emitter amplifier?

What Rout for an emitter degenerated common emitter amplifier if ro is ignored?

Draw 3 common patterns we find in small signal models and record their impedances

Draw a two port model for an amplifier which uses our amplifier parameters, compare it to a general 2-port Z parameter model