Errata


Donald O. Pederson and Kartikeya Mayaram

Note to Instructors:
The website address is missing a ~. The correct link is http://eecs.oregonstate.edu/~karti/book/spicefiles

Chapter 3:
In Figure 3.10 (p. 63), the Fourier components of the typical circuit are to be ignored.

On p. 67, second last line 7th harmonic should be 6th harmonic. This line should read: intermodulation terms are the 6th and 9th harmonics of the fundamental

Chapter 5:
The equation immediately before (5.11) on page 104 should be labeled (5.11) and the equation immediately after (5.11) should be labeled (5.13). Equation (5.11) should be relabeled as (5.12). All equations from (5.13) onwards should have 2 added to the equation number. Therefore, Equations (5.13) through (5.68) should be relabeled as (5.15) through (5.70). The references in the text are to the corrected equation numbers.

Chapter 6:
In Problem 6.3 (p. 174), the transistor parameters are missing. Please use \( k_p = 30 \mu A/V^2 \), \( V_t = 0.7V \), \( W/L=50 \).

Chapter 7:
In Problem 7.5 (pp. 218-219), the bottom transistor should be NPN and not PNP as shown in Fig. 7.27 (the emitter arrow direction should be reversed).

Chapter 8:
In Eq. (8.24), replace \( \frac{V_o}{V_i} \) with \( \frac{V_o}{V_s} \).
The line before Eq. (8.69), should read: “Next $L$ is obtained from the resonance frequency of 1 GHz. Note $L$ resonates with the series capacitor $C_s$.\footnote{This correction is from Professor Yannis Tsividis of Columbia University.}

Eq. (8.69) should be

$$L = \frac{1}{\omega^2 C_s} = \frac{1}{(2\pi \times 10^9)^2 \times 22.28 \times 10^{-12} \left(1 + \frac{1}{49}\right)} = 1.11 \text{nH}$$

In Fig. 8.17 (a), in the Spice netlist the value of $L$ is 1.11NH (instead of 1.14NH).

In Fig. 8.17 (b) is incorrect.

**Chapter 9:**

On p. 277, the $V_T$ term in Eqs. (9.50) and (9.51) should be $V_t$.

In Problem 9.6 $+V_{CC}/-V_{EE}$ should be +15/-15 V and not +10/-10 V as labeled in Fig. 9.21.

**Chapter 11:**

On p. 332, the $V_T$ term in Eq. (11.1) should be $V_t$.

In Problem 11.3, the 10 k$\Omega$ resistance in series with the inductor should be 10 $\Omega$.

In Problem 11.7, part (e) should be labeled (d) and (f) should be labeled (e).

In Problem 11.8, the 2$^{nd}$ part (a) should be labeled (b), (b) -> (c), (c) -> (d).

In Problem 11.8, part (f) should read: Using the result of (e) calculate the amplitude of the gate voltage.

**Chapter 14:**

In Problem 14.6 $+V_{CC}/-V_{EE}$ are +10/-10 V.

On p. 459, last line of 2$^{nd}$ paragraph: 14.3 kHz should be 13.3 kHz.

On p. 476, last line on page: $b_1 = 59 \text{ mV}$ and HD$_2 = 2.3\%$.

On p. 477, first line on page: HD$_3 = 0.9\%$ and THD = 3.6\%.