Errata for the 5th Edition

August 31, 2013

Chapter

2 **Practice Problem 2.8**
The value of i_3 should be equal to **2.5 A**.

Problem 2.61
The last line should read "such that *I* lies with the range $I = 1.25$ A ± 5 percent." We needed to add the first *I*.

3 **Practice Problem 3.9**
In the coefficient matrix, the value of $R_{12} = R_{21}$ should be –20 Ω.

3 Page 105, the text refers to Appendix D for PSpice when it should refer to the web where the old Appendix D from the fourth edition has been relocated. This was done to allow for expansion in primarily Chapter 16. In the Preface we explain that the material for PSpice, MATLAB, and KCIDE can be found on the website for the book.

3 **Practice Problem 3.12**
The value of the voltage should be **2.005 volts**.

3 **Practice Problem 3.13**
The answers should be 9 V and 900 μA respectively.

4 Page 152, the text refers to Appendix D for PSpice when it should refer to the web where the old Appendix D from the fourth edition has been relocated. This was done to allow for expansion in primarily Chapter 16. In the Preface we explain that the material for PSpice, MATLAB, and KCIDE can be found on the website for the book.

5 Page 180, the tenth line from the top, replace "characteristics" with properties."

Practice Problem 5.8
The answer should be **800 μA**, a positive value not negative.

6 Page 232, just below Table 6.1, delete the phrase, "The wye-delta transformation discussed in Section 2.7 for resistors can be extended to capacitors and inductors."

6 **Practice Problem 6.12**
The answer for (a) should be **800 mA** for consistency.

6 **Figure 6.49**
The resistor on the left should be **70 Ω** and not 40 Ω.

7 **Practice Problem 7.6**
The answers need units, **amps** for the current and **amp-sec** for the integral of the current.

7 **Practice Problem 7.20**
The answer for (a) should be **160 mC** for consistency.

8 On the 5th line from the bottom of the page, replace “voltage is v_C = Cdv/dt" with "current is i_C = Cdv/dt"

9 **Practice Problem 9.10**
The units on the answer should be **Ω**

11 **Page 464**
On the 7th line from the top, replace 10.58 with 105.8

12 **Page 512**
In eq. (12.20), in the last equation, replace –150° with 150°; i.e. delete the negative sign

12 **Practice Problem 12.15**
The second answer should be **802.1 W** for consistency

13 Page 588, on the 7th line above Figure 13.54, replace "L1 = L2" with "L1 = L1"
On the 3rd line above Figure 13.54, replace "L1 = L1" with "L1 = L2"
Make the same changes on the right-hand side of Figure 13.54

14 **Example 14.8**

The voltage source needs to be a current source of 1.25 sin(ωt) mA.

(c) At $\omega = \omega_0$, Z = 8 kΩ and the entire current flows through R at resonance, the average power dissipated at $\omega = \omega_0$ is

$$P = \frac{1}{2}|\mathbf{I_o}|^2 R = \frac{1}{2}(1.25\text{x}10^{-3})^2(8\text{x}10^3) = 6.25 \text{ mW}$$

At $\omega = \omega_1 = \omega_2$,

$$P = 3.125 \text{ mW}$$

14 Section 14.8 Active Filters (Page 642), the second line after the section heading should read, "**they cannot generate power gains greater than 1;**"

14 **Page 653**
On the second line above Figure 14.52, replace "logrithic" with "logarithmic."

15 Equation 15.43 Replace "$e^{-2t}\cos 10t$" with "$e^{-2t}\cos 10t\, u(t)$"

Figure 15.19
The 1 should be moved to the left so that it lines up with the break in the curve

16 **Practice Problems 16.7**
To be more correct, the first answer needs to be multiplied by u(t) or $\mathbf{(-20\,e^{-3t} + 40\,e^{-6t})u(t)}$

Figure 16.901
The signs on the input to the op-amp need to be reversed. The feedback should always be connected to the negative terminal.

17 **Practice Problems 17.11**

There should not be a negative sign in front of the equation.

$$f(t) = \sum_{\substack{n=-\infty \\ n\neq 0}}^{\infty} \frac{j(-1)^n}{n\pi} e^{jn\pi t}$$

19 Practice Problem 19.4

The answer is better given as y_{11} = 625 mS, y_{12} = –125 mS, y_{21} = 375 mS, y_{22} = 125 mS.

Appendix D, end of chapter problems.

2.23 The value of the voltage, v_x should be **6.667 volts**.

15.9 The answer to (a) should be $\mathbf{\frac{e^{-2s}}{s^2} - \frac{2e^{-2s}}{s}}$

16.35 The answer should be,
$\mathbf{\left[3.636e^{-t} + 7.862e^{-0.0625t}\cos(0.7044t - 117.55°)\right]u(t)volts.}$