

ERRATA
Theory and Application of Digital Signal Processing, 1e
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Preface

p.xiii The web link on line 17 should read: <http://www.pearsonhighered.com/rabiner/>

Chapter 1

Chapter 2

Chapter 3

Chapter 4

Chapter 5

Chapter 6

p.251 Equation (6.12) should be changed to

$$E_{\hat{n}} = (1 - \alpha) \sum_{m=-\infty}^{\hat{n}-1} \alpha^{\hat{n}-m-1} (x[m])^2$$

p.283 In Problem 6.13b, change $f/2\pi$ to $f = \omega/(2\pi)$.

Chapter 7

p.324 In Equation (3.50) the definition of the Hann window should read:

$$w_{\text{Hann}}[n] = \begin{cases} 0.5 + 0.5 \cos[2\pi n/(2M)], & -M \leq n \leq M \\ 0, & \text{otherwise} \end{cases}$$

p.388 In Problem 7.17 the equation in (a) should read

$$w_{\text{eff}}[n] = [0.375 + \mathbf{0.5} \cos(\pi n/M) + 0.125 \cos(2\pi n/M)] w_r[n]$$

p.392 In Problem 7.23b, change $W(e^{j\omega})$ to $H(e^{j\omega})$.

p.395 In Problem 7.28(a) change $L = 100$ to $R = 100$.

Chapter 8

- p.405 In Eq.(8.10a) the sign in the exponent should be -.
- p.409 In Figure 8.10, at the input, change “ $\hat{y}[n] * \hat{y}_2[n]$ ” to “ $\hat{y}_1[n] + \hat{y}_2[n]$ ” and at the output, change “ $\hat{y}[n] * \hat{y}_2[n]$ ” to “ $\hat{y}_1[n] * \hat{y}_2[n]$ ”.
- p.411 Change “ M_0 ” to “ M_o ” in Equations (8.22) and (8.24).
- p.415 On first line change “Eq. (8.86)” to “Eq. (8.32).”
- p.419 On line 3, change f_0 to F_0 .
- p.431 In Eq. (8.59), change $0 \leq n < N - 1$ to $0 \leq n \leq N - 1$.
- p.436 In Figure 8.25, change “Eq. (8.67)” to “Eq. (8.68)”.
- p.441 On first line, change “exact” to “exact”.
- p.450 In Eq. (8.100a), change “ $0 < n$ ” to “ $n > 0$ ”.
- p.458 In Figure 8.39a change “(8.102)” to “(8.103)” and in Figure 8.39b, change “(8.103)” to “(8.104)”.
- p.459 In Eq. (8.106), change “ $n < 0$ ” to “ $n \leq 0$ ”.
- p.470 In Problem 8.12, the equation should read

$$x_2[n] = \delta[n] + 0.85\delta[n - 100], \quad 0 \leq n \leq 100.$$

Also change `rcep` to `rceps` and change `ccep` to `cceps`.

Chapter 9

- p.554 In Equation (9.168) change $1 \leq p$ to $1 \leq n \leq p$.
- p.562 In Problem 9.6c the equation should read $A^{(4)}(z) = A^{(3)}(z) - k_4 z^{-4} A^{(3)}(z^{-1})$.
- p.566 In Problem 9.8a, line 2, change N to L .
- p.572 In Problem 9.23a, line 4, change E to \mathcal{E} .
- p.573 In Problem 9.29, the two equations should read

$$\begin{aligned} P(z) &= A(z) + z^{-(p+1)} A(z^{-1}) \\ Q(z) &= A(z) - z^{-(p+1)} A(z^{-1}) \end{aligned}$$

Also at the end of the problem change `zroots(numerator,denominator)` to `zplane(numerator,denominator)`

Chapter 10

Chapter 11

- p.789 The third line after Eq. (11.191) should begin with

$$(\beta_k^{\text{opt}})^2 \sum_{n=0}^{L-1} (y'_k[n])^2, \text{ where we recall } \dots$$

Chapter 12

p.897 The equation in part (d) should read

$$v_k[n] = \sum_{r=-\infty}^{\infty} s_k[r] \delta[n - rN],$$

i.e., change $s[r]$ to $s_k[r]$.

p.899 In Problem 12.2(g), line 9, change “Figure P12.2c” to “Figure P12.2b”.

p.899 In Problem 12.2(i), line 3, $20 \log_{10} |H(e^{j\omega})|$.

Chapter 13**Chapter 14****Appendix A****Appendix B**

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