DIGITAL SIGNAL PROCESSING
A Computer-Based Approach

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Errata List *(Last updated on October 23, 1998)*

1. Page xii, Line 17: Replace “Short-term” with “Short-time”.
2. Page xiv, Line 4: Replace “**ece.ucsb.edu**” with “**iplserv.ece.ucsb.edu**”.
3. Page xvi, Line 6: Replace “5.5” with “8.5”.
4. Page 13, Line 2: Replace “ $A\sin(\Omega_{0t})$” with “ $A\sin(\Omega_0 t)$”.
5. Page 25, Interchange Figure 1.22 (a) and Figure 1.22 (b).
6. Page 70, Program 2_3 and Program 2_4: Replace “*2*m.*(0.9^m)*” with “*2*m.*(0.9.^m)*”.
7. Page 125, Eq. (3.10): Replace “ $\sum_{n\,=\,mult\ of\ L}$ ” with “ $\sum_{n\,=\,mult\ of\ L}$ ”.
8. Page 127, Table 3.2, First line: Replace “ **Length-N sequence** ” with “ **Sequence** ” and replace “ **N-point DFT** ” with “ **DTFT** ”.
9. Page 127, Table 3.2, Line 5 from top: Replace “ $e^{-j\omega n_0}G(j\omega)$ ” with “ $e^{-j\omega n_0}G(e^{j\omega})$ ”.
10. Page 131, Eq. (3.13) Replace “ $e^{-2\pi kn/N}$ ’’ with “ $e^{-j2\pi kn/N}$ ’’.
11. Page 140, Table 3.5, Replace “G[K]’’ with “G[k]’’.
12. Page 141, Table 3.6, Replace “X[k]’’ with ’’X[k]’’.
13. Page 145, Example 3.11, Replace “Figure 3.8’’ with ’’Figure 3.9’’
14. Page 148, Eq. (3.75) and Eq. (3.76): Replace “L ” with “$L-1$ ”.
15. Page 155, Eq. (3.88) Replace “ $(N-M)$ ” with $(N-M+1)$ ”.
16. Page 175, Line 13 from bottom: Replace “ $\frac{-1}{3}\Big/\left(1+\frac{1}{3}z^{-1}\right)$ ” with “ $\frac{-1}{3}z^{-1}\Big/\left(1+\frac{1}{3}z^{-1}\right)$ ”.
17. Page 175, Line 12 from bottom: Replace “ $-3n\left(\frac{-1}{3}\right)^n\mu[n]$ ” with “ $-3(n-1)\left(\frac{-1}{3}\right)^{(n-1)}\mu[n-1]$ ”.
18. Page 175, Line 10 from bottom: Replace the equation with
“ $g[n] = \left[0.24\left(\frac{-1}{3}\right)^n + 0.36\left(\frac{1}{2}\right)^n\right]\mu[n] + 0.36(n-1)\left(\frac{-1}{3}\right)^n\mu[n-1]$ ”.
19. Page 183, Eq. (3.149): Replace “ $\hbar[k]$ ” with “ $\hbar[n]$ ”.
20. Page 184, Replace “Figure P3.2 shows four” with “Figure P3.2 shows two”.
21. Page 184, Line 3 from bottom: Replace “length-sequence” with “length-N sequence”.
22. Page 197, Problem M3.3: In the numerator of expression in (a), replace “$0.1915e^{j\omega}$” with “$0.1915e^{-j\omega}$”, and “$0.1915e^{-j\omega}$” with “$0.1915e^{-3j\omega}$”.
23. Page 198, Problem M3.17: Part (iii) - Replace “$|z| > 0.4$ ” with “$|z| > 0.9486833$ ”.
24. Page 198, Problem M3.17: Part (iv) - Replace “$|z| > 0.4$ ” with “$|z| > 0.5$ ’’.

25. Page 211, Line below Eq. (4.48) Replace "$e^{j2\pi kM}$" with "$e^{j2\pi k/M}$".
26. Page 211, Line 2 from bottom: Replace "3.20" with "3.21".
27. Page 219, Line 8 from bottom: Replace "$H_{LP}[n]$" with "$h_{LP}[n]$".
28. Page 220, Line 8 from bottom: Replace "$\log_{10}|H_1(e^{j0})|$" with "$\log_{10}|H_0(e^{j0})|$".
29. Page 222, Eq. (4.68): Insert a "j" in front of "$e^{-j\omega/2}\sin\left(\frac{\omega}{2}\right)$".
30. Page 230, Figure 4.19: Replace "$v[\pm n]$" with "$v[-n]$" and replace "$w[\pm n]$" with "$w[-n]$".
31. Page 247, Eq. (4.139b): Replace "$A_0(z) + A_1(z)$" with "$A_0(z) - A_1(z)$".
32. Page 252, Line 5 from the begining of section 4.8: Replace "zero locations" with "pole locations".
33. Page 254 After Line 4: Replace "$\prod_{i=1}^{M} \lambda_i$" with "$(-1)^M \prod_{i=1}^{M} \lambda_i$".
34. Page 266 Problem 4.28 (b) Replace "$x[n] = 0.4^n\mu[n] + (0.2)^{n-1}\mu[-n-1]$" with "$x[n] = (0.4)^n\mu[n] - (0.2)^{n-1}\mu[n]$".
35. Page 271 Problem 4.61 (b) line 3: Replace "$(4\pi + \omega_s)/M$" with "$(2\pi + \omega_s)/M$".
36. Page 274 Problem 4.67 (c) Replace "$\widehat{G}(\omega)$" with "$\widehat{H}(\omega)$".
37. Page 275 Problem 4.76 (a), (b) and (c): Replace "H_{BS}" with "$H_{BS}(z)$".
38. Page 276 Problem 4.82 (d) Replace "H_3" with "$H_3(z)$".
39. Page 277, Problem 4.88: Replace "H_a" with "$H_a(z)$", and "H_b" with "$H_b(z)$".
40. Page 277, Problem 4.88 (b): Replace "$6(1 + z^{-1})^3$" in the numerator with "$3(1.5 + 6.5z^{-1} + 6.5z^{-2} + 1.5z^{-3})$".
41. Page 280, Line 5 from bottom: Replace "4.84" with "4.83".
42. Page 280, Line 2 from bottom: Replace "4.97" with "4.96".
43. Page 281, M4.18, Replace "4.97" with "4.96".
44. Page 281, M4.19, Replace "4.98" with "4.97"
45. Page 290, Last Line of Figure caption: Replace "$\cos(2\pi t)$" with "$\cos(26\pi t)$".
46. Page 340, Eq. (6.3b): Replace "d" with "D".
47. Page 314, Line 12 from bottom: Replace "9.4" with "6.4".
48. Page 327, Eq. (5.65): Replace "$2R_L + R$" in the denominator by "$2(R_L + R)$".
49. Page 374, Line 3 from bottom: Replace "$A_m(z)$" with "$A_M(z)$".
50. Page 384, Line 15 from bottom: Replace "d_1''" with "d_1'".
51. Page 393, Line 1: Replace "0.39" by "0.3π".
52. Page 415, Problem M 6.2 (b) and Problem M 6.3 (b) : Replace "four" by "two".
53. Page 415, Problem M 6.8 (c) Replace numerator of G(z) with "$0.04934436(1 + 1.3z^{-1} + 2.21z^{-2} + 2.21z^{-3} + 1.3z^{-4} + z^{-5})$".
54. Page 464, Replace "$H_d(e^{j\omega})$" with "$H_d(e^{j\omega_k})$".
55. Page 547, Example 8.20: Replace "$A = -0.325_{10}$" with "$A = -0.375_{10}$".

56. Page 557, Line 5 from bottom: Replace “Eq. (8.84)” with “Eq.(8.88)”.

57. Page 568, Problem 8.44: Replace “ $\sum_{i=1}^{p} a_{-1}2^{-i}$ ” with “ $\sum_{i=1}^{p} a_{-i}2^{-i}$ ”.

58. Page 570, Figure P8.5(a): Replace “ $\frac{1+z^{-1}}{2}$ ” with “ $\frac{1+z^{-2}}{2}$ ”.

59. Page 577, Line 2 from top: Replace $\sum_{i=1}^{p} a_{-i}2^{-1}$ with $\sum_{i=1}^{p} a_{-i}2^{-i}$.

60. Page 579, Last Line: Replace “[Mit74a]” with “[Mit74c]”.

61. Page 659, Figure 10.4: Replace the figure here with the figure shown below:

$$x[n] \longrightarrow \boxed{\downarrow \mathrm{M}} \longrightarrow y[n]$$

62. Page 669, Figure 10.15(b): Replace “L” with “M”.

63. Page 678, Example 10.7 line 5: Replace “$f_1 = 0.31$” with “$f_2 = 0.31$”.

64. Page 695, Lines 1-3 below Eq. (10.61): Replace this sentence with “As a result, $y[Ln+k] = \alpha x[n]$, i.e., the input samples appear at the output without any distortion at all values of n, whereas the in-between $(L-1)$ samples are determined by interpolation.”

65. Page 707, Equation 10.109 and the equation two lines below: Replace “ $(1-\left|H_0(e^{j\omega})\right|^2-\left|H_1(e^{j\omega})\right|^2)$ ” with “ $(1-\left|H_0(e^{j\omega})\right|^2-\left|H_1(e^{j\omega})\right|^2)^2$ ”.

66. Page 731, Problem 10.14 (b), (c): In the denominator, replace “$0.8z^{-1}$” with “$0.8z^{-2}$”

67. Page 732, Problem 10.19: Replace “ $\sum_{k=0}^{M-1}\left|H_k(e^{j\omega}W^k)\right|^2$ ” with “ $\sum_{k=0}^{M-1}\left|H_k(e^{j\omega})\right|^2$ ”.

68. Page 736, Problem 10.40(b): Replace “ $\frac{1}{2}\{H(z)-H(-z)\}$ ” with “ $\frac{1}{2}\{H(z)-H(-z)\}z$ ”.

69. Page 755, Section 11.5 Title: Replace “Short-Term” with “Short-Time”.

70. Page 755, Line 10 from bottom: Replace “$\omega_0 n$” with “$2\omega_0 n$”.

71. Page 798, Lines 11, 13, and 15: Replace “z^{-3}” with “z^{-1}”, and “[n-3]” with “[n-1]”.

72. Page 829, Lines 4 and 5: Replace “f_1 =0.68’’ with “ f_1 =0.18’’ and “f_2 =0.8” with “f_2 =0.3”.

73. Page 829, Lines 7 and 8: Replace “f_1 =0.68’’ with “f_1 =0.18’’ and “f_2 =0.8,0.77,0.74 and 0.71” with “f_2 =0.3,0.27,0.24 and 0.21”.

74. Page 829, Line 11: Replace “f_1 =0.68’’ with “f_1 =0.18’’ and “f_2 =0.71” with “f_2 =0.21”.

75. Page 829, Problem M11.11, line 2: Replace “0.46” with “0.36”.

76. Page 830, Problem M11.13, line 2: Replace “Program 11_4” with “Program 11_5”.

77. Page 830, Problem M11.14, line 2: Replace “Program 11_5” with “Program 11_6”.

78. Page 830, Problem M11.15, line 2: Replace “Program 11_6” with “Program 11_7”.