I beg your pardon for the typographical errors in the book. It will not take long to make these corrections. I promise.

-Rick Lyons-

Page 7: In the third line below Eq. (1-7), the text:

"... indicate that $X_{\text{sum}}(n)$ has a frequency ..."

The uppercase "$X$" should be lowercase "$x" as:

"... indicate that $x_{\text{sum}}(n)$ has a frequency ..."

[Found by Angela Livingstone, 3/30/08; [Production Error]

Page 37: The "$f_s$" labels, within the arrows, at the very bottom of Figure 2-13 should be "$f_s/2$".

[Found by Author [6/20/06].][Author Error]

Page 38: In the fifth line up from the bottom of the page, the text:

"... where $m_{\text{odd}}$ is an odd integer[14]."

should be changed to:

"... where $m_{\text{odd}}$ is an odd integer greater than one[14]."

[Found by Jim Murphy [9/14/05] & Justin Reeves [6/20/06].][Author Error]

Page 40: In the 2nd line below Eq. (2-14), the text:

"$m = 2$ provide an optimum ..."

should be changed to:

"$m_{\text{even}} = 2$ provide an optimum ..."

[Found by Justin Reeves, 6/20/06.][Author Error]

Page 42: In the middle of Table 2-2, on the right side, the text:

"$m_{\text{odd}}$ is any positive odd integer ..."

should be changed to:

"$m_{\text{odd}}$ is an odd integer greater than one ..."

[Found by Justin Reeves, 6/20/06.][Author Error]

Page 48: The incorrect letter "$v$" in the third line of Eq. (3-4d) should be replaced with a "." multiplication symbol.

[Found by Uday Padmanabhan, 11/19/08.][Author Error]
Page 93: The last term in Equ. 3-37 has a missing minus sign in its exponent. The last term should be:

$$\ldots + e^{-jq(K-1)}].$$

[Found by Stan Moore, 3/19/12.][Production Error]

On page 134, in Figure 4-2, the lower right four twiddle factors:

$$W_8^4, W_8^5, W_8^6, W_8^7$$

should be

$$-W_8^0, -W_8^1, -W_8^2, -W_8^3$$

[Found by Saul Iverson, 10/3/17.][Author Error]

Page 143: In Figure 4-10, in the middle stage there is the number 4 on the 1st and 2nd (counting down from the top) southeast-pointing arrows. Those 4s should not be there. The 4s should be on the 3rd and 4th southeast-pointing arrows of the middle stage as shown below.

![Diagram](image)

[Found by Antoine Trux, 1/2/07.][Author Error]

Page 196: The upper limit of the summation in Eq. (5-26) is printed as:

"P + Q - 1"

It should be:

"P + Q - 2"

[Found by Author, 5/10/08.][Author Error]

Page 244: The normalized-frequency labeling (radians/sample) on the frequency axis of Figures 6-24(b) and 6-24(c) should be changed as:

-2π changed to -4π
-π changed to -2π
π changed to 2π
2π changed to 4π

[Found by Author, 10/17/08.][Author Error]
Page 257: In the eleventh line below Eq. (6-87)

"... Figure 6-21(b). Knowing that ..."

should be changed to:

"... Figure 6-22(b). Knowing that ..."

[Found by Yancen Li (7/14/14)]; [Author Error]

Page 264: In the 6th line of the first full paragraph, the text:

"...squeezed in toward zero Hz."

should be:

"...squeezed in toward \( f_s/2 \) Hz."

[Found by VV (vanamali), 3/12/09.] [Author Error]

Page 264: In the next to the last line of the first full paragraph there's a missing "|" vertical bar character indicating "magnitude". The text:

"...in \( |H_d(f_d) - \)"

should be:

"...in \( |H_d(f_d)| - \)"

[Found by Author, 7/14/05.] [Author Error]

Page 267: There is a missing "x(n)" factor in Equation (6-114), the first part of that equation should be:

\[
y(n) = 0.20482712 \cdot x(n) + 0.40965424 \cdot x(n-1) + ...
\]

[Found by Kendall Castor-Perry, 5/3/09.] [Author Error]

Page 286: The feedback coefficient of the resonator in Figure 7-3, printed as:

\[ e^{j\omega r} \]

it should be changed to:

\[ e^{j\omega r} \]

[Found by Author, 7/14/09.] [Production Error]

Page 345: On the right side of Figure 8-8 the term \( e^{j2\pi f_0 t} \) should be divided by two, making it

\[ e^{j2\pi f_0 t}/2. \]

[Found by John Littig, 9/24/07.] [Author Error]

Page 353: In the sentence just before Eq. (8-17), the described notion of orthogonality of \( i(n) \) and \( q(n) \) is only conditionally true. Because this orthogonality topic was not described in sufficient
detail, I suggest you strike out both the sentence just before Eq. (8-17) as well as Eq. (8-17) itself.

[Found by Ken Walsh, 5/9/06.] [Author Error]  

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**Page 478:** in the fifth line down, delete the text:

"...followed by another K delay..."

In Figure 13-6(c) the final $z^{-K}$ delay block should be deleted making that figure look as follows:

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**Page 479:** In Figure 13-6(b) the superscripted "-2" characters shown by the large arrows below:

Should be changed from "-2" to "-1" making Figure 13-6(b) become:

---

**Page 484:** Equation (13-10) has suffered a series of "foul-ups" in different Printings of the book. Eq. (13-10) should be:

$$W(m) = \sum_{n=0}^{N-1} e^{-j2\pi nm/N} = \frac{\beta}{2} \sum_{n=0}^{N-1} e^{j2\pi n/N} e^{-j2\pi nm}/N$$

$$\alpha \sum_{n=0}^{N-1} e^{-j2\pi nm}/N = \frac{\beta}{2} \sum_{n=0}^{N-1} e^{j2\pi (m-1)/N} - \frac{\beta}{2} \sum_{n=0}^{N-1} e^{-j2\pi (m+1)/N}.$$  

(13–10)
For more accurate results, the "12/M" factor at the beginning of Eq. (13-70) should be changed to sqrt(12/M). Thus Eq. (13-70) should be:

\[ y_{\text{desired}}(n) = \sqrt{\frac{12}{M}} \cdot \sigma' \cdot \left[ \left( \frac{M}{2} \sum_{k=1}^{\infty} c_k(n) \right) - \frac{M}{2} \right] + \mu'. \] (13-70)

[Found by Bharat Pathak, 7/13/07.][Author Error]

Page 548: 4th line below Eq. (13-107), change the text:

"... 0.26° using ..."

to

"... 0.28° using ...".

For preciseness, you might note on Figure 13-59 that the error is -0.28° at True θ = -45°, and the error is +0.28° at True θ = +45°, as shown in the following figure.

[Found by Chris Zarowski, 4/27/06.][Author Error]

Page 549: 4th line below Eq. (13-109'), change the text:

"... error is 0.26° for ..."

to

"...error is 0.28° for ...".

[Found by Chris Zarowski, 4/27/06.][Author Error]

Page 560: In Figure 13-70(b), on the right side in the "Section 3, r = 1" part of the figure, there should be three stages of delay lines instead of only two stages as shown in the figure. That "Section 3, r = 1" part of the figure should look like the following:

[Found by Mike Totham, 8/31/07.][Author Error]

Page 561: Equation (13-123) has a missing 1/N scale factor in front of the summation. That equation should be:
\[ M(q) = \frac{1}{N} \sum_{k=qN}^{(q+1)N-1} x(n) \] (13-123)

[Found by Author, 8/24/08.] [Production Error]

Page 569: In the right \( X_{int}(m) \) column of Table 13-8, the underline character associated with row \( m = 9 \) should be a zero "0" value as follows:

\[
\begin{array}{cc}
m & X_{int}(m) \\
\ldots & \ldots \\
9 & 0 \\
\ldots & \ldots \\
\end{array}
\]

[Found by Author, 3/21/09.] [Production Error]

Page 607: Two corrections: In the second line of Eq. (D-7), the term:

"... -\cos(\omega t)] ..."

should be:

"... -\cos(2\omega t)] ..."

In the third line of Eq. (D-7), the term:

"... -\frac{1}{2}(\sin(\omega t))..."

should be:

"... -\frac{1}{4}(\sin(2\omega t))..."

[Found by Julian Vrbancich, 10/23/12; [Author Error]

Dear Reader, if you find any additional errors, no matter how trivial, please notify me at: R.Lyons@ieee.org
I'd sure appreciate hearing from you and I promise I'll reply to your E-mail.

Thanks,
[-Rick Lyons-]