Engineering Electromagnetics, by William Hayt and John Buck, 7th Edition, McGraw-Hill

Errata, by Chris Mack, chris@lithoguru.com

While teaching out of this book at the University of Texas at Austin, Fall 2008, I discovered the following errors:

p. 55, section 3.2, end of first paragraph, there is no period at the end of the sentence.

p. 76, problem 3.1, part (a) mentions the "five metallic pieces" even though there are only four metallic pieces.

p. 81, last sentence of the page, there appears to be some meta-text that has been left in: ""work done by elecr. field in moving a charge"."

p. 85, just below the middle of the page, the sentence reads "It should be noted that the equations of the straight line show that $dy = -3dx$ and $dx = -3dy$." This second equation is wrong.

p. 92, middle of the page, the sentence "The volume charge density $\rho_y(\mathbf{r}')$ …" has the subscript wrong (it should be a *v*, not a *y*). It should read "The volume charge density $\rho_v(\mathbf{r}')$ …".

p. 117, equation 5, the parentheses in the equation are unnecessary.

p. 157, the first sentence of the last paragraph reads "The heavy black circle in Figure 6.9…". It should read "The heavy blue circle in Figure 6.9…".

p. 158, third to last line on the page, the sentence reads "This cylinder is shown in color in Figure 6.9." It should read "This cylinder is shown as a dotted line in Figure 6.9."

p. 159, the beginning of the second equation shows "**D** = e**E**", but the "e" should be the Greek letter epsilon (the dielectric constant).

p. 169, problem 6.22, the sentence begins "Two #16 copper conductor …", but the word "conductor" should be plural.

p. 169, problem 6.23, the sentence begins "A 2 cm diameter conductors …" but the word "conductors" should be singular.

p. 212, middle of the page, the equation says $\mathbf{V} \cdot \mathbf{J} = 0$, but it should read $\nabla \cdot \mathbf{J} = 0$.

p. 220, second paragraph, second to last line, the word "containing" is misspelled as "conaining".

p. 224, the first line after equation (15), the fifth and sixth words, "it if", are transposed.

p. 237, the first line after equation (32) should not be indented.

p. 243, first line after equation (46) reads “where A signifies …”. The “A” should be bold.

p. 243, footnote 9, several instances of the magnetic vector potential **A** in the equations should be bold.

p. 255, problem 8.13, the first sentence should describe the cylindrical shell as being infinitely long. Also, the second sentence reads “Show that *H* is not a function of …”. The “H” should be bold and not italics.

p. 320, the fifth equation on this page says “**H** = 0” followed by the text “for time varying fields”. This is not correct. If follows from the point form of Faraday’s law that the magnetic field must be constant with time. I’m not sure what the phrase “**H** = 0 for time varying fields” even means.

p. 323, sixth line of the first paragraph, the equation $B = \nabla \times \mathbf{A}$, the “B” should be bold and not italics.

p. 324, Even though the author warns earlier in the text the *v* could mean both velocity and volume, the equations on this page are confusing because both velocity and volume are shown with the same symbol. Something should be done to address this confusion.

p. 560, last line, the reference to Chapter 11 should be a reference to Chapter 12 instead.

In addition, I have found several mistakes in the solutions manual for the homework problems.