Engineering Vibration 3rd Edition 1st print errata as of 1 October 2007

Page 14, 3 lines up from the bottom, change Δx to $k\Delta$.

Page 25, 2nd line of caption for Figure 1.12, change "dainped" to "damped"

Page 28, 9th line from the top (3rd line under Solution) change
"$A_1 = \cos\phi$ and $A_1 = \sin\phi$" to "$A_1 = A\cos\phi$ and $A_1 = A\sin\phi$"

Page 87, Problem 1.15, 3rd line, change "$-1 \le x_0$" to "$-0.1 \le x_0$"

Page 94 Last line of problem 1.62 change "inertial" to "inertia"

Page 95, Problem 1.66, 4th line, helicopter is spelled wrong, change "helicoptor" to "helicopter"

Page 112, 8 lines up from the bottom. Change the equation to:

$$m = \rho lbh = (2.7\times10^{3})(0.55)(0.02)(0.02) = 0.594 \text{ kg}$$

That is change the *p* to Greek ρ, remove the exponent 3 from *h* and (0.02) and change the last number.

7 lines up from the bottom, remove the word "much"

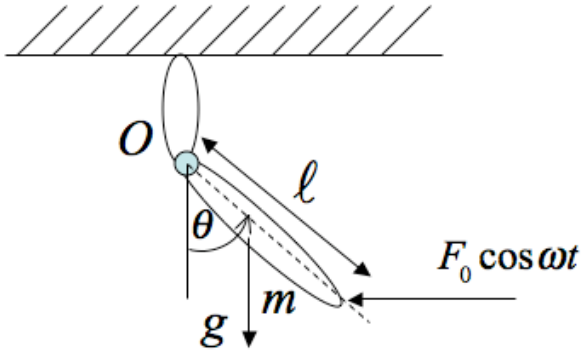
Page 115, 3rd line from the bottom, change "Appendix A" to "Appendix C"

Page 134, 13 lines from the top, change "(2.39)" to "(2.40)"

Page 136, 6 lines up from the bottom, change "$\left(\frac{\text{hour}}{3600s}\right)$" to "$\left(\frac{\text{hour}}{3600\ \text{s}}\right)$". That is, add a space in between 3600 and s and s should not be italic.

Page 161 line 12 change "`z=c/2*sqrt(k*m);`" to "`z=c/(2*sqrt(k*m));`"

Page 177 Figure P2.13 is incorrect, please replace with



(new Jpg file is attached)

Page 181 second line of problem 2.31, change “2000 N/m” to “2000 N m/rad”

Page 185 first line of problem 2.54, change ‘Figure 2.18” to “Figure P2.53”

Page 188 third line of Problem 2.86: change “and k = 700 N/m **“ to** “ and k = 2500 N/m**”**.

Page 196:

3rd Line of solution change the equation (12 missing in denominator and answer is wrong) to

$$k = \frac{3Ebh^3}{12\ell^3} = \frac{(7.1\times10^{10}\ \text{N/m})(0.02\ \text{m})(0.02\ \text{m})^3}{4\left(0.55\ \text{m}\right)^3} = 1.707\times10^4\ \text{N/m}$$

4th line of solution, change “261.3” to “75.43”

9th line of solution, change "20 m/s " to "20 kg m/s" that is a kg is missing at the end of the equation.

11th line of solution, again the kg is missing and the wrong number appears. Change $\left|\frac{20\ \text{m/s}}{3\bullet261.3\ \text{rad/s}}\right|$ to $\left|\frac{20\ \text{kg m/s}}{3\ \text{kg}\bullet75.43\ \text{rad/s}}\right|$

Page 232 line 1, remove the subscript *dr* from omega

Page 223 line 9 of Example 3.5.1, Change $\frac{1}{k-m\omega^2+c\omega j}$ $\frac{1}{k-m\omega^2+c\omega j}$ to $\frac{1}{k-m\omega^2+c\omega j}$ $\frac{1}{k-m\omega^2-c\omega j}$ note the sign is changed in the last term on the bottom

Page 258 Problem 3.12, line 6 remove one “J =” as its repeated.
In the last line add “(use r = 0.457 m)” at the very end.

Problem 3.13, line 1, Change “3.1.3” to “3.1.1”

Page 263 Problem 3.40, line 1 change 2.3 to 2.4,
Line 2 change 2.3.1 to 2.4.1 and change 2.11 to 2.16.

Page 2.81 The plot on the right in figure 4.3 should be shifted to the left to start at the origin.

Page 315 first line following step 3, change the equation to

$$\det\left(\tilde{K}-\lambda I\right)=\det\left(\begin{bmatrix}400-\lambda & -200\\ -200 & 100-\lambda\end{bmatrix}\right)=\lambda^2-500\lambda=0$$

in the following line change 5 to 500 and 2.236 to 22.36
in the last line change 5 to 500: diag[0, 500]

Page 316 change $\sqrt{5}$ to $10\sqrt{5}$ through out the page (line 16, 13, 10 9 and 8 form the bottom of the page.

Page 317 6th line from the top, change $\sqrt{5}$ to $10\sqrt{5}$ in both elements of the matrix

Page 337 11th line from top, 3rd term of equation change "$-k_2q_2$" to "$-k_2rq_2$"
15th line from the top, last term of the equation, change "0" to "$M(t)$"

Page 376 Problem 4.6, change "from" to "for"

Page 380 Problem 4.40, the last zero should be bold face (12 lines from the top)

Page 385 Problem 4.72, first line 1, change "4.46" to "P4.46"

Problem 4.74, third line, remove the comma and space between the matrix and **x** so that it reads:

$$\ddot{\mathbf{x}}+\begin{bmatrix}2 & -1\\ -1 & 1\end{bmatrix}\mathbf{x}=\begin{bmatrix}1\\ 0\end{bmatrix}\sin(0.618t)$$

Page 458 Problem 5.38, first line, change 5.36 to 5.37.

Page 460 Problem 5.53, last line change the subscript on J from "L" to "2"

Page 461 Problem 5.64, first line, change "5.61" to "5.63"
In the second line change the second "changing so that" to "changed to"
In the forth line, change "transmitting" to "transmitted"

Problem 5.72, last line change table reference from "5.1" to "5.2"

Page 482 5th line down, the leading c^2 should be removed from the equation

page 525, Problem 6.6, before the number 5 (3,5) and perhaps before the and

Page 648 Problem 1.7, change "6.28" to "62.8" and "3,948" to "3.948"

Problem 1.40, change the last number from 3.04 to 3.0

Page 649 Problem 3.14, change to answer to $k = \frac{1}{m}\left(\frac{m_b v}{|X|}\right)^2$

Problem 3.24, change 3.30 to 3.35 and change 0.3535 to 0.3483