

## Errata for Textbook by C. Chen

Page numbers correspond to 3rd edition. This list was generated by me, S. Koskie, for ECE602 at IUPUI. Please email any corrections to this list to me, not the textbook author nor the textbook publisher.

### Chapter 2

p. 38    Problem 2.5            Insert “linear” before “system” in first line.

### Chapter 3

p. 64    line above Ex. 3.7    Delete “( $\lambda$ )” twice.  
p. 65    line 7                    “ $f(\lambda) = h(\lambda)$ ” should be “ $f$  and  $h$ ”.  
p. 66    lines 3 and 5            The text should note that the  $\beta_i$ ’s in these two equations are not the same.  
p. 82    line 1                    the (1,2) matrix element should be  $\lambda T^2/2$  not  $\lambda T^2$ .

### Chapter 4

p. 87    line 9 of Section 4.2    Sentence should read “Premultiplying both sides of (4.2) by  $e^{-At}$  and shifting all terms involving  $\mathbf{x}(t)$  to the left-hand side yields...”  
p. 88    line above (4.6)        “equation” should be “identity”.  
p. 109    second line of ex-     $u(\tau)$  is missing from the integrand.  
          pression for  $\frac{d}{dt}\mathbf{x}(t)$ ,

### Chapter 5

p. 127    line 2 of Proof        Both sums should start at  $m = 0$ .

### Chapter 6

p. 183    Figure 6.12            The voltage across the 2F capacitor should be labelled  $x_1$  not  $x_2$ .

**Answers to Selected Problems**

p. 325 Answer to 4.16

The (1,2) element of the first  $\Phi(t, t_0)$  should be  
“ $-e^{t_0^2/2} \int_{t_0}^t e^{\tau^2/2} d\tau$ ” not “ $-e^{t^2/2} \int_{t_0}^t e^{\tau^2/2} d\tau$ ”

p. 325 Answer to 4.23

$$X(t) = \begin{bmatrix} e^{\cos t - 1} & 0 \\ 0 & e^{-\sin t} \end{bmatrix} \text{ so}$$
$$P(t) = I(X^{-1}(t)) = \begin{bmatrix} e^{1 - \cos t} & 0 \\ 0 & e^{\sin t} \end{bmatrix}.$$