Errata for Neuro-Fuzzy and Soft Computing

1. Page 30: The first equation should be changed from $F_L(x) = \max(0, \sqrt{1-x^2})$ to $F_L(x) = \sqrt{\max(0, 1-x^2)}$.

2. Page 70, exercise 3: "other typoes" should be "max-product".

3. Page 70, exercise 5: "*old* and *new*" should be "*young* and *old*"; "triangular MFs" should be "Gaussian MFs". The equations should also be changed to

$$\mu_{\text{young}}(x) = \text{gaussian}(x, 0, 20) = e^{-\frac{1}{2}\left(\frac{x}{20}\right)^2},$$

$$\mu_{\text{old}}(x) = \text{gaussian}(x, 100, 30) = e^{-\frac{1}{2}\left(\frac{x-100}{30}\right)^2}.$$

4. Page 70, exercise 6: "*old* and *samll*" should be "*young* and *old*".

5. Page 80, line 2: `fuzzy mam21` should be changed to `ruleview mam21`.

6. Page 113, line 8: $(m+1)$th should be $(k+1)$th.

7. Page 114: $\boldsymbol{\theta}_n$ in the first line of equation (5.47) should be $\boldsymbol{\theta}_k$. Also the first a in equation (5.49) should be bold.

8. Page 115: P_0 in equation (5.51) should be P_0^{-1}.

9. Page 126: b in Eq. (5.71) and the last equation in the same page should be y. Also $\mathbf{x}$ in the last equation should be $\boldsymbol{\theta}$.

10. Page 127: The last equation in Exercise 12 should be $\|e_{\text{post}}\| = \dfrac{\|e_{\text{prior}}\|}{1 + \mathbf{a}^T \mathbf{P}_k \mathbf{a}} \leq \|e_{\text{prior}}\|$.

11. Page 133: The second paragraph of Section 6.3: "When $\mathbf{G} = \eta\mathbf{I}$, with some positive value η and the identity matrix $\mathbf{I}$" should be changed to "When $\mathbf{G} = \mathbf{I}$ (the identity matrix)".

12. Page 135, line 17: $\mathbf{G} = -\mathbf{H}^{-1}$ should be changed to $\mathbf{G} = \mathbf{H}^{-1}$.

13. Page 136: $\mathbf{T} = \begin{bmatrix} \sqrt{5} & 0 \\ 0 & \sqrt{5} \end{bmatrix}$ should be changed to $\mathbf{T} = \begin{bmatrix} 1 & 0 \\ 0 & \sqrt{5} \end{bmatrix}$.

14. Page 138, line 5 from bottom: "$LM(0.5)$ when $\lambda = 0.5$ and $LM(2.0)$ when $\lambda = 2.0$" should be changed to "$LM(1)$ when $\lambda = 1$ and $LM(4)$ when $\lambda = 4$". Similarly, $LM(0.5)$ and $LM(2.0)$ in the caption and plot (c) of Figure 6.6 should be changed to $LM(1)$ and $LM(4)$, respectively.

15. Page 145, line 9 from bottom: "one-third" should be changed to "two-thirds".

16. Page 153: "g_k^T" in the denominator of the last equation should be changed to "g_k".

17. Page 161: The first J in the last equation should be J^T.

18. Page 215: $\dfrac{\partial^+ x_3}{\partial a}$ in Equation (8.18) should be $\dfrac{\partial^+ x_i}{\partial a}$.

19. Pages 217 and 218: The weight between node 4 and 6 of Figure 8.16 and 8.17 should be w_{64}.

20. Page 311, line 5 from bottom: "steepest-descent" should be "steepest-ascent"; "minimizes" should be "maximizes".

21. Page 313, line 9 from bottom: $\mathbf{u}_i$ should be $\mathbf{u}$.
22. Page 314: p_i in the second and third equations should be changed to q_i.
23. Page 314, line 10 from bottom: the second $\mathbf{x}_1$ should be changed to $\mathbf{x}_n$.
24. Page 329, line 1: "descent" should be "ascent"; "minimizing" should be "maximizing".
25. Page 373, line 3 from bottom: "illustrating the simplified contours" should be deleted.
26. Page 374: C_{2i+j} in the first equation should be changed to $C_{4(i-1)+j}$.
27. Page 426: the summation subscripts in Eq. (15.6) and (15.7) should be $j = 1$ instead of j only.