

Known errors in *Knowledge-Based Systems for Engineers and Scientists*, edition 2, Imprint 1

This list of errata applies **only** to imprint 1 of the book by Adrian A. Hopgood.

Page 54

Equation 3.14 should read:

$$D = \frac{P(\sim E|H)}{P(\sim E|\sim H)} = \frac{1-P(E|H)}{1-P(E|\sim H)} \quad (3.14)$$

Page 58

Equation 3.22 should read:

$$D_i = \frac{P(\sim E_i|H)}{P(\sim E_i|\sim H)} \quad (3.22)$$

Page 79

Rule 3.12f should be revised to ensure consistency with Figure 3.9:

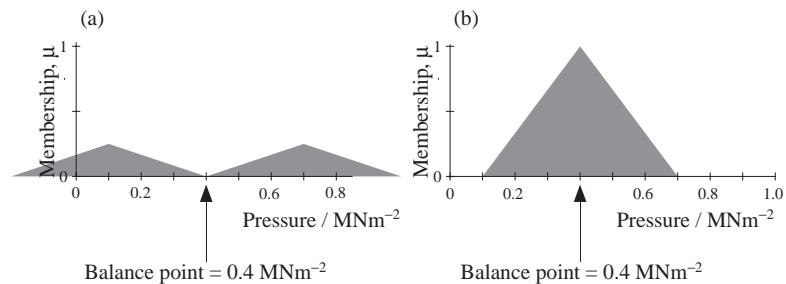
```
/* Rule 3.12f */
IF temperature is low DOR temperature is medium
THEN pressure is lowish
```

and Equation 3.37 should therefore become:

$$\mu_{LT \text{ DOR } MT}(x) = \min[1, \mu_{LT}(x) + \mu_{MT}(x)] \quad (3.37)$$

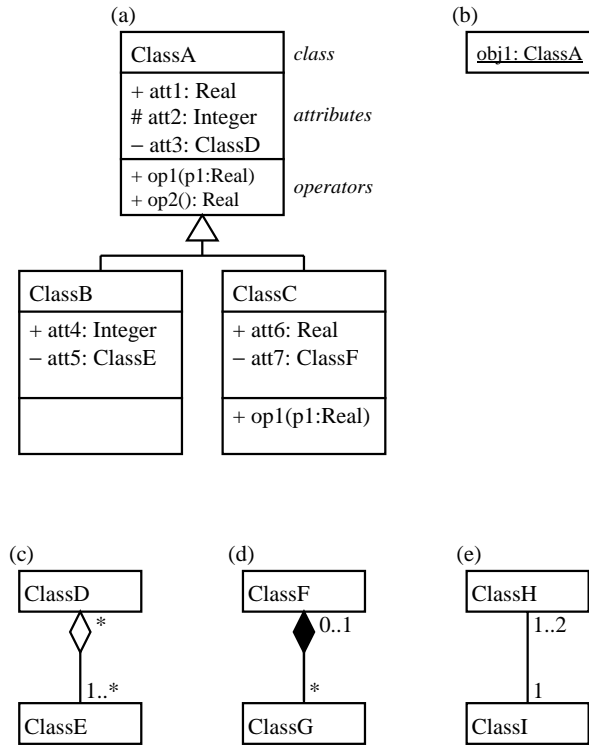
Page 84

Figure 3.14(a) should be revised to show the correct position of the label '0.6':



Page 111

In Figure 4.13, Class C should include att6 instead of att1. The revised version of Figure 4.13 is shown below:



Page 171

The label on the vertical axis of Figure 7.2(a) should read:

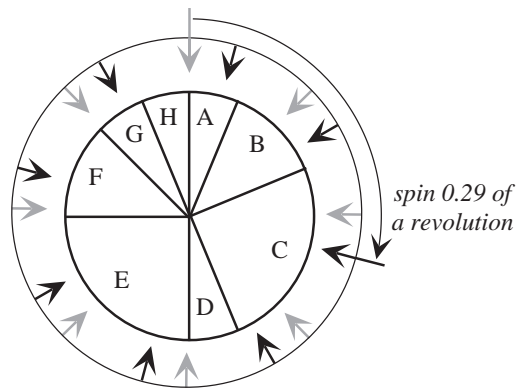
$$P = 1 \text{ if } \Delta E < 0, \text{ else } P = \exp(-\Delta E / T)$$

Page 174

In the first paragraph of the *Chromosomes* sub-section, the range of the integer variables x and y should be 0–15, not 1–16.

Page 180

Figure 7.6 should be redrawn so that the number of pointers is equal to the number of individuals in the population:



Page 198

The opening paragraph of Section 8.2.4 should read as follows:

The use of a neural network as a content-addressable memory is a form of supervised learning. During training, each example input vector becomes stored in a dispersed form through the network. There are no separate desired output vectors associated with the training data, as the training data represent both the inputs and the desired outputs.

Page 199

In Figure 8.1, the labels w_n and w_{n-1} should be reversed.

Page 205

The book implies that the *generalized delta rule* describes one part of the algorithm shown in Figure 8.7, whereas it is normally taken to refer to the whole algorithm.

Page 213

Equation 8.10 should read:

$$w_{ij} = \begin{cases} -\varepsilon & \text{where } \varepsilon < \frac{1}{N_n} \quad \text{if } i \neq j \\ 1 & \text{if } i = j \end{cases} \quad (8.10)$$

Page 215

The definition of closeness in Fig 8.14 should show the letter j under both Σ symbols:

$$closeness := \frac{\sum_j t_{kj} x_j}{\sum_j |x_j|}$$

Page 337

Equation 12.5 should show the first c as a subscript:

$$t_c \geq \frac{3fF}{2b\tau_c} \quad (12.5)$$