

$$\begin{bmatrix} 0.73 & 0.21 & 1 \\ 1.2 & 1.7 & 1 \\ 2.07 & 3.7 & 0 \\ 2.33 & 2.7 & 0 \end{bmatrix} \quad \vec{w} = [-0.23, -1.87]$$

$$\alpha = 0.91$$

$$\theta = 1.31$$

$$n = (-0.23 \times 0.73) + (-1.87 \times 0.21) + 1.31$$

$$n = 0.7494 \quad f(0.7494) = 1$$

$$e = 1 - 1 = 0$$

$$n = (-0.23 \times 1.2) + (-1.87 \times 1.7) + 1.31$$

$$n = -2.145 \quad f(-2.145) = 0$$

$$e = 1 - 0 = 1$$

$$w(t+1) = [-0.23, -1.87] + 0.91 \times 1 \times [1.2, 1.7]$$

$$w(t+1) = [0.862, -0.323] \quad \theta(t+1) = 1.31 + 0.91 \times 1 = 2.22$$

$$n = (0.862 \times 1.2) + (-0.323 \times 1.7) + 2.22$$

$$n = 2.7053 \quad f(2.7053) = 1$$

$$e = 1 - 1 = 0$$

$$n = (0.862 \times 0.73) + (-0.323 \times 0.21) + 2.22$$

$$n = 2.78143 \quad f(2.78143) = 1$$

$$e = 1 - 1 = 0$$

$$n = (0.862 \times 2.07) + (-0.323 \times 3.7) + 2.22$$

$$n = 2.80924 \quad f(2.80924) = 1$$

$$e = 0 - 1 = -1$$



$$w(t+1) = [0.862, -0.323] + 0.51 \times -1 \times [2.07, 3.7]$$

$$w(t+1) = [-1.0217, -3.69]$$

$$\theta(t+1) = 2.22 + 0.51(-1) = 1.31$$

$$n = (-1.0217 \times 2.07) + (-3.69 \times 3.7) + 1.31$$

$$n = -14.45 \quad f(-14.45) = 0$$

$$e = 0 - 0 = 0$$

$$n = (-1.0217 \times 2.33) + (-3.69 \times 2.7) + 1.31$$

$$n = -11.03 \quad f(-11.03) = 0$$

$$e = 0 - 0 = 0$$

$$n = (-1.0217 \times 0.73) + (-3.69 \times 0.21) + 1.31$$

$$n = -0.21 \quad f(-0.21) = 0$$

$$e = 1 - 0 = 1$$

$$w(t+2) = [-1.0217, -3.69] + 0.51 \times 1 \times [0.73, 0.21]$$

$$w(t+2) = [-0.3574, -3.4989] \quad \theta(t+2) = 1.31 + 0.51 \times 1 = 2.22$$

$$n = (-0.3574 \times 0.73) + (-3.4989 \times 0.21) + 2.22$$

$$n = 1.22 \quad f(1.22) = 1$$

$$e = 1 - 1 = 0$$

$$n = (-0.3574 \times 1.2) + (-3.4989 \times 1.7) + 2.22$$

$$n = -4.75 \quad f(-4.75) = 0$$

$$e = 1 - 0 = 1$$

$$w(t+3) = [-0.3574, -3.4989] + 0.51 \times 1 \times [1.2, 1.7]$$

$$w(t+3) = [0.7346, -1.5513] \quad \theta(t+3) = 2.22 + 0.51 \times 1 = 3.53$$



$$\eta = (0.7346 \times 1.2) + (-1.9519 \times 1.7) + 3.73$$

$$\eta = 0.69 \quad f(0.69) = 1$$

$$e = 1 - 1 = 0$$

$$\eta = (0.7346 \times 2.07) + (-1.9519 \times 3.7) + 3.73$$

$$\eta = -2.52 \quad f(-2.52) = 0$$

$$e = 0 - 0 = 0$$

$$\eta = (0.7346 \times 2.33) + (-1.9519 \times 2.7) + 3.73$$

$$\eta = -0.42 \quad f(-0.42) = 0$$

$$e = 0 - 0 = 0$$

$$w_1 x_1 + w_2 x_2 + \theta = 0$$

$$x_1 = \frac{-3.73}{0.7346} = -4.26$$

$$x_2 = \frac{3.73}{1.9519} = 1.60$$

