Errata de la 2ème édition de "Commande des procédés"

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Page 38:

$$\begin{array}{l}\delta(t)=0 \qquad \forall t\neq 0\\ \delta(0)=+\infty\\ \int_{-\infty}^{+\infty}\delta(t)dt=1\end{array}$$

$$\int_{-\infty}^{+\infty} f(t)\delta(t-t_0)dt=f(t_0)$$

Equation (8.48)

$$\lambda_{ij}=\frac{\left(\frac{\partial Y_i}{\partial U_j}\right)_{U_k=0,k\neq j}}{\left(\frac{\partial Y_i}{\partial U_j}\right)_{Y_l=0,l\neq i}}$$

Equation (9.232)

$$\dot{x}(t)\approx\frac{x(t+T_e)-x(t)}{T_e}$$

Equation (13.78)

$$\begin{array}{ll}S(q) & =q-1\\ R(q) & =K\left[q-1+\frac{T_e}{\tau_I}\right]\\ T(q) & =R(q)\end{array}$$

Equation (14.158)

$$\frac{d(t_c+\sqrt{2|A|-t_c^2})}{dt_c}=0\Longrightarrow t_c=\sqrt{|A|}$$

Equation (15.30)

$$\begin{array}{ll}\hat{y}(t+1)= & 1,97y(t)-0,97y(t-1)+1,2\Delta u(t)+0,58\Delta u(t-1)\\ \hat{y}(t+2)= & 2,9109y(t)-1,9109y(t-1)\\ & +1,2\Delta u(t+1)+2,944\Delta u(t)+1,1426\Delta u(t-1)\\ \hat{y}(t+3)= & 3,8236y(t)-2,8236y(t-1)\\ & +1,2\Delta u(t+2)+2,944\Delta u(t+1)+4,6357\Delta u(t)+1,6883\Delta u(t-1)\end{array}$$

Equation (15.32)

$$\begin{array}{l}\hat{y}(t+1|t)=0,58\Delta u(t-1)+1,97y(t)-0,97y(t-1)\\ \hat{y}(t+2|t)=1,1426\Delta u(t-1)+2,9109y(t)-1,9109y(t-1)\\ \hat{y}(t+3|t)=1,6883\Delta u(t-1)+3,8236y(t)-2,8236y(t-1)\end{array}$$

Equation (15.35)

$$\begin{aligned}\Delta u(t) &= 0,5181[r(t+1)-\hat{y}(t+1|t)]+0,1823[r(t+2)-\hat{y}(t+2|t)] \\ &\quad -0,0435[r(t+3)-\hat{y}(t+3|t)] \\ &= -0,4354\Delta u(t-1)-1,385y(t)+0,7281y(t-1) \\ &\quad +0,5181r(t+1)+0,1823r(t+2)-0,0435r(t+3)\end{aligned}$$

Equation (17.147)

$$u = \frac{v - L_f^r h(x) - \beta_1 L_f^{r-1} h(x) - \ldots - \beta_{r-1} L_f h(x) - \beta_r h(x)}{L_g L_f^{r-1} h(x)}$$

Equation (17.150)

$$v(t) = K_c \left[y_{\text{ref}}(t) - y(t) + \frac{1}{\tau_i} \int_0^t (y_{\text{ref}}(\tau) - y(\tau))\, d\tau \right]$$

Page 642: lire ”échangeur de chaleur froid (température T_f)”.