

## 正 誤 表

書 名：永久磁石同期モータのベクトル制御

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刷	頁	箇所	誤	正
1	24	(2.23) 式	$S = [\mathbf{u}_{1c} \ \mathbf{u}_{1s}]$	$S_2 = [\mathbf{u}_{1c} \ \mathbf{u}_{1s}]$
1	24	(2.24) 式	$S = [\mathbf{u}_{1c} \ \mathbf{u}_{1s} \ \mathbf{u}_{3c} \ \mathbf{u}_{3s}]$	$S_4 = [\mathbf{u}_{1c} \ \mathbf{u}_{1s} \ \mathbf{u}_{3c} \ \mathbf{u}_{3s}]$
1	25	(2.25) 式	$S = [\mathbf{u}_{1c} \ \mathbf{u}_{1s} \ \mathbf{u}_{3c} \ \mathbf{u}_{3s} \ \mathbf{u}_{5c} \ \mathbf{u}_{5s}]$	$S_6 = [\mathbf{u}_{1c} \ \mathbf{u}_{1s} \ \mathbf{u}_{3c} \ \mathbf{u}_{3s} \ \mathbf{u}_{5c} \ \mathbf{u}_{5s}]$
1, 2	54	(2.115)式	$\tau = N_p i_{1r}^T \mathbf{J} \boldsymbol{\phi}_{rm} = N_p \Phi i_q$	$\tau = N_p i_{1r}^T \mathbf{J} \boldsymbol{\phi}_{mr} = N_p \Phi i_q$
1, 2	60	(2.133)式	$\mathbf{D}(s, \omega_\gamma) \mathbf{i}_1 = \begin{bmatrix} L_i \mathbf{I} - L_m \mathbf{Q}(\theta_\gamma) \\ L_i^2 - L_m^2 \end{bmatrix} [-R_1 \mathbf{I} + 2\omega_{2n} L_m \mathbf{J}] \mathbf{i}_1$ $+ \begin{bmatrix} L_i \mathbf{I} - L_m \mathbf{Q}(\theta_\gamma) \\ L_i^2 - L_m^2 \end{bmatrix} [-\omega_{2n} \mathbf{J} \boldsymbol{\phi}_m + \mathbf{v}_1]$ <p style="text-align: right;">(2.133)</p>	$\mathbf{D}(s, \omega_\gamma) \boldsymbol{\phi}_i = [L_i \mathbf{I} + L_m \mathbf{Q}(\theta_\gamma)] \mathbf{D}(s, \omega_\gamma) \mathbf{i}_1$ $- 2\omega_{2n} L_m \mathbf{Q}(\theta_\gamma) \mathbf{J} \mathbf{i}_1$ <p style="text-align: right;">(2.133a)</p> $\mathbf{D}(s, \omega_\gamma) \mathbf{i}_1 = \begin{bmatrix} L_i \mathbf{I} - L_m \mathbf{Q}(\theta_\gamma) \\ L_i^2 - L_m^2 \end{bmatrix} [-R_1 \mathbf{I}$ $+ 2\omega_{2n} L_m \mathbf{Q}(\theta_\gamma) \mathbf{J}] \mathbf{i}_1$ $+ \begin{bmatrix} L_i \mathbf{I} - L_m \mathbf{Q}(\theta_\gamma) \\ L_i^2 - L_m^2 \end{bmatrix} [-\omega_{2n} \mathbf{J} \boldsymbol{\phi}_m + \mathbf{v}_1]$ <p style="text-align: right;">(2.133b)</p>
1	69	(2.155)式	$\boldsymbol{\phi}_t = \Phi_t [\cos \theta_\alpha$	$\boldsymbol{\phi}_{mt} = \Phi_t [\cos \theta_\alpha$
1	102	(4.40)式 上式	誤	$\mathbf{R}^T(\theta_\alpha) \mathbf{S}^T$ $= \sqrt{\frac{2}{3}} \begin{bmatrix} \cos \theta_\alpha & \cos\left(\theta_\alpha - \frac{2\pi}{3}\right) & \cos\left(\theta_\alpha + \frac{2\pi}{3}\right) \\ -\sin \theta_\alpha & -\sin\left(\theta_\alpha + \frac{2\pi}{3}\right) & -\sin\left(\theta_\alpha - \frac{2\pi}{3}\right) \end{bmatrix}$
			正	$\mathbf{R}^T(\theta_\alpha) \mathbf{S}^T$ $= \sqrt{\frac{2}{3}} \begin{bmatrix} \cos \theta_\alpha & \cos\left(\theta_\alpha - \frac{2\pi}{3}\right) & \cos\left(\theta_\alpha + \frac{2\pi}{3}\right) \\ -\sin \theta_\alpha & -\sin\left(\theta_\alpha - \frac{2\pi}{3}\right) & -\sin\left(\theta_\alpha + \frac{2\pi}{3}\right) \end{bmatrix}$
1	128	(5.13a)式	$\frac{\partial}{\partial \mathbf{x}} L(\mathbf{x}, \boldsymbol{\lambda}) = \mathbf{0}$	$\frac{\partial}{\partial \mathbf{x}} L(\mathbf{x}, \boldsymbol{\lambda}) = \mathbf{0}$ <p>補足：0 をボードに修正</p>
1	128	(5.13b)式	$\frac{\partial}{\partial \mathbf{x}} L(\mathbf{x}, \boldsymbol{\lambda}) = \begin{bmatrix} f_2(x_1, x_2, \dots, x_n) \\ f_3(x_1, x_2, \dots, x_n) \\ \vdots \\ f_m(x_1, x_2, \dots, x_n) \end{bmatrix} = \mathbf{0}$	$\frac{\partial}{\partial \mathbf{x}} L(\mathbf{x}, \boldsymbol{\lambda}) = \begin{bmatrix} f_2(x_1, x_2, \dots, x_n) \\ f_3(x_1, x_2, \dots, x_n) \\ \vdots \\ f_m(x_1, x_2, \dots, x_n) \end{bmatrix} = \mathbf{0}$ <p>補足：0 をボードに修正</p>

1, 2	185	(6.24a)式	$\mathbf{D}(s, \omega_\gamma) \mathbf{i}_L = \left[ \frac{L_i \mathbf{I} - L_m \mathbf{Q}(\theta_\gamma)}{L_i^2 - L_m^2} \right] \left[ -\frac{R_1 R_c}{R_1 + R_c} \mathbf{I} + 2\omega_{2n} L_m \mathbf{J} \right] \mathbf{i}_L$ $+ \left[ \frac{L_i \mathbf{I} - L_m \mathbf{Q}(\theta_\gamma)}{L_i^2 - L_m^2} \right] \left[ -\omega_{2n} \mathbf{J} \boldsymbol{\phi}_m + \frac{R_c}{R_1 + R_c} \mathbf{v}_1 \right]$	$\mathbf{D}(s, \omega_\gamma) \mathbf{i}_L = \left[ \frac{L_i \mathbf{I} - L_m \mathbf{Q}(\theta_\gamma)}{L_i^2 - L_m^2} \right] \left[ -\frac{R_1 R_c}{R_1 + R_c} \mathbf{I} \right. \\ \left. + 2\omega_{2n} L_m \mathbf{Q}(\theta_\gamma) \mathbf{J} \right] \mathbf{i}_L$ $+ \left[ \frac{L_i \mathbf{I} - L_m \mathbf{Q}(\theta_\gamma)}{L_i^2 - L_m^2} \right] \left[ -\omega_{2n} \mathbf{J} \boldsymbol{\phi}_m + \frac{R_c}{R_1 + R_c} \mathbf{v}_1 \right]$
1, 2	211	(6.69a)式	$\ \mathbf{i}_1\ ^2 = \left( i_{Ld} - \frac{\omega_{2n} L_q i_{Lq}}{R_c} \right)^2 + \left( i_{Lq} + \frac{\omega_{2n} (L_d i_{Ld} + \Phi)}{R_c} \right)^2$	$\ \mathbf{i}_1\ ^2 = \left( i_{Ld} - \frac{\omega_{2n} L_q i_{Lq}}{R_c} \right)^2 + \left( i_{Lq} + \frac{\omega_{2n} (L_d i_{Ld} + \Phi)}{R_c} \right)^2$

以上