$$\begin{cases} \dfrac{d}{dt}\hat{\vec{x}} = \mathbf{A}\,\hat{\vec{x}} + \mathbf{B}\,\tau_m + \mathbf{L}\left(\omega_m - \hat{\omega}_m\right) \\ \hat{y} = \mathbf{C}\,\hat{\vec{x}} = \hat{\omega}_m \end{cases}$$