

Substitusi Pers. (4) $\rightarrow$ (1)

$$(1) e_a(t) - K_b \omega(t) = R_a i_a(t) + L_a \frac{di_a(t)}{dt}$$

Perubahan
Arus (*) $\Rightarrow \frac{di_a(t)}{dt} = \frac{1}{L_a} (e_a(t) - R_a i_a(t) - K_b \omega(t))$

Substitusi Pers (3) $\rightarrow$ (2)

$$(2) K_m i_a(t) = J \frac{d\omega(t)}{dt} + B \omega(t) \quad (**)$$

Perubahan
Kecepatan $\Rightarrow \frac{d\omega(t)}{dt} = \frac{1}{J} (K_m i_a(t) - B \omega(t))$

* Kondisi STATIK (tidak ada perubahan)

$$\frac{di_a(t)}{dt} = 0, \frac{d\omega(t)}{dt} = 0 \rightarrow L_a \text{ dan } J \text{ tidak berpengaruh}$$