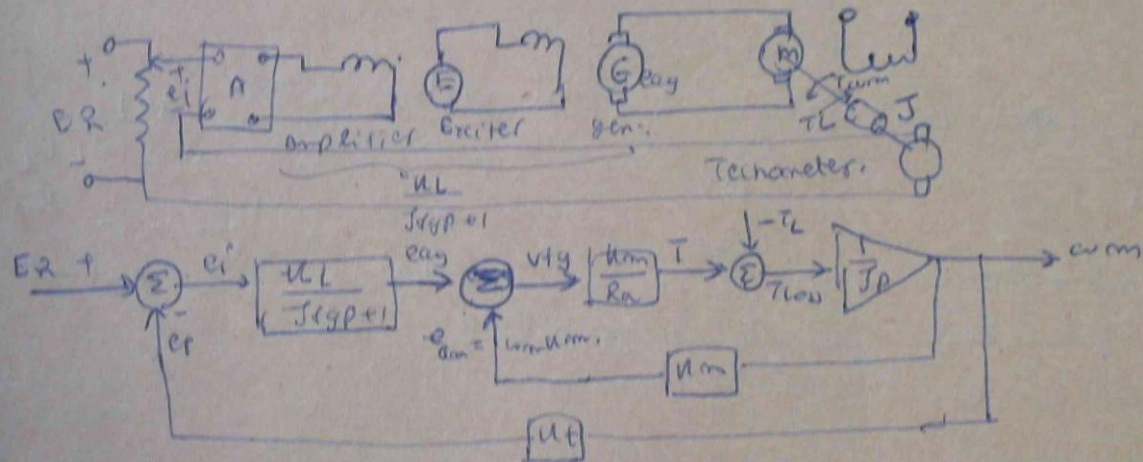


Elementary motor speed regulator

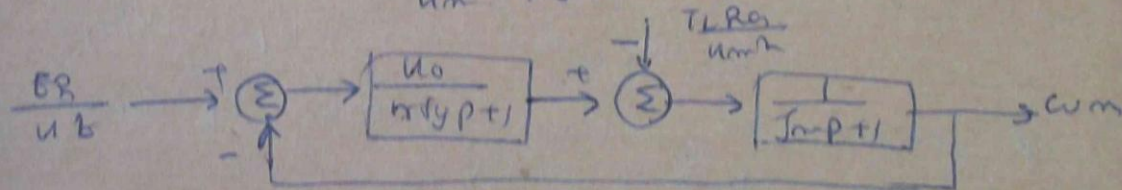
Elementary motor speed Regulator

Feed back control is an closed loop system w/ motor speed regulation of motor w/ generator & motor shaft f. coupled w/ an tachometer generator & a ref. volt. f. compare & a diff. amplifier & an amplifier. The output of the amplifier is fed back to the motor & the generator.

Block diagram: A reference voltage is compared with the feedback voltage from a tachometer generator. The error signal is amplified and fed back to the motor.



$u \cdot 0 = 0$
 $\frac{u \cdot u}{u \cdot m}$



$$T_L = 0 \Rightarrow \frac{L_{\text{max}}}{ER} = \frac{u_0}{u_f} \times \frac{1}{\sqrt{1 + \frac{J_{\text{max}}}{J_{\text{min}}} \rho^2 + (J_{\text{fg}} + J_{\text{m}}) \rho + 1 + u_0}}$$

$$E_2 = 0 \Rightarrow \frac{V_{om}}{T_L} = - \frac{R_a}{K_m^2} \cdot \frac{J_{yp} + 1}{J_y J_{mp}^2 + (J_y + J_m) \rho}$$

$$\frac{1}{a^2} G_2 = \int J_1 J_2 p^2 (J_1 + J_2) + (1 + 2n_0)$$