

IV.6      uUV Transfer Function

$$(a) \quad \ddot{\phi} + \frac{b}{J} \dot{\phi} + \frac{mgL}{J} \phi = \frac{1}{J} \tau(t)$$

$$\left( s^2 + \frac{b}{J} s + \frac{mgL}{J} \right) \Phi(s) = \frac{1}{J} T(s)$$

$$(b) \quad \frac{\Phi(s)}{T(s)} = \frac{1/J}{s^2 + \frac{b}{J} s + \frac{mgL}{J}}$$

