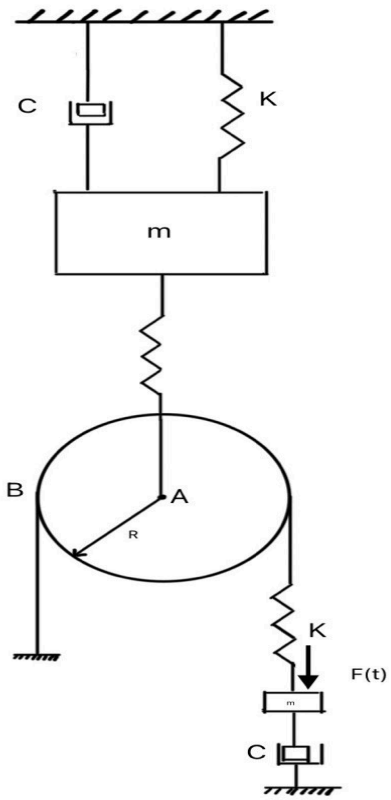

$$\sum F_z = m\alpha_z$$

$$[-c\dot{z} - kz - k(z-y)] = m\ddot{z}$$

$$\sum M_B = I_B\alpha$$

$$[k(z-y)R - k(2y-x)2R] = {}^{3}/_{2}\,(3m)R^2\frac{\ddot{y}}{R}$$

$$\sum F_x = m\alpha_x$$

$$[k(2y-x) + F(t) - c\dot{x}] = m\ddot{x}$$