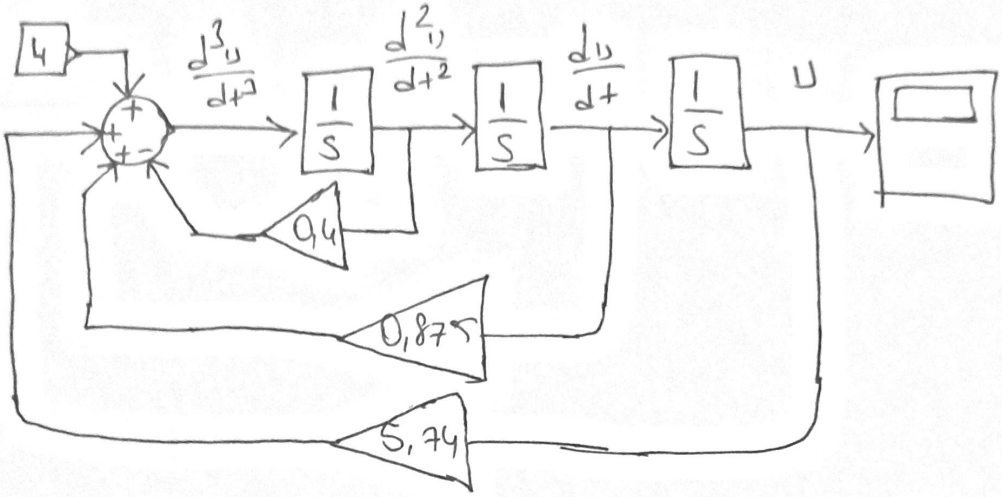
Göktürk LEE

1-) u(2)*u(1)^2 + sqrt(u(2)) + u(1)*u(3)

2-)



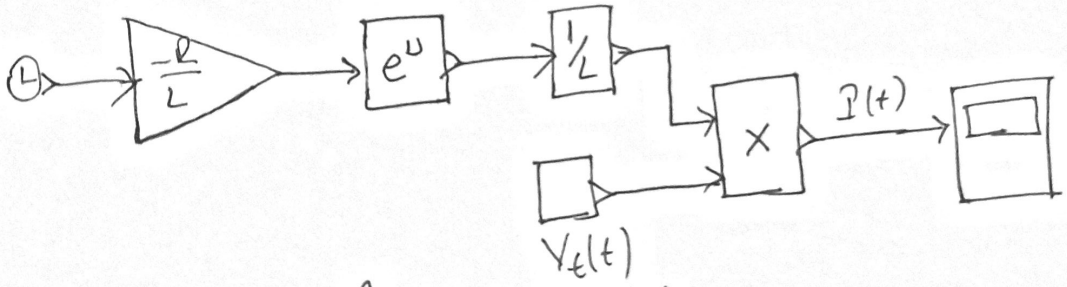
3-) $V_t(t) = V_R(t) + V_L(t)$

$V_t(t) = I(t) \cdot R + L \cdot \frac{dI(t)}{dt}$

$V_t(s) = I(s) \cdot R + L \cdot s \cdot I(s)$

$\frac{I(s)}{V_t(s)} = \frac{1}{Ls+R} = \frac{1}{L}\left(\frac{1}{s+\frac{R}{L}}\right)$

$\frac{I(t)}{V_t(t)} = \frac{1}{L}\left(e^{-R \cdot t/L}\right)$



+ Simulink Model.