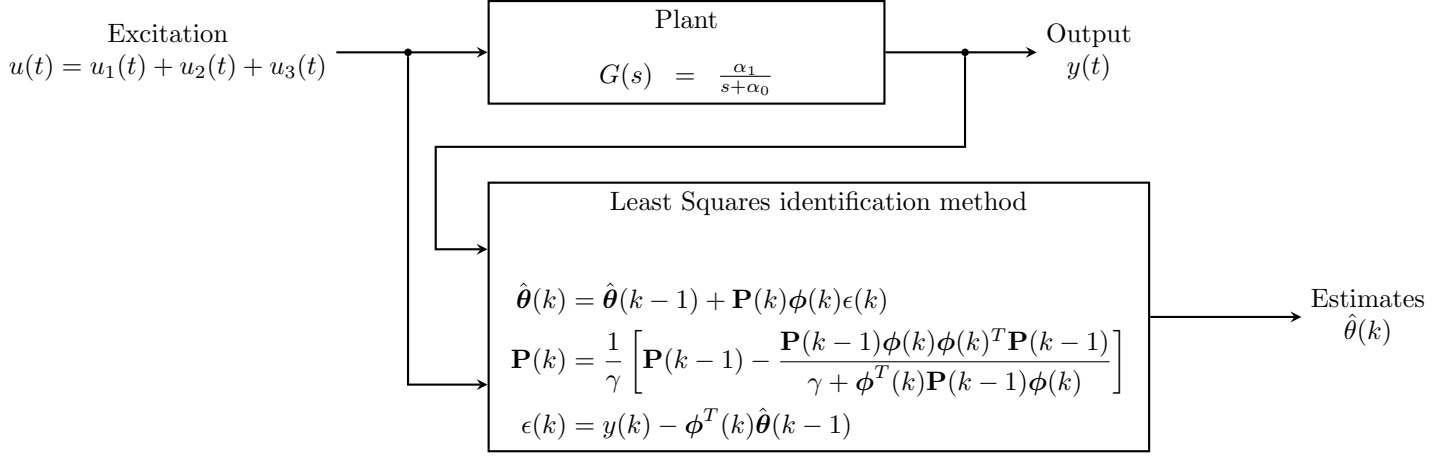

$\mathbf{P}(0) = \mathbf{P_0} = \mathbf{P_0}^\intercal > 0$, $\mathbf{P_0} = \rho \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$, $\boldsymbol{\phi} = \begin{bmatrix} y(k-1) & u(k-1) \end{bmatrix}^\intercal$,
$\boldsymbol{\theta} = \begin{bmatrix} \theta_1 & \theta_2 \end{bmatrix}^\intercal$, $\hat{\boldsymbol{\theta}} = \begin{bmatrix} \hat{\theta}_1 & \hat{\theta}_2 \end{bmatrix}^\intercal$, $\hat{\alpha}_0 = \frac{-\ln \hat{\theta}_1}{T_S}$, $\hat{\alpha}_1 = \frac{\hat{\alpha}_0 \hat{\theta}_2}{1-\hat{\theta}_1}$, and
T_S is sampling time.