



Control law:

$$u(t) = \hat{\gamma}_1(t)r(t) + \hat{\gamma}_2(t)y(t)$$

Adaptation law:

$$\dot{\hat{\gamma}}_1(t) = -\varrho e_m(t)r(t)$$

$$\dot{\hat{\gamma}}_2(t) = -\varrho e_m(t)y(t)$$

where  $e_m = y - y_m$ ,  $\varrho > 0$  is called adaptation gain and  $T_S$  is sampling time.