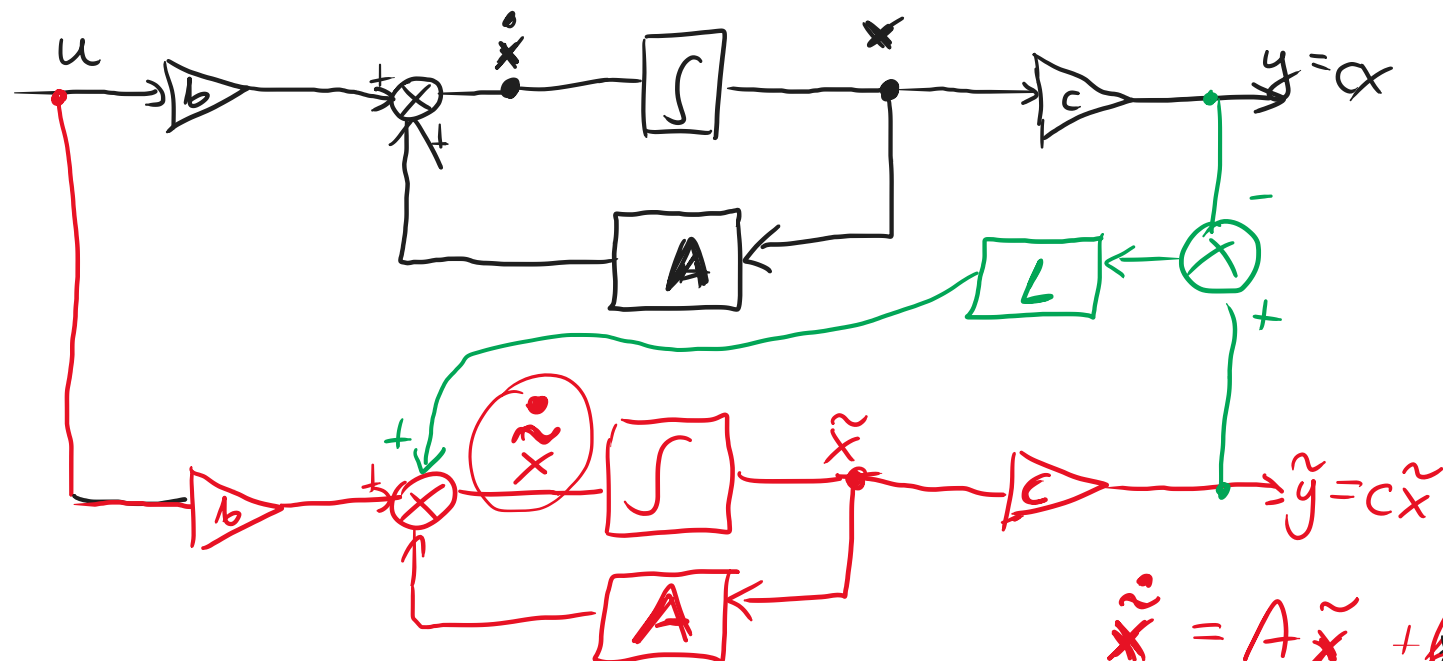


OBSERVATOR STANU LUENBERGERA

A, b, c - znane

$$\dot{\underline{x}} = A\underline{x} + bu$$

$$y = c\underline{x}$$



$$\dot{\tilde{x}} = A\tilde{x} + bu + L(\tilde{y} - y)$$

$$\dot{\tilde{x}} = A\tilde{x} + bu + Lc(\tilde{x} - x)$$

$$\dot{x} = Ax + bu$$

(1)

$$\underbrace{\dot{\tilde{x}} - \dot{x}}_{\dot{e}} = A(\underbrace{\tilde{x} - x}_e) + Lc(\underbrace{\tilde{x} - x}_e)$$

$$\dot{e} = \overbrace{(A + Lc)}^{A_z} \cdot e$$

$$\begin{bmatrix} \dot{e} \\ e \end{bmatrix} = \left(\begin{bmatrix} \nu & \nu \\ \nu & \nu \end{bmatrix} + \begin{bmatrix} ? \\ ? \end{bmatrix} \begin{bmatrix} \nu & \nu \end{bmatrix} \right) \begin{bmatrix} \cdot \\ \cdot \end{bmatrix}$$

II - npd

(2D)

~~$$\dot{\underline{x}} = A\underline{x}$$~~