

Lista 3 - EESEP

1)

Least-Square State Estimator

Estimated States:

$\begin{bmatrix} -0.25040915 \end{bmatrix}$

$\begin{bmatrix} -0.3487617 \end{bmatrix}$

Weighted Least-Square State Estimator

Estimated States:

$\begin{bmatrix} -0.25041929 \end{bmatrix}$

$\begin{bmatrix} -0.34840518 \end{bmatrix}$

2)

a.

Weighted Least-Square State Estimator

Estimated States:

$\begin{bmatrix} 11.49916805 \end{bmatrix}$

$\begin{bmatrix} 5.95008319 \end{bmatrix}$

$\begin{bmatrix} 13.55074875 \end{bmatrix}$

b.

Weighted Least-Square State Estimator

Estimated States:

$\begin{bmatrix} 11.55437746 \end{bmatrix}$

$\begin{bmatrix} 6.19249814 \end{bmatrix}$

$\begin{bmatrix} 13.25312439 \end{bmatrix}$

c.

Residue:

$\begin{bmatrix} -1.61879317 \end{bmatrix}$

$\begin{bmatrix} 4.61879317 \end{bmatrix}$

$\begin{bmatrix} 1.98746933 \end{bmatrix}$

$\begin{bmatrix} -0.98746933 \end{bmatrix}$

$\begin{bmatrix} -11.39373751 \end{bmatrix}$

$\begin{bmatrix} 9.39373751 \end{bmatrix}$

$\begin{bmatrix} -0.55437746 \end{bmatrix}$

$\begin{bmatrix} -0.19249814 \end{bmatrix}$

$\begin{bmatrix} 0.74687561 \end{bmatrix}$

3)

$p(z < -2.00) = 2.2750\%$

$p(-4.20 < z < -2.00) = 2.2737\%$