

$$\begin{pmatrix} C & 0 & 0 & 0 & 0 \\ 0 & L & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \end{pmatrix} \cdot \frac{\mathrm{d}}{\mathrm{d}t} \begin{pmatrix} u_C \\ i \\ u_R \\ u_L \\ u_2 \end{pmatrix} = \begin{pmatrix} 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & -R & 1 & 0 & 0 \\ 1 & 0 & 1 & 1 & 0 \\ 1 & 0 & 1 & 0 & -1 \end{pmatrix} \begin{pmatrix} u_C \\ i \\ u_R \\ u_L \\ u_2 \end{pmatrix} + \begin{pmatrix} 0 \\ 0 \\ 0 \\ -1 \\ 0 \end{pmatrix} u_1$$

$$y(t) = \begin{pmatrix} 1 & 0 & 1 & 0 & 0 \end{pmatrix} \begin{pmatrix} u_C \\ i \\ u_R \\ u_L \\ u_2 \end{pmatrix}$$

$$\overrightarrow{z_0} = \overrightarrow{0}$$