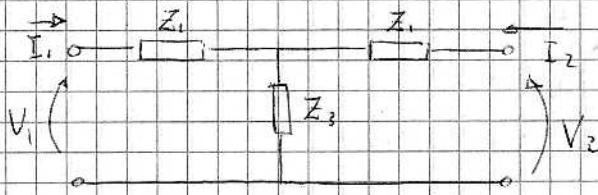


MATRICE DI IMPEDENZE E RETE EQUIVALENTE A "T"

1) Dalla rete alla matrice



$$\triangleright \bar{Z}_{11} = \left. \frac{V_1}{I_1} \right|_{I_2=0} \quad V_1 = (Z_1 + Z_3) I_1 \Rightarrow Z_{11} = Z_1 + Z_3$$

$$\triangleright \bar{Z}_{21} = \left. \frac{V_2}{I_1} \right|_{I_2=0} \quad V_2 = Z_3 \cdot I_1 \Rightarrow Z_{21} = Z_3$$

$$\triangleright Z_{12} = Z_{21} \text{ (reciprocità)}$$

$$\triangleright Z_{11} = Z_{22} \text{ (simmetria)}$$

$$\begin{vmatrix} Z_1 + Z_3 & Z_3 \\ Z_3 & Z_1 + Z_3 \end{vmatrix} = |Z|$$

2) Dalla matrice alla rete

$$\begin{cases} Z_{11} = Z_1 + Z_3 \\ Z_{12} = Z_3 \end{cases} \Rightarrow \begin{cases} Z_1 = Z_{11} - Z_{12} \\ Z_3 = Z_{12} \end{cases}$$

