tu je ⊖ jer je Δt sa gornje strane a M dijagram sa donje.

$$\delta_{it}^{*} = EI_c \cdot \int \left(M_i \alpha t \cdot \frac{\Delta t^{\circ}}{h} + N_i \alpha t t^{\circ} \right) ds = EI_c \cdot \alpha t \cdot \frac{\Delta t}{h} \int M_i ds$$

$$= 10^6 \cdot 10^{-5} \cdot \frac{(-10)}{1} = -100 \cdot \int M_i ds$$

$$\delta_{1t}^{*} = -100 \cdot \int M_1 ds = -100 \cdot \frac{1 \cdot 4}{2} = -200$$

$$\delta_{2t}^{*} = -100 \int M_2 ds = -100 \cdot \frac{1 \cdot 4}{2} \cdot 2 = -400$$

$$\delta_{3t}^{*} = -100 \int M_3 ds = -100 \cdot \frac{1 \cdot 4}{2} \cdot 2 = -400$$

$180^{\circ} = \pi$ rad $\quad 1^{\circ} = \frac{\pi}{180}$ rad

X_1, X_2, X_3 ↓ V

$$\delta_{ic}^{*} = -EI_c \sum C_{j,i} \cdot c_j = -10^6 \cdot \left[C_{u,i} \cdot \frac{0{,}5}{60} \cdot \frac{\pi}{180} + C_{o,i} \cdot \frac{0{,}5}{100} \right]$$

$$\delta_{1c}^{*} = -10^6 \left[1 \cdot \frac{0{,}5}{60} \cdot \frac{\pi}{180} + 0 \cdot 0{,}005 \right] = -145{,}444104$$

$$\delta_{2c}^{*} = -10^6 \left[0 \cdot \frac{0{,}5}{60} \frac{\pi}{180} + \left(\frac{-1}{4}\right) \cdot 0{,}005 \right] = 1250$$

$$\delta_{3c}^{*} = -10^6 \left[0 \cdot \frac{0{,}5}{60} \frac{\pi}{180} + \frac{1}{2} \cdot 0{,}005 \right] = -2500$$

$$D X + \delta\theta = 0 \qquad \delta\theta = (\delta_0 + \delta_c + \delta_t)$$

$$X = -D^{-1} \cdot \delta\theta$$

$$X = -D^{-1}(\delta_0 + \delta_c + \delta_t) = \begin{bmatrix} 660{,}480475 \\ -802{,}794793 \\ 1275{,}698699 \end{bmatrix} = \begin{bmatrix} X_1 \\ X_2 \\ X_3 \end{bmatrix}$$

$$\delta_0 + \delta_c + \delta_t = \begin{bmatrix} \delta_{1c} + \delta_{1t} + \delta_{10} \\ \delta_{20} + \delta_{2c} + \delta_{2t} \\ \delta_{30} + \delta_{3c} + \delta_{3t} \end{bmatrix}$$