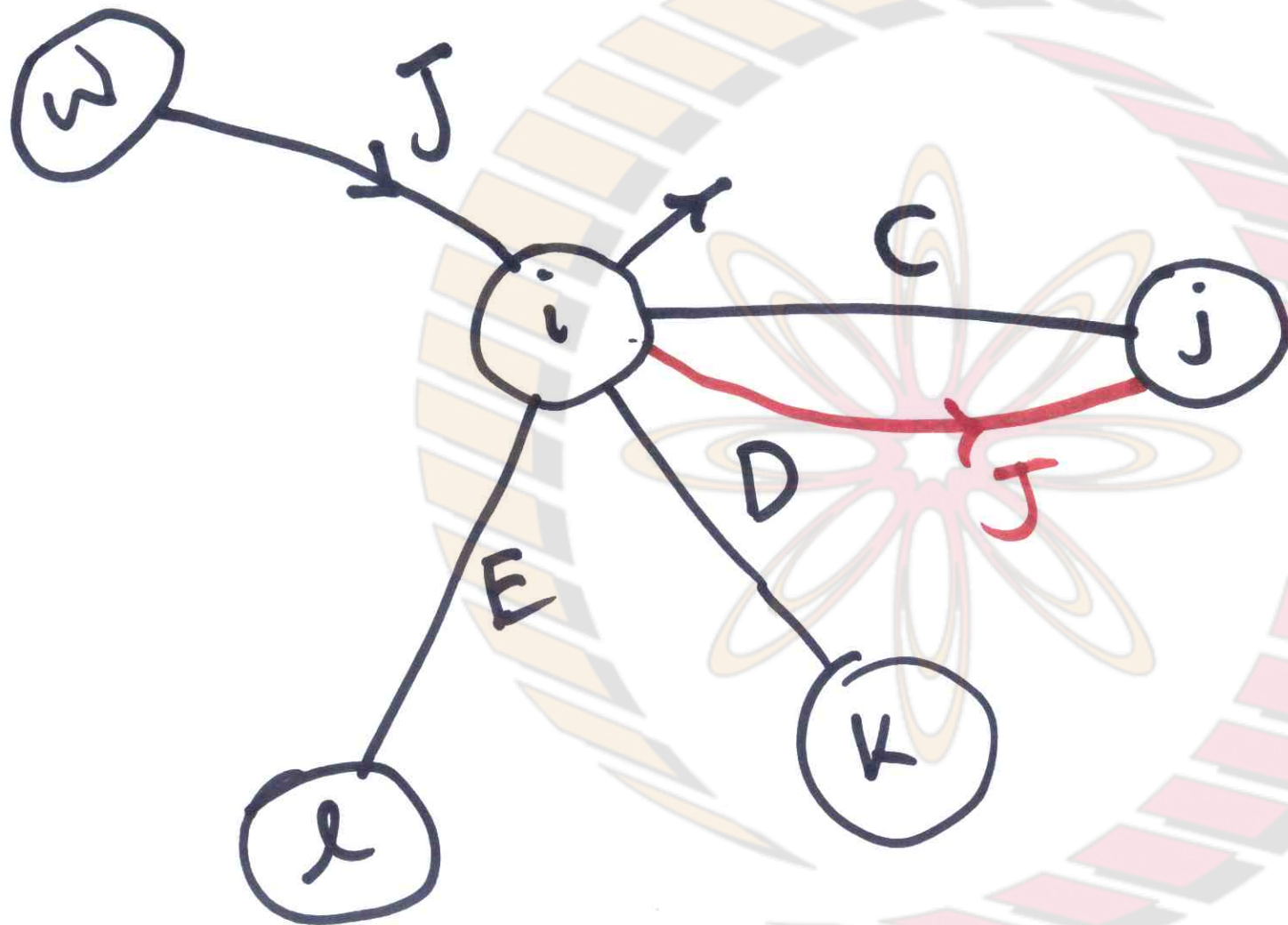




$$A[i][j] = -C$$

$$A[j][i] = -C$$

$$A[i][i] = C + D + E$$

NPTTEL

$0 \dots n-1$

~~n~~

n

$b[n]:$

$b[0]$

$b[n-1]$

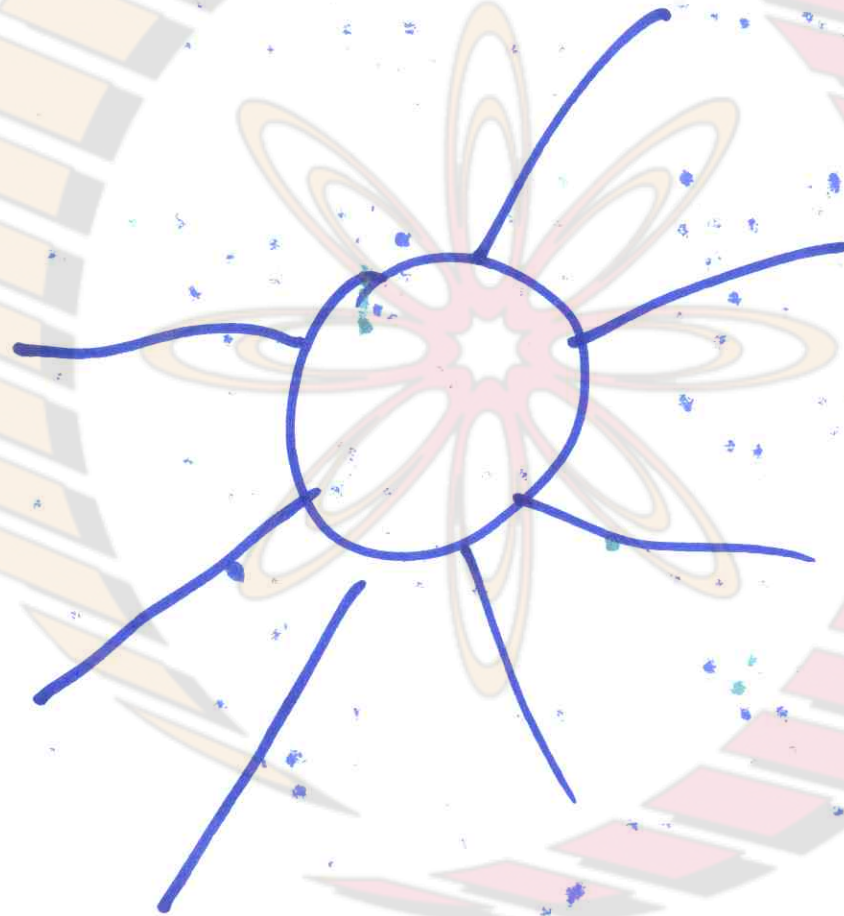
$b[n]$

NPTTEL



Current from i to j

$$= \sum_j G_{ij} (x[i] - x[j])$$



NPTTEL

$$a_{11}x_1 + a_{12}x_2 + a_{13}x_3 \dots = b_1$$

$$a_{21}x_1 + a_{22}x_2 + a_{23}x_3 \dots = b_2$$

$$a_{k1}x_1 + a_{k2}x_2 \dots a_{kk}x_k \dots = b_k$$

$$\rightarrow a_{i1}x_1 + a_{i2}x_2 \dots a_{ii}x_i = b_i$$

NPTEL

$$\begin{aligned}
 & a_{11}x_1 + a_{12}x_2 \dots \overbrace{a_{1i}x_i} \dots = b_1 \\
 & a_{21}x_1 + a_{22}x_2 \dots a_{2i}x_i \dots = b_2 \\
 & \vdots \\
 j \rightarrow & a_{j1}x_1 + a_{j2}x_2 \dots \underbrace{a_{ji}x_i} = b_j \\
 & \rightarrow a_{i1}x_1 + a_{i2}x_2 \dots a_{ii}x_i = b_i
 \end{aligned}$$

$$\begin{aligned}
 & \nearrow \frac{a_{ji}}{a_{ii}} \\
 & \searrow a_{ji}x_i
 \end{aligned}$$

$$i \begin{bmatrix} - & 0 \\ 0 & - \end{bmatrix} + \begin{bmatrix} 0 & - \\ - & 0 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} \vdots \\ \vdots \end{bmatrix}$$

NPTTEL