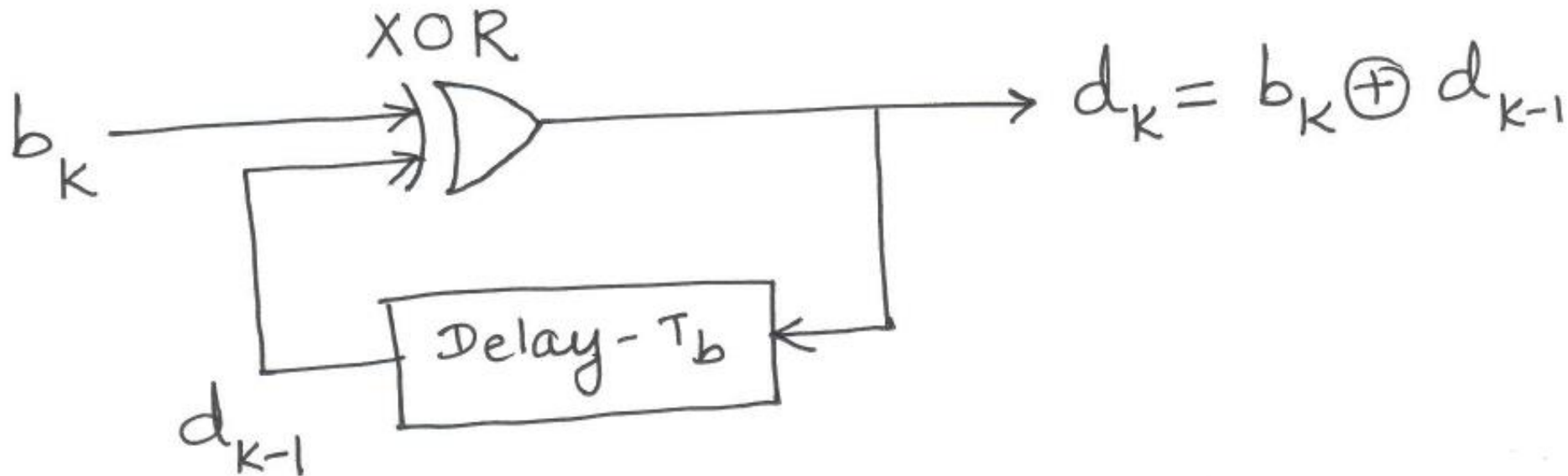


# Differential Encoding

$b_k$		0 ( $b_k$ )	0	1	1	0	1	1	0
$d_k$	1 ( $d_{k-1}$ )	1 ( $d_k$ )	1	0	1	1	0	1	1

$$d_k = b_k \oplus d_{k-1}$$



# Differential Decoding Assuming Correct Reception

$\widehat{d}_k$	1	1	1	0	1	1	0	1	1
$\widehat{b}_k$		0	0	1	1	0	1	1	0

$$\widehat{b}_k = \widehat{d}_k \oplus \widehat{d}_{k-1}$$

# Differential Decoding Assuming Bit Reversal (Polarity Inversion)

$\widehat{d}_k$	0	0	0	1	0	0	1	0	0
$\widehat{b}_k$		0	0	1	1	0	1	1	0

$$\widehat{b}_k = \widehat{d}_k \oplus \widehat{d}_{k-1}$$

