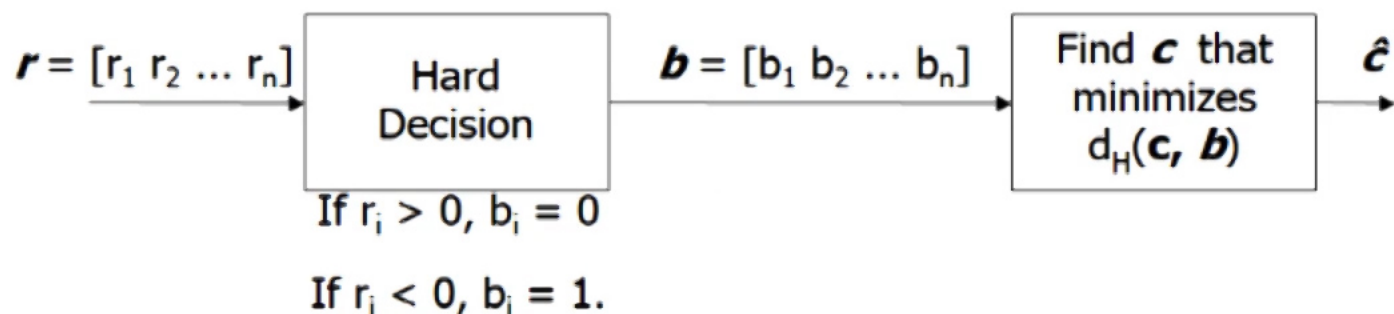




# Example: (7,4) Hamming Code



Message	Codeword
0000	0000000
0001	0001011
0010	0010110
0101	0101100
1011	1011000
0110	0110001
1100	1100010
1000	1000101

Message	Codeword
0100	0100111
1001	1001110
0011	0011101
0111	0111010
1110	1110100
1101	1101001
1010	1010011
1111	1111111

- $\mathbf{b} = [1010101]$ ,  $\hat{\mathbf{c}} = ?$
- $\mathbf{b} = [0110110]$ ,  $\hat{\mathbf{c}} = ?$

$$G = \begin{bmatrix} 1 & 0 & 0 & 0 & 1 & 0 & 1 \\ 0 & 1 & 0 & 0 & 1 & 1 & 1 \\ 0 & 0 & 1 & 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 & 0 & 1 & 1 \end{bmatrix}$$