Convolution Encode

03 Mai, 2016

Kodierer Information

- Nicht-Rekursiver Kodierer
- Anzahl von Ausgängen :

$$N = 2$$

- Anzahl von Registern :

$$M = 2$$

- Generatoren :

$$(7, 5)_8 = \begin{pmatrix} 111 \\ 101 \end{pmatrix}$$

- Kode-Rate:

$$\frac{1}{2}$$

Kodierer Matrix : Nächster Zustand

	Bit 0	Bit 1
Zustand 0	0	2
Zustand 1	0	2
Zustand 2	1	3
Zustand 3	1	3

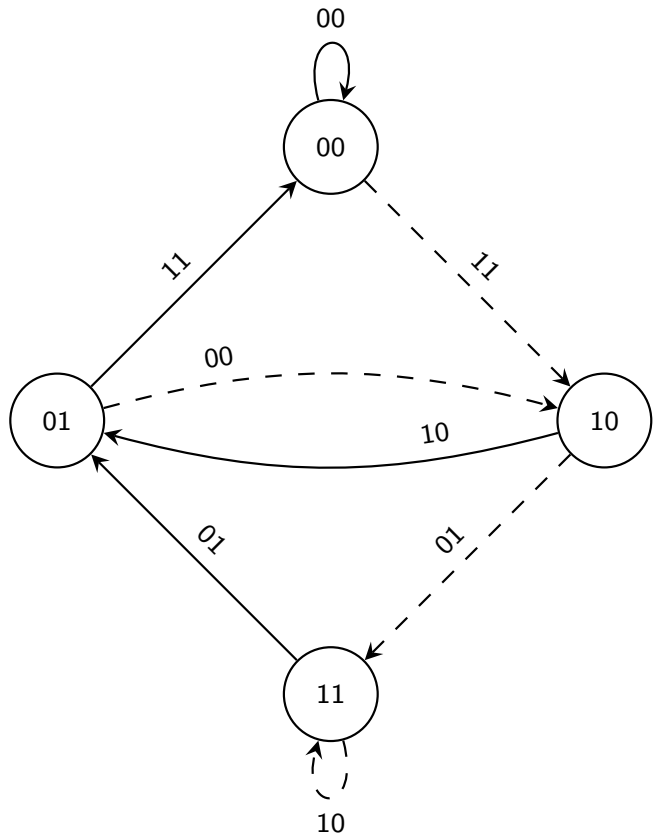
Kodierer Matrix : Ausgangsbits

	Bit 0	Bit 1
Zustand 0	00	11
Zustand 1	11	00
Zustand 2	10	01
Zustand 3	01	10

Convolution Encode

input: (1, 0, 1, 0, 0)

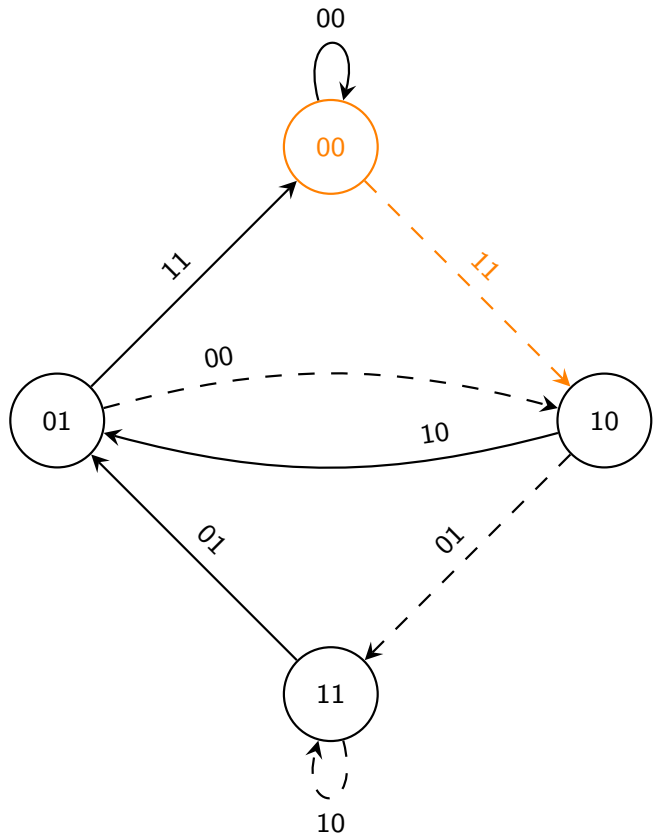
state	input	output	next state



Convolution Encode

input: (1, 0, 1, 0, 0)

state	input	output	next state
00	1	11	10



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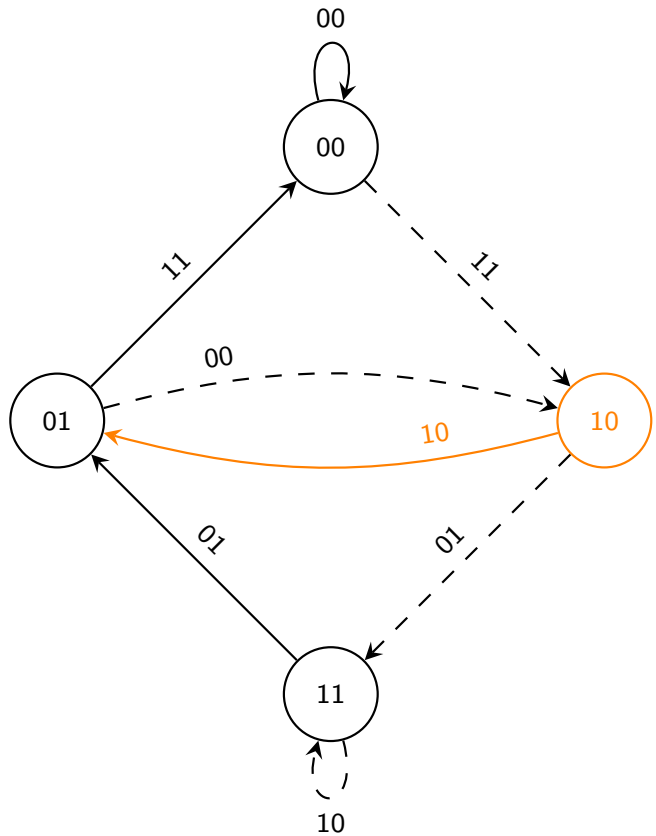
00	1	11	10
10	0	10	01



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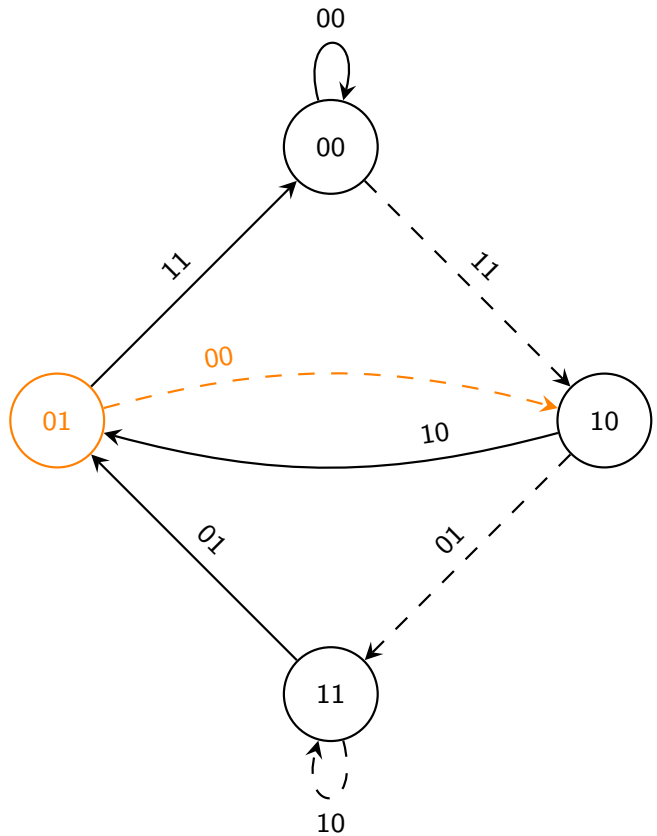
00	1	11	10
10	0	10	01
01	1	00	10



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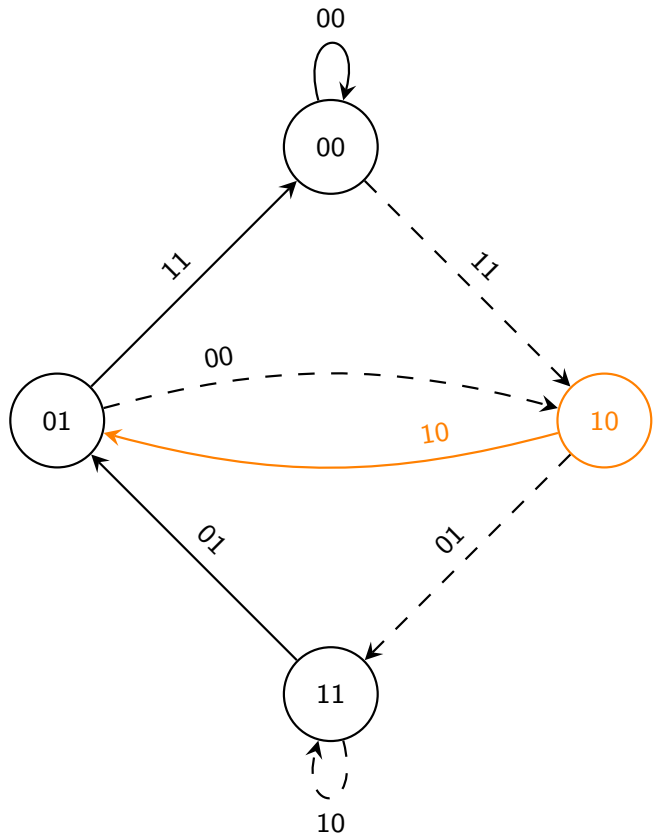
00	1	11	10
10	0	10	01
01	1	00	10
10	0	10	01



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state	input	output	next state
00	1	11	10
10	0	10	01
01	1	00	10
10	0	10	01
01	0	11	00

output: (0, 0, 0, 0, 0, 0, 0, 0, 0, 0)