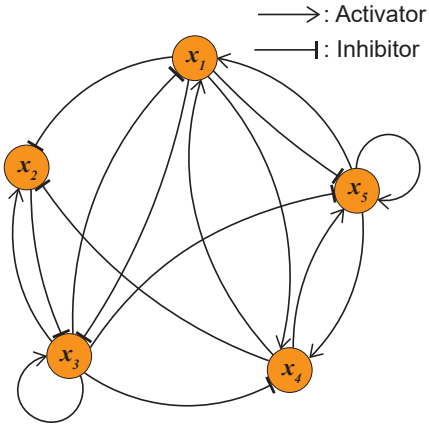
(a) Network Structure



(b) Boolean functions f_i at each node x_i

$$f_1 = \bar{x}_3 \wedge x_4 \wedge x_5$$

$$f_2 = \bar{x}_1 \vee (x_3 \wedge \bar{x}_4)$$

$$f_3 = \bar{x}_1 \wedge (\bar{x}_2 \vee x_3)$$

$$f_4 = x_1 \vee (\bar{x}_3 \wedge x_5)$$

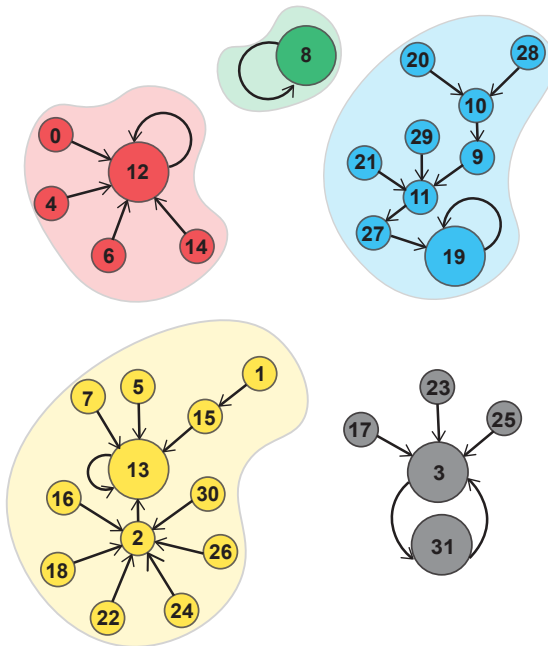
$$f_5 = (\bar{x}_1 \wedge \bar{x}_3 \wedge x_4) \vee x_5$$

(c) State transitions

$\mathbf{X}(t) = (x_1(t), x_2(t), x_3(t), x_4(t), x_5(t))$

$\mathbf{X}(t)$	⟶	$\mathbf{X}(t+1)$
00000 (0)	⟶	01100 (12)
00001 (1)	⟶	01111 (15)
00010 (2)	⟶	01101 (13)
00011 (3)	⟶	11111 (31)
00100 (4)	⟶	01100 (12)
00101 (5)	⟶	01101 (13)
00110 (6)	⟶	01100 (12)
00111 (7)	⟶	01101 (13)
01000 (8)	⟶	01000 (8)
01001 (9)	⟶	01011 (11)
01010 (10)	⟶	01001 (9)
01011 (11)	⟶	11011 (27)
01100 (12)	⟶	01100 (12)
01101 (13)	⟶	01101 (13)
01110 (14)	⟶	01100 (12)
01111 (15)	⟶	01101 (13)
10000 (16)	⟶	00010 (2)
10001 (17)	⟶	00011 (3)
10010 (18)	⟶	00010 (2)
10011 (19)	⟶	10011 (19)
10100 (20)	⟶	01010 (10)
10101 (21)	⟶	01011 (11)
10110 (22)	⟶	00010 (2)
10111 (23)	⟶	00011 (3)
11000 (24)	⟶	00010 (2)
11001 (25)	⟶	00011 (3)
11010 (26)	⟶	00010 (2)
11011 (27)	⟶	10011 (19)
11100 (28)	⟶	01010 (10)
11101 (29)	⟶	01011 (11)
11110 (30)	⟶	00010 (2)
11111 (31)	⟶	00011 (3)

(d) State transition graph



(e) Obtained attractors

	x_1	x_2	x_3	x_4	x_5
Att 1	0	1	0	0	0
Att 2	0	1	1	0	0
Att 3	1	0	0	1	1
Att 4	0	1	1	0	1
Att 5	0	0	0	1	1
	1	1	1	1	1