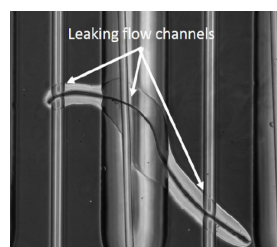
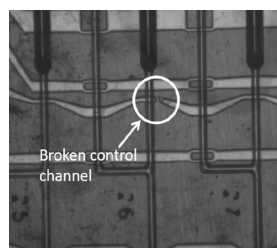


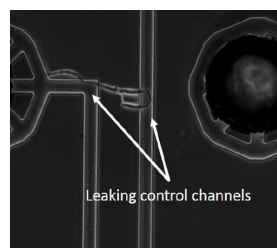
(a)



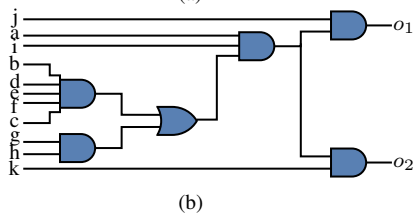
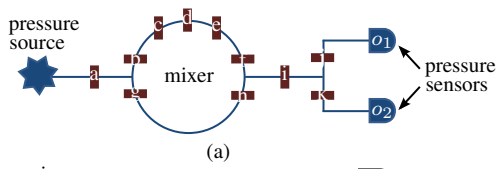
(b)



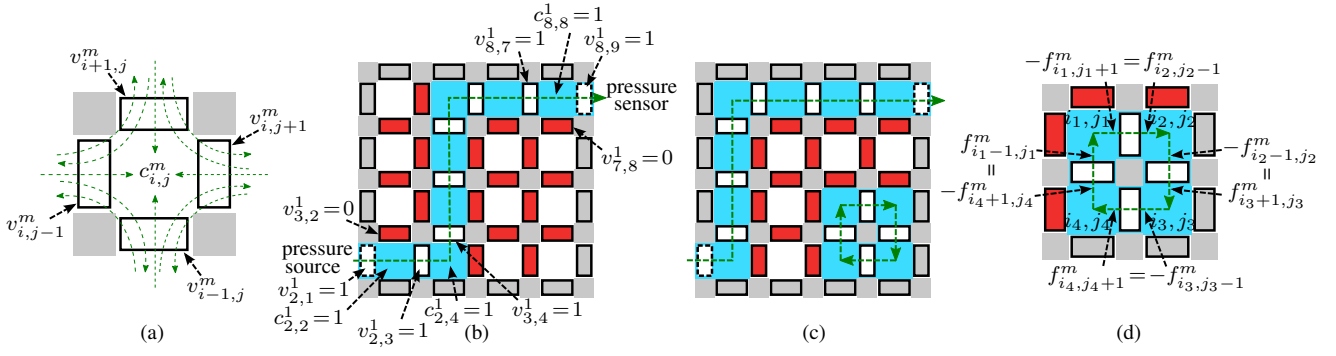
(c)

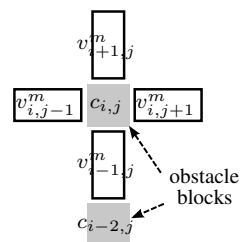
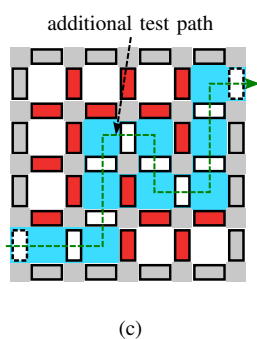
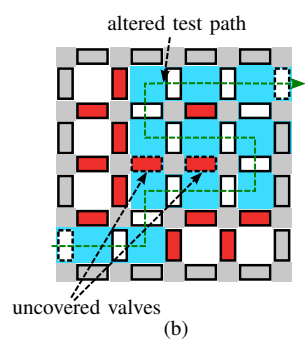
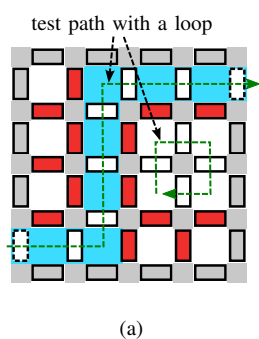


(d)

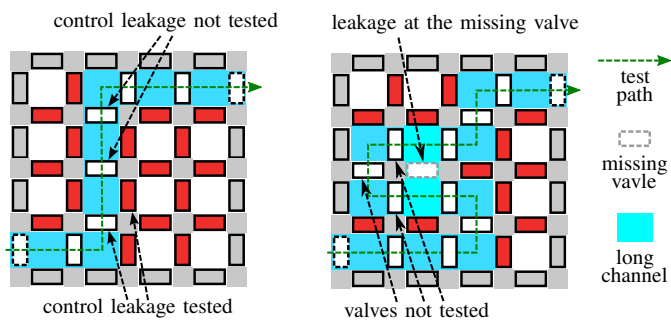


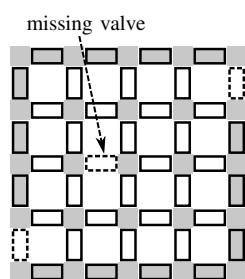




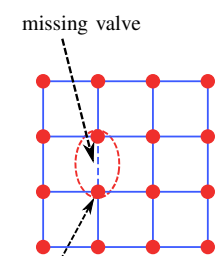




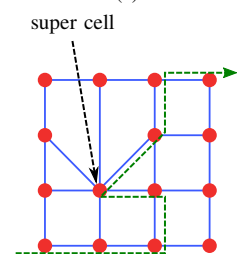




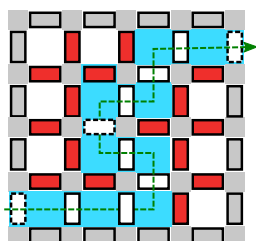
(a)



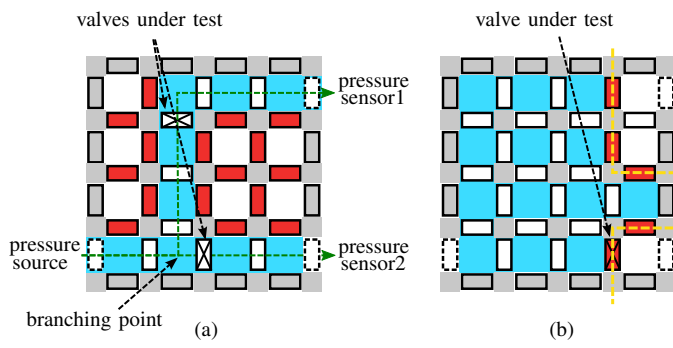
(b)

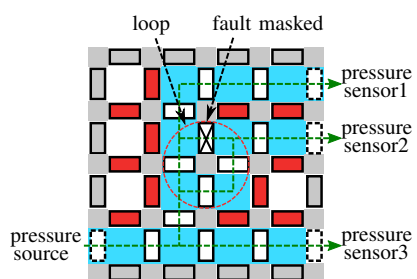


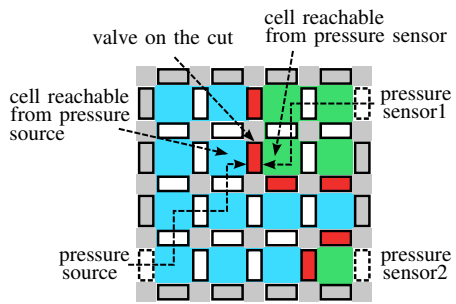
(c)

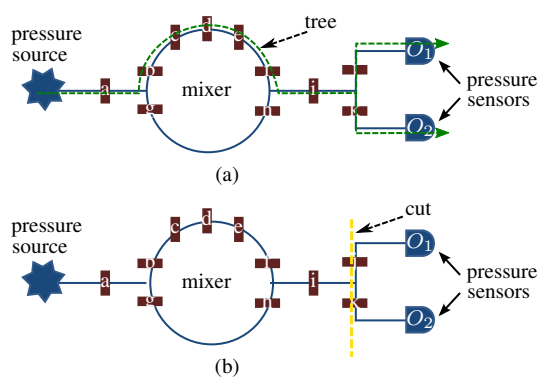


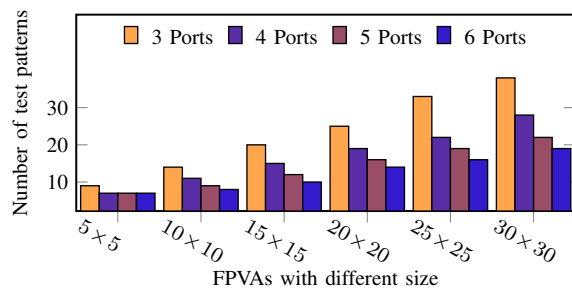
(d)

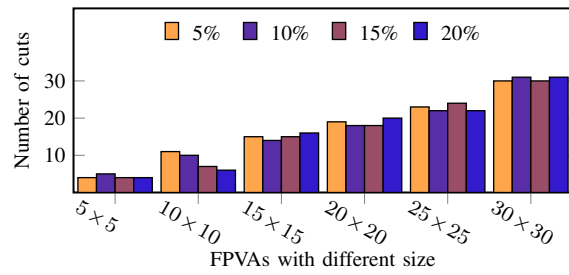
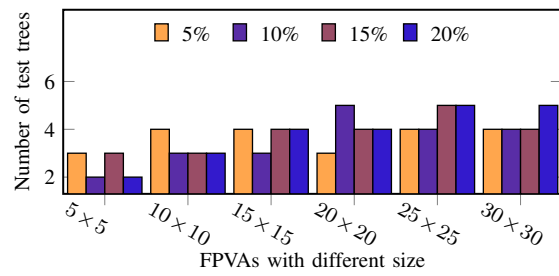




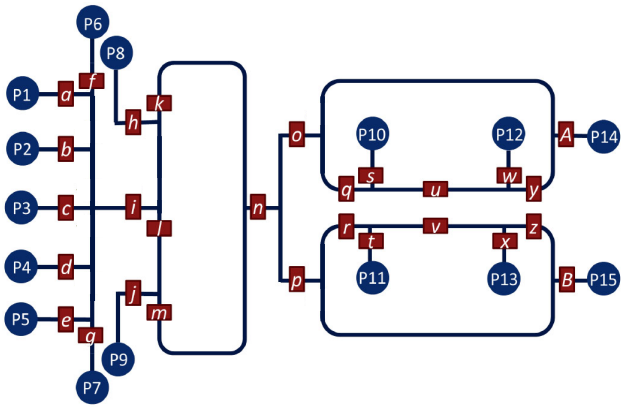


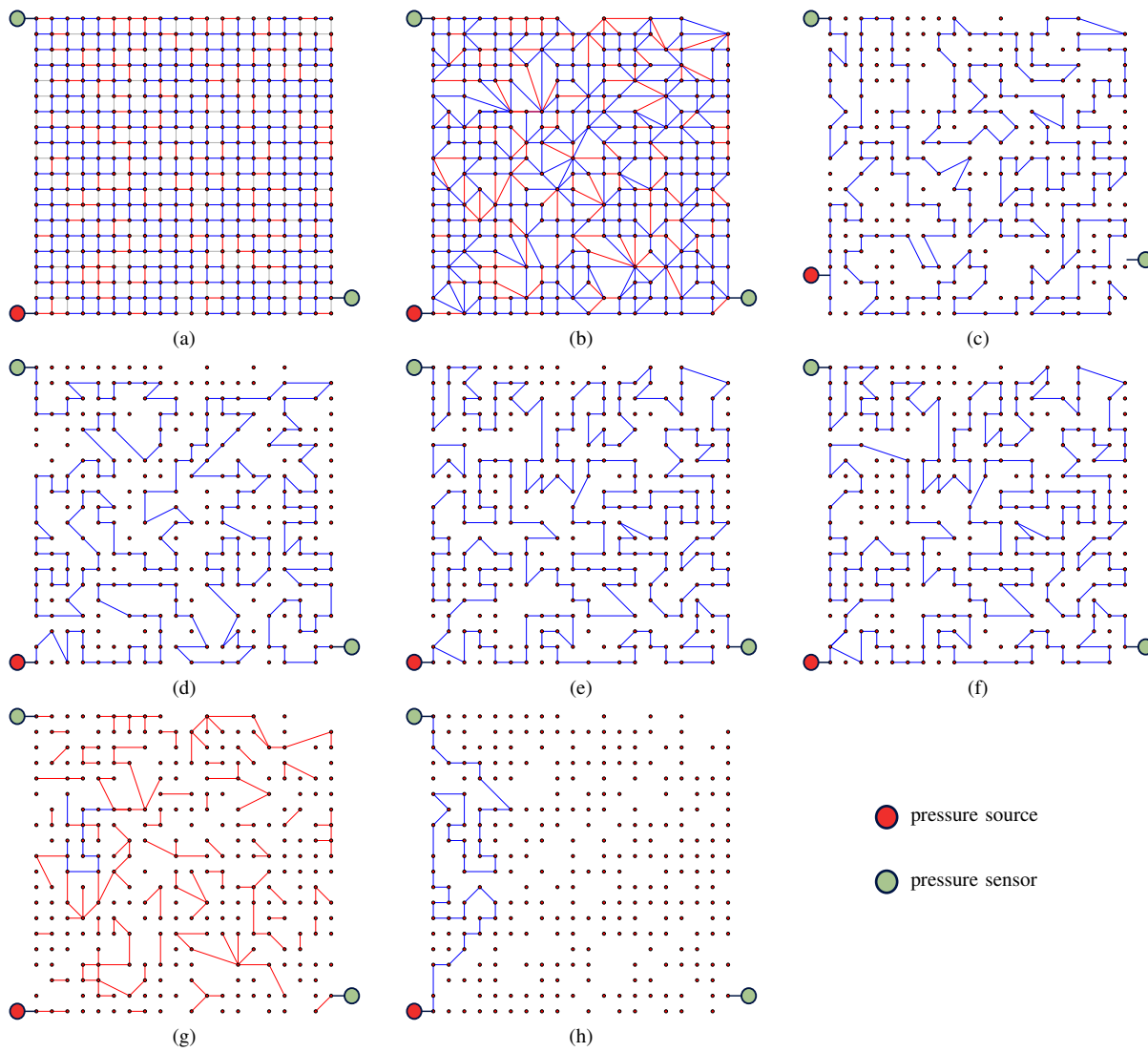












FPVA		Direct Approach							Loop Acceleration						
Dimension	$n_v$	$n_p^d$	$t_p^d(s)$	$n_c^d$	$t_c^d(s)$	$n_l^d$	$t_l^d(s)$	$N^d$	$n_p^a$	$t_p^a(s)$	$n_c^a$	$t_c^a(s)$	$n_l^a$	$t_l^a(s)$	$N^a$
$5 \times 5$	40	2	0.02	8	0.67	3	0.01	13	2	0.02	8	0.16	3	0.02	13
$10 \times 10$	380	2	0.72	18	46	3	0.04	23	2	2.61	18	12	3	0.03	23
$15 \times 15$	420	2	48	28	984	4	0.12	34	2	78	28	40	3	73	33
$20 \times 20$	760	2	758	*	*	*	*	*	2	363	38	146	3	163	43
$25 \times 25$	1200	*	*	*	*	*	*	*	3	1200	48	472	3	966	54
$30 \times 30$	1740	*	*	*	*	*	*	*	3	1201	58	1648	4	1243	65

\* – No valid result

Proposed method			ATPG-based method [19]		
	Test Pattern	Detected Faults		Test Pattern	Detected Faults
1	0010000011100111110000110000	17	1	1111010101100010010110101000	12
2	1010101110111111001100001101	5	2	01110010100101111010100010011	10
3	1011100111111100111111111111	2	3	1110011110100111100111001111	13
4	1111111011111111111111111111	1	4	1110010011101110001110010011	4
5	1101111111111111111111111111	1	5	0110100110101110100011110100	5
6	1111111110111111111110111111	1	6	1111011010100111110111111000	5
7	1111111111110111111111111111	1	7	0010101010110110101101011001	2
8	1111111011101111111111101111	24	8	1010011111110101010010011100	4
9	0010000110111111000000010111	11	9	0010011010110101110100100010	1
			10	0011010011011111010000000011	1
			11	010010101101010101010001001101	1
			12	1010100111100011100001101011	1
			13	1011010011110111110000100001	1
			14	1110001010110111010010011001	1
			15	10100110111111111101011000100	1
			16	1011110111101111010011001000	1