

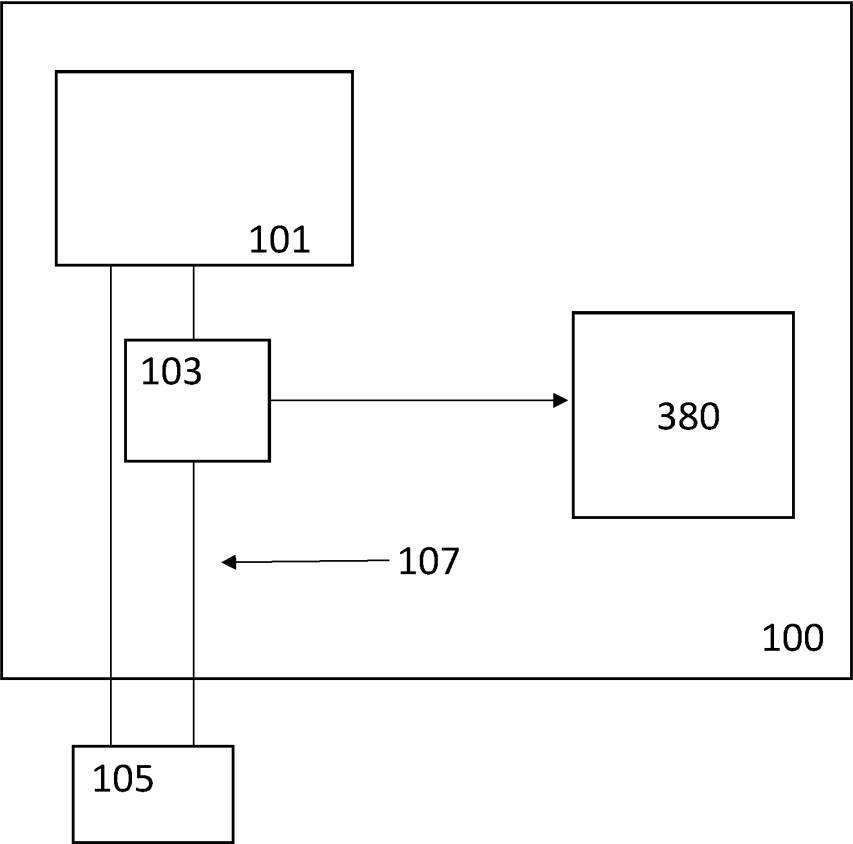


Fig. 1

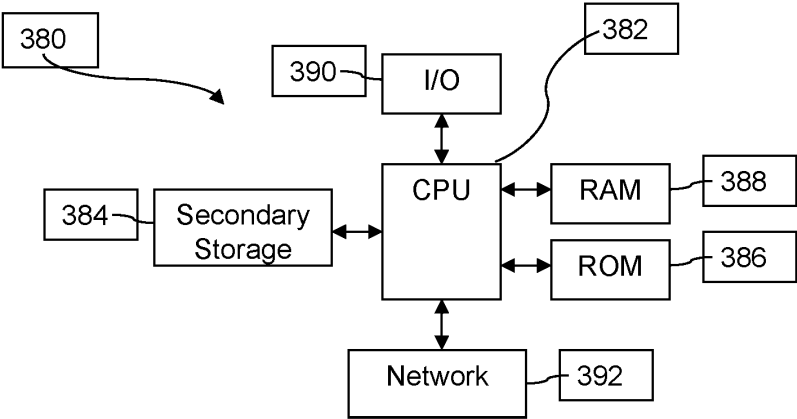


Fig. 2

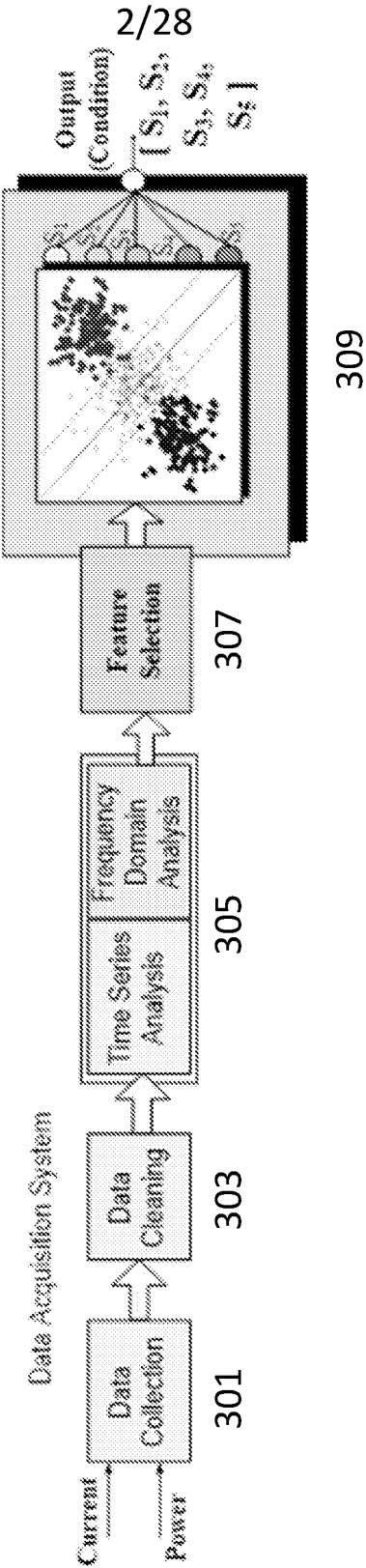


Fig. 3

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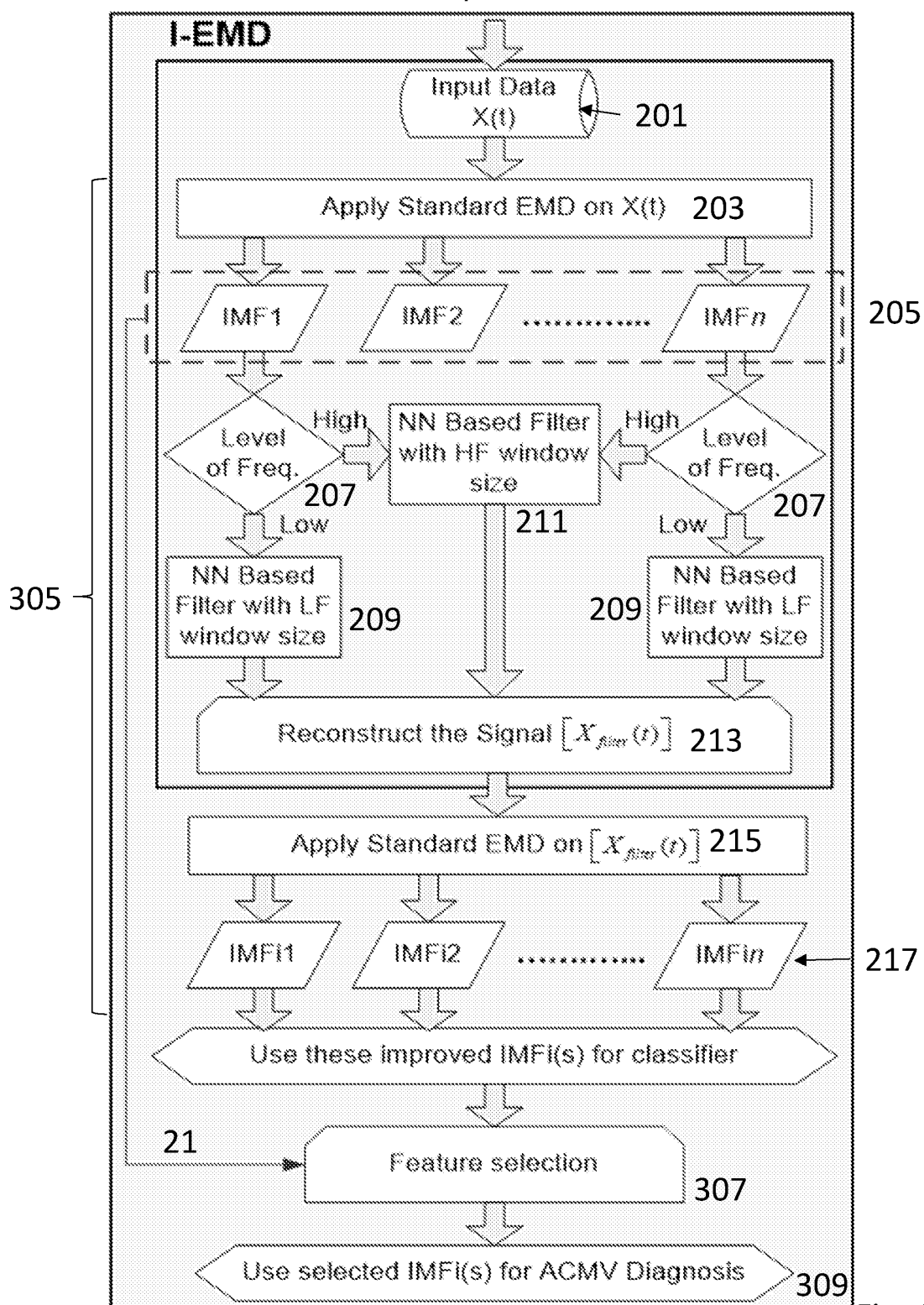


Fig. 4

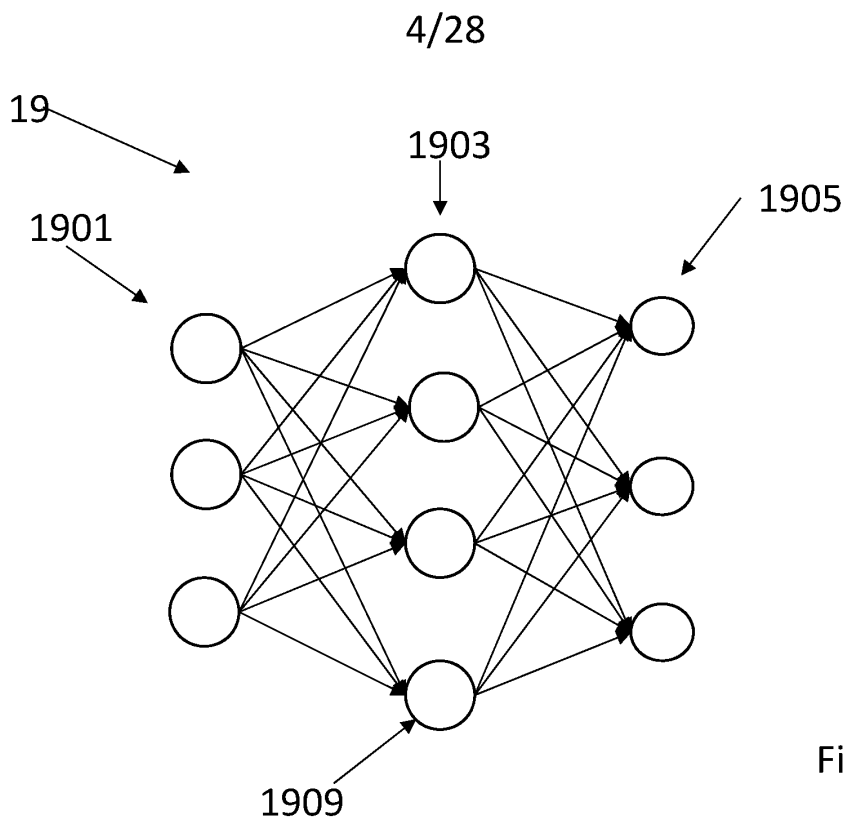


Fig. 5a

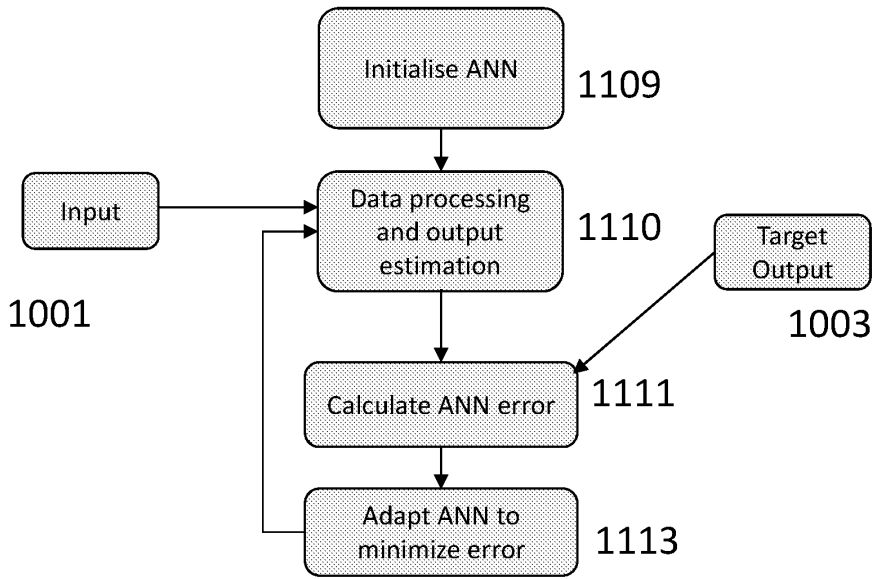


Fig. 5b

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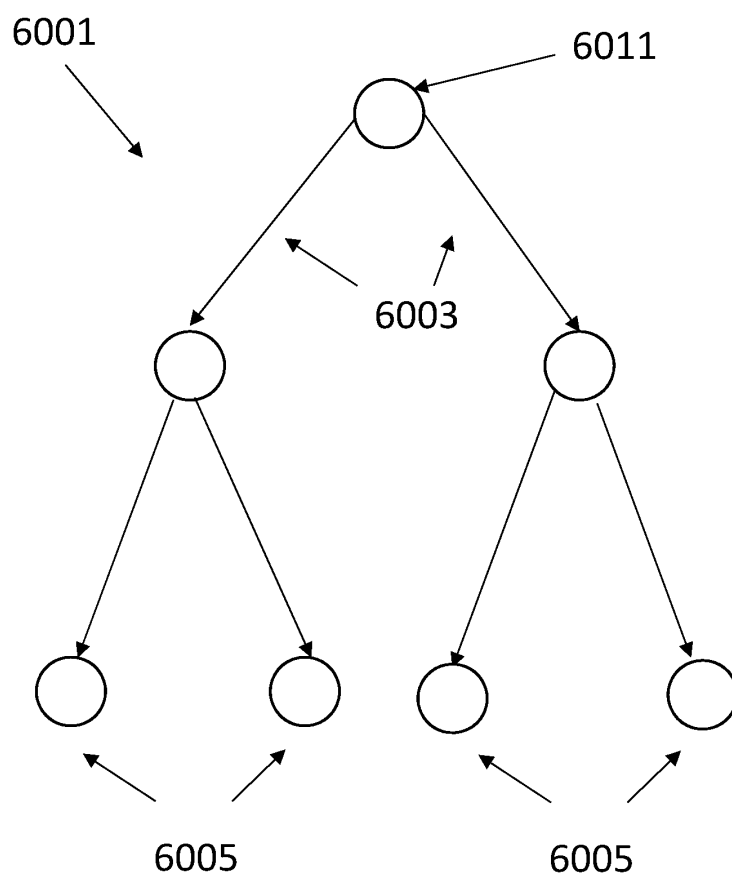


Fig. 6

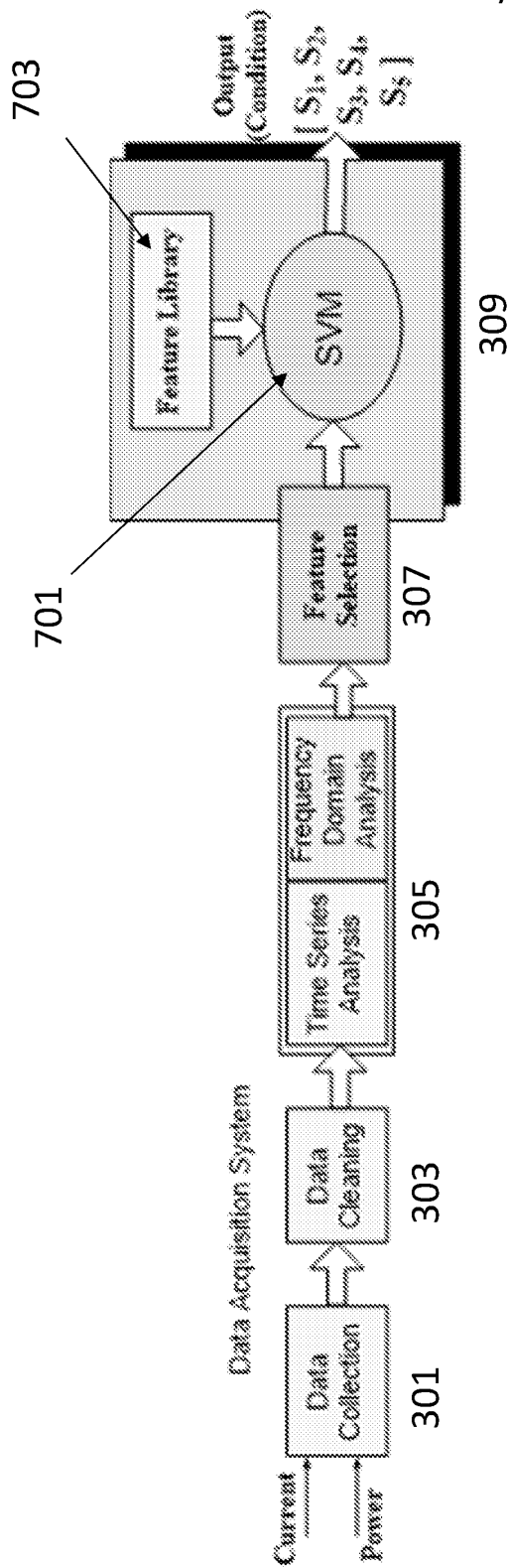


Fig. 7

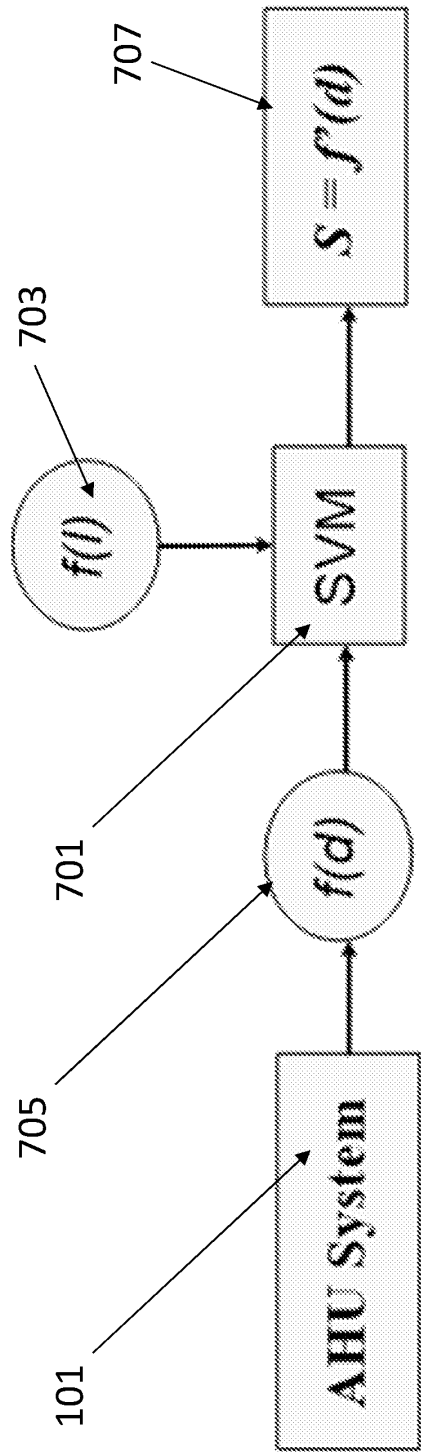


Fig. 8

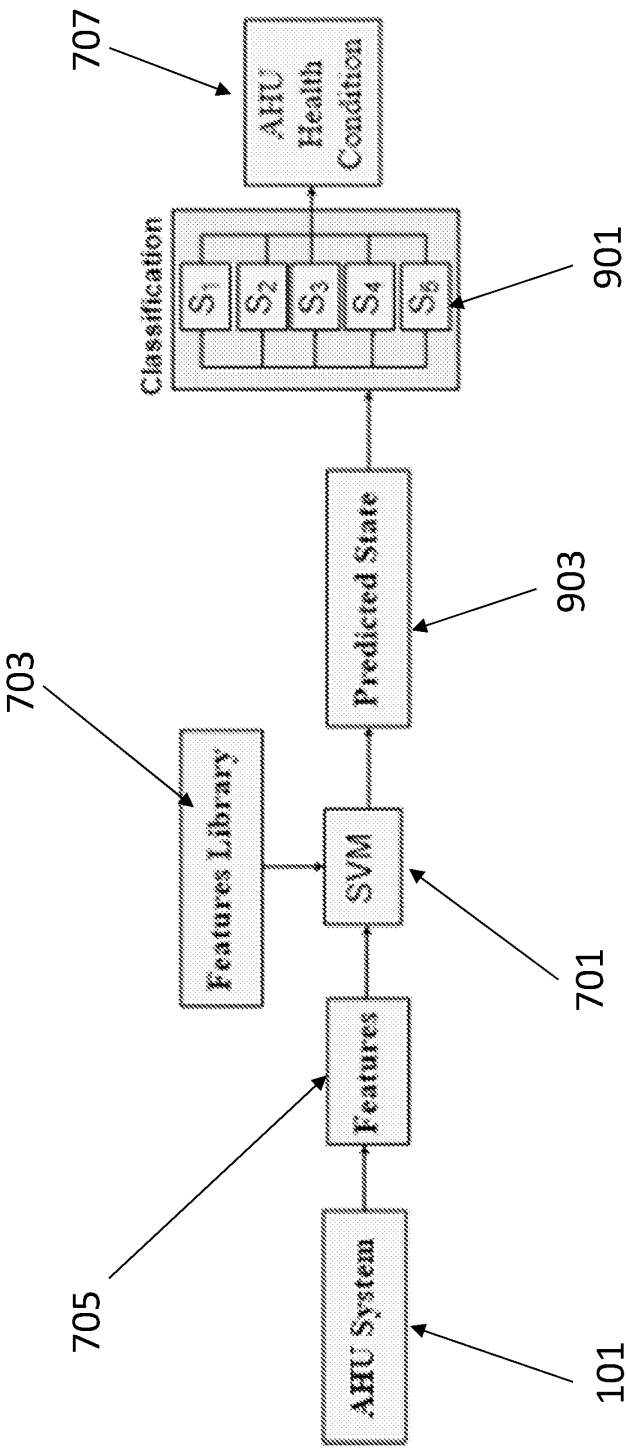


Fig. 9

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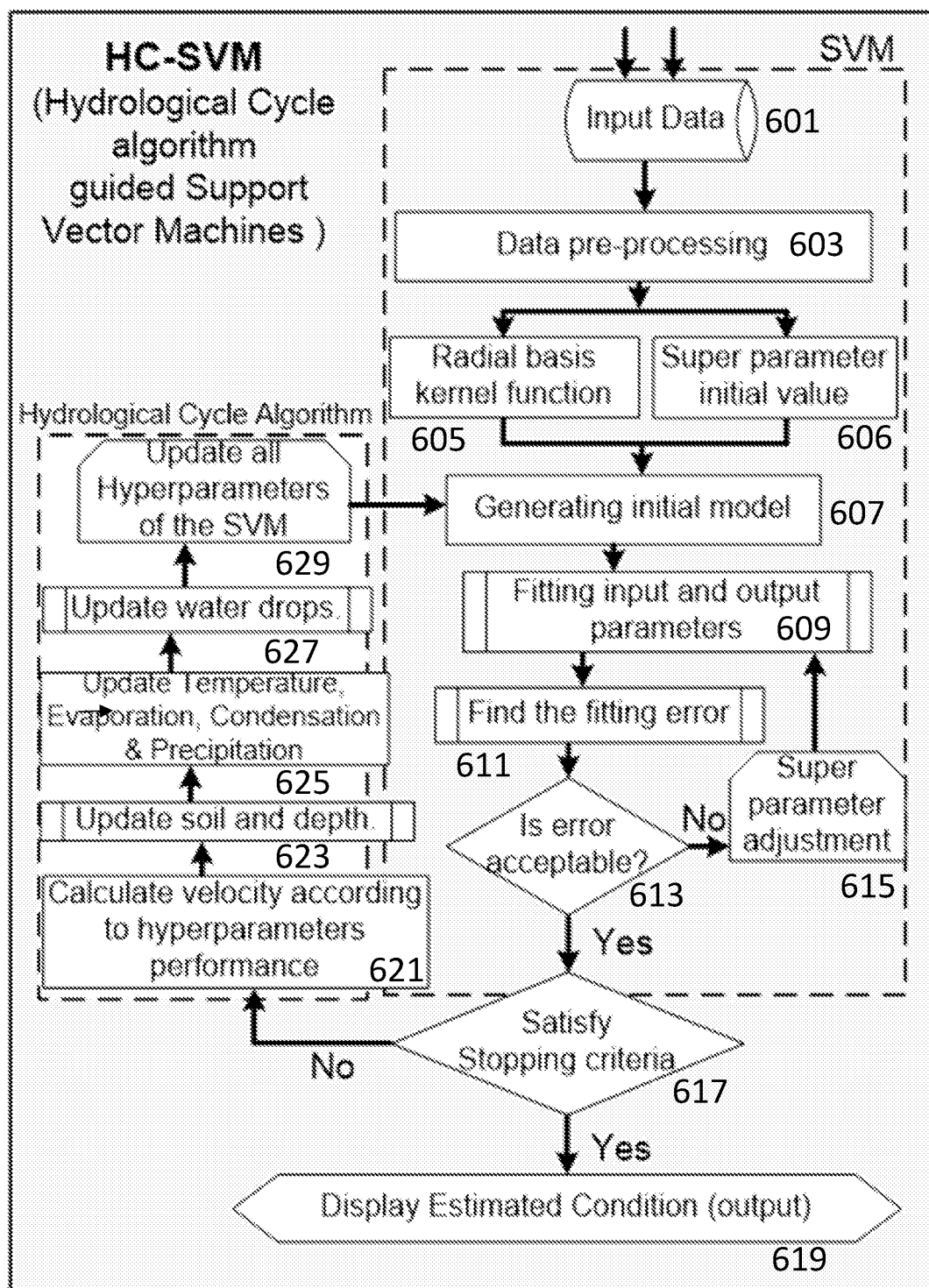


Fig. 10

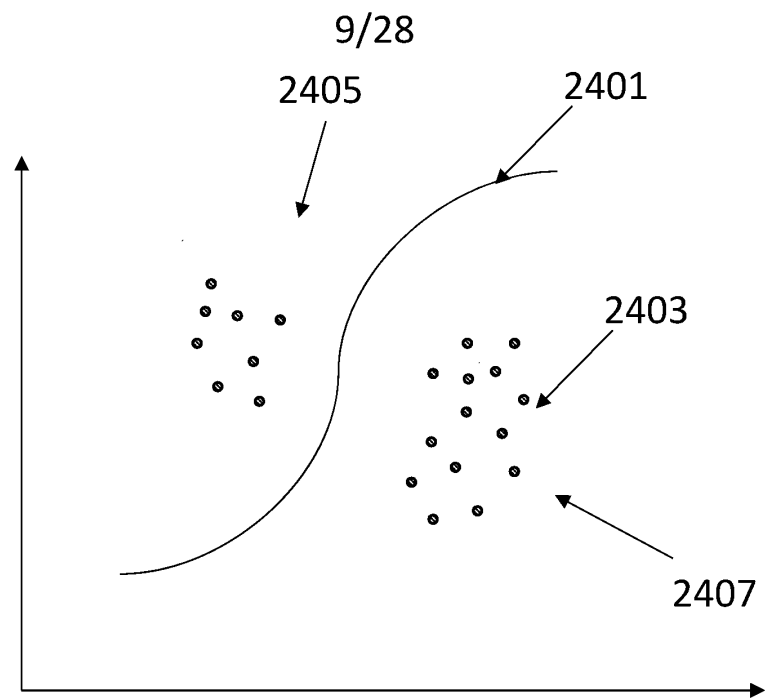


Fig. 11a

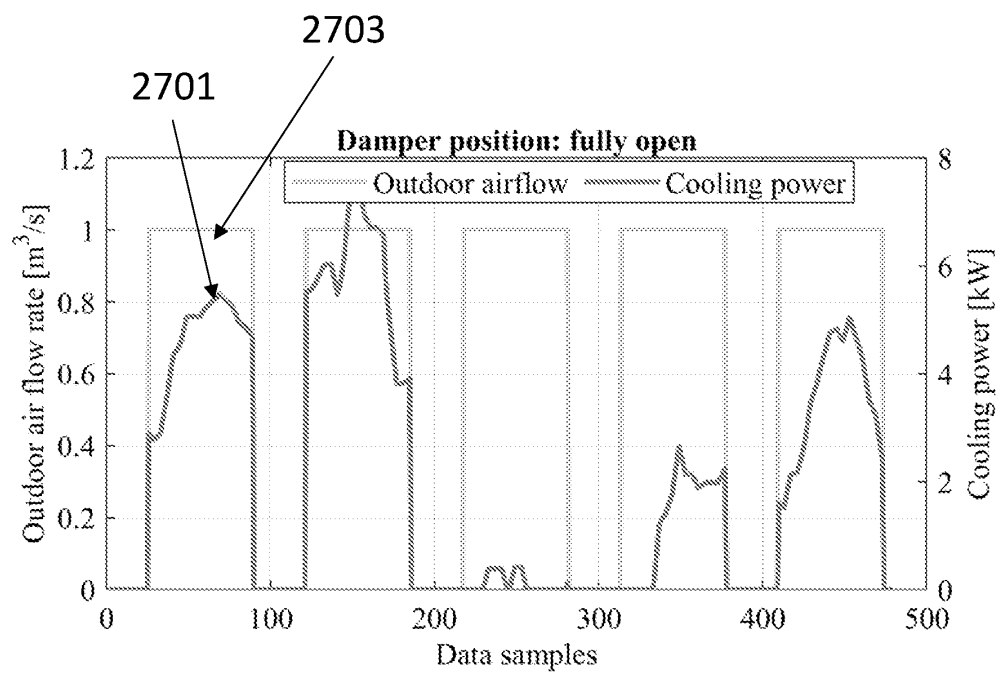


Fig. 11b

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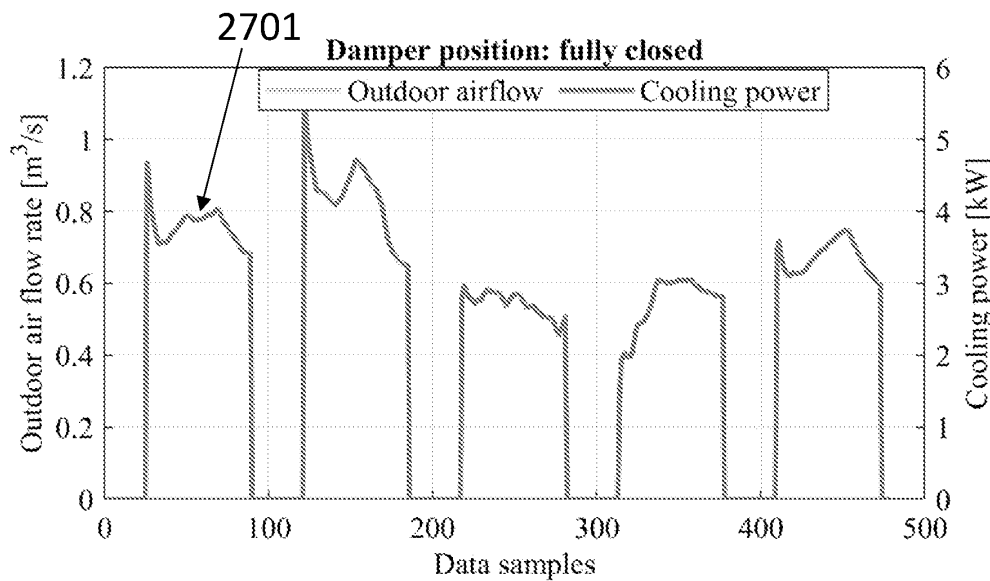


Fig. 11c

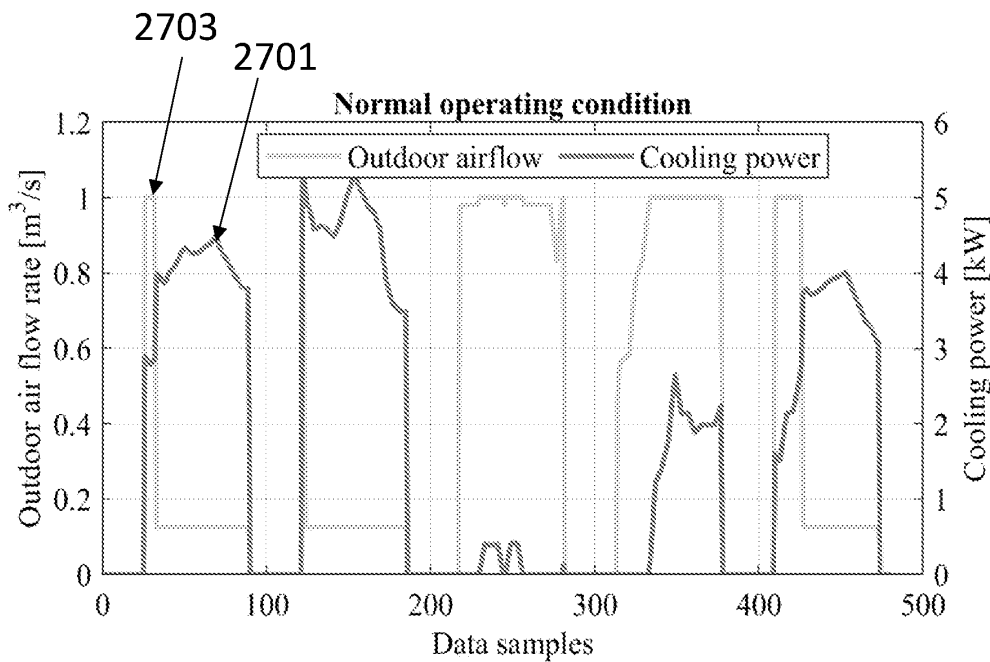


Fig. 11d

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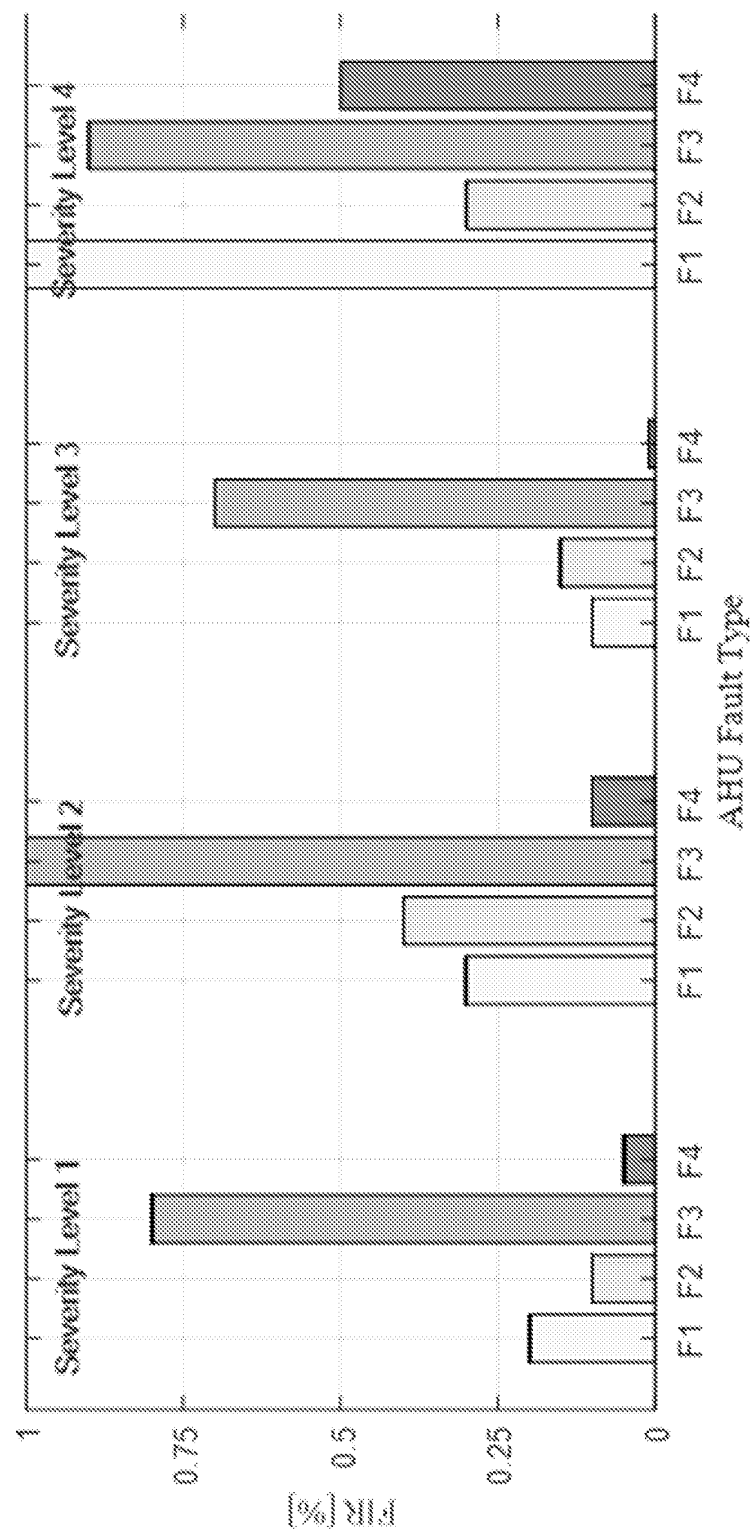


Fig. 12

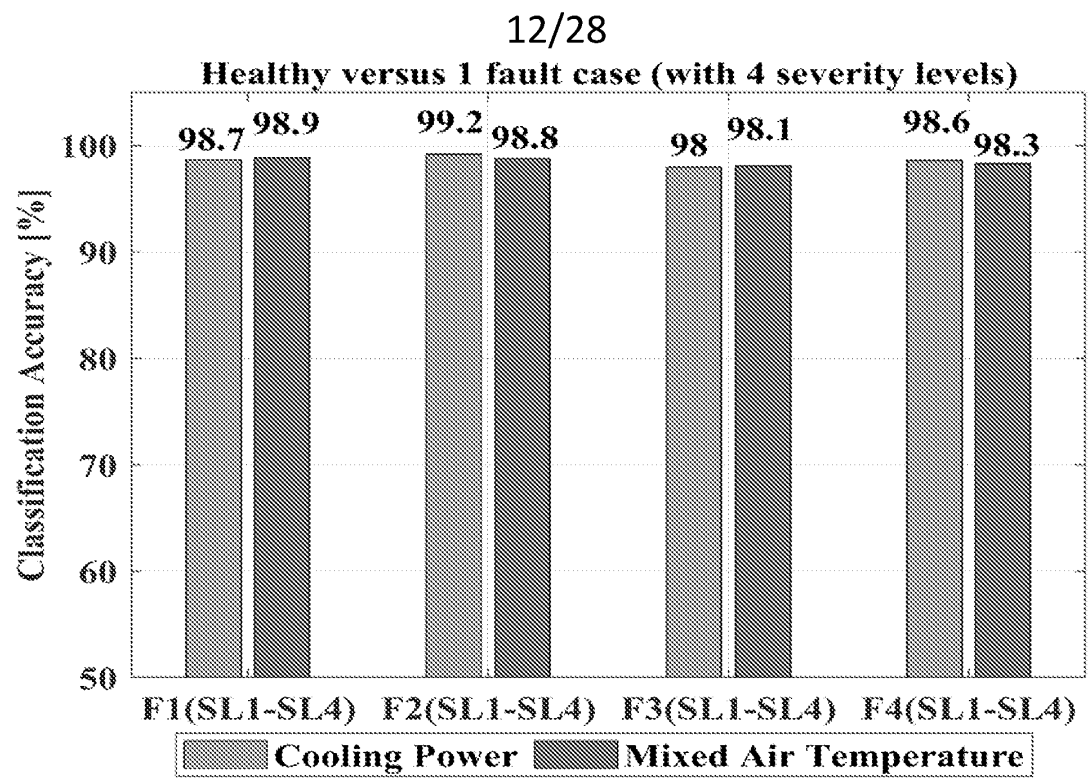


Fig. 13a

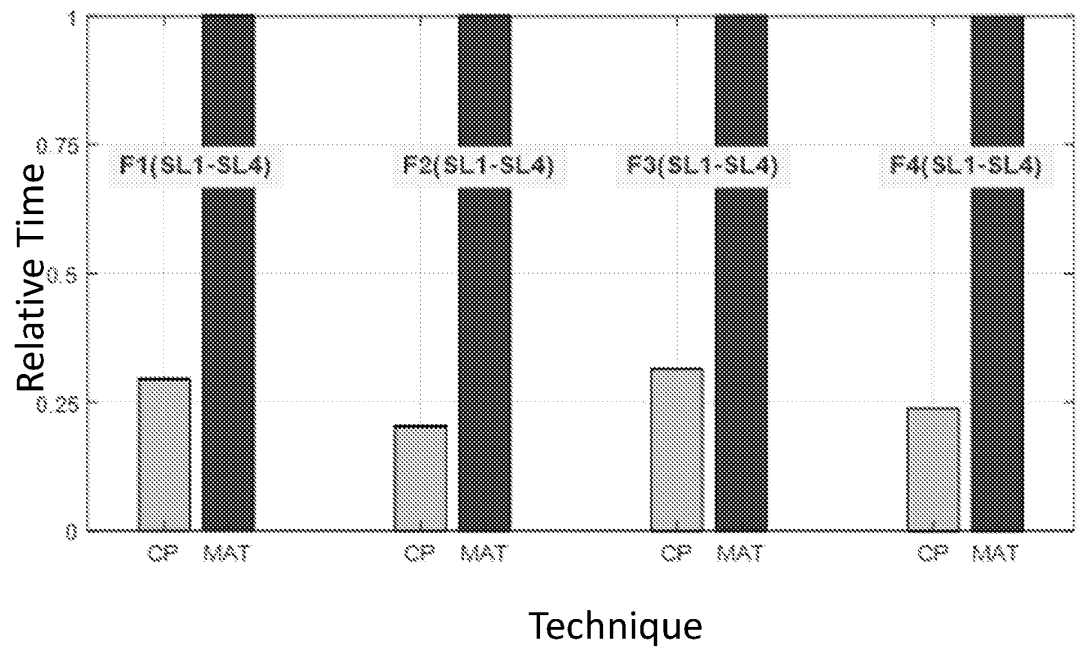


Fig. 13b

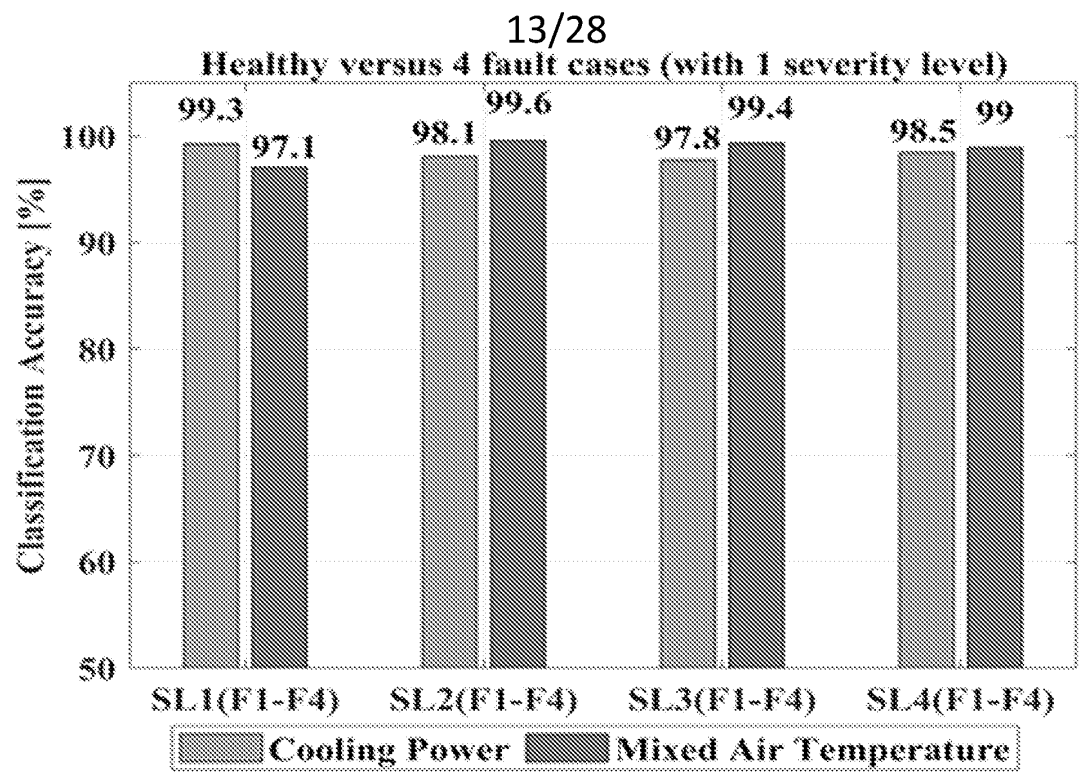


Fig. 14a

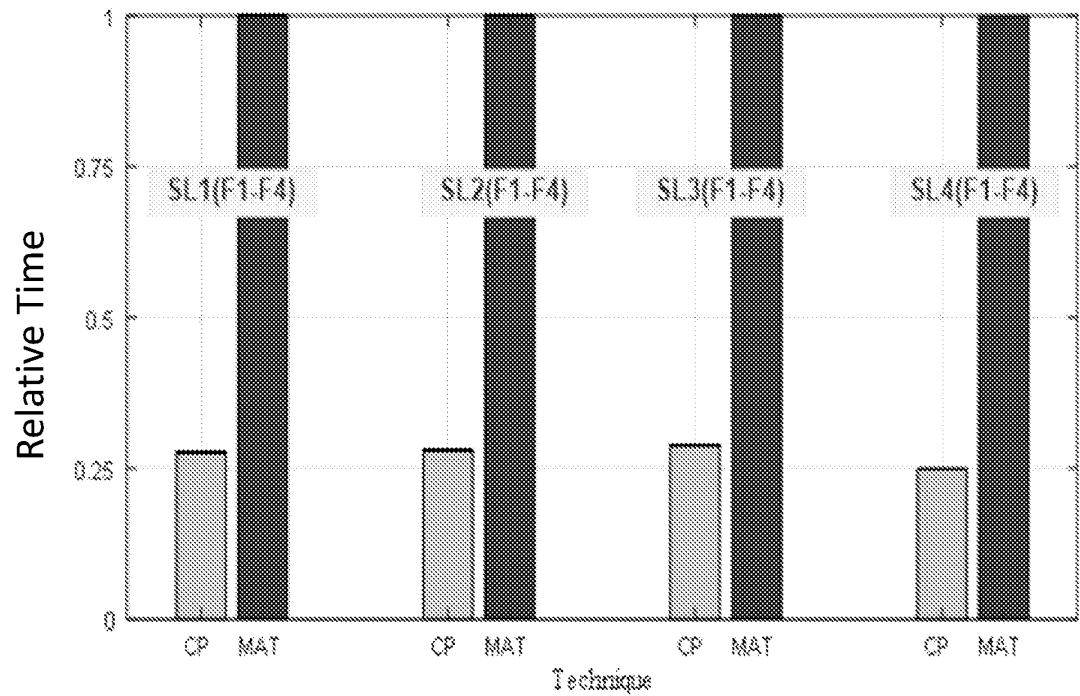


Fig. 14b

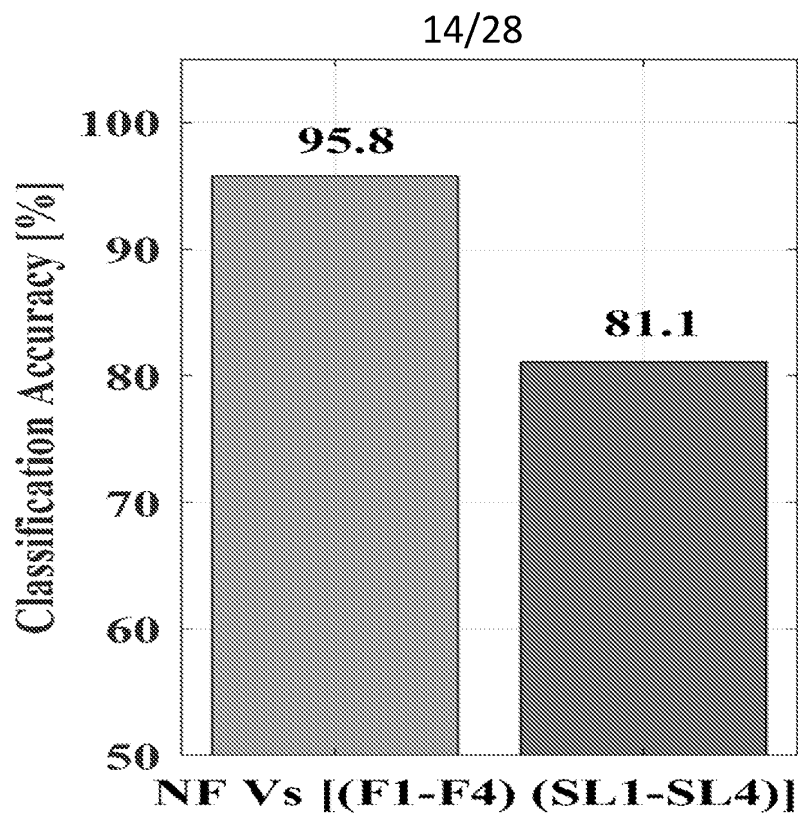


Fig. 15a

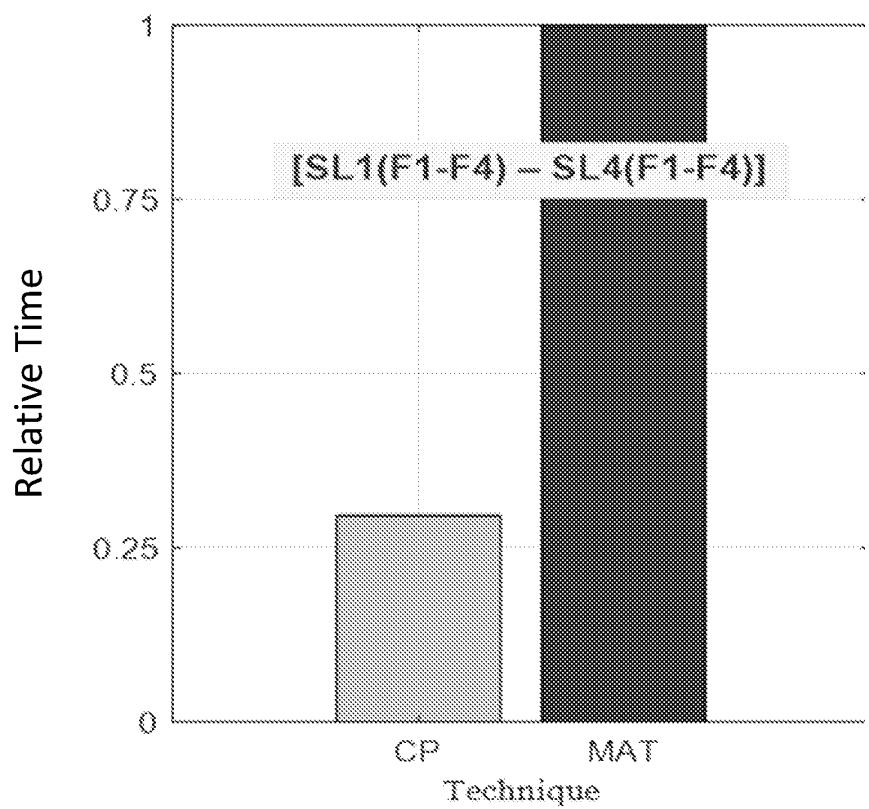


Fig. 15b

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Cooling Power Based Performance Plot for 4 Faults of AHU with 4 Severity Levels																	
Model Output	Actual Condition																
	NF	F1-SL1	F1-SL2	F1-SL3	F1-SL4	F2-SL1	F2-SL2	F2-SL3	F2-SL4	F3-SL1	F3-SL2	F3-SL3	F3-SL4	F4-SL1	F4-SL2	F4-SL3	F4-SL4
	17669	0	22	0	0	0	0	138	0	0	0	0	895	0	0	0	94.4%
	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	5.6%
	0	17736	0	96	768	0	0	0	45	0	0	421	0	0	0	0	93.0%
	0.0%	5.9%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	7.0%
	0	0	16380	0	0	0	0	0	0	0	0	0	0	0	0	0	100%
	0.0%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	0	0	0	17053	0	0	0	0	0	0	0	0	0	0	106	0	99.4%
	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
	0	0	0	0	16992	403	0	0	158	621	0	1083	0	0	0	0	88.2%
	0.0%	0.0%	0.0%	0.0%	5.6%	0.1%	0.0%	0.0%	0.1%	0.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	11.8%
	0	0	612	0	0	17357	0	0	0	0	0	0	0	0	0	0	96.6%
	0.0%	0.0%	0.2%	0.0%	0.0%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%
	0	0	0	0	0	0	17143	0	0	0	1079	0	0	0	0	0	94.1%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.7%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%
	91	0	529	0	0	0	0	16848	0	122	0	0	0	0	0	0	95.8%
	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%
	0	24	79	28	0	0	0	0	17132	0	0	0	0	453	0	606	93.5%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.7%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.2%	6.5%
	0	0	0	583	0	0	441	0	0	15771	0	0	0	0	583	0	90.8%
	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.1%	0.0%	0.0%	5.2%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	9.2%
	0	0	0	0	0	0	0	0	0	552	16681	0	0	0	0	0	96.8%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%
	0	0	138	0	0	0	0	0	0	0	0	16256	0	0	0	0	99.2%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.8%
	0	0	0	0	0	0	0	0	0	0	0	0	16865	0	0	0	100%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%
	0	0	0	0	0	0	0	182	425	0	0	0	0	17307	0	0	96.6%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	5.7%	0.0%	0.0%	3.4%
	0	0	0	0	0	0	0	0	0	694	0	0	0	0	17071	0	96.1%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	5.7%	0.0%	3.9%
	0	0	0	0	0	0	113	147	0	0	0	0	0	0	0	17154	98.5%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.7%	1.5%
	0	0	0	0	0	0	63	445	0	0	0	0	0	0	0	0	97.2%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%
	99.5%	99.9%	92.2%	96.0%	95.7%	97.7%	96.5%	94.9%	96.5%	88.8%	93.9%	91.5%	95.0%	97.4%	96.1%	96.6%	100%
	0.5%	0.1%	7.8%	4.0%	4.3%	2.3%	3.5%	5.1%	3.5%	11.2%	6.1%	8.5%	5.0%	2.6%	3.9%	3.4%	0.0%

Fig. 15c

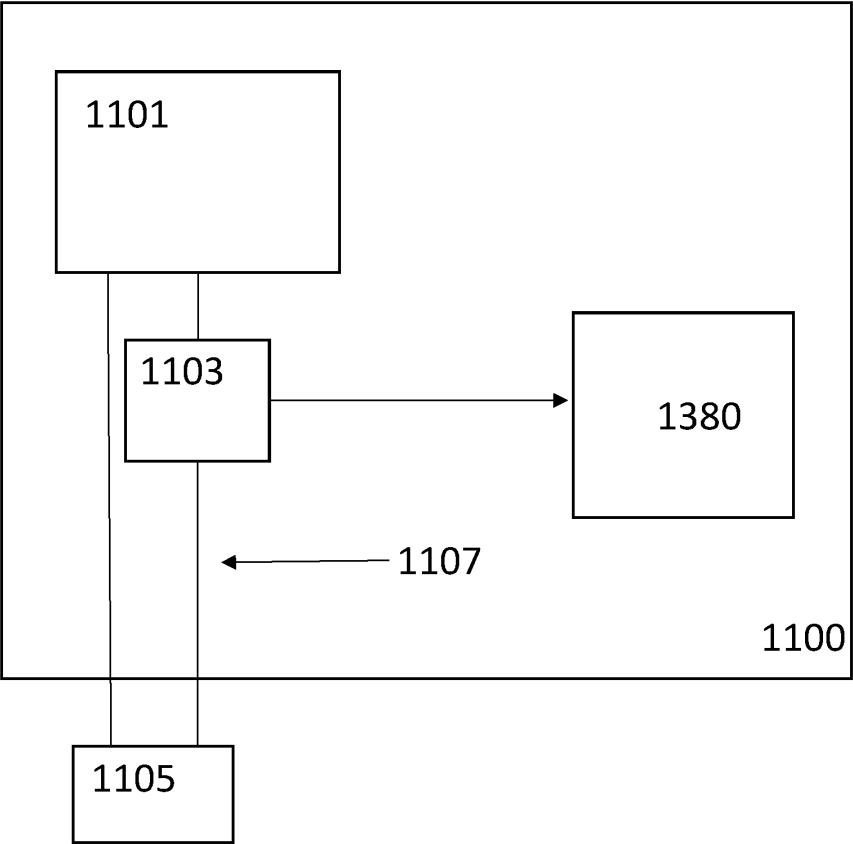


Fig. 16

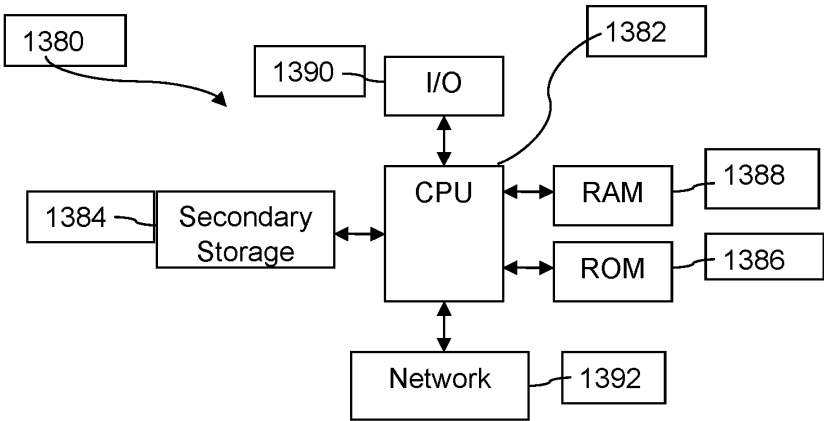


Fig. 17

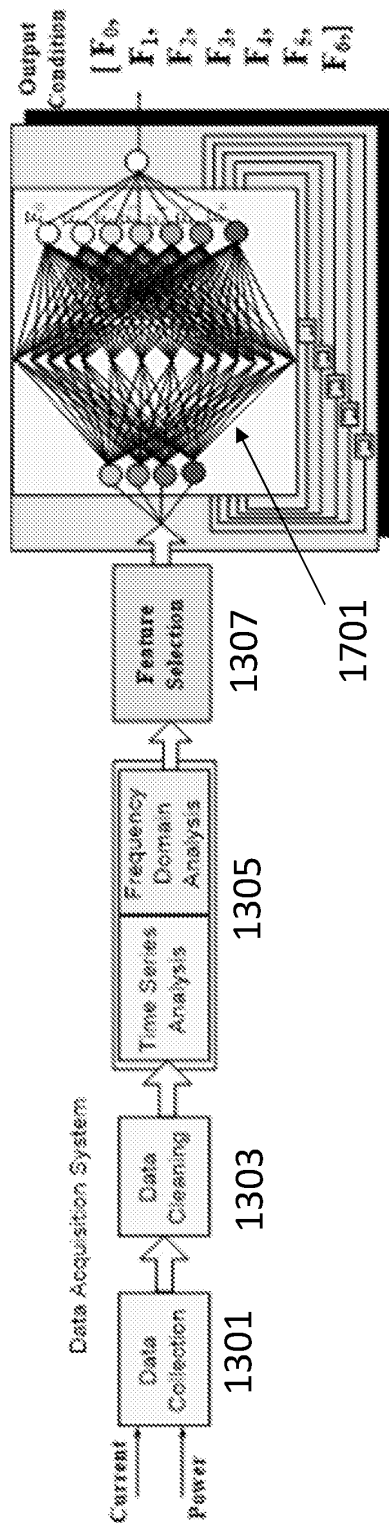


Fig. 18

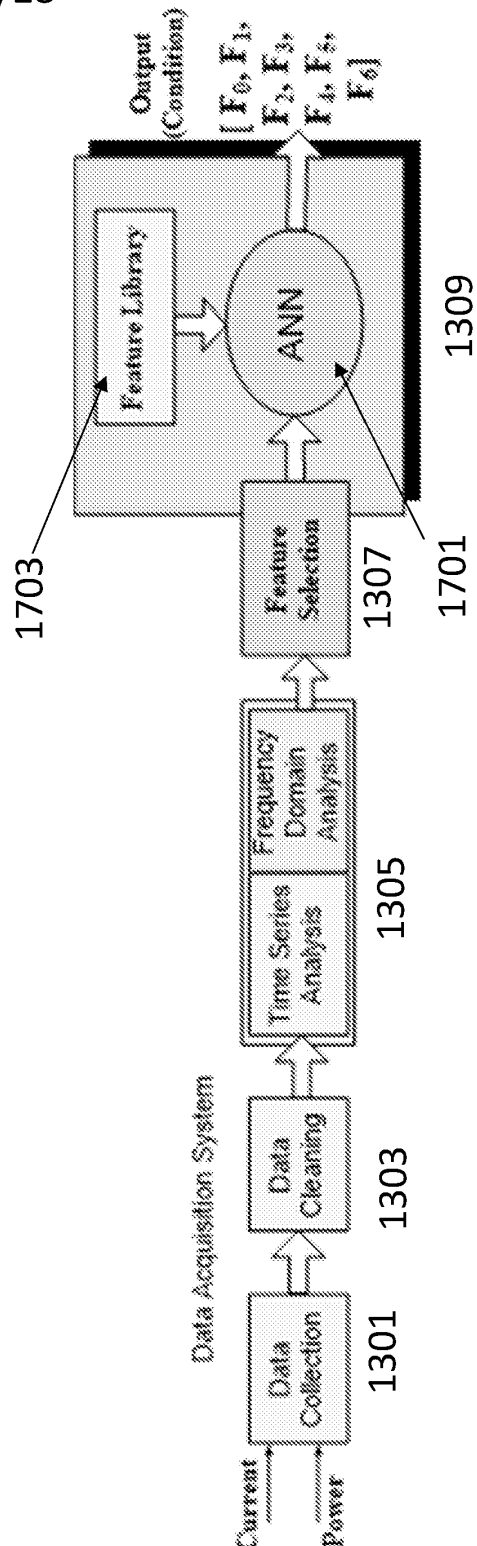


Fig. 19

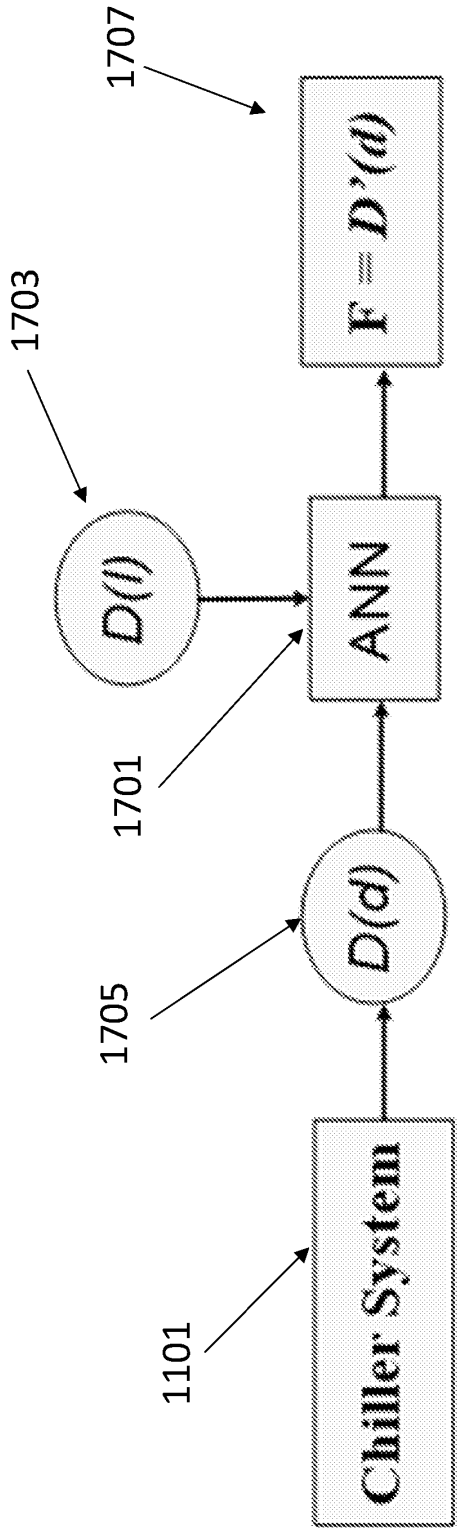


Fig. 20

1703

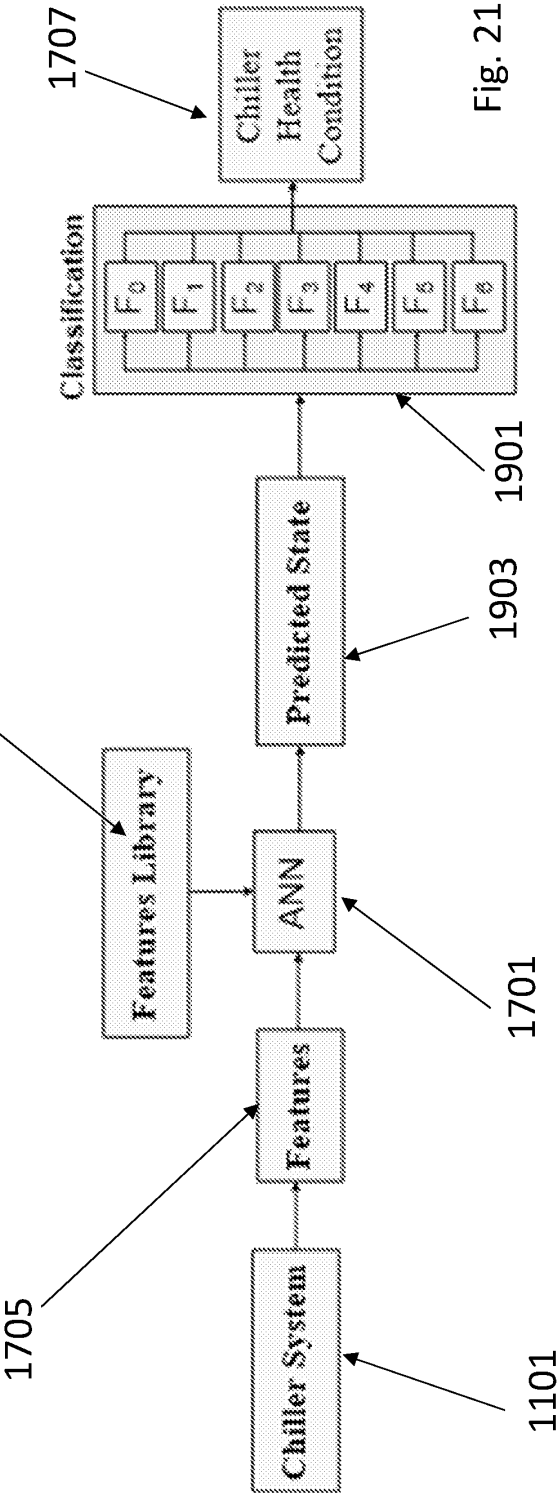


Fig. 21

1101

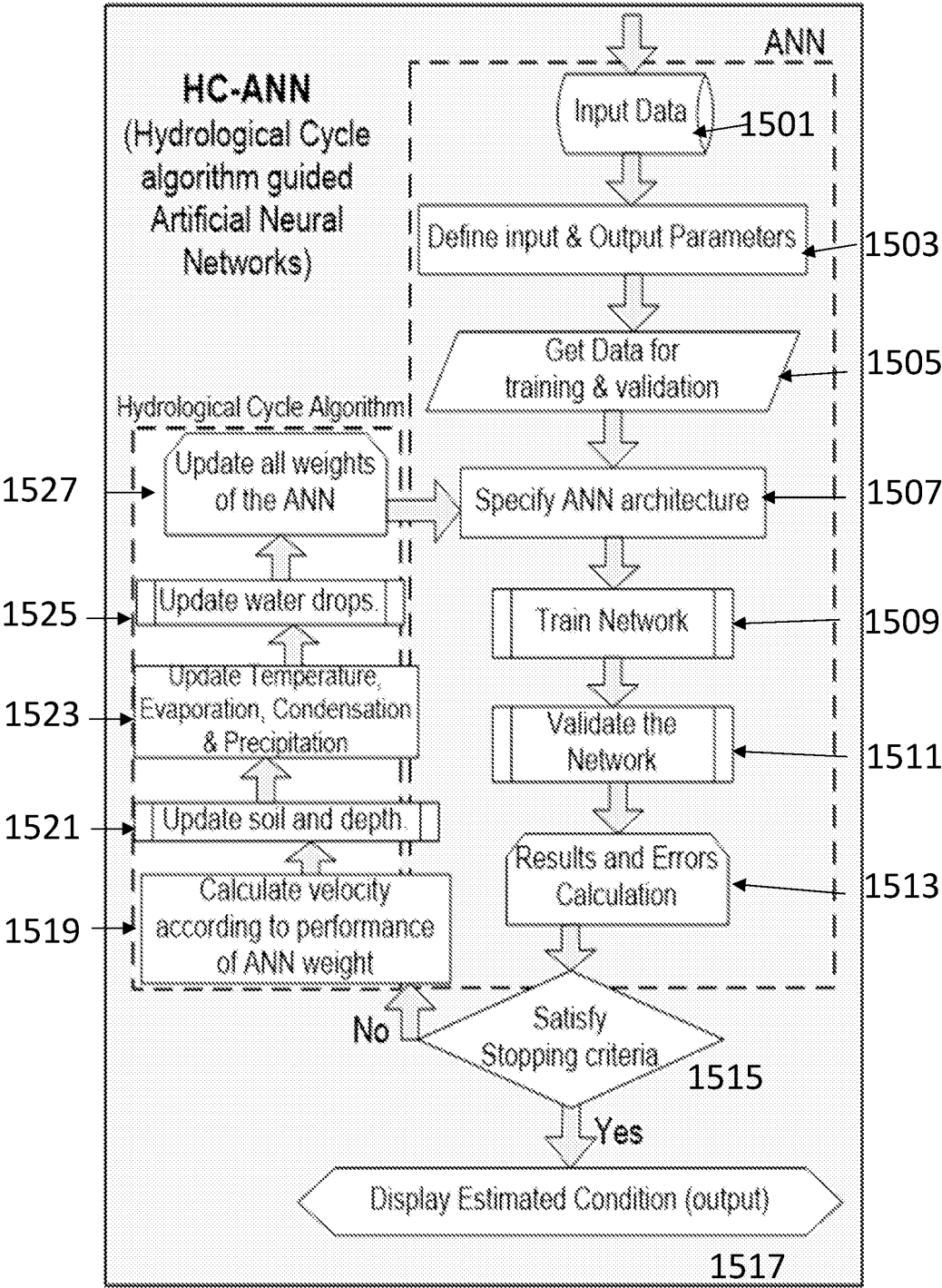


Fig. 22a

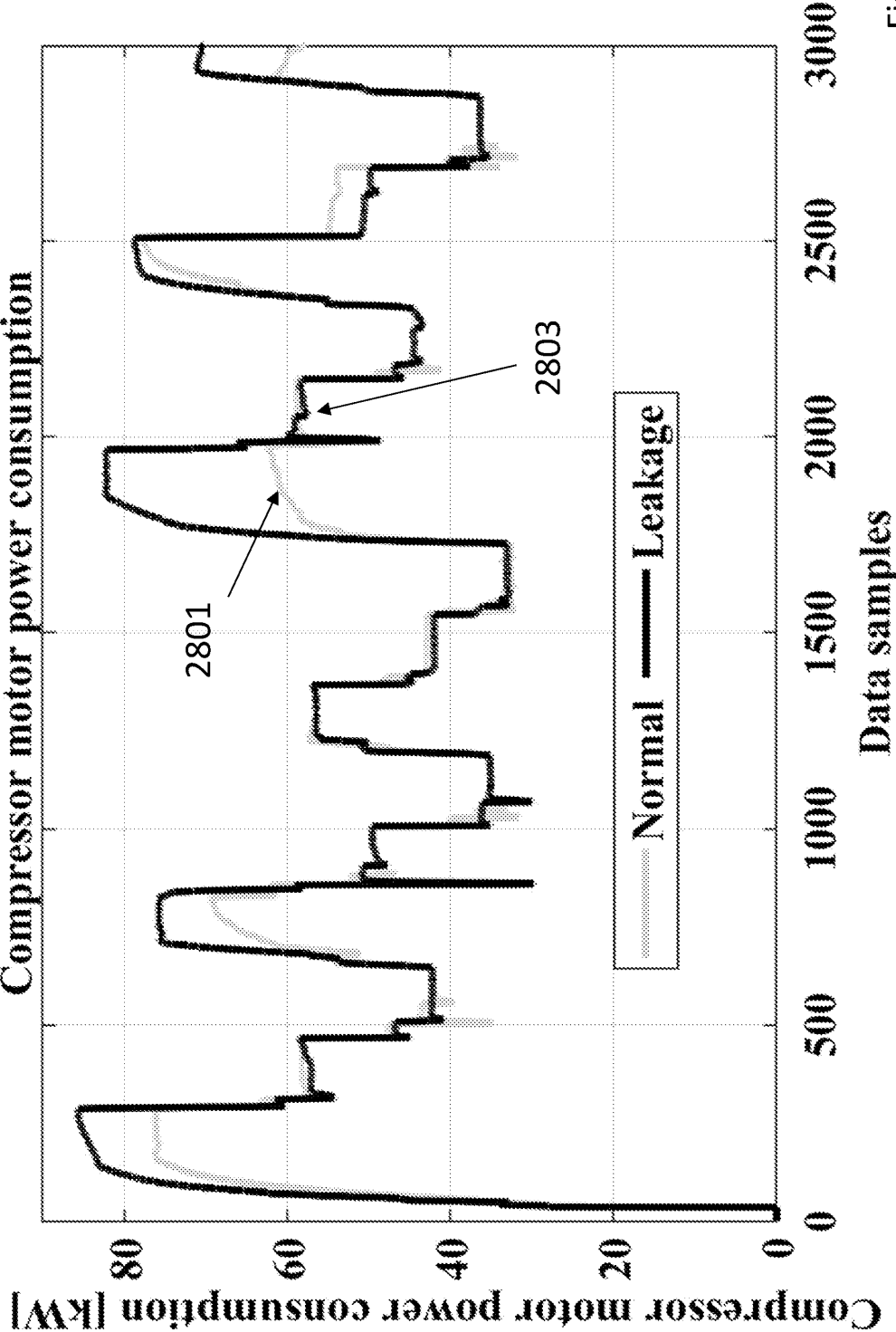


Fig. 22b

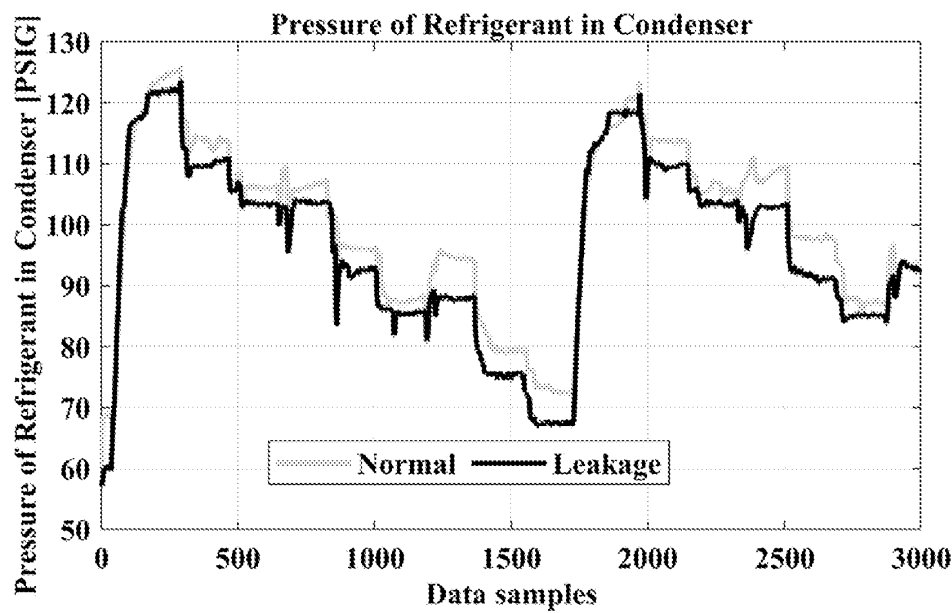


Fig. 22c

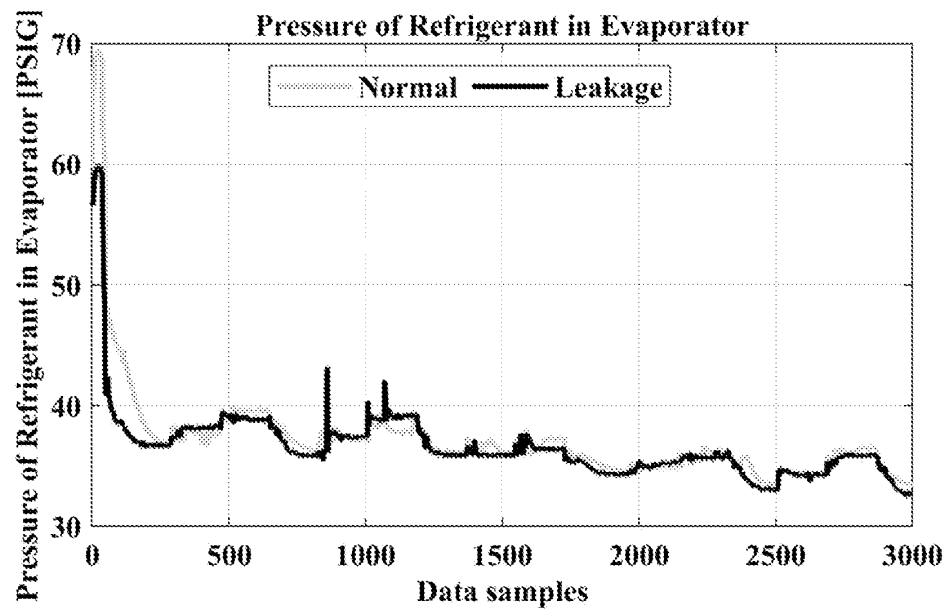


Fig. 22d

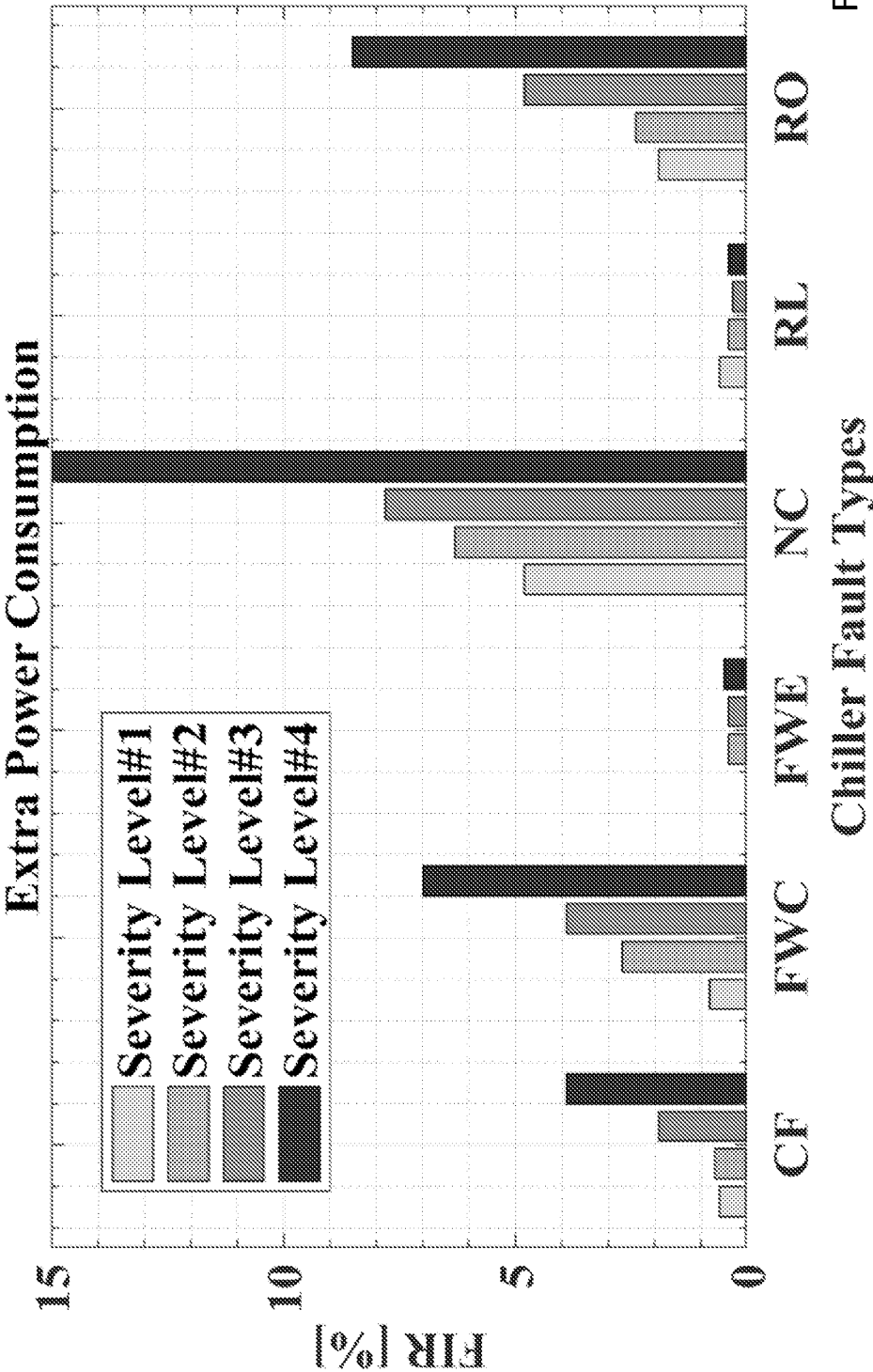


Fig. 23

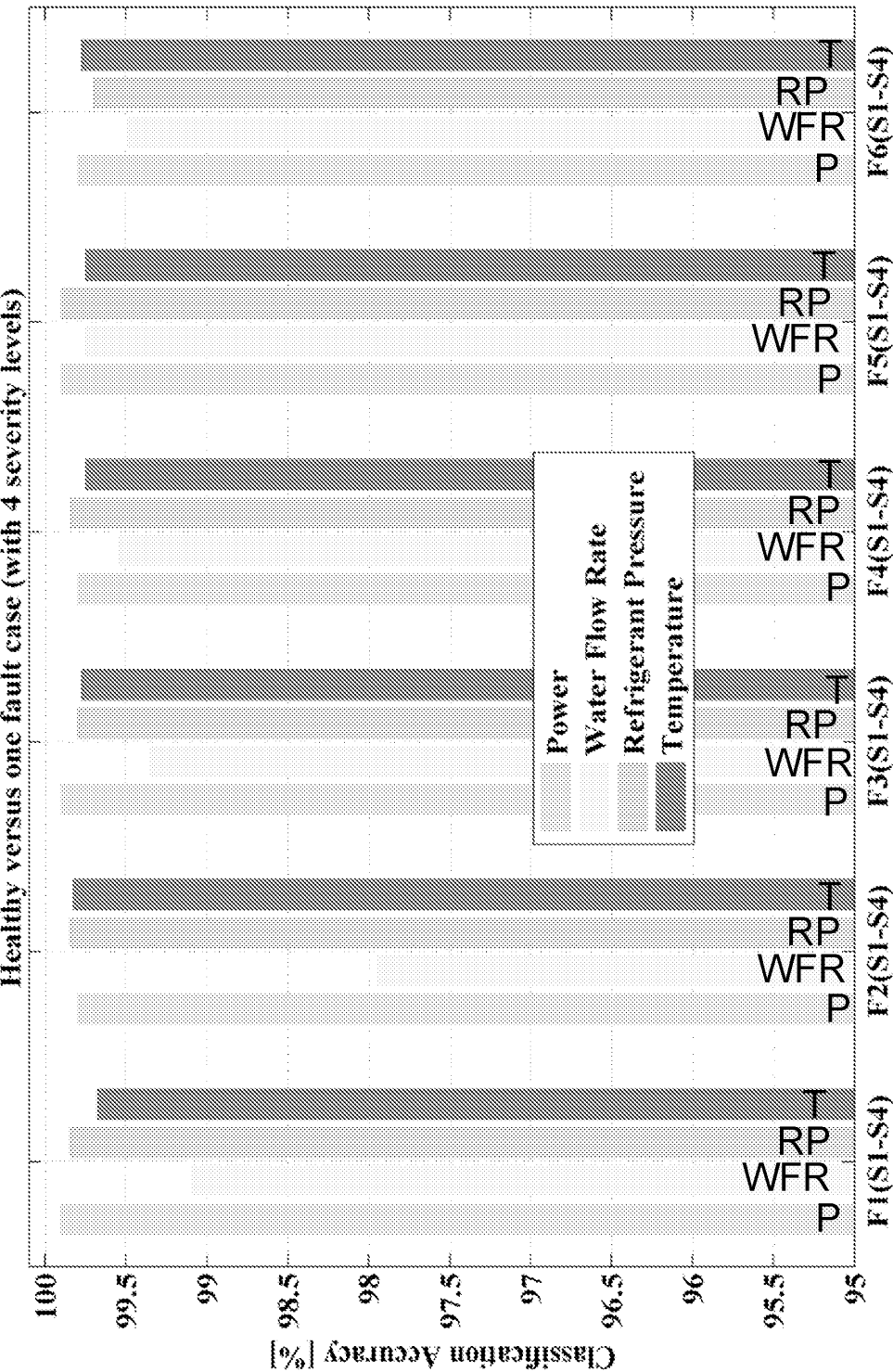


Fig. 24a

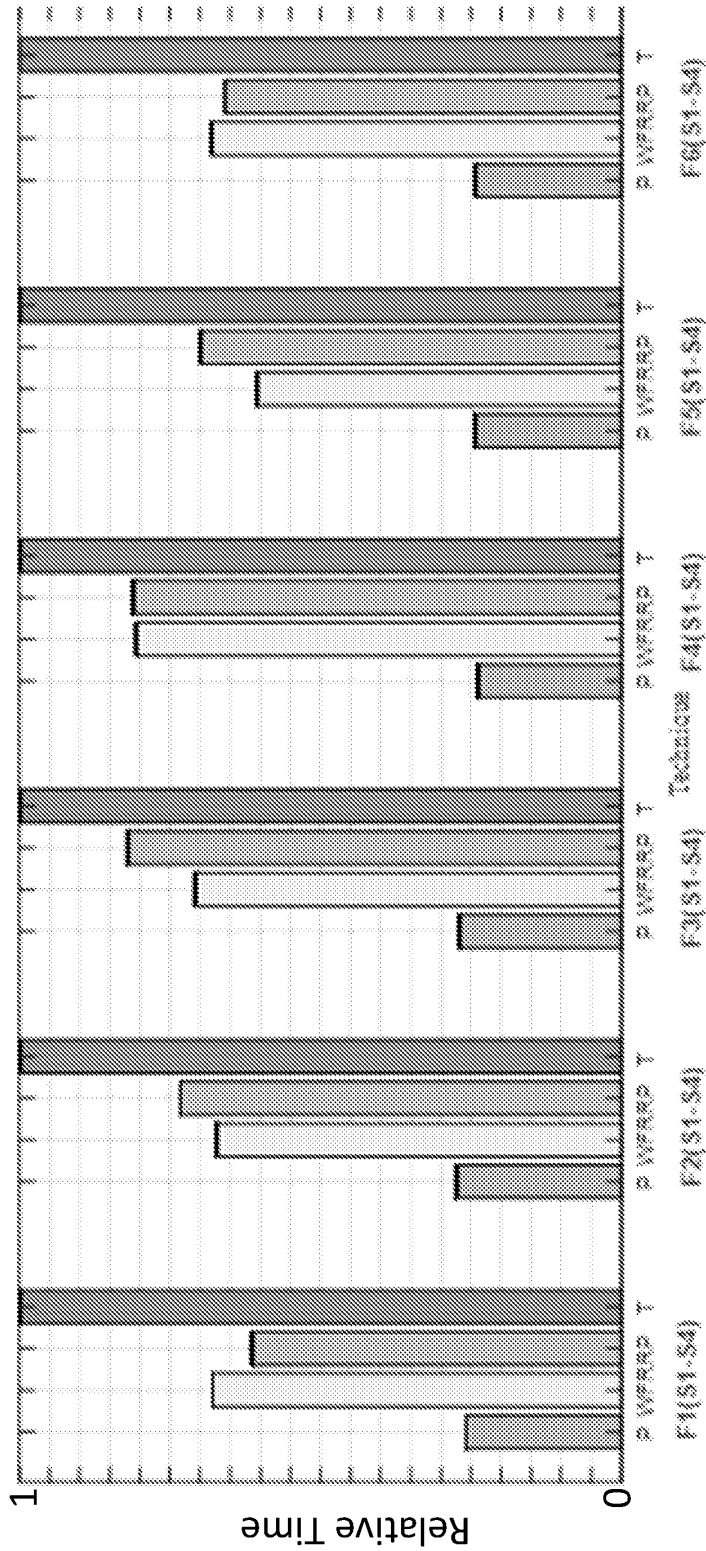


Fig. 24b

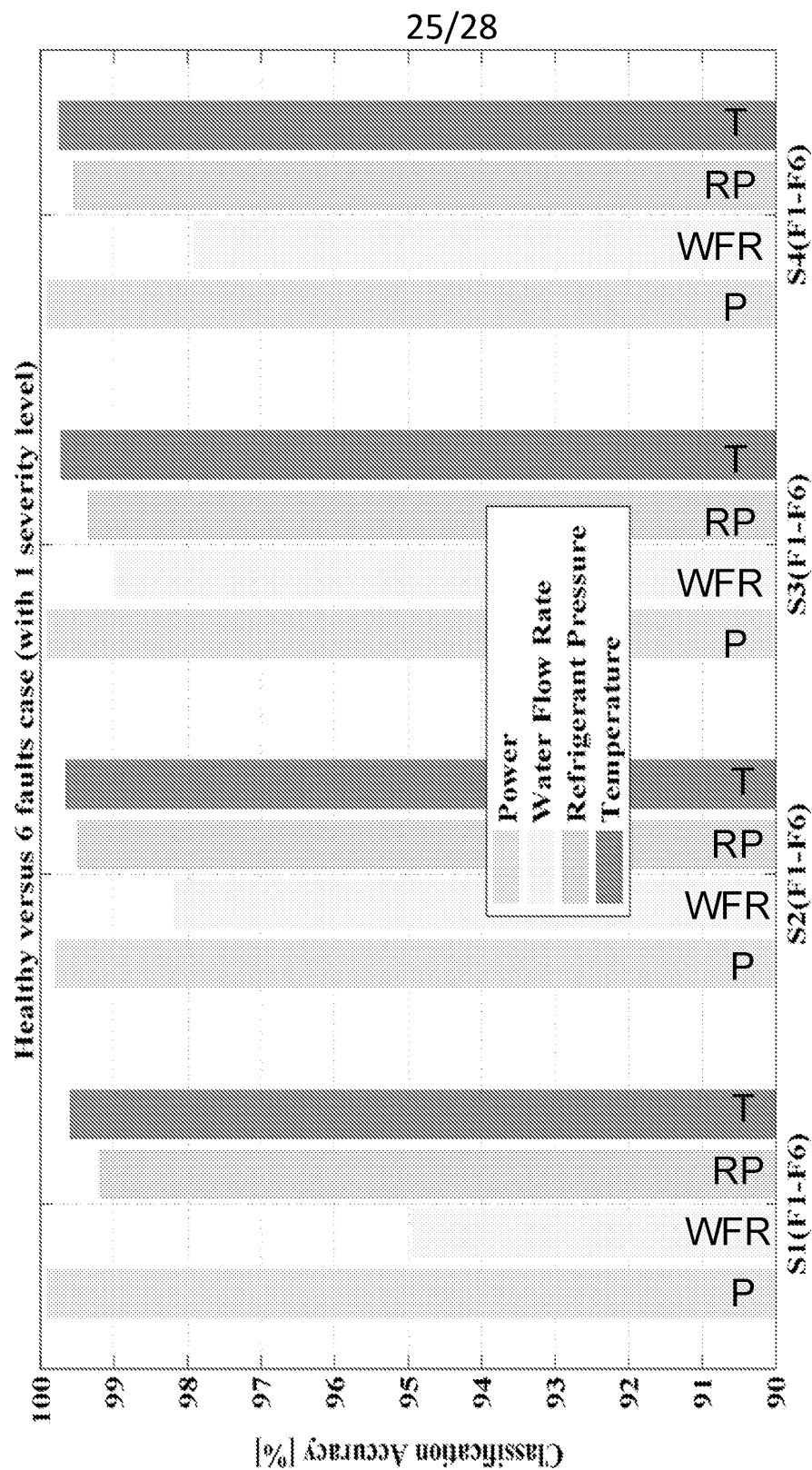


Fig. 25a

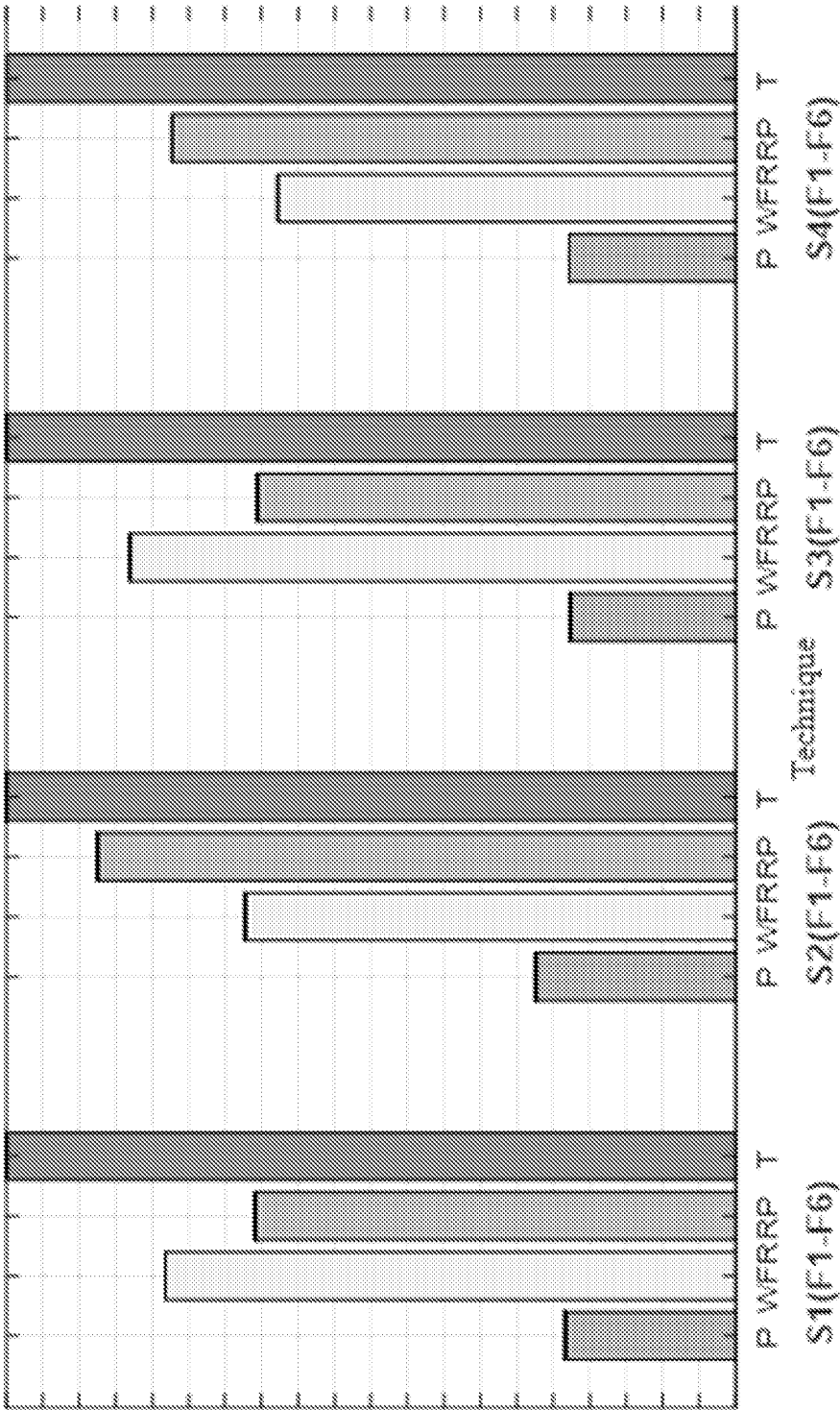


Fig. 25b

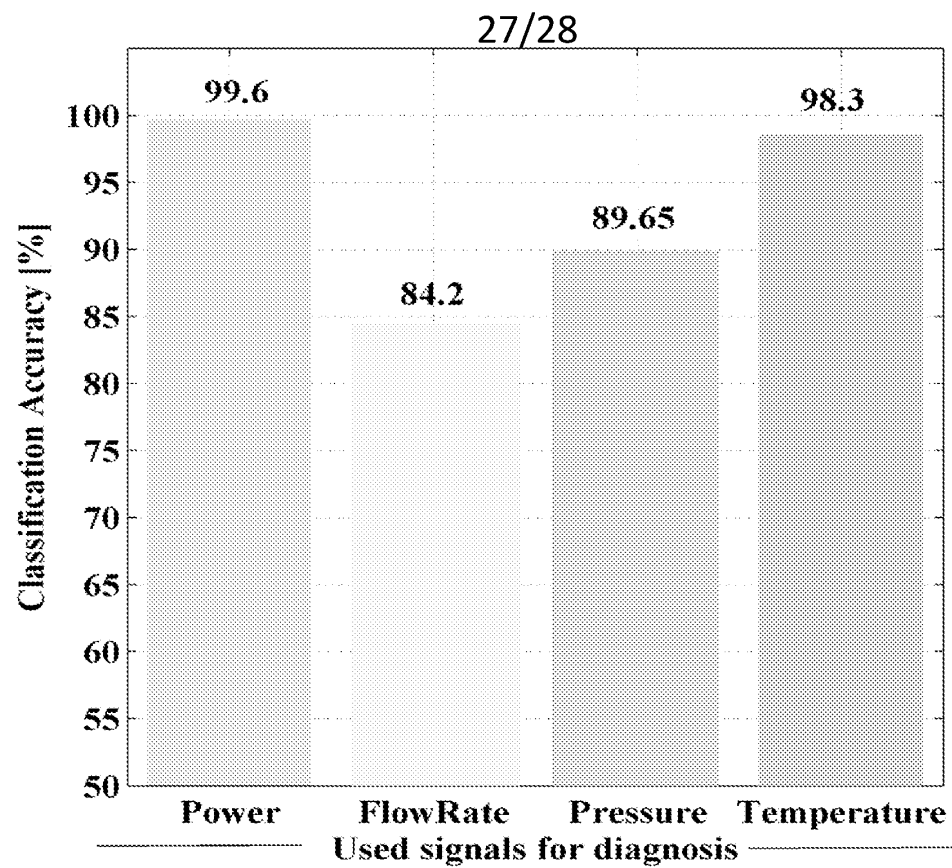


Fig. 26a

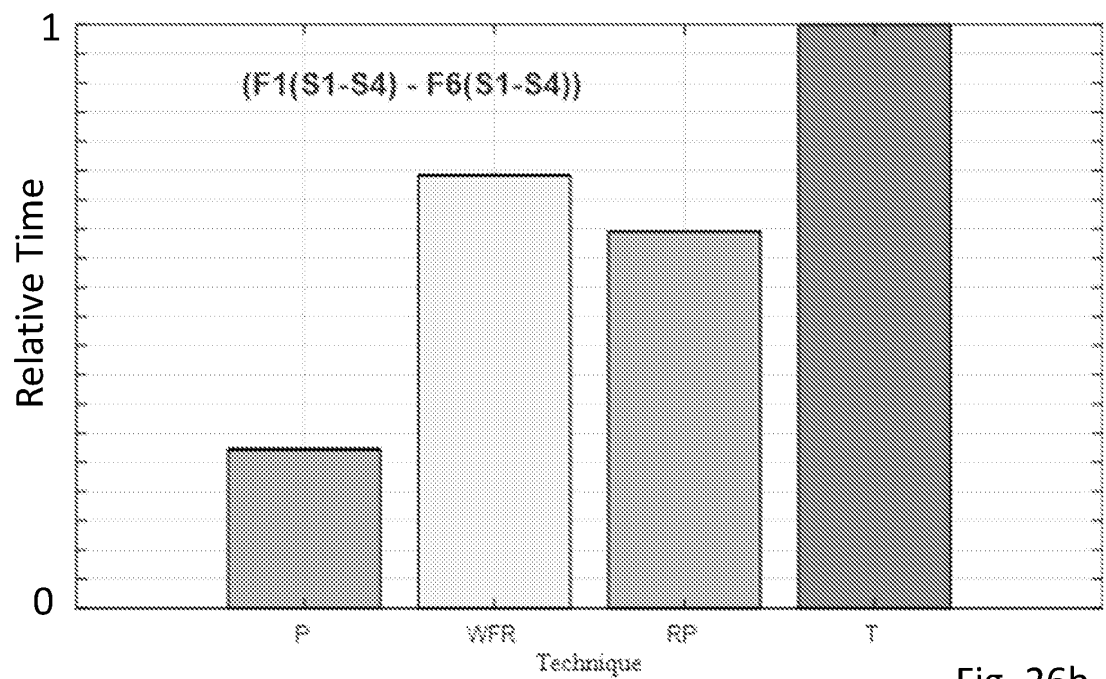


Fig. 26b

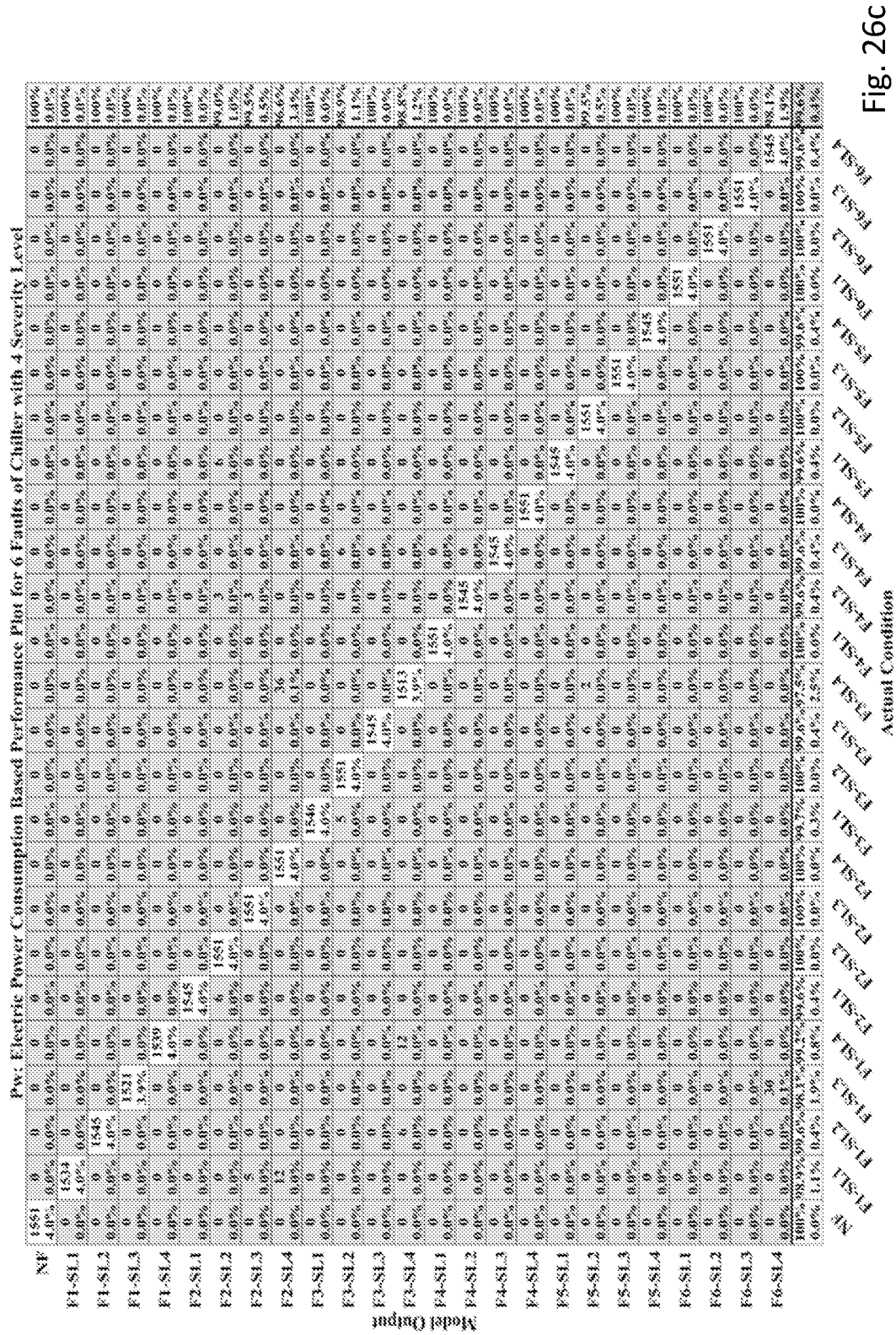


Fig. 26c