

(19)
(12)

(KR)
(B1)

(51) 。 Int. Cl.7
G06K 9/46

(45)
(11)
(24)

2004 07 05
10-0438841
2004 06 24

(21) 10-2002-0022215
(22) 2002 04 23

(65)
(43)

10-2003-0083510
2003 10 30

(73)

416

(72)

104 701

(74)

:

(54)

,

(classifier)

가

2

4

1
2
3
4
5

가 3

가 2

가 가

가

가

가

가

1

1

2

3

가

(310),

(320),

(330), 가
(340),

(350),
(360),

(370)

(36

(380)

(S400).

0)

3

4

(310)

(S410).

20). (320) (S4) 가

.2 (330) 가 (340) (S430).

가 가

(330) 가

6 (330)

(x,y) (x+x_d, y+y_d)

가 가 x_d y_d 30 가 x_d y_d 2

(x_o^l) (x_m^l, y_m^r) x_m^l, y_m^r

m^r s

$$\begin{bmatrix} (x_0^l, x_0^r) (x_0^l, x_1^r) (x_0^l, x_2^r) \dots (x_0^l, x_n^r) \\ (x_1^l, x_0^r) (x_1^l, x_1^r) (x_1^l, x_2^r) \dots (x_1^l, x_n^r) \\ (x_2^l, x_0^r) (x_2^l, x_1^r) (x_2^l, x_2^r) \dots (x_2^l, x_n^r) \\ \vdots \quad \quad \quad \vdots \quad \quad \quad \vdots \\ (x_n^l, x_0^r) (x_n^l, x_1^r) (x_n^l, x_2^r) \dots (x_n^l, x_n^r) \end{bmatrix}$$

가 s (s+1)*(s+1) 5 가

4 25 가 .가 1

25 가

1 25 가 가 (320) (340)

(S440). (350) (350)

(S450).

(Gradient) (Template) (PCA:Principal Component Anal) ysis) (LFA:Local Feature Analysis) 가

(360) (350) (mappi ng) (S460).

(DB:380)

(S470).
 5 7b
 (S520), (S530) (S500), (S510)
 (S430) S400 S450 (S540)
 (380) (350) (370) (370)
 (370) (S550). 1 (FV1)
 1 (FV1)
 (S570). 1 (FV1)
 (S580) (S560).
 8
¹

$$f(x) = \text{sgn}(\langle w * x \rangle + b)$$
 sgn, w, x
 bias b 가
 (hyperplane)
 8
 $\langle w * x \rangle + b = 0$ bias bias
 0 bias bias
 class 2 class 1, 0
 (370)
 2 (FV2) 2 (380)
 S430 (330)
 2 (S590).
 7a 7b
 2 가 (, ')
 가 FAR (False Acceptance R
 (, ') 가
 ate) FRR (False Rejection Rate) 7b 가
 7a 가
 7b 가
 가 FAR, FRR
 7b FV2 FAR 0
 FRR 가
 7b FV1 1 F
 V1
 가
 가 FAR
 가 FAR
 1 (FV1)
 FV1 FV2 (FV2) FV2
 (S430)
 (380)
 2
 가

- (a) ;
- (b) , ;
- (c) ;
- (d) , ;
- (e) ;
- (f) , ;
- (g) 1 ; 1

2.

1 , 2 , (b) (d)

3.

2 , 0 2

4.

1 3 , (a)

5.

1 3 , (c)

6.

1 3 , 가 1/15 , (b) 가

7.

1 3 , , 4 , (b)

8.

1 3 ,

$$f(x) = \text{sgn}(\langle w \cdot x \rangle + b)$$

sgn

, w

b

, x

9.

1 3 , 가

10.

가 ;

가 ;

11.

10

4

가

1/15

12.

10

13.

12

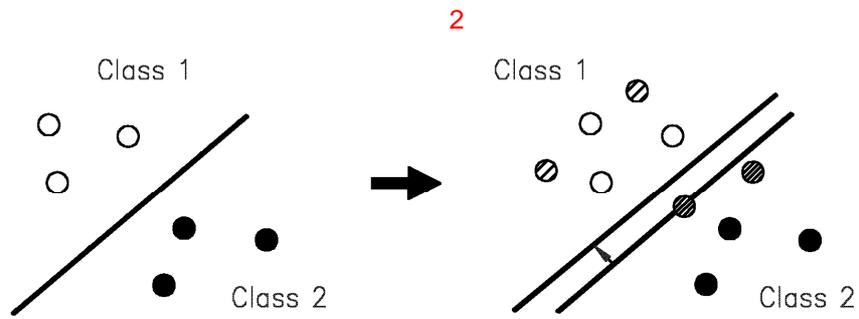
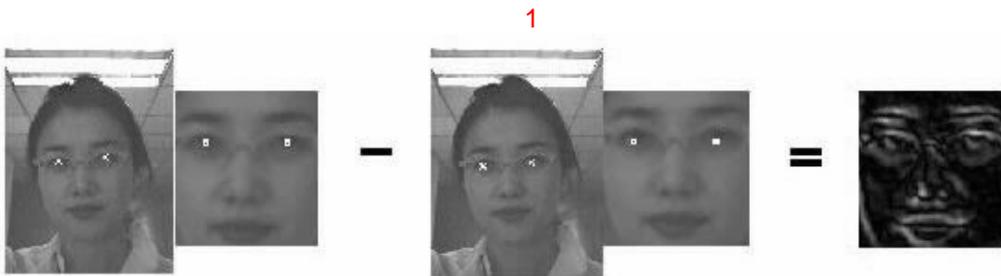
$$f(x) = \text{sgn}(\langle w^*x \rangle + b)$$

sgn

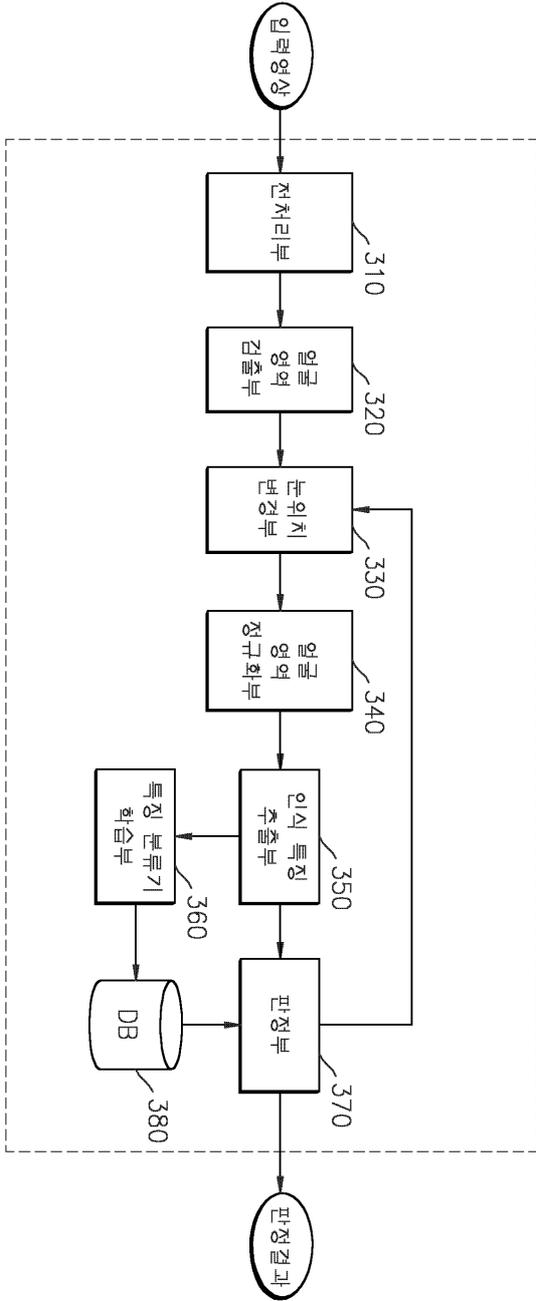
w

b

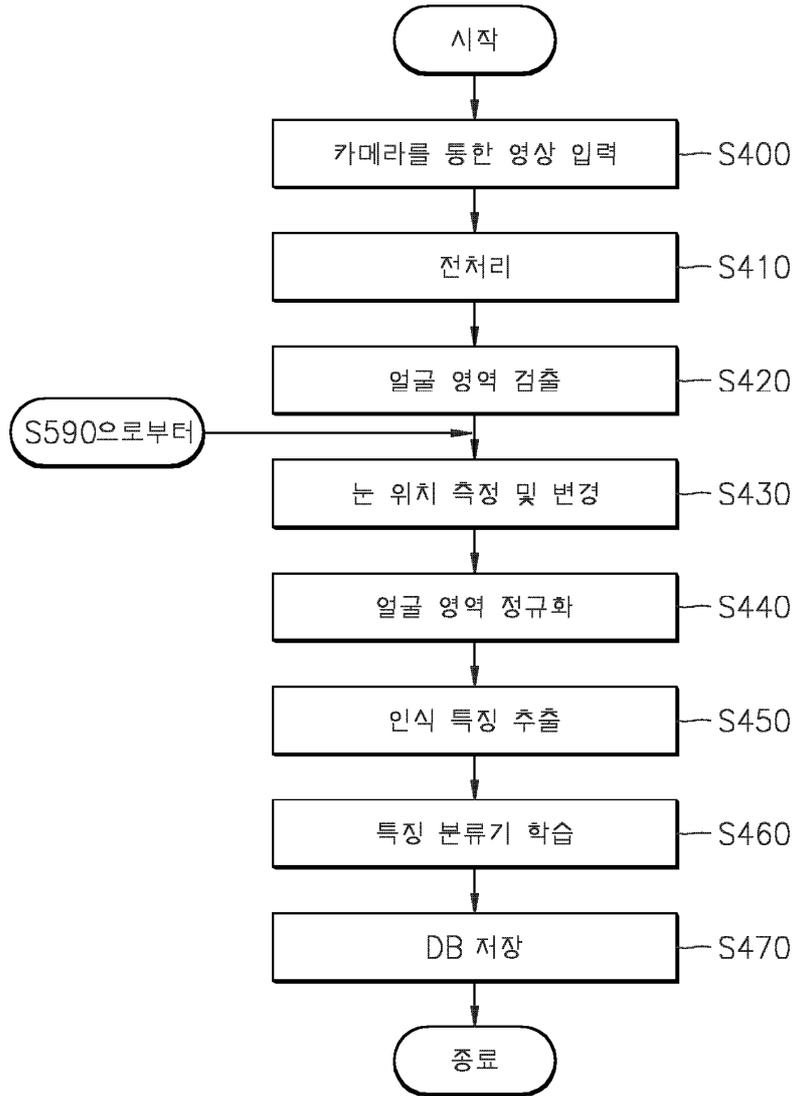
x



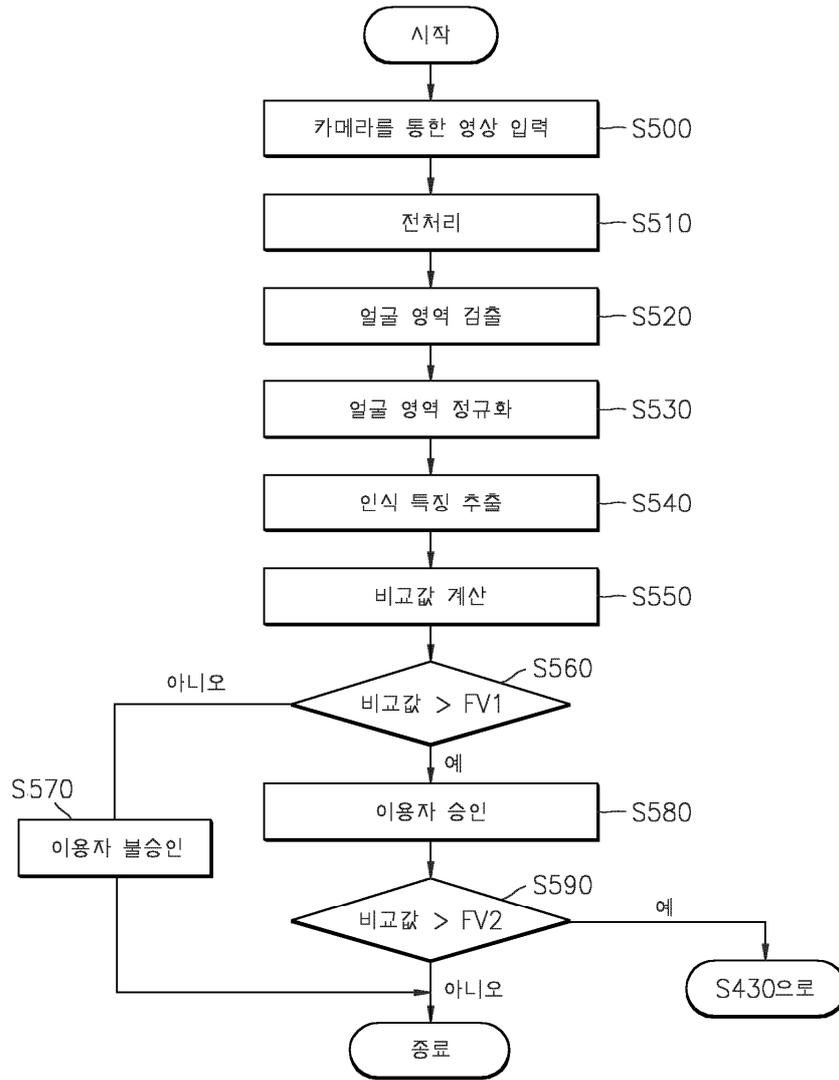
3



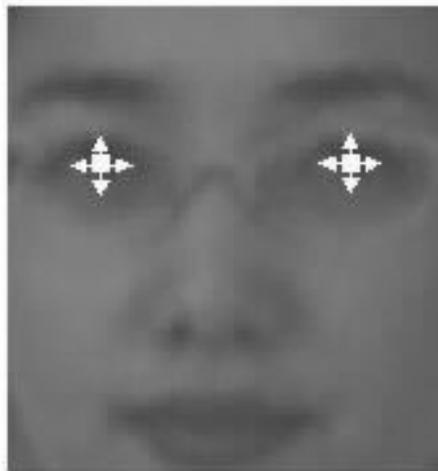
4



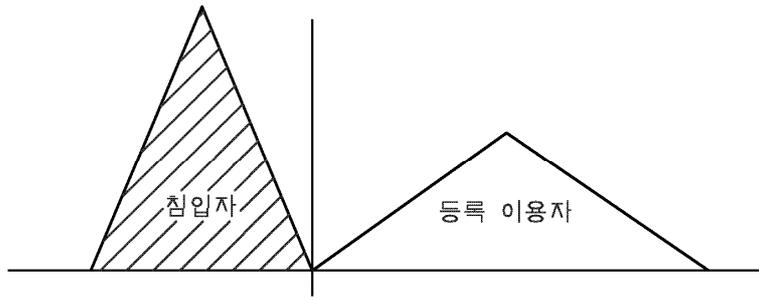
5



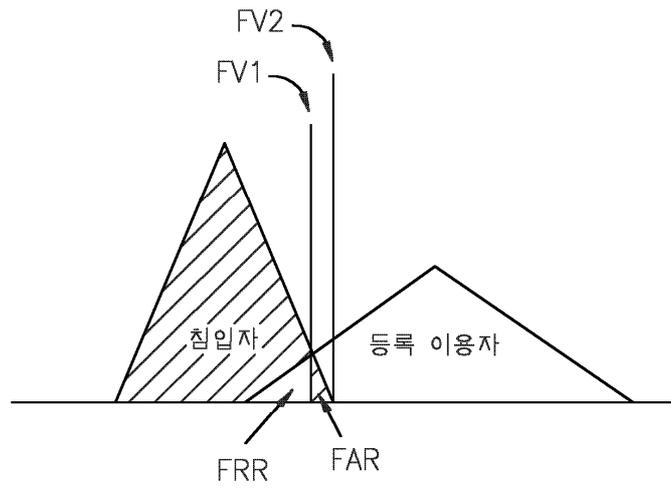
6



7a



7b



8

