

Matriz de convolución

26

19

2024

Scribe

Matriz

Unitaria

1	1	1
1	1	1
1	1	1

60	0	255	16	17
70	0	255	12	1
120	161	161	7	2
70	255	60	61	3
60	180	190	180	5
20	22	30	35	6

$$\text{si } n > 255 = 255$$

$$\text{si } n < 0 = 0$$

Sobel

-1	0	1
-2	0	2
-1	0	1

Res. Matriz Unitaria

60	0	255	16	17
70	R1	R2	R3	1
120	R4	R5	R6	2
70	R7	R8	R9	3
60	R10	R11	R12	5
20	22	30	35	6

$$R_1 = 1682 = 255$$

$$R_2 = 867 = 255$$

$$R_3 = 726 = 255$$

$$R_4 = 1152 = 255$$

$$R_5 = 972 = 255$$

$$R_6 = 562 = 255$$

$$R_7 = 1257 = 255$$

$$R_8 = 1255 = 255$$

$$R_9 = 669 = 255$$

$$R_{10} = 707 = 255$$

$$R_{11} = 1013 = 255$$

$$R_{12} = 570 = 255$$

255	255	255	255	255
255	255	255	255	255
255	255	255	255	255
255	255	255	255	255
255	255	255	255	255
255	255	255	255	255



Cambiamos los restantes por 255

Res. Matrix Sobel

-1	0	1
-2	0	2
-1	0	1

60	0	255	16	17
70	0	255	12	1
120	161	161	7	2
70	255	60	61	3
60	180	190	180	5
20	22	30	35	6

$$R_1 = -60 + 255 + 510 + 161 - 120 - 140 = 255$$

$$R_2 = 16 + 24 + 7 - 161 = 0$$

$$R_3 = -255 + 17 + 2 + 2 - 161 - 510 = 0$$

$$R_4 = -70 + 255 + 322 + 60 - 70 - 240 = 255$$

$$R_5 = -322 - 255 + 12 + 61 + 14 = 0$$

$$R_6 = 7 + 4 + 3 - 255 - 322 - 60 = 0$$

$$R_7 = 161 + 120 + 190 - 60 - 140 - 120 = 151$$

$$R_8 = 7 + 180 + 122 - 161 - 180 - 510 = 0$$

$$R_9 = 2 + 6 + 5 - 161 - 120 - 190 = 0$$

$$R_{10} = 60 + 30 + 380 - 70 - 20 - 120 = 255$$

$$R_{11} = 61 + 35 + 360 - 255 - 22 - 360 = 0$$

$$R_{12} = 3 + 10 + 6 - 60 - 30 - 380 = 0$$

255	255	255	255	255
255	255	0	0	255
255	255	0	0	255
255	151	0	0	255
255	255	0	0	255
255	255	255	255	255