

Perhitungan Metode Prewitt

| citra awal | | |
|------------|---|---|
| -1 | 0 | 1 |
| -1 | 0 | 1 |
| -1 | 0 | 1 |

| citra akhir | | |
|-------------|----|----|
| 1 | 1 | 1 |
| 0 | 0 | 0 |
| -1 | -1 | -1 |

Penjelasan :

Pengembangan dari gradient operator ini dengan menggunakan 2 mask (horizontal dan vertikal) ukuran 3x3.

Perhitungan Metode Sobel

| citra awal | | | | |
|------------|---|---|---|---|
| 1 | 2 | 0 | 2 | 3 |
| 1 | 1 | 0 | 1 | 2 |
| 2 | 2 | 1 | 1 | 2 |
| 1 | 2 | 1 | 3 | 1 |
| 2 | 1 | 1 | 2 | 1 |

| Step 1 | | |
|--------|---|---|
| 1 | 2 | 0 |
| 1 | 1 | 0 |
| 2 | 2 | 1 |

-4 Citra awal = -4

4 M = 4

| Step 3 | | |
|--------|---|---|
| 0 | 2 | 3 |
| 0 | 1 | 2 |
| 1 | 1 | 2 |

7 Citra awal = 7

7 M = 7

| Step 4 | | |
|--------|---|---|
| 1 | 1 | 0 |
| 2 | 2 | 1 |
| 1 | 2 | 1 |

-4 Citra awal = -4

4 M = 4

| |
|---|
| 1 |
| 2 |
| 2 |

-4

4

| Step 6 | | |
|--------|---|---|
| 0 | 1 | 2 |
| 1 | 1 | 2 |
| 1 | 3 | 1 |

0 Citra awal = 0

0 M = 0

| Step 7 | | |
|--------|---|---|
| 2 | 2 | 1 |
| 1 | 2 | 1 |
| 2 | 1 | 1 |

4 Citra awal = 4

4 M = 4

| |
|---|
| 2 |
| 2 |
| 1 |

4

4

| hasil citra | | | | |
|-------------|---|---|---|---|
| 1 | 2 | 0 | 2 | 3 |
| 1 | 4 | 4 | 4 | 2 |
| 2 | 2 | 4 | 2 | 2 |
| 1 | 7 | 0 | 2 | 1 |
| 2 | 1 | 1 | 2 | 1 |

Penjelasan : Metode Sobel merupakan pengembangan metode robert dengan menggunakan filter HPF ya; peninjauan pengaturan pixel yaitu sx dan sy.

Perhitungan Metode Canny

citra awal

matriks 4x3

| | | | |
|---|---|---|---|
| 3 | 2 | 3 | 7 |
| 6 | 7 | 3 | 3 |
| 2 | 3 | 5 | 2 |

kernel

| | | |
|----|----|---|
| -1 | -1 | 1 |
| -1 | 1 | 1 |

4 px

2 py

Penjelasan : Perhitungan canny dimulai dari horizontal menuju vertikal.

| Step 2 | | |
|--------|---|---|
| 2 | 0 | 2 |
| 1 | 0 | 1 |
| 2 | 1 | 1 |

2 Citra awal = 2

2 M = 2

| sx | | |
|----|---|---|
| 1 | 0 | 1 |
| -2 | 0 | 2 |
| -1 | 0 | 1 |

| sy | | |
|----|----|----|
| 1 | 2 | 1 |
| 0 | 0 | 0 |
| -1 | -2 | -1 |

Step 5

| | |
|---|---|
| 0 | 1 |
| 1 | 1 |
| 1 | 3 |

Citra awal = -4

M = 4

Step 9

| | | |
|---|---|---|
| 1 | 1 | 2 |
| 1 | 3 | 1 |
| 1 | 2 | 1 |

2 Citra awal = 2

2 M = 2

Step 8

| | |
|---|---|
| 1 | 1 |
| 1 | 3 |
| 1 | 2 |

Citra awal = 4

M = 4

ang diberi satu angka nol penyangga.