Histogram Equalization Enhances the image contrast and light balance by statistical analysis.

Histogram Equalization

Enhances the image contrast and light balance by statistical analysis.

- ? Calculate CDF
- > Multiply CDF value with max value (28-1)
- > This will be the new value of that particular brigtness level
- > Replace all values with the new ones.
- > Use floor instead of rounding.

Histogram Equalization	
Enhances the image contrast and light balance by statisti	cal analysis
3 Calculate CDF	
-> Multiply CDF value with max value (28-1)	
> This will be the new value of that particular brightness	ss level
> Replace all values with the new ones.	
> Use floor instead of rounding.	
3 bit 4x3 inage	
6756 7765 4706	
values Counts PDF CDF	
1 2 3	
4 5	
6 7	

Histogram Equalization Enhances the image contrast and light balance by statistical analysis 3 Calculate CDF > Multiply CDF value with max value (28-1) > This will be the new value of that particular brighness level > Replace all values with the new ones. > Use floor instead of rounding. 3 bit 4x3 image 67567765 PDF values | Counts CPF 0.08 0.08 0.08 1 23 0 0.08 0 0.08 0.08 0.17 0.17 0.34 4 0.33 0.67 0.33

Histogram	Equaliza	tion				
Enhances	the imag	ge contr	ast and I	light balance	by statistica	.l avalysis.
	ate CDF					
- multip	ly CDF	salue ui	th max	value (2 ^B -1)		
					dar brigtness	level
	call value		the state of the s			
	3 Use floor instead of rounding.					
	0it 4x3 image 7 5 6 7 6 5 7 0 6 ues Courts PDF CDF x maix (7) floor					
776	5					
		PDF	CPF	x maix (7)	floor	
0	1	0.08	0.08	0.56	0	
1	9 9	0	0.08	0.56	0	
3	0	0	0.08	0.56	0	
5	1 2	0.08	0.17	2.38	1 2	
6	4	0.33	0.67	4.69	4	
7	4	0.33				

Histogram	Equaliza	ation			
			rast and	light balance	by statistical analysis.
	ate CDF				
,				value (28-1)	
> This	will be	the new	value of	that partic	who brighness level
	e all value			ones.	
	loor instea		uding.		
	4x3 inc	ye			
675	5 6				
values		PDF	CPF	x maix (7)	floor
0	1	0.08	0.08	0.56	0
1	0	0	0.08	0.56	0 vey dark (4) 1 dark
2 3	O		0.08	0.56	O Very dark
	0	0	0.08	1.19	1 darle
4 5	2	0.08	0.17	2.38	2
		0.17	0.34	4.69	4 - mid tones (4)
6	4	0.33	1	7	7
7			1		7 Svery light (4)
1					
	replay	4		with these	
1122		inese			
776	2				
1774	4 2 > 4				
L	1				