

[DRAFT] Average Precision and Recall for implemented CSLBCoP

1. BRODATZ TEXTURE DATABASE

Total no. of images = 2800

Total classes = 112

Images per class = 25

No. of retrieved Images	25	30	35	40	45	50	55	60	65	70
Precision	0.73846	0.63754	0.55904	0.49742	0.44876	0.4088	0.37557	0.3472	0.32293	0.30208
Recall	0.73846	0.76504	0.78266	0.79587	0.80777	0.8176	0.82626	0.83327	0.83963	0.84581

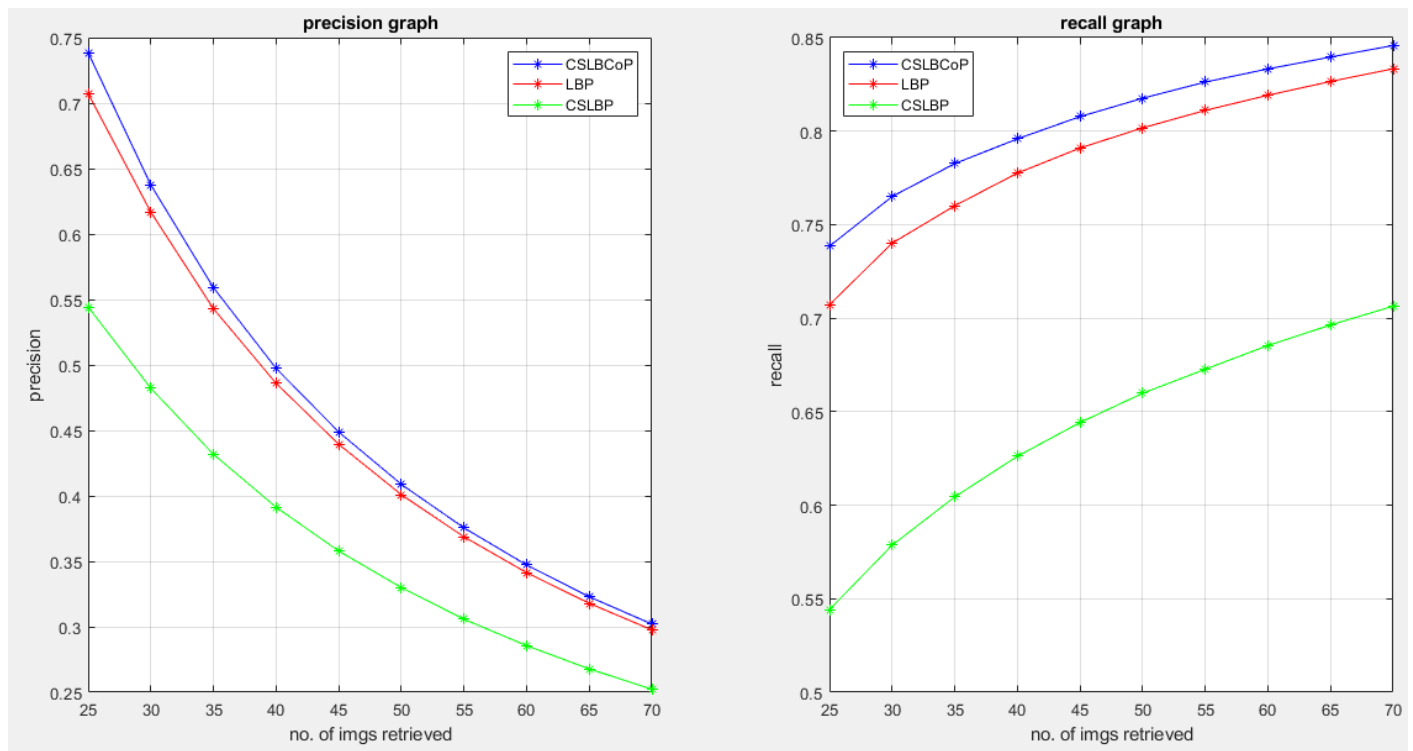


Fig: Results of Implemented CSLBCoP Algorithm

A COMPARISON TO LBP AND CSLBP

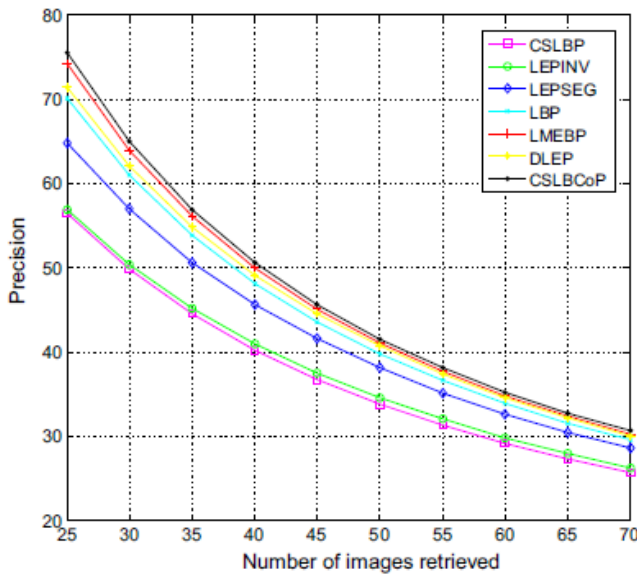
No. of retrieved Images	25	30	35	40	45	50	55	60	65	70
Precision	0.7072	0.61676	0.54295	0.48598	0.43943	0.40088	0.36869	0.34133	0.31791	0.29763
Recall	0.7072	0.74011	0.76013	0.77757	0.79097	0.80176	0.81111	0.81919	0.82656	0.83337

Fig: Results of implemented LBP algorithm

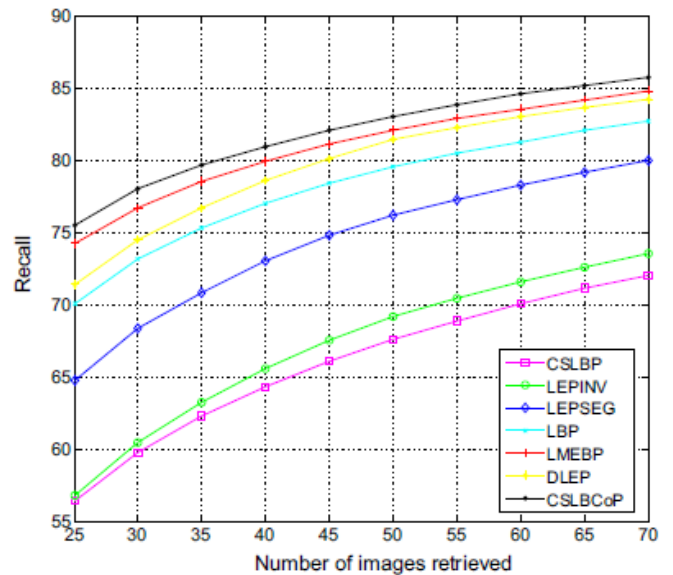
No. of retrieved Images	25	30	35	40	45	50	55	60	65	70
Precision	0.54424	0.48218	0.43176	0.39135	0.3579	0.32993	0.30578	0.28558	0.26783	0.2523
Recall	0.54424	0.57861	0.60446	0.62616	0.64421	0.65986	0.67271	0.6854	0.69636	0.70643

Fig: Results of implemented CSLBP algorithm

M. Verma, B. Raman / J. Vis. Commun. Image R. 32 (2015) 224–236



(a)



(b)

Fig: Original Results as given in the paper

2. ORL FACE DATABASE

Total no. of images = 400

Total classes = 40

Images per class = 10

No. of retrieved images	1	2	3	4	5	6	7	8	9	10
Precision	1	0.97625	0.92833	0.87437	0.8215	0.76208	0.71143	0.66781	0.62528	0.58475
Recall	0.1	0.19525	0.2785	0.34975	0.41075	0.45725	0.498	0.53425	0.56275	0.58475

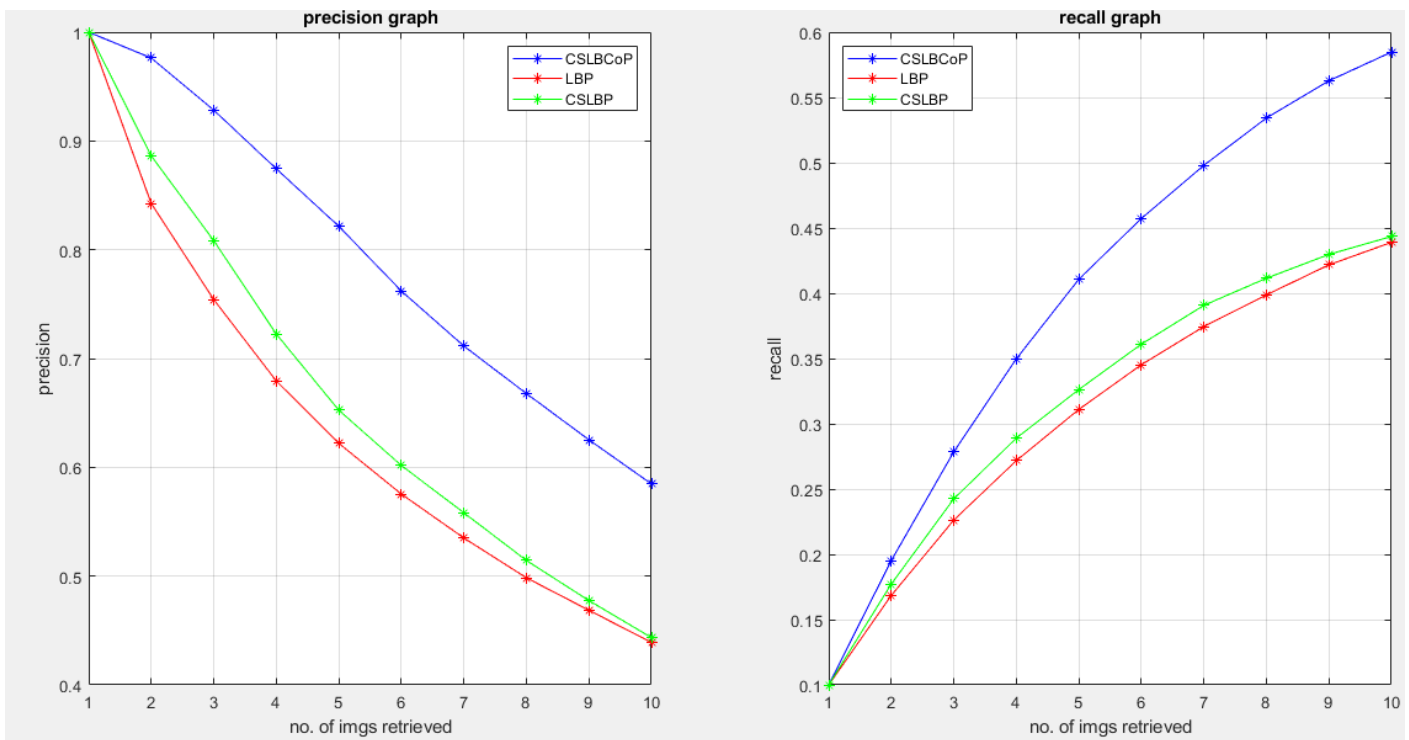


Fig: Results of implemented CSLBCoP algorithm

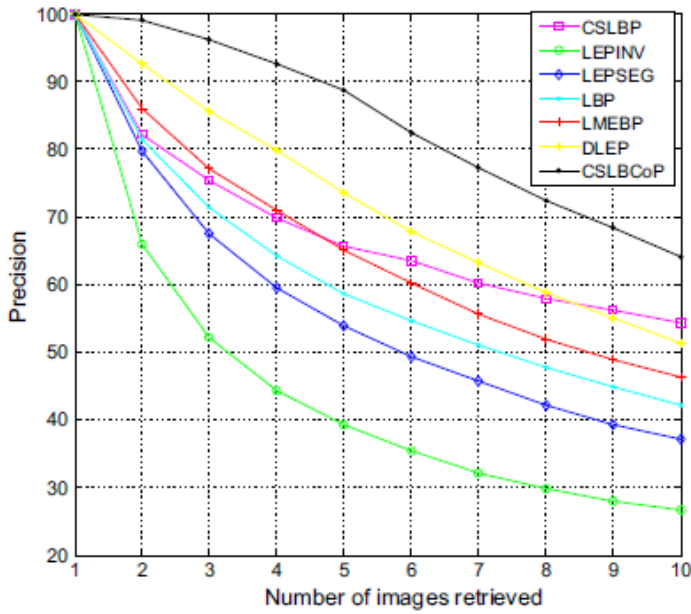
A COMPARISON TO LBP AND CSLBP

No. of retrieved Images	1	2	3	4	5	6	7	8	9	10
Precision	1	0.8425	0.75417	0.67937	0.622	0.57542	0.535	0.49844	0.46861	0.439
Recall	0.1	0.1685	0.22625	0.27175	0.311	0.34525	0.3745	0.39875	0.42175	0.439

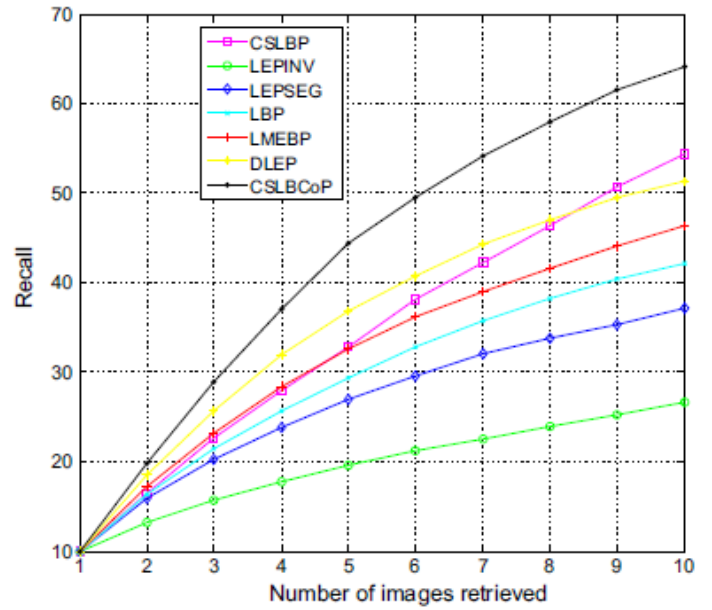
Fig: Results of implemented LBP algorithm

No. of retrieved Images	1	2	3	4	5	6	7	8	9	10
Precision	1	0.88625	0.80833	0.7225	0.6525	0.60167	0.55821	0.51437	0.4775	0.4435
Recall	0.1	0.17725	0.2425	0.289	0.32625	0.361	0.39075	0.4115	0.42975	0.4435

Fig: Results of implemented CSLBP algorithm



(a)



(b)

Fig: Original Results as given in the paper

ANNEXURE

Typical CSLBP output for a given image



Input image



CSLBP Output

ip =

Columns 1 through 30

48	49	45	47	49	57	39	42	53	49
45	52	39	46	56	45	39	47	48	40
45	50	42	51	51	45	40	48	44	37
49	46	47	47	50	47	42	45	40	44
46	46	47	48	48	44	43	44	60	54
47	45	48	51	44	35	41	49	56	62
45	48	46	50	33	37	42	51	60	61
47	49	47	55	40	31	54	52	65	60
48	48	50	57	37	51	62	46	48	55
53	46	50	55	41	57	46	59	71	52

Above: Truncated portion(10x10) of image matrix

c =

Columns 1 through 25

1	0	0	1	1	0	0	1	1	0
7	8	4	3	10	12	9	3	14	14
3	4	9	3	4	8	1	7	12	0
3	4	11	7	12	12	10	6	0	1
7	13	3	11	12	12	6	1	1	2
7	3	5	10	12	14	7	3	3	0
3	3	7	8	12	7	3	3	3	5
3	0	3	8	0	3	1	5	7	7
3	5	3	8	0	3	4	2	3	13
3	0	7	12	9	7	5	9	0	10

Above: Truncated portion(10x10) of CSLBP output matrix

glcm0 =

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	562	31	184	8	18	1	18	82	5	4	5	11	2	2	1
0	14	8	25	21	18	9	20	20	2	1	5	22	1	1	4
0	190	41	414	66	48	13	221	71	10	6	12	45	11	9	15
0	14	17	41	1	0	5	9	86	16	25	31	7	2	7	6
0	12	16	38	3	3	1	7	43	8	36	23	13	0	5	3
0	8	3	23	3	3	4	15	12	2	12	7	8	3	6	12
0	13	21	221	11	8	23	290	56	17	37	38	54	7	74	112
0	70	11	57	64	34	14	60	414	18	14	11	274	23	14	11
0	13	4	12	16	7	6	7	23	4	2	0	11	0	1	2
0	10	2	5	29	27	8	33	14	2	0	2	63	3	5	4
0	6	2	9	30	24	4	42	4	1	0	1	42	6	9	9
0	15	10	62	10	8	10	52	252	18	46	30	381	17	141	34
0	4	7	11	1	1	1	6	22	4	8	5	15	4	7	8
0	5	0	9	3	3	14	53	26	3	9	7	155	11	317	148
0	2	2	9	3	7	7	97	8	0	8	8	44	11	168	277

Above: GLCM output(16x6) of CSLBP matrix taken at 0 degrees