

METODE CROSS VALIDATION
PADA PERSAMAAN REGRESI LINEAR

Nama File Data : hald

No	X1	X2	X3	X4	Y
1	0000007.00	0000026.00	0000006.00	0000060.00	0000078.50
2	0000001.00	0000029.00	0000015.00	0000052.00	0000074.30
3	0000011.00	0000056.00	0000008.00	0000020.00	0000104.30
4	0000011.00	0000031.00	0000008.00	0000047.00	0000087.60
5	0000007.00	0000052.00	0000006.00	0000033.00	0000075.90
6	0000011.00	0000055.00	0000009.00	0000022.00	0000109.20
7	0000003.00	0000071.00	0000017.00	0000006.00	0000102.70
8	0000001.00	0000031.00	0000022.00	0000044.00	0000072.50
9	0000002.00	0000054.00	0000018.00	0000022.00	0000093.10
10	0000021.00	0000047.00	0000004.00	0000026.00	0000115.90
11	0000001.00	0000040.00	0000023.00	0000034.00	0000083.80
12	0000011.00	0000066.00	0000009.00	0000012.00	0000113.30
13	0000010.00	0000068.00	0000008.00	0000012.00	0000109.40

Tabel Semua Kemungkinan Model Regresi dengan Nilai Bcv

Uk. Mod	Kombinasi Model Untuk Setiap Ukuran P	Bcv
P = 2	$81.48 + 1.87 \times X_1$	130.739
P = 2	$57.42 + 0.79 \times X_2$	92.468
P = 2	$110.20 + -1.26 \times X_3$	201.259
P = 2	$117.57 + -0.74 \times X_4$	91.863
P = 3	$52.58 + 1.47 \times X_1 + 0.66 \times X_2$	7.222
P = 3	$72.35 + 2.31 \times X_1 + 0.49 \times X_3$	170.624
P = 3	$103.10 + 1.44 \times X_1 + -0.61 \times X_4$	9.325
P = 3	$72.07 + 0.73 \times X_2 + -1.01 \times X_3$	53.980
P = 3	$94.16 + 0.31 \times X_2 + -0.46 \times X_4$	112.447
P = 3	$131.28 + -1.20 \times X_3 + -0.72 \times X_4$	22.616
P = 4	$48.19 + 1.70 \times X_1 + 0.66 \times X_2 + 0.25 \times X_3$	6.923
P = 4	$71.65 + 1.45 \times X_1 + 0.42 \times X_2 + -0.24 \times X_4$	6.565
P = 4	$111.68 + 1.05 \times X_1 + -0.41 \times X_3 + -0.64 \times X_4$	7.272
P = 4	$203.64 + -0.92 \times X_2 + -1.45 \times X_3 + -1.56 \times X_4$	11.296
P = 5	$62.41 + 1.55 \times X_1 + 0.51 \times X_2 + 0.10 \times X_3 + -0.14 \times X_4$	8.488

Tabel Criteria Pemilihan Model

Uk. Mod	MODEL	MSE	R ²	R ² BAR	SSE	CP	Qcv
P = 2	1	115.062	0.534	0.492	1265.687	202.549	130.739
P = 2	2	82.394	0.666	0.636	906.336	142.486	92.468
P = 2	3	176.309	0.286	0.221	1939.400	315.154	201.259
P = 2	4	80.352	0.675	0.645	883.867	138.731	91.863
P = 3	12	5.790	0.979	0.974	57.904	2.678	7.222
P = 3	13	122.707	0.548	0.458	1227.072	198.095	170.624
P = 3	14	7.476	0.972	0.967	74.762	5.496	9.325
P = 3	23	41.544	0.847	0.816	415.443	62.438	53.980
P = 3	24	86.888	0.680	0.616	868.880	138.226	112.447
P = 3	34	17.574	0.935	0.922	175.738	22.373	22.616
P = 4	123	5.346	0.982	0.976	48.111	3.041	6.423
P = 4	124	5.330	0.982	0.976	47.973	3.018	6.565
P = 4	134	5.648	0.981	0.975	50.836	3.497	7.272
P = 4	234	8.202	0.973	0.964	73.815	7.337	11.296
P = 5	1234	5.983	0.982	0.974	47.864	5.000	8.488

Tabel Model Terbaik Untuk Setiap ukuran P dengan kriteria QCV

Uk. Mod	Model - Model Terbaik untuk setiap P	Qcv
P = 2	$117.57 + -0.74 \times X_4$	91.863
P = 3	$52.58 + 1.47 \times X_1 + 0.66 \times X_2$	7.222
P = 4	$71.65 + 1.45 \times X_1 + 0.42 \times X_2 + -0.24 \times X_4$	6.565
P = 5	$62.41 + 1.55 \times X_1 + 0.51 \times X_2 + 0.10 \times X_3 + -0.14 \times X_4$	8.488

Hasil Akhir Dari Proses Cross Validation :

Model Terbaik : $71.65 + 1.45 \times X_1 + 0.42 \times X_2 + -0.24 \times X_4$

QCV min : 6.565

Tabel Model Terbaik Untuk Setiap ukuran P dengan kriteria MSE

Uk. Mod	Model - Model Terbaik untuk setiap P	MSE
P = 2	$117.57 + -0.74 \times X_4$	80.352
P = 3	$52.58 + 1.47 \times X_1 + 0.66 \times X_2$	5.790
P = 4	$71.65 + 1.45 \times X_1 + 0.42 \times X_2 + -0.24 \times X_4$	5.330
P = 5	$62.41 + 1.55 \times X_1 + 0.51 \times X_2 + 0.10 \times X_3 + -0.14 \times X_4$	5.983

Hasil Akhir Dari Pemilihan Model :

Model Terbaik : $71.65 + 1.45 \times X_1 + 0.42 \times X_2 + -0.24 \times X_4$

MSE min : 5.330

Tabel Model Terbaik Untuk Setiap ukuran P dengan kriteria R^2 BAR

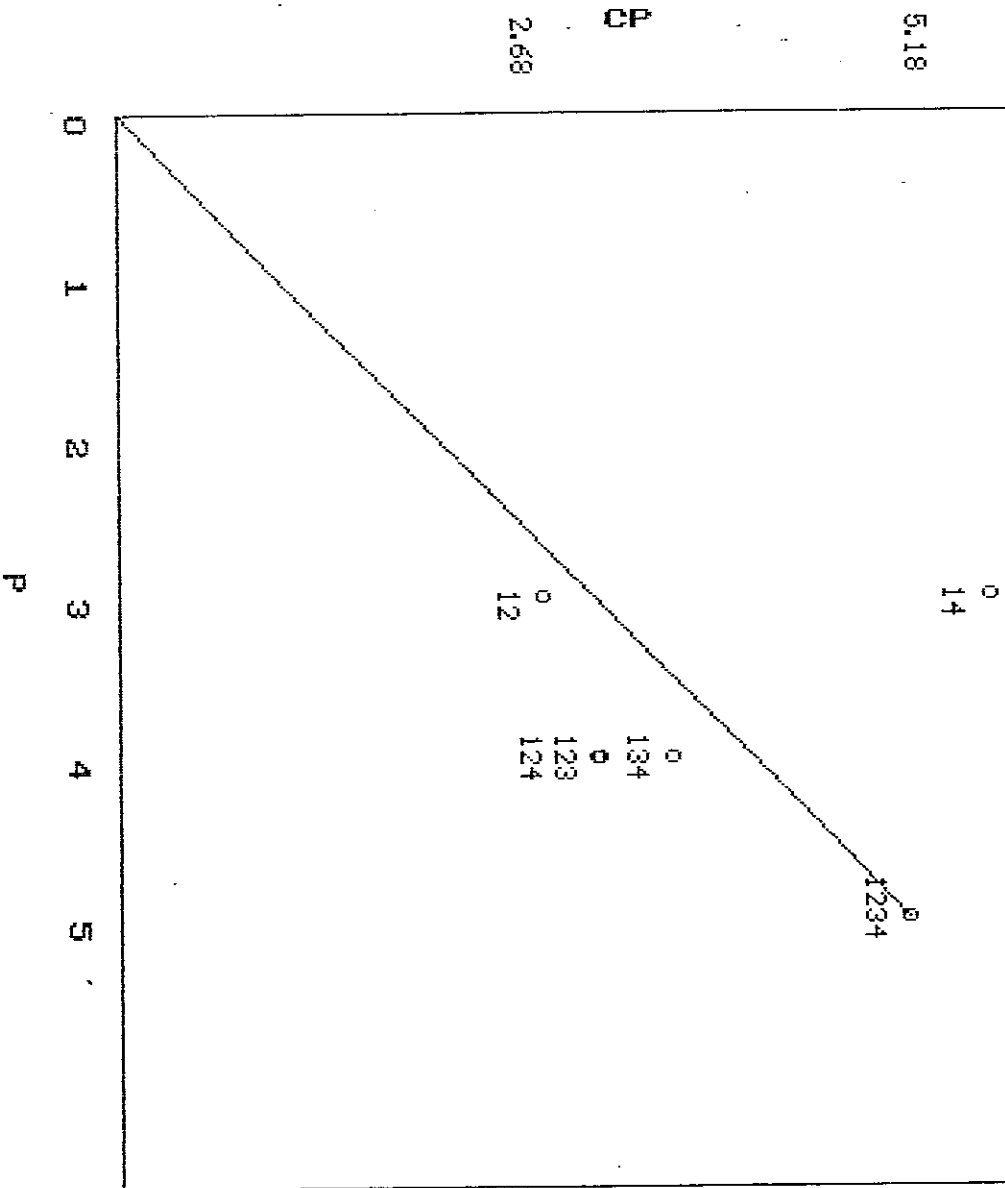
Uk. Mod	Model - Model Terbaik untuk setiap P	R^2 BAR
P = 2	$117.57 - 0.74 \cdot X_4$	0.645
P = 3	$52.58 + 1.47 \cdot X_1 + 0.66 \cdot X_2$	0.974
P = 4	$71.65 + 1.45 \cdot X_1 + 0.42 \cdot X_2 - 0.24 \cdot X_4$	0.976
P = 5	$62.41 + 1.55 \cdot X_1 + 0.51 \cdot X_2 + 0.10 \cdot X_3 - 0.14 \cdot X_4$	0.974

Hasil Akhir Dari Pemilihan Model :

Model Terbaik : $71.65 + 1.45 \cdot X_1 + 0.42 \cdot X_2 - 0.24 \cdot X_4$

R^2 BAR Max : 0.976

GRAPHIC OF CP ON P (MODELS)



GRAPHIC OF CROSS VALIDATION MODEL MINIMUM

