DAFTAR PUSTAKA

A. Alikhani, R. B.-R. M. F.-M. (2010). 67F603122160.pdf. *International Journal of Physical Sciences*, *5*(1), 25–29.

Alwie, rahayu deny danar dan alvi furwanti, Prasetio, A. B., Andespa, R., Lhokseumawe, P. N., & Pengantar, K. (2020). Tugas Akhir Tugas Akhir. *Jurnal Ekonomi Volume 18, Nomor 1 Maret201*, *2*(1), 41–49.

Bachrun, R., Pallu, M. S., Thaha, M. A., & Bakri, B. (2020). Effect of water discharge variation on water levels and flow characteristics in pipeline networks. *IOP Conference Series: Earth and Environmental Science*, *419*(1). https://doi.org/10.1088/1755-1315/419/1/012134

Chow, Ven te. 1989, *Hidrolika Saluran Terbuka*, Erlangga, Jakarta

Direktorat Jenderal Sumber Daya Air. (2013). *Standard Perencanaan Irigasi. Kriteria Perencanaan Bagian Bangunan Utama (Headworks) KP-02*. 240. https://drive.google.com/drive/folders/1ZFvyYEXL3pmUs0s1h3C5qn165BhvZNdH

Ilmiah, P. (2016). *PENGARUH VARIASI JARI-JARI KOLAM OLAK TIPE TRAJECTORY BUCKET TERHADAP LONCATAN HIDROLIS DAN PEREDAMAN*.

Kabir Ihsan, M. (2017). Pengaruh Bentuk Mercu Bendung Terhadap Tinggi Loncat Air Kolam Olak Model Usbr Iv (Simulasi Laboratorium). *Teras Jurnal*, *7*(1), 173–182.

Latif, A. A., Pallu, M. S., Maricar, F., & Hatta, M. P. (2019). Pengaruh Tinggi Bukaan Pintu Air Terhadap Bilangan Froude Dengan Dasar Tanah Lempung Pada Saluran Terbuka. *Prosiding Seminar Nasional Teknik Sipil*, 181–272.

Latif, A. A., Pallu, M. S., Maricar, F., & Hatta, M. P. (2020). Study of the scour model around the sluice gate of open channel. *International Journal of Advanced Research in Engineering and Technology*, *11*(6), 239–247. https://doi.org/10.34218/IJARET.11.6.2020.022

Lestari, D. R., Setyandito, O., Loren, M., Wijayanti, Y., & Juliastuti. (2021). Flow Characteristics of Stilling Basin, Case Study: Karian Dam, Central Java Province. *IOP Conference Series: Earth and Environmental Science*, *794*(1), 0–7. https://doi.org/10.1088/1755-1315/794/1/012066

Macián-Pérez, J. F., García-Bartual, R., Huber, B., Bayon, A., & Vallés-Morán, F. J. 0). Analysis of the flow in a typified USBR II stilling basin through a numerical physical modeling approach. *Water (Switzerland)*, *12*(1). s://doi.org/10.3390/w12010227

P. (2016). Evaluasi Panjang Kolam Olak (Ld) Dan Panjang Loncatan (Lj) Pada

Peredam Energi Bendung,Jl. Terusan Kecubung, Kota – Malang. *EUREKA : Jurnal Penelitian Teknik Sipil Dan Teknik Kimia*, *1*(2).

Of, S., Models, P., The, O., Of, I., Radius, C., Basin, S., The, T., Energy, O., & Of, R. (2022). *Jurnal Smart Teknologi Kajian Model Fisik Pengaruh Perubahan Jari – Jari Kolam Olak Pada Peredam Energi Tipe Bucket Jurnal Smart Teknologi Gambar 1 . Peredam Energi Tipe Bak*. *3*(5), 480–491.

Pallu, M.S. 2022. *Hidrolika Teknik Sipil.* Azkiya Publishing: Yogyakarta.

Pangestu, A. D., Amini, S., Astuti, Y., Studi, P., Sipil, T., Indonesia, U. I., Studi, P., Sipil, T., & Indonesia, U. I. (2018). *Studi Gerusan di Hilir Bendung Kolam Olak Tipe Vlughter Dengan Perlindungan Groundsill*. 463–473. journal.uii.ac.id

Pendahuluan, I., & Belakang, A. L. (2008). *Loncatan Air Pada Saluran Miring Terbuka*. 1–21.

PU, D. (2013). *Standard Perencanaan Irigasi - Kriteria Perencanaan Bagian Bangunan KP-04*.

Setiawan, I. (2013). Kolam Olak Tipe Slotted Roller Bucket Modification Terhadap. *Matriks Teknk Sipil*, *1*(3), 199–206.

Shahnaz, N., Maricar, F., & Bakri, B. (n.d.). *Flip Bucket Energy Damping Model Test On Karalloe Dam Spillway*. *24*(1), 8–12.

Triatmodjo, Bambang. Revisi 1993. *Hidraulika I*. Beta Offset: Yogyakarta. Triatmodjo, Bambang. Revisi 2008. *Hidraulika II*. Beta Offset: Yogyakarta.

Wall, P., Pada, I., Terjun, B., Loncatan, T., & Setempat, D. A. N. G. (2017). *Egi Juliansyah, 2017 PENGARUH WALL IMPACTS PADA BANGUNAN TERJUN TERHADAP LONCATAN AIR DAN GERUSAN SETEMPAT Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu*. 1–4.

Wigati, R. (2017). Pengaruh Penggunaan Kolam Olak Sebagai Peredam Energi Loncat Air Terhadap Kedalaman Muka Air Hilir. *Fondasi : Jurnal Teknik Sipil*, *3*(1), 1–11. https://doi.org/10.36055/jft.v3i1.1710

LAMPIRAN

1. Energi Spesifik

A. Debit 0.000829 m3/dtk

y (cm)	A (cm^2)	V (cm/dtk)	$V^2/2g$ (cm)	Es (cm)	Fr
0.30	2.34	354.27	639.70	640.00	65.30
0.60	4.68	177.14	159.93	160.53	23.09
0.90	7.02	118.09	71.08	71.98	12.57
1.20	9.36	88.57	39.98	41.18	8.16
1.50	11.70	70.85	25.59	27.09	5.84
1.80	14.04	59.05	17.77	19.57	4.44
2.10	16.38	50.61	13.06	15.16	3.53
2.40	18.72	44.28	10.00	12.40	2.89
2.70	21.06	39.36	7.90	10.60	2.42
3.00	23.40	35.43	6.40	9.40	2.07
3.30	25.74	32.21	5.29	8.59	1.79
3.60	28.08	29.52	4.44	8.04	1.57
3.90	30.42	27.25	3.79	7.69	1.39
4.20	32.76	25.31	3.26	7.46	1.25
4.50	35.10	23.62	2.84	7.34	1.12
4.80	37.44	22.14	2.50	7.30	1.02
5.10	39.78	20.84	2.21	7.31	0.93
5.40	42.12	19.68	1.97	7.37	0.86
5.70	44.46	18.65	1.77	7.47	0.79
6.00	46.80	17.71	1.60	7.60	0.73
6.30	49.14	16.87	1.45	7.75	0.68
6.60	51.48	16.10	1.32	7.92	0.63
6.90	53.82	15.40	1.21	8.11	0.59
7.20	56.16	14.76	1.11	8.31	0.56
7.50	58.50	14.17	1.02	8.52	0.52
7.80	60.84	13.63	0.95	8.75	0.49
8.10	63.18	13.12	0.88	8.98	0.47
8.40	65.52	12.65	0.82	9.22	0.44
8.70	67.86	12.22	0.76	9.46	0.42
9.00	70.20	11.81	0.71	9.71	0.40
9.30	72.54	11.43	0.67	9.97	0.38
[illegible]	74.88	11.07	0.62	10.22	0.36
[illegible]	77.22	10.74	0.59	10.49	0.34
[illegible]0	79.56	10.42	0.55	10.75	0.33
[illegible]0	81.90	10.12	0.52	11.02	0.32

y (cm)	A (cm^2)	V (cm/dtk)	$V^2/2g$ (cm)	Es (cm)	Fr
10.80	84.24	9.84	0.49	11.29	0.30
11.10	86.58	9.57	0.47	11.57	0.29
11.40	88.92	9.32	0.44	11.84	0.28
11.70	91.26	9.08	0.42	12.12	0.27
12.00	93.60	8.86	0.40	12.40	0.26
12.30	95.94	8.64	0.38	12.68	0.25
12.60	98.28	8.44	0.36	12.96	0.24
12.90	100.62	8.24	0.35	13.25	0.23
13.20	102.96	8.05	0.33	13.53	0.22
13.50	105.30	7.87	0.32	13.82	0.22
13.80	107.64	7.70	0.30	14.10	0.21
14.10	109.98	7.54	0.29	14.39	0.20
14.40	112.32	7.38	0.28	14.68	0.20
14.70	114.66	7.23	0.27	14.97	0.19
15.00	117.00	7.09	0.26	15.26	0.18
15.30	119.34	6.95	0.25	15.55	0.18
15.60	121.68	6.81	0.24	15.84	0.17
15.90	124.02	6.68	0.23	16.13	0.17
16.20	126.36	6.56	0.22	16.42	0.16
16.50	128.70	6.44	0.21	16.71	0.16
16.80	131.04	6.33	0.20	17.00	0.16
17.10	133.38	6.22	0.20	17.30	0.15
17.40	135.72	6.11	0.19	17.59	0.15
17.70	138.06	6.00	0.18	17.88	0.14
18.00	140.40	5.90	0.18	18.18	0.14
18.30	142.74	5.81	0.17	18.47	0.14
18.60	145.08	5.71	0.17	18.77	0.13
18.90	147.42	5.62	0.16	19.06	0.13
19.20	149.76	5.54	0.16	19.36	0.13
19.50	152.10	5.45	0.15	19.65	0.12
19.80	154.44	5.37	0.15	19.95	0.12
[illegible]	156.78	5.29	0.14	20.24	0.12

B. Debit 0.001148 m3/dtk

y (cm)	A (cm^2)	V (cm/dtk)	$V^2/2g$ (cm)	Es (cm)	Fr
0.30	2.34	490.60	1226.74	1227.04	90.43
0.60	4.68	245.30	306.69	307.29	31.97
0.90	7.02	163.53	136.30	137.20	17.40
1.20	9.36	122.65	76.67	77.87	11.30
1.50	11.70	98.12	49.07	50.57	8.09
1.80	14.04	81.77	34.08	35.88	6.15
2.10	16.38	70.09	25.04	27.14	4.88
2.40	18.72	61.32	19.17	21.57	4.00
2.70	21.06	54.51	15.14	17.84	3.35
3.00	23.40	49.06	12.27	15.27	2.86
3.30	25.74	44.60	10.14	13.44	2.48
3.60	28.08	40.88	8.52	12.12	2.18
3.90	30.42	37.74	7.26	11.16	1.93
4.20	32.76	35.04	6.26	10.46	1.73
4.50	35.10	32.71	5.45	9.95	1.56
4.80	37.44	30.66	4.79	9.59	1.41
5.10	39.78	28.86	4.24	9.34	1.29
5.40	42.12	27.26	3.79	9.19	1.18
5.70	44.46	25.82	3.40	9.10	1.09
6.00	46.80	24.53	3.07	9.07	1.01
6.30	49.14	23.36	2.78	9.08	0.94
6.60	51.48	22.30	2.53	9.13	0.88
6.90	53.82	21.33	2.32	9.22	0.82
7.20	56.16	20.44	2.13	9.33	0.77
7.50	58.50	19.62	1.96	9.46	0.72
7.80	60.84	18.87	1.81	9.61	0.68
8.10	63.18	18.17	1.68	9.78	0.64
8.40	65.52	17.52	1.56	9.96	0.61
8.70	67.86	16.92	1.46	10.16	0.58
9.00	70.20	16.35	1.36	10.36	0.55
9.30	72.54	15.83	1.28	10.58	0.52
9.60	74.88	15.33	1.20	10.80	0.50
	77.22	14.87	1.13	11.03	0.48
)	79.56	14.43	1.06	11.26	0.46
)	81.90	14.02	1.00	11.50	0.44

y (cm)	A (cm^2)	V (cm/dtk)	$V^2/2g$ (cm)	Es (cm)	Fr
10.80	84.24	13.63	0.95	11.75	0.42
11.10	86.58	13.26	0.90	12.00	0.40
11.40	88.92	12.91	0.85	12.25	0.39
11.70	91.26	12.58	0.81	12.51	0.37
12.00	93.60	12.26	0.77	12.77	0.36
12.30	95.94	11.97	0.73	13.03	0.34
12.60	98.28	11.68	0.70	13.30	0.33
12.90	100.62	11.41	0.66	13.56	0.32
13.20	102.96	11.15	0.63	13.83	0.31
13.50	105.30	10.90	0.61	14.11	0.30
13.80	107.64	10.67	0.58	14.38	0.29
14.10	109.98	10.44	0.56	14.66	0.28
14.40	112.32	10.22	0.53	14.93	0.27
14.70	114.66	10.01	0.51	15.21	0.26
15.00	117.00	9.81	0.49	15.49	0.26
15.30	119.34	9.62	0.47	15.77	0.25
15.60	121.68	9.43	0.45	16.05	0.24
15.90	124.02	9.26	0.44	16.34	0.23
16.20	126.36	9.09	0.42	16.62	0.23
16.50	128.70	8.92	0.41	16.91	0.22
16.80	131.04	8.76	0.39	17.19	0.22
17.10	133.38	8.61	0.38	17.48	0.21
17.40	135.72	8.46	0.36	17.76	0.20
17.70	138.06	8.32	0.35	18.05	0.20
18.00	140.40	8.18	0.34	18.34	0.19
18.30	142.74	8.04	0.33	18.63	0.19
18.60	145.08	7.91	0.32	18.92	0.19
10.80	84.24	13.63	0.95	11.75	0.42
11.10	86.58	13.26	0.90	12.00	0.40
11.40	88.92	12.91	0.85	12.25	0.39
11.70	91.26	12.58	0.81	12.51	0.37
12.00	93.60	12.26	0.77	12.77	0.36

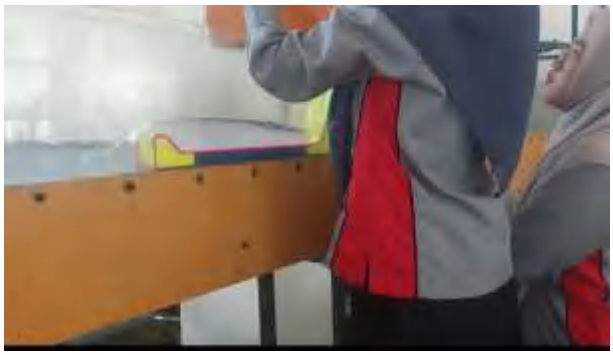
C. Debit 0.0001319 m3/dtk

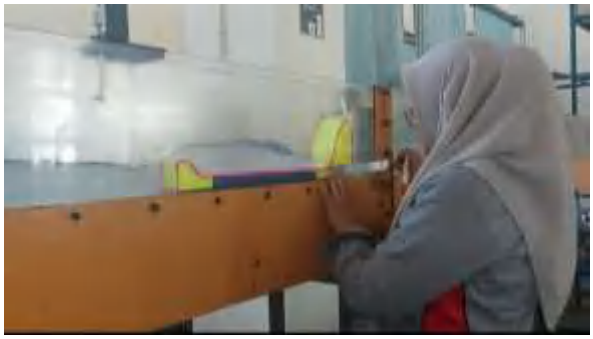
y (cm)	A (cm^2)	V (cm/dtk)	$V^2/2g$ (cm)	Es (cm)	Fr
0.30	2.34	563.68	1619.42	1619.72	103.90
0.60	4.68	281.84	404.85	405.45	36.74
0.90	7.02	187.89	179.94	180.84	20.00
1.20	9.36	140.92	101.21	102.41	12.99
1.50	11.70	112.74	64.78	66.28	9.29
1.80	14.04	93.95	44.98	46.78	7.07
2.10	16.38	80.53	33.05	35.15	5.61
2.40	18.72	70.46	25.30	27.70	4.59
2.70	21.06	62.63	19.99	22.69	3.85
3.00	23.40	56.37	16.19	19.19	3.29
3.30	25.74	51.24	13.38	16.68	2.85
3.60	28.08	46.97	11.25	14.85	2.50
3.90	30.42	43.36	9.58	13.48	2.22
4.20	32.76	40.26	8.26	12.46	1.98
4.50	35.10	37.58	7.20	11.70	1.79
4.80	37.44	35.23	6.33	11.13	1.62
5.10	39.78	33.16	5.60	10.70	1.48
5.40	42.12	31.32	5.00	10.40	1.36
5.70	44.46	29.67	4.49	10.19	1.25
6.00	46.80	28.18	4.05	10.05	1.16
6.30	49.14	26.84	3.67	9.97	1.08
6.60	51.48	25.62	3.35	9.95	1.01
6.90	53.82	24.51	3.06	9.96	0.94
7.20	56.16	23.49	2.81	10.01	0.88
7.50	58.50	22.55	2.59	10.09	0.83
7.80	60.84	21.68	2.40	10.20	0.78
8.10	63.18	20.88	2.22	10.32	0.74
8.40	65.52	20.13	2.07	10.47	0.70
8.70	67.86	19.44	1.93	10.63	0.67
9.00	70.20	18.79	1.80	10.80	0.63
9.30	72.54	18.18	1.69	10.99	0.60
9.60	74.88	17.61	1.58	11.18	0.57
9.90	77.22	17.08	1.49	11.39	0.55
[illegible]0	79.56	16.58	1.40	11.60	0.52
[illegible]0	81.90	16.11	1.32	11.82	0.50

y (cm)	A (cm^2)	V (cm/dtk)	$V^2/2g$ (cm)	Es (cm)	Fr
10.80	84.24	15.66	1.25	12.05	0.48
11.10	86.58	15.23	1.18	12.28	0.46
11.40	88.92	14.83	1.12	12.52	0.44
11.70	91.26	14.45	1.06	12.76	0.43
12.00	93.60	14.09	1.01	13.01	0.41
12.30	95.94	13.75	0.96	13.26	0.40
12.60	98.28	13.42	0.92	13.52	0.38
12.90	100.62	13.11	0.88	13.78	0.37
13.20	102.96	12.81	0.84	14.04	0.36
13.50	105.30	12.53	0.80	14.30	0.34
13.80	107.64	12.25	0.77	14.57	0.33
14.10	109.98	11.99	0.73	14.83	0.32
14.40	112.32	11.74	0.70	15.10	0.31
14.70	114.66	11.50	0.67	15.37	0.30
15.00	117.00	11.27	0.65	15.65	0.29
15.30	119.34	11.05	0.62	15.92	0.29
15.60	121.68	10.84	0.60	16.20	0.28
15.90	124.02	10.64	0.58	16.48	0.27
16.20	126.36	10.44	0.56	16.76	0.26
16.50	128.70	10.25	0.54	17.04	0.25
16.80	131.04	10.07	0.52	17.32	0.25
17.10	133.38	9.89	0.50	17.60	0.24
17.40	135.72	9.72	0.48	17.88	0.24
17.70	138.06	9.55	0.47	18.17	0.23
18.00	140.40	9.39	0.45	18.45	0.22
18.30	142.74	9.24	0.44	18.74	0.22
18.60	145.08	9.09	0.42	19.02	0.21
18.90	147.42	8.95	0.41	19.31	0.21
19.20	149.76	8.81	0.40	19.60	0.20
10.80	84.24	15.66	1.25	12.05	0.48
11.10	86.58	15.23	1.18	12.28	0.46
11.40	88.92	14.83	1.12	12.52	0.44

DOKUMENTASI


Pemasangan Alat Mercu type Vlughter



Pengamatan Data Tinggi Muka Air

Pengamatan Data Kecepatan Menggunakan Alat Current Meter