

Article

A Non-Tuned Machine Learning Technique for Abutment Scour Depth in Clear Water Condition

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Table S1. MAPE, RMSE, R and SI values of different input combinations in abutment scour depth prediction.

Model	MAPE	RMSE	R	SI
ELM1	7.69	0.18	0.97	0.09
ELM2	8.49	0.18	0.96	0.10
ELM3	7.88	0.18	0.96	0.10
ELM4	9.29	0.23	0.94	0.12
ELM5	9.14	0.23	0.94	0.12
ELM6	8.17	0.19	0.96	0.11
ELM7	13.10	0.33	0.87	0.18
ELM8	10.29	0.25	0.92	0.14
ELM9	12.75	0.29	0.90	0.16
ELM10	23.34	0.52	0.61	0.29
ELM11	12.83	0.30	0.89	0.17

Note: Mean absolute percentage error (MAPE), root mean square error (RMSE), correlation coefficient (R), and scatter index (SI).

Table S2. Relative error (RE) values for different input combinations verified in this study.

Model	RE < 5%	RE < 10%	RE < 15%	RE < 20%	20% < RE
ELM 1	46.10	28.14	13.90	6.78	5.08
ELM 2	39.32	28.14	16.61	9.49	6.44
ELM 3	42.37	30.17	15.59	9.15	2.71
ELM 4	41.02	30.17	15.59	5.76	7.46
ELM 5	37.97	32.54	12.20	7.12	10.17
ELM 6	44.07	27.12	15.59	8.81	4.41
ELM 7	28.14	30.17	18.64	13.90	9.15
ELM 8	41.36	29.83	12.54	8.47	7.80
ELM 9	25.42	22.71	20.00	15.59	16.27
ELM 10	16.95	16.61	10.51	7.12	48.81
ELM 11	35.25	24.75	16.61	8.14	15.25