

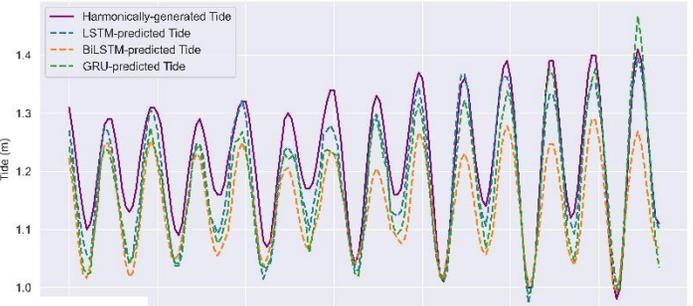
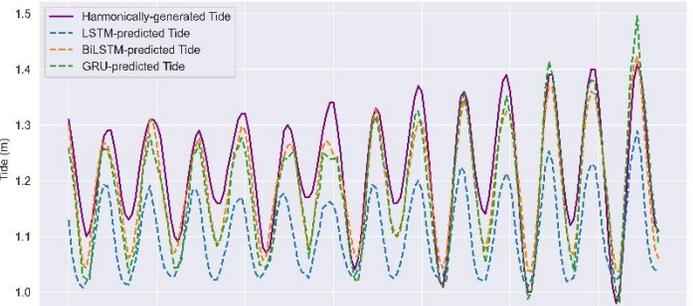
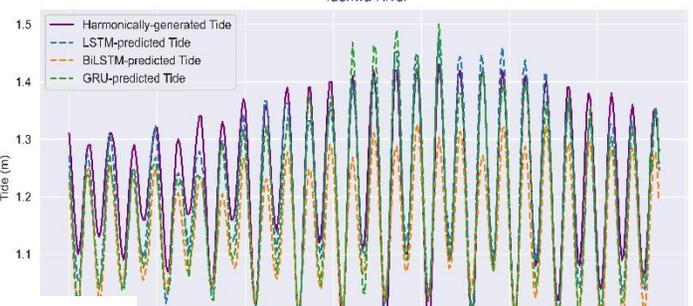
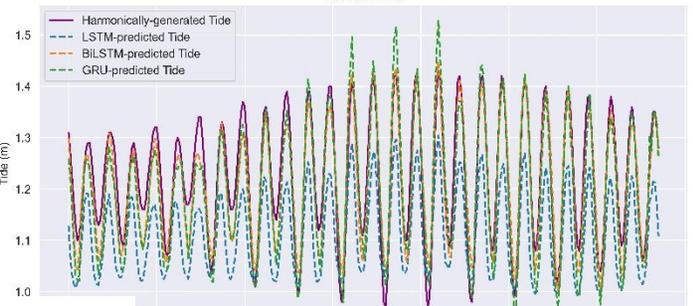
Supplementary Files

Table S1. Amplitudes of constituent obtained after harmonic analysis

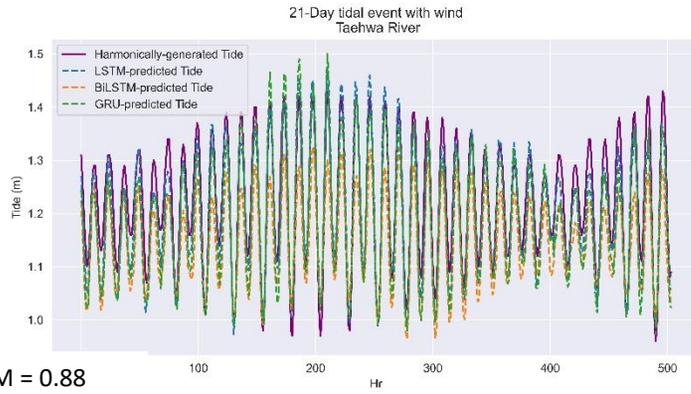
Constituents	Amplitude	Phase	Constituents	Amplitude	Phase	Constituents	Amplitude	Phase
		197.3			309.8			275.9
M2*	0.1492	2	M3	0.0065	2	2Q1	0.0021	7
Sa	0.1237	142.2	2MK3	0.0051	82.95	rho1	0.002	9
S2*	0.0683	238.7	nu2	0.0048	0	M6	0.0016	16.05
					184.7			166.1
K1*	0.0333	43.27	L2	0.0042	5	lambda2	0.0015	5
N2	0.0266	187.0	Mm	0.0041	41.64	S4	0.0011	93.30
								128.0
O1*	0.0257	342.3	MS4	0.0041	6.38	OO1	0.0011	7
					204.1			136.7
Ssa	0.0251	322.2	R2	0.0038	0	J1	0.0008	1
					188.4			184.0
K2	0.018	233.4	2N2	0.0038	4	M1	0.0006	5
					211.6			237.6
S1	0.0114	55.96	Mf	0.0035	0	MN4	0.0003	0
					276.7			251.8
P1	0.0107	42.11	M4	0.0032	5	M8	0.0002	0
					115.8			
MSF	0.0079	45.68	M3	0.0031	1	S6	0.0001	244.9
T2	0.0073	253.9	2MK3	0.0025	50.39	Z0	0	0
Q1	0.0069	313.0	MK3	0.0065	309.8			
mu2	0.0069	206.0	2SM2	0.0051	82.9			

*: Amplitudes of constituents used in computing tidal Form Ratio (Fr)

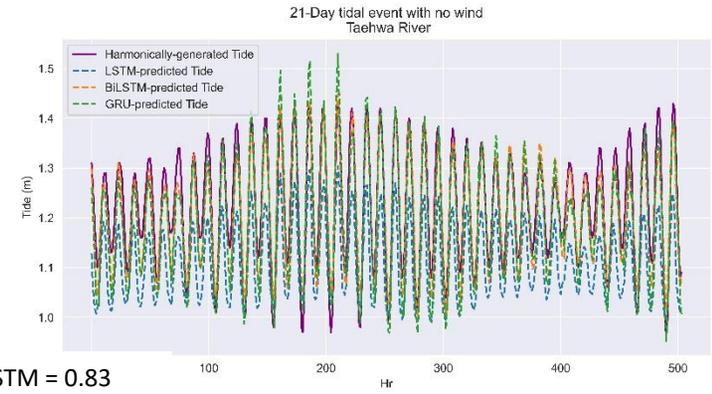
Table S2. Subsample prediction of tidal level

Daily subsample	Prediction with wind input	Prediction without wind
7 days	<p style="text-align: center;">7-Day Tidal event with wind input Taehwa River</p>  <p>LSTM = 0.83 GRU = 0.67 BiLSTM = 0.23</p>	<p style="text-align: center;">7-Day Tidal event with no wind input Taehwa River</p>  <p>LSTM = 0.73 GRU = 0.74 BiLSTM = 0.73</p>
14 days	<p style="text-align: center;">14-Day tidal event with wind Taehwa River</p>  <p>LSTM = 0.90 GRU = 0.82 BiLSTM = 0.50</p>	<p style="text-align: center;">14-Day tidal event with no wind Taehwa River</p>  <p>LSTM = 0.80 GRU = 0.82 BiLSTM = 0.85</p>

21 days

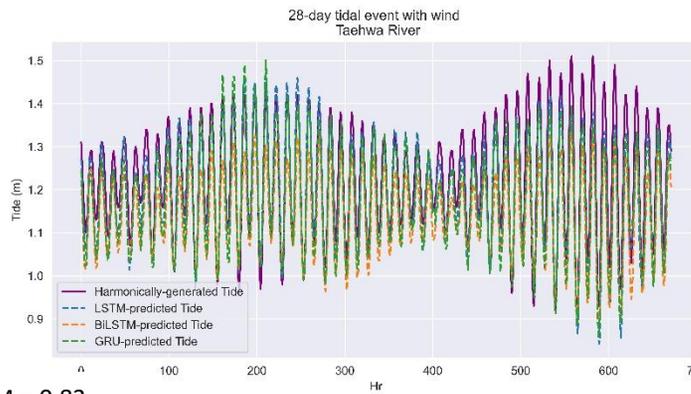


LSTM = 0.88
GRU = 0.79
BiLSTM = 0.43

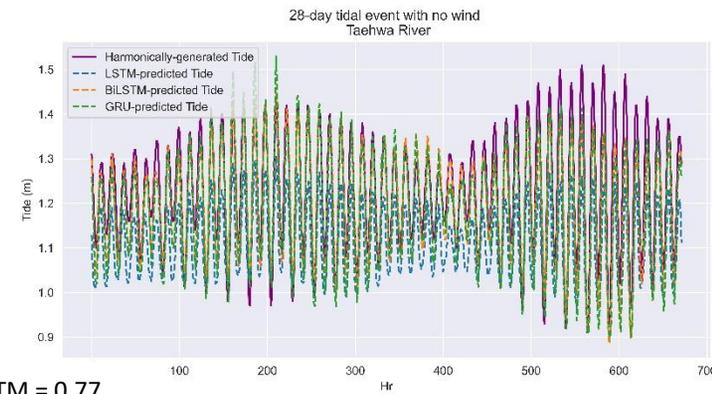


LSTM = 0.83
GRU = 0.82
BiLSTM = 0.84

28 days

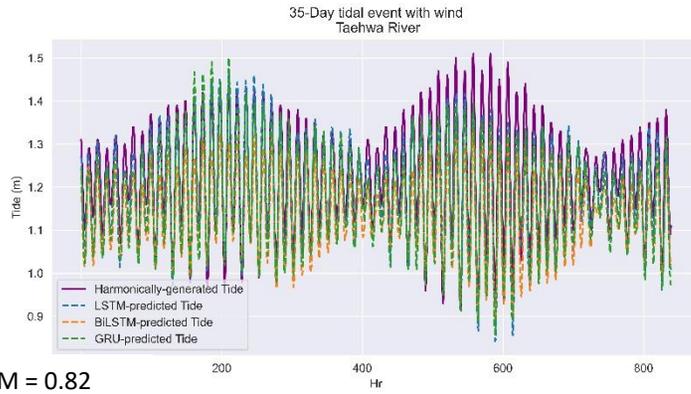


LSTM = 0.83
GRU = 0.77
BiLSTM = 0.47

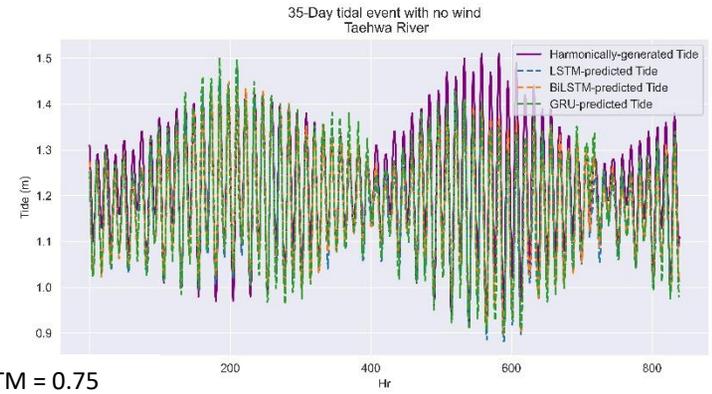


LSTM = 0.77
GRU = 0.78
BiLSTM = 0.80

35 days



LSTM = 0.82
GRU = 0.75
BiLSTM = 0.44



LSTM = 0.75
GRU = 0.77
BiLSTM = 0.78