

Table S1. Details of circular CFSTs specimens and results obtained from experiments and the prediction from ANOVA and ANN.

Specimen Designation	Specimens Parameters					Experimental Results				Prediction Results							
										ANOVA				ANN			
	D (mm)	t (mm)	L_i (mm)	f_{cu} (MPa)	Age (days)	τ_u (MPa)	S_u (mm)	$\bar{\beta}$	α	τ_u (MPa)	S_u (mm)	$\bar{\beta}$	α	τ_u (MPa)	S_u (mm)	$\bar{\beta}$	α
Ahmad et al. [25]																	
CTRL-CS1-01	154.54	5.38	190	24.27	28	2.352	0.850	0.900	-0.021	1.844	0.941	0.886	-0.021	2.270	0.844	0.863	-0.056
CTRL-CS1-02	154.54	5.38	190	24.27	28	2.222	1.280	0.873	-0.148	1.844	0.941	0.886	-0.021	2.270	0.844	0.863	-0.056
CTRL-CS1-03	154.54	5.38	190	24.27	28	2.222	0.860	0.870	-0.009	1.844	0.941	0.886	-0.021	2.270	0.844	0.863	-0.056
CTRL-CS2-01	107.7	4.02	190	24.27	28	1.447	2.750	0.941	-0.017	1.681	1.198	0.876	-0.029	1.435	1.677	0.957	-0.010
CTRL-CS2-02	107.7	4.02	190	24.27	28	1.416	1.840	0.947	-0.017	1.681	1.198	0.876	-0.029	1.435	1.677	0.957	-0.010
CTRL-CS2-04	107.7	4.02	190	24.27	28	1.416	1.740	0.966	-0.012	1.681	1.198	0.876	-0.029	1.435	1.677	0.957	-0.010
C10-CS1-01	154.54	5.38	190	14.98	28	1.919	1.190	0.905	-0.039	1.898	0.761	0.872	-0.022	2.087	0.953	0.850	-0.028
C10-CS1-02	154.54	5.38	190	14.98	28	1.789	1.250	0.927	-0.021	1.898	0.761	0.872	-0.022	2.087	0.953	0.850	-0.028
C10-CS1-04	154.54	5.38	190	14.98	28	1.626	1.030	0.868	-0.034	1.898	0.761	0.872	-0.022	2.087	0.953	0.850	-0.028
C10-CS2-01	107.7	4.02	190	14.98	28	1.556	0.570	0.813	-0.027	1.735	1.018	0.862	-0.030	1.541	0.736	0.867	-0.021
C10-CS2-02	107.7	4.02	190	14.98	28	1.509	0.900	0.823	-0.006	1.735	1.018	0.862	-0.030	1.541	0.736	0.867	-0.021
C10-CS2-03	107.7	4.02	190	14.98	28	1.244	0.340	0.944	-0.020	1.735	1.018	0.862	-0.030	1.541	0.736	0.867	-0.021
C20-CS1-01	154.54	5.38	190	12.86	28	2.439	1.390	0.846	-0.049	1.911	0.720	0.869	-0.022	2.019	0.992	0.848	-0.023
C20-CS1-02	154.54	5.38	190	12.86	28	2.006	0.880	0.847	-0.035	1.911	0.720	0.869	-0.022	2.019	0.992	0.848	-0.023
C20-CS1-03	154.54	5.38	190	12.86	28	1.843	1.350	0.790	-0.033	1.911	0.720	0.869	-0.022	2.019	0.992	0.848	-0.023
C20-CS1-04	154.54	5.38	190	12.86	28	2.168	1.580	0.897	-0.039	1.911	0.720	0.869	-0.022	2.019	0.992	0.848	-0.023
C20-CS2-01	107.7	4.02	190	12.86	28	1.400	0.480	0.947	-0.021	1.747	0.976	0.859	-0.030	1.577	0.661	0.849	-0.024
C20-CS2-02	107.7	4.02	190	12.86	28	1.867	0.930	0.856	-0.017	1.747	0.976	0.859	-0.030	1.577	0.661	0.849	-0.024
C20-CS2-03	107.7	4.02	190	12.86	28	1.633	0.970	0.878	-0.019	1.747	0.976	0.859	-0.030	1.577	0.661	0.849	-0.024
C20-CS2-04	107.7	4.02	190	12.86	28	2.100	1.450	0.919	-0.018	1.747	0.976	0.859	-0.030	1.577	0.661	0.849	-0.024
C30-CS1-01	154.54	5.38	190	9.11	28	2.190	1.420	0.861	-0.023	1.933	0.647	0.863	-0.023	1.896	1.075	0.846	-0.016

C30-CS1-02	154.54	5.38	190	9.11	28	1.843	0.550	0.878	-0.040	1.933	0.647	0.863	-0.023	1.896	1.075	0.846	-0.016
C30-CS1-03	154.54	5.38	190	9.11	28	1.843	1.140	0.941	-0.019	1.933	0.647	0.863	-0.023	1.896	1.075	0.846	-0.016
C30-CS1-04	154.54	5.38	190	9.11	28	1.735	0.990	0.884	-0.021	1.933	0.647	0.863	-0.023	1.896	1.075	0.846	-0.016
C30-CS2-01	107.7	4.02	190	9.11	28	1.618	0.670	0.764	-0.028	1.769	0.904	0.853	-0.031	1.655	0.605	0.822	-0.029
C30-CS2-02	107.7	4.02	190	9.11	28	1.711	0.870	0.717	-0.023	1.769	0.904	0.853	-0.031	1.655	0.605	0.822	-0.029
C30-CS2-03	107.7	4.02	190	9.11	28	1.789	0.650	0.864	-0.043	1.769	0.904	0.853	-0.031	1.655	0.605	0.822	-0.029
C30-CS2-04	107.7	4.02	190	9.11	28	1.556	0.500	0.809	-0.019	1.769	0.904	0.853	-0.031	1.655	0.605	0.822	-0.029
CTRL-CS1-05	154.54	5.38	190	24.31	365	1.767	0.780	1.005	-0.067	1.262	1.177	0.973	-0.081	1.619	0.779	0.977	-0.072
CTRL-CS1-06	154.54	5.38	190	24.31	365	1.420	0.550	1.018	-0.098	1.262	1.177	0.973	-0.081	1.619	0.779	0.977	-0.072
CTRL-CS1-07	154.54	5.38	190	24.31	365	1.594	0.850	1.005	-0.061	1.262	1.177	0.973	-0.081	1.619	0.779	0.977	-0.072
CTRL-CS2-05	107.7	4.02	190	24.31	365	1.089	3.050	0.989	-0.071	1.098	1.433	0.963	-0.089	1.019	2.771	0.978	-0.092
CTRL-CS2-06	107.7	4.02	190	24.31	365	1.011	2.300	1.002	-0.099	1.098	1.433	0.963	-0.089	1.019	2.771	0.978	-0.092
C10-CS1-05	154.54	5.38	190	16.21	365	1.626	0.700	1.011	-0.081	1.309	1.019	0.961	-0.081	1.451	0.822	0.971	-0.064
C10-CS1-06	154.54	5.38	190	16.21	365	1.518	0.700	0.937	-0.052	1.309	1.019	0.961	-0.081	1.451	0.822	0.971	-0.064
C10-CS1-07	154.54	5.38	190	16.21	365	1.539	0.600	0.982	-0.089	1.309	1.019	0.961	-0.081	1.451	0.822	0.971	-0.064
C10-CS2-05	107.7	4.02	190	16.21	365	0.780	1.420	0.934	-0.069	1.146	1.276	0.951	-0.090	0.886	1.308	0.934	-0.116
C10-CS2-06	107.7	4.02	190	16.21	365	0.933	1.880	0.962	-0.032	1.146	1.276	0.951	-0.090	0.886	1.308	0.934	-0.116
C20-CS1-05	154.54	5.38	190	13.69	365	1.301	2.600	0.982	-0.048	1.324	0.971	0.957	-0.082	1.359	0.830	0.970	-0.058
C20-CS1-06	154.54	5.38	190	13.69	365	1.301	0.860	0.923	-0.003	1.324	0.971	0.957	-0.082	1.359	0.830	0.970	-0.006
C20-CS1-07	154.54	5.38	190	13.69	365	1.247	1.120	0.958	-0.036	1.324	0.971	0.957	-0.082	1.359	0.830	0.970	-0.058
C20-CS2-05	107.7	4.02	190	13.69	365	0.809	1.520	0.979	-0.097	1.160	1.227	0.947	-0.090	0.871	1.110	0.923	-0.122
C20-CS2-07	107.7	4.02	190	13.69	365	0.778	0.850	0.917	-0.175	1.160	1.227	0.947	-0.090	0.871	1.110	0.923	-0.122
C30-CS1-05	154.54	5.38	190	10.10	365	1.192	0.950	1.000	-0.099	1.345	0.901	0.951	-0.082	1.211	0.841	0.968	-0.049
C30-CS1-06	154.54	5.38	190	10.10	365	1.301	0.620	0.947	-0.036	1.345	0.901	0.951	-0.082	1.211	0.841	0.968	-0.049
C30-CS1-07	154.54	5.38	190	10.10	365	1.301	0.630	0.952	-0.027	1.345	0.901	0.951	-0.082	1.211	0.841	0.968	-0.049
C30-CS2-05	107.7	4.02	190	10.10	365	0.871	0.800	0.993	-0.247	1.181	1.157	0.941	-0.090	0.865	0.952	0.912	-0.128
C30-CS2-06	107.7	4.02	190	10.10	365	0.778	0.630	0.936	-0.060	1.181	1.157	0.941	-0.090	0.865	0.952	0.912	-0.128
C30-CS2-07	107.7	4.02	190	10.10	365	0.809	0.750	0.942	-0.093	1.181	1.157	0.941	-0.090	0.865	0.952	0.912	-0.128

Abendeh et al. [26]																	
CTRL-CS1-01	154.54	5.38	190	24.27	28	2.352	0.850	0.900	-0.021	1.844	0.941	0.886	-0.021	2.269	0.844	0.863	-0.056
CTRL-CS1-02	154.54	5.38	190	24.27	28	2.222	1.280	0.873	-0.148	1.844	0.941	0.886	-0.021	2.269	0.844	0.863	-0.056
CTRL-CS1-03	154.54	5.38	190	24.27	28	2.222	0.860	0.870	-0.009	1.844	0.941	0.886	-0.021	2.269	0.844	0.863	-0.056
CTRL-CS2-01	107.7	4.02	190	24.27	28	1.447	1.150	0.982	-0.018	1.681	1.198	0.876	-0.029	1.435	1.677	0.957	-0.010
CTRL-CS2-02	107.7	4.02	190	24.27	28	1.416	1.180	0.962	-0.017	1.681	1.198	0.876	-0.029	1.435	1.677	0.957	-0.010
CTRL-CS2-03	107.7	4.02	190	24.27	28	1.416	1.180	0.980	-0.013	1.681	1.198	0.876	-0.029	1.435	1.677	0.957	-0.010
F10-CS1-02	154.54	5.38	190	16.85	28	2.548	0.790	0.787	-0.016	1.888	0.797	0.875	-0.022	2.143	0.923	0.852	-0.034
F10-CS1-03	154.54	5.38	190	16.85	28	2.277	0.570	0.788	-0.010	1.888	0.797	0.875	-0.022	2.143	0.923	0.852	-0.034
F10-CS1-04	154.54	5.38	190	16.85	28	2.277	0.380	0.693	-0.018	1.888	0.797	0.875	-0.022	2.143	0.923	0.852	-0.034
F10-CS2-02	107.7	4.02	190	16.85	28	1.447	2.360	0.997	-0.010	1.724	1.054	0.865	-0.030	1.514	0.839	0.884	-0.018
F10-CS2-03	107.7	4.02	190	16.85	28	1.789	0.680	0.888	-0.028	1.724	1.054	0.865	-0.030	1.514	0.839	0.884	-0.018
F10-CS2-04	107.7	4.02	190	16.85	28	1.478	0.450	0.899	-0.026	1.724	1.054	0.865	-0.030	1.514	0.839	0.884	-0.018
F20-CS1-01	154.54	5.38	190	15.26	28	2.027	0.620	0.842	-0.031	1.897	0.766	0.873	-0.022	2.096	0.949	0.850	-0.029
F20-CS1-03	154.54	5.38	190	15.26	28	2.060	0.520	0.740	-0.020	1.897	0.766	0.873	-0.022	2.096	0.949	0.850	-0.029
F20-CS1-04	154.54	5.38	190	15.26	28	1.951	0.660	0.754	-0.019	1.897	0.766	0.873	-0.022	2.096	0.949	0.850	-0.029
F20-CS2-01	107.7	4.02	190	15.26	28	1.400	0.370	0.779	-0.013	1.733	1.023	0.863	-0.030	1.536	0.749	0.869	-0.020
F20-CS2-02	107.7	4.02	190	15.26	28	1.556	0.520	0.880	-0.013	1.733	1.023	0.863	-0.030	1.536	0.749	0.869	-0.020
F20-CS2-04	107.7	4.02	190	15.26	28	1.447	0.570	0.799	-0.019	1.733	1.023	0.863	-0.030	1.536	0.749	0.869	-0.020
F30-CS1-01	154.54	5.38	190	14.58	28	2.060	1.010	0.834	-0.016	1.901	0.753	0.872	-0.022	2.075	0.960	0.850	-0.027
F30-CS1-03	154.54	5.38	190	14.58	28	2.222	0.800	0.937	-0.015	1.901	0.753	0.872	-0.022	2.075	0.960	0.850	-0.027
F30-CS2-01	107.7	4.02	190	14.58	28	1.587	0.850	0.821	-0.017	1.737	1.010	0.862	-0.030	1.547	0.719	0.863	-0.021
F30-CS2-02	107.7	4.02	190	14.58	28	1.244	0.330	0.877	-0.028	1.737	1.010	0.862	-0.030	1.547	0.719	0.863	-0.021
F30-CS2-03	107.7	4.02	190	14.58	28	1.322	0.390	0.856	-0.036	1.737	1.010	0.862	-0.030	1.547	0.719	0.863	-0.021
CTRL-CS1-04	154.54	5.38	190	24.31	365	1.767	0.780	1.005	-0.067	1.262	1.177	0.973	-0.081	1.619	0.779	0.977	-0.072
CTRL-CS1-05	154.54	5.38	190	24.31	365	1.420	0.550	1.018	-0.098	1.262	1.177	0.973	-0.081	1.619	0.779	0.977	-0.072
CTRL-CS1-06	154.54	5.38	190	24.31	365	1.594	0.650	0.974	-0.087	1.262	1.177	0.973	-0.081	1.619	0.779	0.977	-0.072
CTRL-CS2-04	107.7	4.02	190	24.31	365	1.089	3.050	0.989	-0.071	1.098	1.433	0.963	-0.089	1.019	2.771	0.978	-0.092

CTRL-CS2-05	107.7	4.02	190	24.31	365	1.011	2.300	1.002	-0.099	1.098	1.433	0.963	-0.089	1.019	2.771	0.978	-0.092
F10-CS1-05	154.54	5.38	190	18.96	365	1.735	0.700	0.898	-0.049	1.293	1.073	0.965	-0.081	1.530	0.810	0.973	-0.069
F10-CS1-06	154.54	5.38	190	18.96	365	1.518	0.750	0.985	-0.071	1.293	1.073	0.965	-0.081	1.530	0.810	0.973	-0.069
F10-CS1-07	154.54	5.38	190	18.96	365	1.203	0.660	0.953	-0.027	1.293	1.073	0.965	-0.081	1.530	0.810	0.973	-0.069
F10-CS2-05	107.7	4.02	190	18.96	365	1.213	2.300	0.923	-0.084	1.130	1.329	0.955	-0.089	0.917	1.646	0.948	-0.108
F10-CS2-06	107.7	4.02	190	18.96	365	0.887	2.500	0.978	-0.273	1.130	1.329	0.955	-0.089	0.917	1.646	0.948	-0.108
F10-CS2-07	107.7	4.02	190	18.96	365	1.136	1.900	0.924	-0.061	1.130	1.329	0.955	-0.089	0.917	1.646	0.948	-0.108
F20-CS1-05	154.54	5.38	190	16.24	365	2.092	0.550	0.951	-0.120	1.309	1.020	0.961	-0.081	1.451	0.822	0.971	-0.064
F20-CS1-06	154.54	5.38	190	16.24	365	1.789	1.110	0.960	-0.083	1.309	1.020	0.961	-0.081	1.451	0.822	0.971	-0.064
F20-CS1-07	154.54	5.38	190	16.24	365	1.875	1.380	0.962	-0.018	1.309	1.020	0.961	-0.081	1.451	0.822	0.971	-0.064
F20-CS2-06	107.7	4.02	190	16.24	365	0.933	0.870	0.692	-0.313	1.146	1.277	0.951	-0.090	0.887	1.310	0.934	-0.116
F20-CS2-07	107.7	4.02	190	16.24	365	0.809	0.430	0.858	-0.087	1.146	1.277	0.951	-0.090	0.887	1.310	0.934	-0.116
F30-CS1-04	154.54	5.38	190	15.61	365	0.997	0.610	0.990	-0.080	1.313	1.008	0.960	-0.082	1.430	0.824	0.971	-0.063
F30-CS1-05	154.54	5.38	190	15.61	365	0.976	0.580	0.951	-0.070	1.313	1.008	0.960	-0.082	1.430	0.824	0.971	-0.063
F30-CS1-06	154.54	5.38	190	15.61	365	0.987	0.870	0.937	-0.064	1.313	1.008	0.960	-0.082	1.430	0.824	0.971	-0.063
F30-CS2-04	107.7	4.02	190	15.61	365	0.793	1.540	0.982	-0.076	1.149	1.264	0.950	-0.090	0.882	1.252	0.931	-0.118
F30-CS2-05	107.7	4.02	190	15.61	365	0.778	0.450	0.959	-0.031	1.149	1.264	0.950	-0.090	0.882	1.252	0.931	-0.118
Aly et al. [11]																	
A1	114.3	3.2	400	86.59	66	1.030	1.900	0.978	-0.021	1.020	2.203	1.002	-0.025	0.949	1.606	0.952	-0.017
B1	114.3	3.2	400	51.25	64	1.190	1.600	0.941	-0.023	1.230	1.516	0.947	-0.028	1.342	1.652	0.947	-0.019
C1	114.3	3.2	400	84.15	32	0.920	4.200	0.953	-0.024	1.093	2.132	0.989	-0.019	0.990	1.943	0.953	-0.016
D1	114.3	3.2	400	79.01	56	1.180	0.600	0.969	-0.025	1.082	2.049	0.987	-0.024	1.017	1.662	0.951	-0.016
F1	114.3	3.2	400	51.25	33	1.230	1.900	0.938	-0.022	1.284	1.494	0.939	-0.022	1.358	1.593	0.935	-0.017
G1	114.3	3.2	400	96.43	28	0.610	1.600	0.933	-0.021	1.029	2.368	1.007	-0.017	0.919	2.144	0.957	-0.016
H1	114.3	3.2	400	85.37	98	1.000	1.500	0.938	-0.022	0.972	2.202	1.008	-0.030	1.015	1.472	0.956	-0.019
Fu et al. [24]																	
A-1-a	114	4	350	28.71	28	1.450	0.605	0.862	-0.026	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
A-1-b	114	4	350	28.71	28	1.400	0.625	0.908	-0.010	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019

A-1-c	114	4	350	28.71	28	1.400	0.605	0.883	-0.023	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
A-2-a	114	4	350	30.71	28	1.560	0.293	0.886	-0.027	1.531	1.288	0.901	-0.024	1.594	0.906	0.907	-0.017
A-2-b	114	4	350	30.71	28	1.560	0.234	0.911	-0.013	1.531	1.288	0.901	-0.024	1.594	0.906	0.907	-0.017
A-2-c	114	4	350	30.71	28	1.430	0.332	0.920	-0.026	1.531	1.288	0.901	-0.024	1.594	0.906	0.907	-0.017
A-3-a	114	4	350	37.38	28	1.390	1.640	0.988	-0.016	1.492	1.417	0.911	-0.024	1.382	3.343	0.993	-0.010
A-3-b	114	4	350	37.38	28	1.420	2.382	0.934	-0.014	1.492	1.417	0.911	-0.024	1.382	3.343	0.993	-0.010
A-3-c	114	4	350	37.38	28	1.360	6.832	0.989	-0.019	1.492	1.417	0.911	-0.024	1.382	3.343	0.993	-0.010
B-4-a	114	4	350	28.71	28	1.250	0.390	0.871	-0.029	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
B-4-b	114	4	350	28.71	28	1.290	0.371	0.868	-0.027	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
B-4-c	114	4	350	28.71	28	1.250	1.035	0.921	-0.016	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
C-5-a	114	4	350	28.71	28	1.270	0.600	0.823	-0.014	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
C-5-b	114	4	350	28.71	28	1.320	0.345	0.867	-0.011	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
C-5-c	114	4	350	28.71	28	1.260	0.400	0.850	-0.020	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
D-6-a	114	4	350	28.71	28	2.500	0.882	0.849	-0.006	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
D-6-b	114	4	350	28.71	28	2.350	0.847	0.883	-0.013	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
D-6-c	114	4	350	28.71	28	2.490	0.970	0.889	-0.016	1.543	1.249	0.897	-0.025	1.600	0.572	0.877	-0.019
E-7-a	114	4	490	28.71	28	1.950	0.828	0.947	-0.030	1.444	1.295	0.908	-0.022	2.035	0.762	0.877	-0.036
E-7-b	114	4	490	28.71	28	2.270	1.121	0.891	-0.026	1.444	1.295	0.908	-0.022	2.035	0.762	0.877	-0.036
E-7-c	114	4	490	28.71	28	2.060	1.259	0.900	-0.038	1.444	1.295	0.908	-0.022	2.035	0.762	0.877	-0.036
E-8-a	114	4	780	28.71	28	1.460	1.638	0.928	-0.010	1.239	1.390	0.931	-0.015	1.513	1.889	0.950	-0.014
E-8-b	114	4	780	28.71	28	1.390	2.345	0.923	-0.008	1.239	1.390	0.931	-0.015	1.513	1.889	0.950	-0.014
E-8-c	114	4	780	28.71	28	1.540	1.034	0.969	-0.009	1.239	1.390	0.931	-0.015	1.513	1.889	0.950	-0.014
F-9-a	114	2.5	350	28.71	28	1.530	1.487	0.950	-0.037	1.387	0.858	0.901	-0.025	1.510	1.152	0.955	-0.032
F-9-b	114	2.5	350	28.71	28	1.450	1.588	0.935	-0.033	1.387	0.858	0.901	-0.025	1.510	1.152	0.955	-0.032
F-9-c	114	2.5	350	28.71	28	1.470	0.592	0.964	-0.037	1.387	0.858	0.901	-0.025	1.510	1.152	0.955	-0.032
Ke et al. [27]																	
CST-1	110	3	400	70.52	28	1.690	0.767	0.994	-0.009	1.157	1.869	0.966	-0.020	1.318	2.048	0.962	-0.020
CST-4	110	3	300	75.01	28	1.880	2.930	1.004	-0.008	1.202	1.923	0.965	-0.022	1.905	2.844	1.012	-0.025

Lu et al. [28]																	
t2.5-0%-28d-1	165	2.5	480	53.90	28	0.750	1.360	0.970	-0.007	1.172	0.724	0.964	-0.011	1.085	0.850	0.966	-0.012
t2.5-0%-28d-2	165	2.5	480	53.90	28	0.630	1.020	0.970	-0.006	1.172	0.724	0.964	-0.011	1.085	0.850	0.966	-0.012
t2.5-0%-28d-3	165	2.5	480	53.90	28	0.820	0.750	0.962	-0.007	1.172	0.724	0.964	-0.011	1.085	0.850	0.966	-0.012
t2.5-1.2%-28d-1	165	2.5	480	54.40	28	1.620	0.630	0.969	-0.008	1.169	0.734	0.965	-0.011	1.079	0.850	0.965	-0.012
t2.5-1.2%-28d-2	165	2.5	480	54.40	28	1.490	0.820	0.963	-0.011	1.169	0.734	0.965	-0.011	1.079	0.850	0.965	-0.012
t2.5-1.2%-28d-3	165	2.5	480	54.40	28	1.260	0.450	0.949	-0.007	1.169	0.734	0.965	-0.011	1.079	0.850	0.965	-0.012
t3.5-0%-28d-2	165	3.5	480	53.90	28	1.510	0.770	0.955	-0.008	1.276	0.985	0.962	-0.011	1.789	0.878	0.941	-0.010
t3.5-1.2%-28d-1	165	3.5	480	54.40	28	1.820	0.770	0.962	-0.006	1.273	0.995	0.962	-0.011	1.785	0.885	0.941	-0.010
t3.5-1.2%-28d-2	165	3.5	480	54.40	28	1.820	0.440	0.948	-0.004	1.273	0.995	0.962	-0.011	1.785	0.885	0.941	-0.010
t4.25-0%-28d-1	165	4.25	480	53.90	28	2.100	0.860	0.806	-0.016	1.354	1.181	0.960	-0.011	1.959	0.501	0.892	-0.012
t4.25-0%-28d-2	165	4.25	480	53.90	28	2.010	1.270	0.795	-0.021	1.354	1.181	0.960	-0.011	1.959	0.501	0.892	-0.012
t4.25-1.2%-28d-1	165	4.25	480	54.40	28	2.060	0.570	0.963	-0.005	1.351	1.190	0.961	-0.011	1.962	0.531	0.895	-0.012
t4.25-1.2%-28d-3	165	4.25	480	54.40	28	1.930	0.840	0.961	-0.003	1.351	1.190	0.961	-0.011	1.962	0.531	0.895	-0.012
Lv et al. [29]																	
CFT-NC-1	219	6	657	46.40	28	0.650	0.649	0.998	-0.001	1.480	0.845	0.973	0.002	1.026	0.814	0.994	-0.007
CFT-NC-2	219	6	657	56.80	28	0.735	0.738	1.005	-0.004	1.419	1.047	0.989	0.003	0.905	0.995	1.006	-0.006
CFT-NC-3	219	6	657	67.10	28	0.850	0.858	1.010	-0.004	1.359	1.247	1.005	0.004	0.814	1.212	1.015	-0.005
CFT-PAC-1	219	6	657	44.70	28	0.940	0.952	1.013	-0.001	1.490	0.812	0.971	0.001	1.051	0.785	0.992	-0.007
CFT-PAC-2	219	6	657	57.20	28	1.060	1.078	1.017	-0.003	1.417	1.054	0.990	0.003	0.902	1.003	1.006	-0.006
CFT-PAC-3	219	6	657	65.70	28	1.210	1.216	1.005	-0.001	1.367	1.219	1.003	0.003	0.825	1.179	1.014	-0.005
CFT-PAC-7	219	6	1095	44.70	28	1.100	1.098	0.998	-0.001	1.181	0.956	1.005	0.011	0.928	0.994	0.998	-0.006
Shakir-Khalil [5]																	
Y4a CHS	168.3	5	202	48.80	28	0.880	0.470	1.042	-0.022	1.659	1.143	0.929	-0.016	0.920	1.299	0.985	-0.011
Y4b CHS	168.3	5	203	48.80	28	0.930	0.758	0.991	-0.041	1.659	1.143	0.930	-0.016	0.919	1.301	0.985	-0.011
Y5a CHS	168.3	5	399	48.80	28	0.790	2.734	0.995	-0.008	1.520	1.208	0.945	-0.012	0.807	1.678	1.003	-0.006
Y5b CHS	168.3	5	400	48.80	28	0.800	2.618	1.023	-0.016	1.520	1.208	0.945	-0.012	0.806	1.679	1.003	-0.006
Y6a CHS	168.3	5	600	48.80	28	0.720	1.739	1.013	-0.017	1.378	1.273	0.961	-0.008	0.748	1.926	1.010	-0.005

Y6b CHS	168.3	5	599	48.80	28	0.650	2.524	1.021	-0.023	1.379	1.273	0.961	-0.008	0.748	1.925	1.010	-0.005
Shakir-Khalil [6]																	
H1	168.3	5	403	48.80	28	0.933	0.800	0.930	-0.018	1.541	1.131	0.939	-0.013	0.805	1.684	1.003	-0.006
Tao et al. [30]																	
CC120N1	120	3.6	600	58.31	111	1.850	1.320	0.962	-0.015	1.011	1.781	0.986	-0.030	1.897	1.545	0.959	-0.009

Table S2. Details of squared CFSTs specimens and results obtained from experiments and the prediction from ANOVA and ANN.

Specimen Designation	Specimens Parameters					Experimental Results				Prediction Results							
										ANOVA				ANN			
	B (mm)	t (mm)	L_i (mm)	f_{cu} (MPa)	Age (days)	τ_u (MPa)	S_u (mm)	$\bar{\beta}$	α	τ_u (MPa)	S_u (mm)	$\bar{\beta}$	α	τ_u (MPa)	S_u (mm)	$\bar{\beta}$	α
Ahmad et al. [25]																	
CTRL-SS1-01	141.58	4.48	190	24.27	28	1.022	0.370	1.000	-0.383	0.870	1.538	0.895	-0.204	1.003	0.269	0.862	-0.337
CTRL-SS1-02	141.58	4.48	190	24.27	28	1.022	0.760	0.940	-0.411	0.870	1.538	0.895	-0.204	1.003	0.269	0.862	-0.337
CTRL-SS1-03	141.58	4.48	190	24.27	28	0.967	0.450	0.803	-0.228	0.870	1.538	0.895	-0.204	1.003	0.269	0.862	-0.337
CTRL-SS2-02	90.85	4.97	190	24.27	28	1.738	1.240	0.499	-0.011	1.179	1.701	0.835	-0.143	1.593	1.017	0.624	-0.048
CTRL-SS2-03	90.85	4.97	190	24.27	28	1.593	0.880	0.845	-0.011	1.179	1.701	0.835	-0.143	1.593	1.017	0.624	-0.048
CTRL-SS2-04	90.85	4.97	190	24.27	28	1.477	0.540	0.607	-0.048	1.179	1.701	0.835	-0.143	1.593	1.017	0.624	-0.048
C10-SS1-01	141.58	4.48	190	14.98	28	0.809	0.510	0.771	-0.469	0.944	0.457	0.872	-0.256	0.936	0.304	0.887	-0.300
C10-SS1-02	141.58	4.48	190	14.98	28	0.883	0.490	0.932	-0.133	0.944	0.457	0.872	-0.256	0.936	0.304	0.887	-0.300
C10-SS1-03	141.58	4.48	190	14.98	28	0.836	0.450	0.717	-0.201	0.944	0.457	0.872	-0.256	0.936	0.304	0.887	-0.300
C10-SS1-04	141.58	4.48	190	14.98	28	0.957	0.510	0.716	-0.281	0.944	0.457	0.872	-0.256	0.936	0.304	0.887	-0.300
C10-SS2-01	90.85	4.97	190	14.98	28	1.448	0.740	0.863	-0.289	1.253	0.620	0.812	-0.196	1.213	0.576	0.823	-0.163
C10-SS2-02	90.85	4.97	190	14.98	28	1.376	0.790	0.804	-0.131	1.253	0.620	0.812	-0.196	1.213	0.576	0.823	-0.163
C10-SS2-03	90.85	4.97	190	14.98	28	1.188	0.400	0.718	-0.094	1.253	0.620	0.812	-0.196	1.213	0.576	0.823	-0.163
C10-SS2-04	90.85	4.97	190	14.98	28	1.231	0.300	0.777	-0.156	1.253	0.620	0.812	-0.196	1.213	0.576	0.823	-0.163

C20-SS1-01	141.58	4.48	190	12.86	28	0.911	0.590	0.855	-0.399	0.960	0.210	0.867	-0.268	0.928	0.314	0.896	-0.287
C20-SS1-02	141.58	4.48	190	12.86	28	0.743	0.610	0.943	-0.165	0.960	0.210	0.867	-0.268	0.928	0.314	0.896	-0.287
C20-SS1-03	141.58	4.48	190	12.86	28	0.743	0.400	0.965	-0.052	0.960	0.210	0.867	-0.268	0.928	0.314	0.896	-0.287
C20-SS1-04	141.58	4.48	190	12.86	28	0.697	0.400	0.930	-0.462	0.960	0.210	0.867	-0.268	0.928	0.314	0.896	-0.287
C20-SS2-01	90.85	4.97	190	12.86	28	0.898	0.470	0.985	-0.433	1.270	0.374	0.807	-0.208	1.158	0.554	0.853	-0.177
C20-SS2-03	90.85	4.97	190	12.86	28	1.159	0.500	0.972	-0.235	1.270	0.374	0.807	-0.208	1.158	0.554	0.853	-0.177
C20-SS2-04	90.85	4.97	190	12.86	28	1.303	0.450	0.948	-0.144	1.270	0.374	0.807	-0.208	1.158	0.554	0.853	-0.177
C30-SS1-01	141.58	4.48	190	9.11	28	1.022	0.900	0.915	-0.101	0.990	-0.226	0.858	-0.290	0.915	0.336	0.915	-0.261
C30-SS1-02	141.58	4.48	190	9.11	28	0.836	0.620	0.971	-0.226	0.990	-0.226	0.858	-0.290	0.915	0.336	0.915	-0.261
C30-SS1-03	141.58	4.48	190	9.11	28	0.883	0.290	0.918	-0.622	0.990	-0.226	0.858	-0.290	0.915	0.336	0.915	-0.261
C30-SS1-04	141.58	4.48	190	9.11	28	0.790	0.390	0.923	-0.128	0.990	-0.226	0.858	-0.290	0.915	0.336	0.915	-0.261
C30-SS2-01	90.85	4.97	190	9.11	28	1.188	0.690	0.924	-0.001	1.299	-0.063	0.798	-0.229	1.085	0.546	0.897	-0.002
CTRL-SS1-05	141.58	4.48	190	24.31	365	0.651	0.420	0.955	-0.074	0.455	1.391	0.991	-0.110	0.570	0.686	0.941	-0.101
CTRL-SS1-06	141.58	4.48	190	24.31	365	0.558	0.900	0.923	-0.062	0.455	1.391	0.991	-0.110	0.570	0.686	0.941	-0.101
CTRL-SS1-07	141.58	4.48	190	24.31	365	0.604	0.430	0.853	-0.076	0.455	1.391	0.991	-0.110	0.570	0.686	0.941	-0.101
CTRL-SS2-05	90.85	4.97	190	24.31	365	1.057	0.550	1.024	-0.196	0.765	1.554	0.931	-0.050	0.907	0.678	0.956	-0.131
CTRL-SS2-06	90.85	4.97	190	24.31	365	0.869	0.360	0.935	-0.081	0.765	1.554	0.931	-0.050	0.907	0.678	0.956	-0.131
CTRL-SS2-07	90.85	4.97	190	24.31	365	0.956	0.510	1.017	-0.130	0.765	1.554	0.931	-0.050	0.907	0.678	0.956	-0.131
C10-SS1-05	141.58	4.48	190	16.21	365	0.632	0.580	0.872	-0.061	0.519	0.448	0.971	-0.156	0.530	0.763	0.942	-0.102
C10-SS1-06	141.58	4.48	190	16.21	365	0.651	0.560	0.958	-0.043	0.519	0.448	0.971	-0.156	0.530	0.763	0.942	-0.102
C10-SS1-07	141.58	4.48	190	16.21	365	0.743	0.750	0.974	-0.105	0.519	0.448	0.971	-0.156	0.530	0.763	0.942	-0.102
C10-SS2-05	90.85	4.97	190	16.21	365	0.797	1.000	0.935	-0.184	0.829	0.612	0.911	-0.096	0.714	0.766	0.948	-0.127
C10-SS2-07	90.85	4.97	190	16.21	365	0.695	0.480	0.918	-0.018	0.829	0.612	0.911	-0.096	0.714	0.766	0.948	-0.127
C20-SS1-05	141.58	4.48	190	13.69	365	0.418	0.650	0.983	-0.257	0.539	0.155	0.965	-0.171	0.528	0.777	0.942	-0.104
C20-SS1-06	141.58	4.48	190	13.69	365	0.307	0.780	0.880	-0.134	0.539	0.155	0.965	-0.171	0.528	0.777	0.942	-0.104
C20-SS1-07	141.58	4.48	190	13.69	365	0.325	0.670	0.898	-0.092	0.539	0.155	0.965	-0.171	0.528	0.777	0.942	-0.104
C20-SS2-05	90.85	4.97	190	13.69	365	0.941	0.550	0.967	-0.079	0.849	0.319	0.905	-0.110	0.690	0.759	0.945	-0.136
C20-SS2-07	90.85	4.97	190	13.69	365	0.869	0.590	0.941	-0.065	0.849	0.319	0.905	-0.110	0.690	0.759	0.945	-0.136

C30-SS1-05	141.58	4.48	190	10.1	365	0.790	0.600	0.994	-0.163	0.568	-0.263	0.956	-0.191	0.534	0.779	0.942	-0.111
C30-SS1-07	141.58	4.48	190	10.1	365	0.743	0.460	0.955	-0.032	0.568	-0.263	0.956	-0.191	0.534	0.779	0.942	-0.111
C30-SS2-05	90.85	4.97	190	10.1	365	0.724	1.400	0.911	-0.432	0.877	-0.099	0.896	-0.131	0.701	0.682	0.937	-0.176
C30-SS2-06	90.85	4.97	190	10.1	365	0.550	1.370	0.922	-0.109	0.877	-0.099	0.896	-0.131	0.701	0.682	0.937	-0.176
C30-SS2-07	90.85	4.97	190	10.1	365	0.507	1.200	0.952	-0.051	0.877	-0.099	0.896	-0.131	0.701	0.682	0.937	-0.176
Abendeh et al. [26]																	
CTRL-SS1-01	141.58	4.48	190	24.267	28	1.022	0.370	1.000	-0.383	0.870	1.537	0.895	-0.204	1.003	0.269	0.862	-0.337
CTRL-SS1-02	141.58	4.48	190	24.267	28	1.022	0.590	1.030	-0.433	0.870	1.537	0.895	-0.204	1.003	0.269	0.862	-0.337
CTRL-SS1-03	141.58	4.48	190	24.267	28	0.967	0.450	0.803	-0.228	0.870	1.537	0.895	-0.204	1.003	0.269	0.862	-0.337
CTRL-SS2-02	90.85	4.97	190	24.267	28	1.738	1.240	0.599	-0.023	1.179	1.701	0.835	-0.143	1.593	1.016	0.624	-0.048
CTRL-SS2-03	90.85	4.97	190	24.267	28	1.477	0.540	0.607	-0.048	1.179	1.701	0.835	-0.143	1.593	1.016	0.624	-0.048
F10-SS1-01	141.58	4.48	190	16.853	28	0.948	0.590	0.842	-0.126	0.929	0.675	0.877	-0.246	0.945	0.296	0.881	-0.309
F10-SS1-03	141.58	4.48	190	16.853	28	1.041	0.370	0.939	-0.311	0.929	0.675	0.877	-0.246	0.945	0.296	0.881	-0.309
F10-SS1-04	141.58	4.48	190	16.853	28	0.836	0.360	0.909	-0.188	0.929	0.675	0.877	-0.246	0.945	0.296	0.881	-0.309
F10-SS2-01	90.85	4.97	190	16.853	28	0.927	0.650	0.777	-0.134	1.238	0.838	0.817	-0.185	1.273	0.610	0.793	-0.144
F10-SS2-03	90.85	4.97	190	16.853	28	0.782	0.340	0.839	-0.233	1.238	0.838	0.817	-0.185	1.273	0.610	0.793	-0.144
F20-SS1-01	141.58	4.48	190	15.26	28	1.394	0.510	0.900	-0.272	0.941	0.489	0.873	-0.255	0.937	0.303	0.886	-0.301
F20-SS1-02	141.58	4.48	190	15.26	28	1.264	0.490	0.973	-0.387	0.941	0.489	0.873	-0.255	0.937	0.303	0.886	-0.301
F20-SS1-04	141.58	4.48	190	15.26	28	1.283	0.370	0.603	-0.405	0.941	0.489	0.873	-0.255	0.937	0.303	0.886	-0.301
F20-SS2-01	90.85	4.97	190	15.26	28	1.260	0.410	0.756	-0.265	1.251	0.653	0.813	-0.194	1.221	0.580	0.819	-0.160
F20-SS2-02	90.85	4.97	190	15.26	28	1.332	0.430	0.663	-0.049	1.251	0.653	0.813	-0.194	1.221	0.580	0.819	-0.160
F20-SS2-03	90.85	4.97	190	15.26	28	1.651	0.540	0.944	-0.127	1.251	0.653	0.813	-0.194	1.221	0.580	0.819	-0.160
F30-SS1-01	141.58	4.48	190	14.583	28	0.809	0.510	1.000	-0.546	0.947	0.411	0.871	-0.259	0.934	0.306	0.889	-0.297
F30-SS1-03	141.58	4.48	190	14.583	28	0.929	0.310	0.914	-0.298	0.947	0.411	0.871	-0.259	0.934	0.306	0.889	-0.297
F30-SS2-02	90.85	4.97	190	14.583	28	1.159	0.590	0.564	-0.048	1.256	0.574	0.812	-0.198	1.202	0.571	0.829	-0.166
CTRL-SS1-04	141.58	4.48	190	24.31	365	0.651	0.420	0.955	-0.074	0.455	1.391	0.991	-0.110	0.570	0.686	0.941	-0.101
CTRL-SS1-05	141.58	4.48	190	24.31	365	0.558	0.900	0.978	-0.111	0.455	1.391	0.991	-0.110	0.570	0.686	0.941	-0.101
CTRL-SS1-06	141.58	4.48	190	24.31	365	0.604	0.750	0.965	-0.108	0.455	1.391	0.991	-0.110	0.570	0.686	0.941	-0.101

CTRL-SS2-04	90.85	4.97	190	24.31	365	1.057	0.550	1.024	-0.196	0.765	1.554	0.931	-0.050	0.907	0.678	0.956	-0.131
CTRL-SS2-05	90.85	4.97	190	24.31	365	0.869	0.360	0.935	-0.081	0.765	1.554	0.931	-0.050	0.907	0.678	0.956	-0.131
CTRL-SS2-06	90.85	4.97	190	24.31	365	0.956	0.530	0.978	-0.126	0.765	1.554	0.931	-0.050	0.907	0.678	0.956	-0.131
F10-SS1-06	141.58	4.48	190	18.955	365	0.483	0.410	0.928	-0.092	0.498	0.768	0.978	-0.141	0.538	0.741	0.941	-0.101
F10-SS1-07	141.58	4.48	190	18.955	365	0.400	0.390	0.896	-0.089	0.498	0.768	0.978	-0.141	0.538	0.741	0.941	-0.101
F10-SS2-05	90.85	4.97	190	18.955	365	0.579	2.520	0.990	-0.079	0.807	0.931	0.918	-0.080	0.760	0.748	0.951	-0.125
F10-SS2-06	90.85	4.97	190	18.955	365	0.536	0.380	0.972	-0.113	0.807	0.931	0.918	-0.080	0.760	0.748	0.951	-0.125
F10-SS2-07	90.85	4.97	190	18.955	365	0.550	0.530	0.906	-0.146	0.807	0.931	0.918	-0.080	0.760	0.748	0.951	-0.125
F20-SS1-06	141.58	4.48	190	16.235	365	0.651	0.560	0.968	-0.111	0.519	0.451	0.971	-0.156	0.530	0.763	0.942	-0.102
F20-SS1-07	141.58	4.48	190	16.235	365	0.558	0.480	0.955	-0.067	0.519	0.451	0.971	-0.156	0.530	0.763	0.942	-0.102
F20-SS2-05	90.85	4.97	190	16.235	365	0.869	0.600	0.948	-0.179	0.829	0.615	0.911	-0.096	0.714	0.766	0.948	-0.127
F20-SS2-07	90.85	4.97	190	16.235	365	0.753	0.480	0.852	-0.182	0.829	0.615	0.911	-0.096	0.714	0.766	0.948	-0.127
F30-SS1-04	141.58	4.48	190	15.605	365	0.511	0.250	0.970	-0.194	0.524	0.378	0.970	-0.160	0.530	0.767	0.942	-0.102
F30-SS1-05	141.58	4.48	190	15.605	365	0.446	0.560	0.920	-0.069	0.524	0.378	0.970	-0.160	0.530	0.767	0.942	-0.102
F30-SS1-06	141.58	4.48	190	15.605	365	0.483	0.400	0.967	-0.094	0.524	0.378	0.970	-0.160	0.530	0.767	0.942	-0.102
F30-SS2-04	90.85	4.97	190	15.605	365	0.565	3.260	0.955	-0.174	0.834	0.542	0.910	-0.099	0.706	0.766	0.948	-0.129
F30-SS2-05	90.85	4.97	190	15.605	365	0.579	0.720	0.926	-0.109	0.834	0.542	0.910	-0.099	0.706	0.766	0.948	-0.129
Lyu & Han [21]																	
S120L0N1	120	4	310	44.66	70	0.342	5.672	1.018	-0.009	0.734	3.362	0.928	-0.043	0.267	5.824	1.049	-0.005
S120L2N1	120	4	310	39.78	70	0.334	4.997	1.020	-0.001	0.772	2.794	0.916	-0.071	0.316	3.366	1.021	0.000
S120L2N2	120	4	310	39.78	70	0.377	1.583	1.058	-0.001	0.772	2.794	0.916	-0.071	0.316	3.366	1.021	0.000
S200H0N1	200	6.6	550	48.83	70	0.175	2.664	0.941	-0.050	0.366	3.815	0.936	-0.049	0.264	3.015	0.970	-0.007
S200H0N2	200	6.6	550	48.83	70	0.191	3.077	1.053	-0.010	0.366	3.815	0.936	-0.049	0.264	3.015	0.970	-0.007
Parsley et al. [18]																	
1	203.2	6.35	1194	45.2	28	0.290	0.224	0.881	-0.058	0.326	1.223	0.831	-0.007	0.287	0.136	0.804	-0.041
2	203.2	6.35	1194	45.2	28	0.290	0.198	0.834	-0.054	0.326	1.223	0.831	-0.007	0.287	0.136	0.804	-0.041
3	254	6.35	1,499	40.4	28	0.1862	0.132	0.809	-0.024	0.039	-0.345	0.827	-0.052	0.184	0.142	0.811	-0.032
4	254	6.35	1,499	40.4	28	0.1862	0.132	0.810	-0.020	0.039	-0.345	0.827	-0.052	0.184	0.142	0.811	-0.032

Shakir-Khalil [5]																	
Y1a	150	5	204	52.2	28	0.590	2.469	0.958	-0.001	0.629	4.895	0.961	-0.047	0.637	5.163	0.989	0.000
Y1b	150	5	204	52.2	28	0.580	7.556	1.033	-0.026	0.629	4.895	0.961	-0.047	0.637	5.163	0.989	-0.019
Y2a	150	5	398	52.2	28	0.340	10.419	1.008	-0.001	0.602	4.260	0.934	-0.023	0.346	8.392	1.009	-0.001
Y2b	150	5	397	52.2	28	0.330	6.617	1.001	-0.001	0.602	4.263	0.934	-0.023	0.346	8.386	1.009	-0.001
Y3a	150	5	600	52.2	28	0.370	3.949	1.014	-0.010	0.574	3.599	0.905	0.002	0.342	6.891	0.956	-0.002
Y3b	150	5	600	52.2	28	0.440	10.261	0.983	-0.032	0.574	3.599	0.905	0.002	0.342	6.891	0.956	-0.020
Shakir-Khalil [6]																	
C1b	150	5	397	42.7	28	1.030	0.700	0.693	-0.003	0.677	3.158	0.910	-0.077	0.931	0.808	0.895	-0.003
Tao et al. [30]																	
SC120N1	120	3.6	600	58.313	109	1.040	0.590	0.831	-0.020	0.515	3.863	0.940	0.077	1.056	0.174	0.841	-0.015
SC200N1	200	5.7	850	50.5	35	0.230	0.300	0.737	0.000	0.305	2.773	0.904	-0.021	0.234	0.450	0.894	-0.001
Zou et al. [31]																	
S14	120	3	260	33.2	28	0.520	0.510	0.944	-0.053	0.828	1.910	0.914	-0.136	0.642	0.505	0.951	-0.041