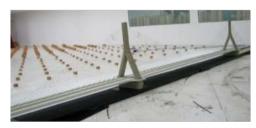


## TRACK RECORD OF

## WIND TUNNEL TEST FOR BRIDGES











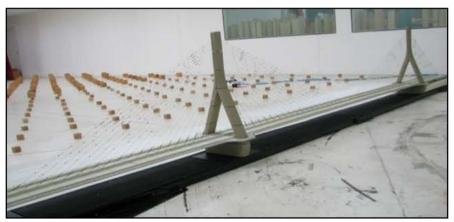




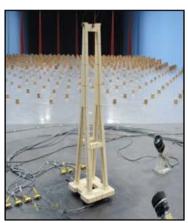


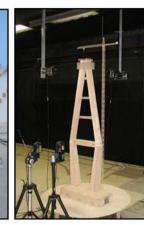


## Major Projects





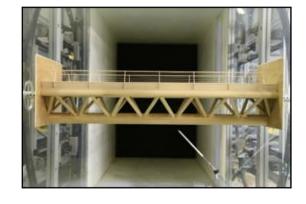




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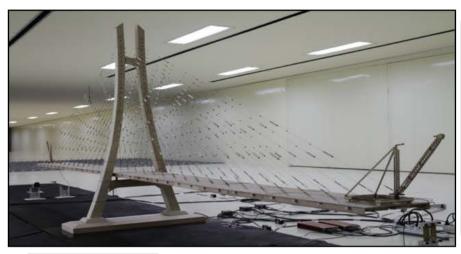
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1. New Nile Bridge, Uganda
2. Mersey Gateway Bridge, United Kingdom
3. Chacao Bridge, Chile
4. Incheon Bridge, S. Korea
5. Saetgang Pedestrian Bridge, S. Korea
6. Namhae 2nd Bridge, S. Korea



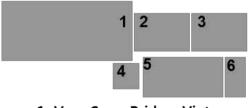


## Major Projects

















Ref.	Project		Year	Client	Test / Analysis
165	Chacao Bridge, Chile (in progress)	Hyundai & OAS	2014	Chacao Bridge Consortium	Section model test(deck, tower), Wind shield test, Free standing tower model test, Topographic model wind tunnel test, Full bridge model test
164	Galloping of Power Transmission Line		2014	KEPCO	Assessment of wind-resistant stability of Transmission line
163	Saryang-Sanghado Pedestrian Bridge	KDC	2014	KDC	Buffeting analysis
162	Yeonhwado-Udo Pedestrian Bridge		2014	Tongyeong city	Section model test, Aeroelastic full bridge model test
161	Anheung-Naehang Pedestrian Bridge		2014	Korea Engineering Consultant Corp.	Section model test
160	Baeksajanghang Pedestrian Bridge		2014	Taean-gun	Assessment of wind-resistant stability of Cable
159	Temburong Bridge, Brunei		2014	Brunei Government	Section model test
158	Pusan Yongdo Connecting Bridge		2013	SA Ltd.	Wind pressure test for sound proof wall
157	Sungai Bridge, Brunei	DAELIM	2013	DAELIM Industrial	Section model test, Buffeting analysis, Aeroelastic full bridge model test, CFD analysis, Wind environment test
156	Chimney covered by3 Membrane , Japan	Hitachi Zosen	2013	Nichizotech	Aeroelastic model test, Force balance test
155	Three Co-stayed Steel Chimney, Japan	Hitachi Zosen	2013	Nichizotech	Aeroelastic model test, Force balance test, flow measurement
154	Mersey Gateway Bridge Link, England	Samsung JV	2013	Samsung JV	Section model test(deck, tower), Wind shield test, Free standing tower model test
153	Sandaldo bridge	LOTTE E&C	2012	Pyeonghwa Enigineering	Section model test, Buffeting analysis, Cable vibration analysis, CFD analysis, Wind climate analysis
152	Vam Cong Bridge, Vietnam	Cuu Long CIPM	2012	Dasan JV	Section model test, free standing tower model test, full bridge model test, Wind climate analysis, Buffeting analysis, Cable analysis
150 149	2nd Namhae Bridge Yeonggwang-Haeje Bridge Yeongwang-Haeje Bridge Georgia_Mtkvari Bridge Hwayang-Jeokgeum Sector 3	GS E&C Samwhan Corp. Daelim Corp. HDC	2012 2012 2012 2012 2011	GS E&C KECC Corp. Dongho Corp. Pyeonghwa Engineering Yooshin Corp.	Section model(Flutter derivatives) Section model test, Buffeting, CFD, Cable vibration analysis Section model test, Buffeting, CFD, Cable vibration analysis Wind climate analysis, Aerodynamic design proposal Section model tests, Buffeting, Flutter, CFD analysis, Aeroelastic full bridge model tests, Aeroelastic free standing tower model tests

Ref.	f. Project		Year	Client	Test / Analysis
146	Hwayang-Jeokgeum Sector	Samsung C&T	2011	Pyeonghwa Engineering	Section model test, Buffeting, CFD, Cable vibration analysis
145	Hwayang-Jeokgeum Sector	SK E&C	2011	Yongma Engineering	Section model tests, Buffeting, CFD analysis, Aeroelastic full bridge model tests, Aeroelastic free standing tower model tests
144	Hwayang-Jeokgeum Sector 3	GS E&C	2011	Jinwoo Engineering	Section model test
143	Dolsan 2 <sup>nd</sup> Bridge(Woodoo- Jonghwa)	Daelim Corp.	2011	Daelim Corp.	Cable vibration analysis
142	Anjwa-Jara Bridge	Korea Development	2011	Pyeonghwa Engineering	Typhoon simulation, Section model test, Buffeting, CFD, Cable vibration analysis
141	Anjwa-Jara Bridge	Kumho E&C	2011	Yooshin Corp.	Section model, Aeroeastic full bridge model tests, Buffeting, CFD analysis
140	Seohae Railway Sector 5	SK E&C	2011	Pyeonghwa Engineering	Section model, , Aeroelastic free standing tower model tests , CFD, Cable vibration analysis, Cable damper design
139	Busan outer highway Sector 8	GS E&C	2011	DM Engineering	Section model test, Buffeting, CFD, Cable vibration analysis
138	Dangsan-Yeoui Pedestrian Bridge		2011	Soktop Engineering	Aerodynamic and CFD analysis
137	Daedeok Technovalley		2011	Seoyeong Engineering	Aerodynamic and CFD analysis
136	Gangmun Pedestrian Bridge, Gangneung		2011	Beomjin E&C	Section model test
	New Nile Bridge		2011	Oriental Consultants	Section model, Aeroelastic full bridge model tests, CFD analysis
	3rd Bosporus Bridge	POSCO E&C	2011	Pyeonghwa Engineering	Wind climate, CFD analysis, Aerodynamic design proposal
	Sunda Strait Bridge Hybrid cable stayed b		2011 2010	Pyeonghwa Engineering DM Engineering	Wind climate analysis Section model test
131	Pangyo Gyeongbu Highway		2010	Pyeonghwa Engineering	Aerodynamic analysis
130	Bridge Stack Testing, Japan	Hitachi Ship building	2010	Nichizotech	Section model, Elastic model, Diffusion, Visualization test
129	Boryeong-Taean Sector 2	Kolon Corp.	2010	Sambo Engineering	Aeroelastic free standing tower model tests
	Baekseok Bridge	GS E&C	2010	Dasan Consultant	Section model test, Buffeting, CFD Analysis
	East-West island Bridge	Namyeong E&C	2010	KECC Corp.	Section model test, Buffeting, CFD, Cable vibration analysis
	East-West island Bridge	Namyang E&C	2010	Pyeonghwa Engineering	Section model test, Buffeting, CFD, Cable vibration analysis
	East-West island Bridge	Korea Development	2010	Shinsung Engineering	Section model test, Buffeting, CFD, Cable vibration analysis
	Geumgang 4 <sup>th</sup> Bridge	SK E&C	2010	Sambo Engineering	Section model test, Buffeting, CFD, Cable vibration analysis
123	Izmit Bay Bridge	Hyundai E&C	2010	Pyeonghwa Engineering	tower section model test, Aerodynamics design proposal

Ref.	Projec	t	Year	Client	Test / Analysis
	Haui-Shinui Bridge	Namyang E&C	2010	Yooshin Corp.	Typhoon simulation, Section model test, CFD analysis
121	Haui-Shinui Bridge	Namyeong E&C	2010	KECC Corp.	Section model test, Buffeting, CFD, Cable vibration analysis
120	, ,	Kolon Corp.	2010	Yooshin Corp.	Section model, Aeroeastic full bridge model tests, Buffeting analysis
119	Shinji-Gogeum Bridge	Lotte E&C	2010	Pyeonghwa Engineering	Section model test, Buffeting, CFD, Cable vibration analysis
118	Honam Express Railway Sector 4-2	SK E&C	2010	Cheongseok Engineering	Section model test and CFD Analysis
117	Poseung-Pyeongtaek Railway Bridge Research Project:	Keangnam Corp.	2010	Taejo Engineering	Cable vibration, CFD analysis
116	Development of Wind- resistant Section	Samsung C&T	2009	Samsung C&T	Wind-resistant section model and Aeroelastic free standing tower model tests
115	Bitgaram Bridge, Naju	Hyundai E&C	2009	Jeil Engineering	Buffeting, CFD, Cable vibration analysis
114	Peongtaek Bridge Youngin- Cheongbuk	SK E&C	2009	Pyeonghwa Engineering	Section model test, Buffeting, CFD, Cable vibration analysis
113	Peongtaek Bridge Youngin- Cheongbuk	Samsung T&C	2009	DM Engineering	Section model test, Buffeting, CFD analysis
112	Peongtaek Bridge Youngin- Cheongbuk	GS E&C	2009	Sambo Engineering	Section model test and CFD analysis
111	Ulsan Bridge Detail Design	Hyundai E&C	2009	Yooshin Corp.	Section model, Aeroelastic free standing tower model, Aeroeastic full bridge model tests, Buffeting, Flutter analysis
110	Saryang-Sangha island Bridge	Korea Development	2009	Shinsung Engineering	Section model test and CFD analysis
109	Saryang-Sangha island Bridge	Samhwan Corp.	2009	KECC Corp.	Section model test and CFD analysis
108	Saryang-Sangha island Bridge	Samsung Heavy Industry	2009	Seoyeong Engineering	Section model test and CFD analysis
107	New Millennium bridge Sector 1 (Aphae-Amtae)	GS E&C	2009	Sambo Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests, Buffeting analysis
106	New Millennium bridge Sector 1 (Aphae-Amtae)	Hyundai E&C	2009	Pyeonghwa Engineering	Section model test, Buffeting, CFD analysis
105	New Millennium bridge Sector 1 (Aphae-Amtae)	Samsung T&C	2009	Yooshin Corp.	Section model, Aeroelastic free standing tower model, Aeroeastic full bridge model tests, Buffeting analysis
104	Gyeingnam Innocity Bridge	Samboo	2009	Taejo Engineering	Section model, Buffeting , CFD analysis

Ref.	Projec	t	Year	Client	Test / Analysis
103	Gyeingnam Innocity Bridge	Doosan E&C	2009	Saman Corp.	Section model , Aeroelastic free standing tower model tests, Buffeting, CFD analysis
102	Jeokseong Brdige Detail Design	Lotte E&C	2009	Yooshin Corp.	Aeroeastic full bridge model tests
101	Ulleungdo Pedestrian Bridge		2009	Yooshin Corp.	Aeroeastic full bridge model tests
100	Namhae 2 <sup>nd</sup> Bridge	Hyundai E&C	2009	Yooshin Corp.	Section model tests, Buffeting, CFD analysis
99	Namhae 2 <sup>nd</sup> Bridge	Samsung T&C	2009	Seoyeong Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests, Buffeting analysis
98	Namhae 2 <sup>nd</sup> Bridge	GS E&C	2009	Jinwoo Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests, Buffeting analysis
97 96	Boryeong-Taean Sector 2 Boryeong-Taean Sector 2	Kolon Corp. Korea Development	2009 2009	Sambo Engineering Cheongseok Engineering	Section model test, Buffeting, CFD analysis Section model test, Buffeting, CFD analysis
95	Boryeong-Taean Sector 1	GS E&C	2009	Pyeonghwa Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests, Buffeting analysis
94	Boryeong-Taean Sector 1	SK E&C	2009	Gunhwa Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests, Buffeting analysis
93	Yeouido Saetgang Pedestrian Bridge	Samhyub	2009	Samhyub	Section model test
92	Jeokseong Bridge(Jeokseong-Jeongok)	Kolon Corp.	2009	Pyeonghwa Engineering	Section model test, Buffeting, CFD analysis
91	Jeokseong Bridge(Jeokseong-Jeongok)	Lotte E&C	2009	Yooshin Corp.	Section model test, Buffeting, CFD analysis
90	Gogunsan Islands Sector 2	Samsung T&C	2008	Yooshin Corp.	Section model test, Buffeting analysis, Typhoon simulation
89	88 Highway Bridge Sector 12	Hyundai E&C	2008	Cheongseok Engineering	Section model, Windbreak wall test, Buffeting analysis
88	Ulsan Bridge Design Development	Hyundai E&C	2008	Yooshin Corp.	Section model test, Buffeting analysis
87	Gogunsan Islands Sector 3 Design Development		2008	Suseong Engineering	Section model test
86 85	Highway separator screen Traffic Sign		2008 2008	Kwandong Univ. Hongik Engineering	Screen aerodynamic test Traffic sign, aerodynamic/vibration test
84	Chilsan Bridge (Hongnong- Baeksu)	Namyeong E&C	2007	Yooshin Corp.	Section model, Aeroeastic full bridge model tests, Buffeting analysis

Ref.	Project		Year	Client	Test / Analysis
83	Yeongdo Bridge, Busan	Lotte E&C	2007	Lotte E&C	3D Aeroeastic full bridge model tests, Wind tunnel test on a bascule bridge
82	Geumho River Bridge. Daegu	KCC E&C	2007	Dalin E&C	Section model tests, CFD analysis
81	Geumho River Bridge. Daegu	Kolon Corp.	2007	Suseong Engineering	Section model tests, Buffeting, CFD analysis
80	Gunhang Brdige	Samhwan Corp.	2007	Yongma Enginnering	Section model tests, CFD analysis
79	Cheongna City Sector 5	POSCO E&C	2007	Core Engineering	CFD Analysis
78	Machang Bridge	Hyundai E&C	2007	Hyundai E&C	Buffeting Analysis
77	Andong Detour(Gyori- Susang)	Samsung T&C	2006	Jeil Engineering	Section model tests, CFD analysis
76	Yeosu Industrial Region Sector 3	Daelim Corp.	2006	Daelim Corp.	Section model, Aeroelastic free standing tower model, Aeroeastic full bridge model tests, Typhoon simulation, CFD analysis
75	Yeosu Industrial Region Sector 3	Samsung T&C	2006	Seoyeong Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests, CFD analysis
74	Sector 1	anjin Heavy Industry	2006	Jeil Engineering	Section model , Aeroelastic free standing tower model tests, CFD analysis
73	Yeosu Industrial Region Sector 4	POSCO E&C	2006	KCI	CFD analysis
72	Yeosu Industrial Region Sector 4		2006	Sambo Engineering	CFD analysis
71	Busan New Harbor 2 <sup>nd</sup> motorway	Ssangyong E&C	2006	Ssangyong E&C	CFD analysis
69	Yeongdeok-Osan Sector 2	Keangnam	2006	Taejo Engineering	CFD analysis
68	Yeongdeok-Osan Sector 1	POSCO E&C	2006	Saman	CFD analysis
67	Yeongdeok-Osan Sector 1	Taeyoung E&C	2006	KCI	CFD analysis
66	Injoo Industrial Motorway	Kyeryong Const.	2006	CTC	CFD analysis
65	Buhang Dam Motorway	Hyundai E&C	2006	Saman Engineering	CFD, Cable dynamic analysis
64	Jeonju stream Bridge(Yongjeong-Yongjin)	Dongbu Corp.	2006	Yooshin Corp.	CFD, Cable dynamic analysis
63	Unnam Brdige-Gwangno 7	Namyang E&C	2006	Yooshin Corp.	Section model tests, CFD analysis
62	3 3	Kumkwang Corp.	2006	Dongbu Engineering	CFD analysis
61	Sepoong Brdige(Sepoong- Junggun)	Daelim Corp.	2006	Daelim Corp.	Section model , Aeroelastic free standing tower model tests, CFD, Cable dynamic analysis

Ref.	Projec	t	Year	Client	Test / Analysis
60	Halim-Sanglim Motorway	Dongbu Corp.	2006	KCI	Section model test, CFD, Cable dynamic analysis
59	Halim-Sanglim Motorway	Samsung T&C	2006	Seoyoung Engineering	Section model test, Aeroeastic full bridge model tests, CFD, Cable dynamic analysis
58	Namhae 2 <sup>nd</sup> Bridge (Schematic Design)		2006	Donga Eng.+Gunhwa Eng.	Section model test, CFD analysis
57	Namchang Brdige	Kumkwang Corp.	2005	Yooshin Corp.	Section model test, Wind climate, Cable dynamic analysis
56	Songdo seaside way	Daewoo E&C	2005	Dongsung Engineering	CFD, Wind climate analysis
55	Songdo seaside way	Samsung T&C	2005	Seoyoung Engineering	CFD, Wind climate analysis
54	Jinjoo-Gwangyang Railway Bridge Sector 2	Korea Development	2005	Seoyoung Engineering	CFD Analysis
53	Gwangyang Harbor Pedestrian Bridge	Hyundai E&C	2005	Woodae Engineering	CFD, Cable dynamic analysis
52	Gwangyang Harbor Railway Bridge Sector 6	SK E&C	2005	Suseong Engineering	CFD Analysis
51	Seongnam-Yeoju Railway Bridge Sector 6	Samsung T&C	2005	RPS	CFD Analysis
50	Seongnam-Yeoju Railway Bridge Sector 8	Dongbu Corp.	2005	Dongsung Engineering	CFD, Wind climate analysis
49	2 <sup>nd</sup> Bridge Sector 5	POSCO E&C	2005	Suseong Engineering	CFD, Cable dynamic, Wind climate analysis
48	2 <sup>nd</sup> Bridge Sector 5	Doosan E&C	2005	Cheongseok Engineering	CFD Analysis
47	2 <sup>nd</sup> Bridge Sector 4	SK E&C	2005	Gunhwa Engineering	CFD Analysis
46	Dolsan 2 <sup>nd</sup> Bridge(Woodu- Jonghwa)	Daelim Corp.	2005	Daelim Corp.	Section model tests, CFD analysis
45	Bubal, Yoolcheon Bridge (Seongnam-Yeoju Railway)	Dongbu Corp.	2005	Dongsung Engineering	CFD, Wind climate analysis
44	Gulpocheon Floodway Sector 2	GS E&C	2005	Dongsung Engineering	CFD Analysis
43	Incheon Grand Bridge	Samsung T&C	2005	Samsung T&C	Section model, Aeroelastic free standing tower model, Aeroeastic full bridge model tests, Buffeting, Flutter, Cable dynamic analysis, Vehicle running safety assessment
42	Eunpa Pedestrian Bridge	Dongbu Corp.	2005	Yongma Engineering	Section model tests, CFD, Cable dynamic
41	(Geumodo-ando) Eunpa Pedestrian Bridge		2004	Yooshin Corp.	Section model test

	ef. Project		Year	Client	Test / Analysis
40	Highway Wind/Snow resistant wall		2004	Korea Expressway Corp.	Topological fluid dynamic properties, dynamic properties of a snow resistant wall, Aerodynamic test and CFD analysis on snow cover depth
39	Highway VMS		2004	Korea Expressway Corp.	VMS, Aerodynamic test on traffic signs
38	Cheongpung Bridge	Daelim Corp.	2004	Envico Consultant	Section model, Aeroelastic free standing tower model, Aeroeastic full bridge model tests
37	Bukhang Bridge	Hyundai Development	2004	Yooshin Corp.	Section model, Aeroelastic free standing tower model, Aeroeastic full bridge model tests
36	Tangeum Bridge		2004	Boram Engineering	Section model test, CFD, Cable dynamic analysis
35	Geumodo-ando Brdige		2004	Yongma Engineering	Section model test
34	Geumodo-ando Brdige		2004	Gunhwa Engineering	Section model test
33	Chorak Bridge	Dongbu Corp.	2004	Suseong Engineering	Section model test, CFD, Cable dynamic analysis
32	Chorak Bridge	Gyeryong Const.	2004	Yooshin Corp.	Section model test, CFD, Cable dynamic analysis
31	Saokdo-Jeungdo Bridge	Hanjn Heavy Industry	2004	Yooshin Corp.	Section model test, CFD analysis
30	Mooyoung Bridge (Cheongho-Samho)	Hyundai E&C	2004	Yooshin Corp.	CFD, Cable dynamic analysis
29	Youngam Bridge (Hwawon-Sampo)	Daewoo E&C	2004	RPS	CFD analysis
28	Youngam Bridge (Hwawon-Sampo)	Dongbu Corp.	2004	Dongsung Engineering	Acoustic wall panel test, CFD analysis
27	Sunchang-Unam Bridge	Ssangyong E&C	2004	Cheongseok Engineering	Section model test, CFD analysis
26	Incheon Bridge Schematic Design	Hyundai E&C	2004	B&S	Section model test, CFD analysis
25	Incheon Bridge Schematic Design	Samsung T&C	2004	Samsung T&C	Section model test, CFD analysis
24	Machang Bridge	Hyundai E&C	2003	Hyundae Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests
23	Gyeingju-Gampo		2003	Yooshin Corp.	Section model test, CFD analysis
22	Dolsan-Hwataeyeon Bridge	Samsung T&C	2003	Seoyeong Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests
21	Dolsan-Hwataeyeon Bridge	Hanjn Heavy Industry	2003	Yooshin Corp.	Section model, Aeroelastic free standing tower model, Aeroeastic full bridge model tests
20	Jeokgeum-Youngnam Bridge	Daelim Corp.	2003	Yooshin Corp.	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests

Ref.	Project		Year	Client	Test / Analysis
19	Mokpo Bridge (Goha- Jukgyo)	Hyundai E&C	2003	Hyundai Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests
18	Mokpo Bridge (Goha- Jukgyo)	Daelim Corp.	2003	Daelim Corp.	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests
17	Cheongpoong Bridge		2003	Saman Engineering	Section model , Aeroelastic free standing tower model tests
16	Oksoon Bridge		2003	Saman Engineering	2D Hanger member dynamic test, In-situ Vibratoin measurement
15	Noksan Bridge-Busan New Harbor	Hyundai E&C	2002	Yooshin Corp.	Section model , Aeroelastic free standing tower model tests
14	Wando Bridge	Daelim Corp.	2002	Dasan E&C	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests
13	Jukjeon Elevated road	Hyundai E&C	2002	Hyundai E&C	Wind tunnel test on acoustic wall panels
12	Yeondong Highway wind resistant wall		2002	Korea Expressway Corp.	Wind tunnel test on wind resistant walls
11	Seongsan 2 <sup>nd</sup> Bridge(Olympic Bridge) Wando-Shinjido		2002	WEIK	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests
10	Bridge(Temporary Work Phase)	Doosan E&C	2002	Doosan E&C	Section model test
9	Yeongjong Railway Bridge		2002	Hyundai E&C	Section model, wind tunnel test on railway vehicles
8	55 5 5	amsun Heavy Industry	2002	Samsung Heavy Industry	Section model test
7	Geogeum 2 <sup>nd</sup> Bridge- Geumbit Bridge	Hyundai E&C	2002	Hyundai Engineering	Section model , Aeroelastic free standing tower model, Aeroeastic full bridge model tests
6	Geumga Bridge	Hyundai E&C	2002	Daehan Consultant	Section model test, CFD Analysis
5	Yangsan-Dongmyun Bridge		2001	KTIC	Aerodynamic, CFD Analysis
4	Jeodo Brdige	Samboo	2001	Gunhwa Engineering	Section model test, CFD Analysis
3	Gyeongan Bridge	Hyundai E&C	2001	Dongil Engineering	Section model test, CFD Analysis
2 1	Gulpo Bridge Gangseo Bridge	Hyundai E&C	2001 2001	Dasan Engineering Cheongseok Engineering	Aerodynamic, CFD Analysis Aerodynamic, CFD Analysis