

사장교 케이블의 풍응답 해석
Wind Response Analyses of Stay Cables
for a Cable-Stayed Bridge

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ABSTRACT

Wind response analyses of stay cables for a cable-stayed bridge are conducted. Stay cables are likely to vibrate under several wind-related environments, which include vortex shedding, galloping of cables, rain-induced vibrations, buffeting by wind turbulence, supports excitation. Several counter measures for suppressing the cable vibration have been utilized, like aerodynamic modifications of the cable surfaces, cross-tie systems, and cable dampers. Numerical simulation study on stay cables for a cable-stayed bridge under various wind environments is conducted to compare the efficacy and the unique characteristics of several counter measures for suppressing cable vibration.