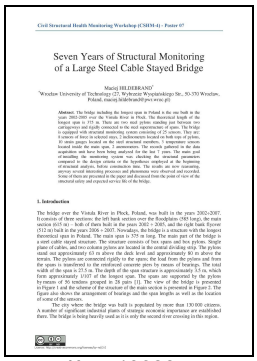

Код: 10988

Maciej Hildebrand

Seven Years of Structural Monitoring of a Large Steel Cable Stayed Bridge

Берлин, Германия, 2012 год

7 стр; формат: 23,5 x 16 см; библиографический список: 2 единицы

The bridge including the longest span in Poland is the one built in the years 2002-2005 over the Vistula River in Plock. The theoretical length of the longest span is 375 m. There are two steel pylons standing just between two carriageways and rigidly connected to the steel superstructure of spans. The bridge is equipped with structural monitoring system consisting of 25 sensors. They are: 8 sensors of force in selected stays, 2 inclinometers located on both tops of pylons, 10 strain gauges located on the steel structural members, 3 temperature sensors located inside the main span, 2 anemometers. The records gathered in the data acquisition unit have been being analyzed for the last 7 years. The main goal of installing the monitoring system was checking the structural parameters compared to the design criteria or the hypotheses employed at the beginning of structural analysis, before construction time. The results are now reassuring, anyway several interesting processes and phenomena were observed and recorded. Some of them are presented in the paper and discussed from the point of view of the structural safety and expected service life of the bridge.

Доклад. Конференция по мониторингу технического состояния гражданских сооружений (CSHM-4), «Системы мониторинга технического состояния сооружений, обеспечивающие продление срока службы сооружений». Ноябрь, 2012. Берлин. Германия.

Ключевые слова:

Содержание