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Operational Model Analysis of Wanda Bridge in Poland with Use of Wireless Sensors*

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Abstract

Operational Modal Analysis aims at determination of natural frequency values, damping ratio values and mode shapes of an engineering structure in its operational conditions. The paper presents technique of modal testing of the bridge in its operational conditions with use of wireless sensors. The main goal of the carried out investigations was determination of natural frequencies and mode shapes of the bridge. The results achieved basing on measurement con-ducted with use of typical piezoelectric accelerometers connected to the measuring device with cable were compared with the ones determined basing on measurement with use of the wireless sensors.

Keywords: Operational Modal Analysis, wireless sensors, study of bridge dynamics

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