Dynamic Testing of the Braga Stadium Suspended Roof (EURO 2004)

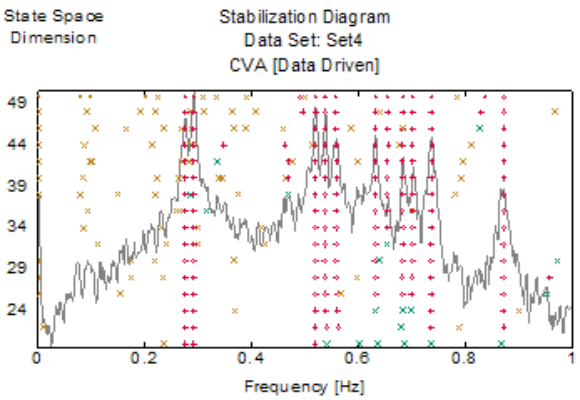
The results presented here were obtained by Professors Alvaro Cunha, Elsa Caetano and Filipe Magalh&#65533;es (Laboratory of Vibrations and Structu
Faculty of Engineering of the University of Porto, Portugal), performing the analysis with ARTeMIS Extractor Pro of the database created during
New Braga Stadium Suspended Roof, under contract with the designer AFAssociados.

The New Braga Stadium is a masterpiece of architecture, constructed for the European Football Championship EURO&#65533;2004, and is located at t
Portugal. The results shown below are based on the ambient vibration test performed using 4 triaxial GeoSIG seismographs synchronized by GP

Below you can download AVI movies animating the first 10 modes. The modes have been estimated with the Frequency Domain Decomposition
versions of the ARTeMIS Extractor.

Mode 1 - 0.28 Hz
Mode 2 - 0.29 Hz
Mode 3 - 0.52 Hz
Mode 4 - 0.54 Hz
Mode 5 - 0.56 Hz
Mode 6 - 0.63 Hz
Mode 7 - 0.65 Hz
Mode 8 - 0.70 Hz
Mode 9 - 0.74 Hz
Mode 10 - 1.03 Hz

Hint: To get the maximum out of the downloaded AVI movie, please set your AVI movie player to "Repeat Forever".



The Canonical Variate Analysis (CVA) Stochastic Subspace Identification (SSI) estimator was also applied in order to extract damping ratios of the

stabilization diagram is shown:

Stabilization Diagram will be available soon.

Related Information

Laboratory of Vibrations and Structural Monitoring of FEUP VIBEST has their own web site at: www.fe.up.pt/vibest. A detailed description of th found in the following paper:

F. Magalhães, E. Caetano, A. Cunha
Operational Modal Analysis of the Braga Sports Stadium Suspended Roof
Proceedings of the 24th International Modal Analysis Conference (IMAC), St. Louis, Missouri, 2006.

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