عنوان مقاله:

System identification of arch dam based on continues wavelet transform

محل انتشار:

دهمین کنگره بین المللی مهندسی عمران (سال: 1394)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Reza Tarinejad - *Assistant professor of civil engineering faculty of university of Tabriz, Tabriz, Iran*

Arman Roshanravan - *M.Sc. student of Civil engineering faculty of University of Tabriz, Tabriz, Iran*

Majid Damadipour - *PHD student of civil engineering faculty of university of Tabriz, Iran*

Hamed Mahjoob - *M.Sc. student of Civil engineering faculty of University of Tabriz, Tabriz, Iran*

خلاصه مقاله:

Operational Modal Analysis (OMA) is one of the best and effective methods for health monitoring of structures. Any changes in the modal parameters could be a sign of the changes in structural properties or ambient conditions of the structure. An important application of system identification in structural dynamics is the determination of natural frequencies and damping ratios during operation. In this paper, Continues Wavelet Transform (CWT) is used to extract modal parameters (natural frequencies and damping ratios) of Karun III double curved arch dam in Iran. Modified Morlet wavelet is used to extract natural frequencies then signal decomposed to single frequency signal to eliminate modes interference to calculate damping ratios exactly using half power method.

کلمات کلیدی:

Modal identification, dam-reservoir interaction, FDD, ground motion

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/363861