

## عنوان مقاله:

DYNAMIC ANALYSIS OF A MULTIPLE-SUPPORTED PRESSURE PIPELINE SUBJECTED TO BOTH AXIAL AND VERTICAL SEISMIC EXCITATION COMPONENTS

## محل انتشار:

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## خلاصه مقاله:

In the present paper, a new method is presented for coupled dynamic analysis of a multiple-supported pressure pipeline with flowing liquid inside subjected to simultaneous acting axial and vertical transversal kinematic support excitations. This approach is based on previously developed by the author procedures for dynamic analysis of such pipeline under transversal and axial seismic excitations. The method for transversal structural analysis is based on a two-stage application of the Coriolis theorem and it also accounts for the dynamic pipe-liquid interaction during support excitation. In the structural response analysis for axial excitation, a recently developed velocity-based friction model is used for computation of the axial force at selected pipeline section. In the present work, both these approaches are coupled into a new time-history -structural analysis algorithm which is also illustrated with a numerical example

## کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1290409>

