عنوان مقاله:

Optimal Passive Structural Control With Artificial Intelligence Approach

محل انتشار:

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خلاصه مقاله:

In this paper we investigate how to construct a class of multi-degree of freedom model with mass damper will be tuned. In the first part features of the structural system will be introduced, in the second part the equation of the structure's motion will be determined and solved in the state space. After reaching the state equations we will study computer modeling in order to solve numeric diffrential equations which are dominant to the model.In this respect the area of the Matlab sotware and the use of its toolboxes in modeling will be profitable. SIMIULINK is one of the most utilized toolboxes of MATLAB for mathematical modeling of the dynamic systems. In the SIMULINK toolbox there's this possibility to use very simple connections ,input and different outputs based on the very simple graphical area and modeling them to reduce the errors to least.In the SIMULINK toolbox the simple mathematical model based on the state equations A,B,C and D matrices are being modeled.the aim of this research is to study function of regulated passive mass damper controling system in reducing the dynamical answer of one degree and multi degree release structural system.As observed the mentioned passive controling system has acceptable function in reducing the dynamic answer of structural systems.

کلمات کلیدی:

Passive control of structure,Tuned mass damper,State-Space

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