

Evaluasi terhadap peredam getaran dinamis (DVA) dalam mengurangi respon gempa dari bangunan gedung = Evaluation of the dynamic vibration absorbers to reduce seismic response of buildings

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Abstrak

ABSTRAK

Evaluating the effectiveness of dynamic vibration absorber (TMDs) in order to reduce vibration of equivalent SDOF system subjected to white noise random excitation is considered. This evaluation is limited to the displacement response only and performed using RMS, Response Ratio, Performance and Effective Damping concepts. The Optimum Tuning and Damping of this system especially the damped one is determined using Iterative Process and formulas for these two optimum parameters also derived by using Regression Analysis. The behavior and effectiveness of this system under Simulated Earthquake also evaluated using SIMULINK Programs and in addition to this equivalent SDOF model (1st mode modelization), we try to see complete structural modeling for comparison. It is the MDOF model with State-Space Formulation.