

Cost-effectiveness analysis of earthquake-resistant folding containers for aquaculture





Overview

Modeling, analysis and design of retrofitting interventions has been a topic of numerous research projects that aim in providing answers to complex questions such as “which retrofitting technique is more effective.”

What are advanced strategies in earthquake-resistant structural engineering?

Advanced strategies in earthquake-resistant structural engineering focus on innovative seismic design approaches, cutting-edge materials, and the integration of technology. Insights from Alavi and Krawinkler (2001) and Chopra (2012) deepen understanding of structural dynamics and seismic design.

Are seismic retrofitted structures cost-effective?

Using a combination of analytical modelling and scaled shake table experiments, the study simulated the seismic performance of retrofitted structures under varying load conditions. Statistical analyses, including ANOVA, were conducted to assess the significance of differences between techniques. A cost-effectiveness score of 8.5 out of 10.

Are self-healing materials a key feature of earthquake-resistant design?

As the process further develops, it is believed that self-healing materials will be a key feature of any earthquake-resistant design, providing an eco-friendly and effective way to improve the ability of the structures to withstand seismic loads (Figs. 4, 5, 6) (Table 2).



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Advanced strategies in earthquake-resistant structural ...

Mar 17, 2025 · This paper is a general overview of the advanced strategies involved in earthquake-resistant structural engineering, including seismic design, materials, and ...

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Seismic retrofitting techniques for aging infrastructure in ...

The study concluded that Base Isolation is the preferred choice for critical infrastructure, while Fiber-Reinforced Composites are recommended for mid-tier projects. Hybrid approaches and ...

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