

عنوان مقاله:

Evaluating the replacement of wooden elements in structural design in order to lighten and improve environmental performance

محل انتشار:

هفتمین کنفرانس بین المللی پژوهش در علوم و مهندسی و چهارمین کنگره بین المللی عمران، معماری و شهرسازی آسیا (سال: 1401)

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خلاصه مقاله:

Today, in construction projects, attention is also paid to the optimal use of materials, speed and quality of construction. One of the ways to achieve these goals is to use light wood materials. In the field of construction, technology and exploitation of wood as the most common and abundant material in nature, many technologies have been created in advanced countries of the world. The use of wood as the main material used in the structure, which is one of the new construction methods, can be efficient and verifiable from two structural and environmental aspects. Many researches have been done in relation to the environmental effects of wooden structures, which show the superiority of wood over steel and concrete in matters such as useful life of materials, production and usability at the construction site. Lightning and high resistance against earthquakes, speed in construction and quick return on investment, insulation and significant reduction of energy consumption, long life of the structure more than one hundred years, beauty and adaptability to different climates, low construction waste and other advantages have made wooden houses among the most beautiful and accepted houses in the world. In this article, the system of wooden structures, which is one of the most complex building systems, has been examined in terms of its lightning and its effect in facing earthquakes, as well as significant environmental effects.

کلمات کلیدی:

Wooden structures, earthquake, lightning, environment

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