

عنوان مقاله:

Tensile membrane structures

محل انتشار:

ششمین کنفرانس بین المللی پژوهش در علوم و مهندسی و سومین کنگره بین المللی عمران، معماری و شهرسازی آسیا (سال: 1400)

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خلاصه مقاله:

Membrane Structures are highly popular in architectural design now a days. There is trend of using membrane structures. It satisfies both attractive architect's design as well as structural design. Due to its light weight, earthquake force is neglected, whereas wind load is critical for the structure. Fabric resists tension and has no compression or bearing. Due to its light weight and stretch property, they can be used on places such as stadiums, large parking etc. These structures, where tensioned fabric initially resists self-weight and other loads, also rely upon their three-dimensional curvatures for structural adequacy. Fabric form, thickness and strength must match the expected loads, and all surfaces must be stretched taut to prevent the fabric flapping during high winds. A general introduction is presented on material properties, membrane types and design process. The study aims to reach the conclusion that, .does it is advisable to use fabric membrane as a roof for any residential building

کلمات کلیدی:

Fabric structures, Architectural fabric, Form-finding, Tensile materials, Membrane

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