

عنوان مقاله:

Design of high-rise concrete buildings

محل انتشار:

چهارمین کنفرانس بین المللی عمران، معماری و مدیریت شهری (سال: 1399)

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خلاصه مقاله:

For many years, concrete has been used as an important building material with high pressure tolerance for the construction of various structures. The weakness of this important and widely used building material against traction has been largely compensated by placing reinforcement. In recent years, with the study of durability of reinforced concrete structures, especially in corrosive and hard areas for concrete, the opinion of most experts and those involved in concrete work has been drawn to the fact that strength alone can not meet all the properties of concrete, especially its durability. In addition to the issue of strength and load bearing during operation (exploitation), its durability and permanence should be considered in the design of concrete for different areas. Now with the addition of various concrete materials and modifications in the mixing design, concretes can be obtained that do not significantly change their strength in terms of durability to achieve high durability concretes. The issue of the environment and its pollution has also attracted the attention of the world in recent years. The use of substances and materials in the construction of which less pollution is transferred to the environment and also the harvesting of natural materials that are less destructive to the environment, special attention is paid. In this regard, the use of aggregates, access to new materials and also, the use of factory wastes and environmental pollutants in concrete is located at the top of research programs in some countries of The world. In addition to concrete itself and its constituent materials, in recent years, changes have been made on the reinforcement used in reinforced concrete structures. For example, to avoid the risk of corrosion of the reinforcement, stainless steel as well as reinforcements made of different plastic and polymer fibers are used in highly corrosive environments.

کلمات کلیدی:

tall buildings, steel, structural forms, high strength concrete, structural stability

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