عنوان مقاله:

The analysis of big data to predict future trends in sustainable and smart construction

محل انتشار:

هفتمین کنفرانس بین المللی مدیریت، بهینه سازی و توسعه زیرساخت های انرژی (سال: 1402)

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خلاصه مقاله:

The idea of sustainable development will become increasingly important which has been globally evolved. Big data has been collected through a variety of sensors and channels worldwide, both structured and unstructured, is regarded as one of the most crucial instruments for developing policy and identifying thefuture trend of sustainable and smart buildings. As a result, it is essential to comprehend the global parallels and differences in sustainable and smart construction in order to learn about technological innovation. In order to analyze and predict trends in the sustainable and smart building industry, this study aims to identifythe area of data in a qualitative fashion and extract it from big data. Four civil engineering specialists and one data scientist were chosen for interviews for a study on civilconstruction that used the qualitative research methodology. In this research, ۰۱ environmental fields, ۰۰ social fields, and ۵ economic fields in the three aspects ofsustainable construction, as well as ۰۳ fields regarding the characteristics of smart buildings, have been identified through interviews. The results indicate that a more in-depth content interpretation and analysis based on gathering data from each point of the world through collecting big data about types of construction, materials, construction waste, and demolition may improve predictions about future trends and strategies in sustainable and smart buildings.

کلمات کلیدی:

Big data, sustainable construction, smart building, civil engineering, construction industry

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