عنوان مقاله:

Application of artificial intelligence (AI) in buildinginformation modeling (BIM) projects on Metaverse

محل انتشار:

اولین کنفرانس بین المللی تحقیقات پیشرفته در مهندسی عمران، معماری و شهرسازی (سال: 1402)

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خلاصه مقاله:

Artificial Intelligence (AI) is transforming Building Information Modeling (BIM) projects withinthe Metaverse, a virtual reality environment. The integration of AI algorithms in BIM within theMetaverse offers numerous benefits, including improved design efficiency, enhancedcollaboration, optimized construction processes, efficient facility management, and data-drivendecision-making. AI enables automated design tasks, real-time clash detection, and generativedesign optimization. It also assists in simulating construction assembly, optimizing energyefficiency, and predicting equipment failures for maintenance optimization. The Metaversefosters real-time collaboration and communication, enabling stakeholders to work togetherseamlessly. AI-driven analysis of data within the Metaverse empowers decision-making based oninsights derived from large datasets. These advancements in AI and BIM within the Metaversehold immense potential for revolutionizing the design, construction, and facility managementprocesses, .leading to more efficient, sustainable, and innovative outcomes in the builtenvironment

کلمات کلیدی:

BIM, AI, Metaverse, Model, Construction