

عنوان مقاله:

Analysis of BIM and CIM Guidelines in Civil Engineering Projects

محل انتشار:

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خلاصه مقاله:

The construction and operation of buildings in urban areas involve a complex network of architectural and structural elements. What makes this process challenging is the integration of various components within the framework of building projects. The digitalization of construction processes, known as Building Information Modelling (BIM), plays a crucial role in facilitating the coordination and management of diverse aspects within construction projects. BIM, as a comprehensive digital representation of the physical and functional characteristics of a building, contributes to efficient planning, collaboration, and decision-making throughout the lifecycle of projects. The implementation of BIM in urban projects is instrumental in the creation of a comprehensive digital representation of the physical and functional characteristics of the built environment. This digital model aids in the coordination of diverse elements, such as structural components, utilities, and architectural features, throughout the lifecycle of the project. The incorporation of BIM in urban development projects not only streamlines the design and construction processes but also contributes to the sustainable development of urban areas by facilitating informed decision-making and efficient resource management. The expansion of urbanization demands a comprehensive understanding of the intricacies of modern project management. With the increasing complexity of urban development projects, there is a growing need for effective integration of Building Information Modelling (BIM) and Construction Information Modelling (CIM) in the construction industry. This integration serves to enhance coordination, optimize resource management, and improve decision-making processes throughout the lifecycle of infrastructure projects. From the design and planning phases to the construction and operational stages, the utilization of BIM and CIM technologies provides a holistic view of the project. This encompasses aspects such as structural design, construction sequencing, and facilities management. The synergy between BIM and CIM not only streamlines the construction process but also contributes to the sustainability and resilience of urban infrastructure. The implementation of BIM and CIM in urban projects facilitates collaboration among various stakeholders, including architects, engineers, and construction professionals. The digital representation of projects through BIM and CIM fosters better communication, reduces errors, and enhances overall ... project efficiency. Stakeholders can benefit from real-time

کلمات کلیدی:

Building Information Modelling, Construction Information Modelling, Civil Engineering Projects

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