عنوان مقاله:

The Impact of Nexor Structures on Contemporary Architecture and Urban Planning: Advantages, Limitations, and Future Opportunities

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خلاصه مقاله:

This article reviews the impact of Nexor structures in zero-energy architecture by identifying their benefits and challenges, evaluating the state of research, and highlighting their potential contribution to sustainable and energyefficient built environments. Nexor structures are advanced structural and material engineering that reduce energy consumption and maximize energy production. The use of nexor structures in zero-energy architecture is becoming increasingly popular because it can improve building performance and reduce energy consumption. Several studies have investigated the benefits and challenges of the use of nexor structures, including their potential to improve thermal performance, reduce energy consumption, and improve indoor air quality. However, the challenges include the cost of construction and specialized knowledge and expertise required for the design and construction of these structures. Despite the challenges, the potential for nexor structures to improve building performance and reduce energy consumption is significant. The use of Nexor structures presents an opportunity to retrofit existing buildings and improve their energy performance. The study concludes that further research is needed to develop strategies for the widespread adoption of nexor structures in zero-energy architecture and to fully understand their potential impact on the built environment. Case studies, including the Indigo Tower in Beijing, China, demonstrate the successful application of Nexor structures in sustainable architecture, providing improved insulation and structural performance, and reducing environmental impact. However, the study highlights the challenges and limitations of implementing Nexor structures, including the need for specialized knowledge and skills, the complexity of the construction process, and maintenance requirements. The study concludes that the future of Nexor structures in architecture and urban planning looks promising, with potential for sustainable development, innovative designs, and new solutions for urban growth. The use of advanced technologies, such as parametric modeling and digital fabrication, has enabled the efficient production of complex nexus structures, reducing construction time and costs. The study recommends further research on the application of Nexor structures in different contexts and the development of new technologies and .materials to enhance the performance and sustainability of Nexor structures

کلمات کلیدی:

Nexor structures, architecture, urban planning, sustainability, parametric modeling, digital fabrication, aesthetics, .functionality, innovative designs, urban solutions

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