

## **STRUCTURAL EFFICIENCY OF THE BUILDING FORM FOR OPTIMIZATION THE DIAGRID STRUCTURE**

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### **Abstract:**

Diagrid system became an ideal structure for tall buildings construction, because of the characteristic qualities of geometrical configuration, fabrication facilities, and structural efficiency. Nevertheless, limited academic research has focused on the structural behavior and design criteria of this structural system. In this study, a systematic study of building form and geometrical patterns for diagrids will be examined. For this purpose, form-finding method, and (Grasshopper) program (as a computational tool) will be employed for analyzing, evaluating, and optimization for performance evaluation. The desired results expected from this paper propose a form-finding model for maximizing structural efficiency of diagrid structures with complex geometries.