

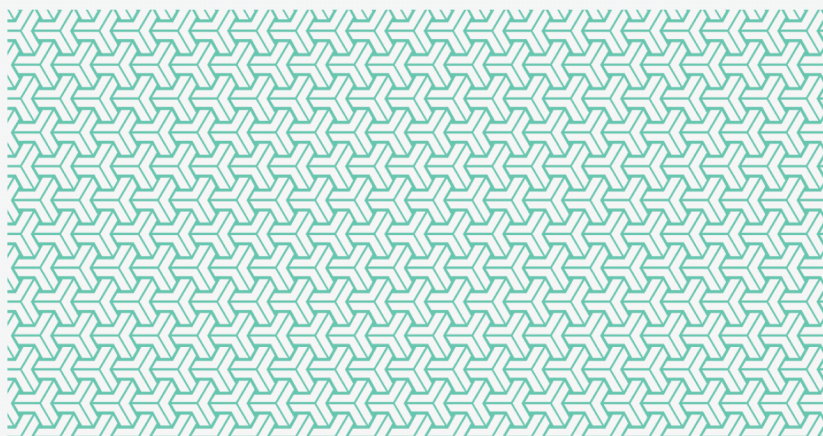
공간기반 혁신기술 융복합 건축물 계획 기준 연구

A Study on Planning Standards for Architectural Design
Integrated with Spatial-based Innovative Technologies

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1. Research Overview

1.1. Background and Objectives

Technological advancements like UAM, robots, and autonomous vehicles pose challenges within buildings due to service constraints and increased spatial demands. The slow adoption of technology in the architectural field necessitates urgent planning standards to address associated issues and demands.

This research aims to derive planning standards for buildings, enhancing adaptability during the convergence of spatial-based innovative technologies in the Fourth Industrial Revolution.

1.2. Research Methodology

The methodology involves investigating spatial changes in buildings based on applied technologies, gathering expert opinions through surveys, and identifying planning elements through expert surveys. The final step includes organizing considerations, presenting standards, and proposing institutionalization methods.

2. Results and Discussions

Chapter 2 discusses architecture changes based on spatial-based technologies. UAM requires standards for vertiports, robots for utilization within buildings, and autonomous vehicles for various considerations. When integrated into buildings, the relationship between systems and building maintenance must be considered.

Chapter 3 finalizes planning elements using international planning standards and expert survey data. Chapter 4 details planning standards for buildings integrating UAM, robots, autonomous vehicles, and spatial-based technologies.

3. Conclusion

The proposed planning standards suggest enactment in related laws. However, considering technological limitations, subsequent validation processes, including safety assessments, are crucial for future enhancements.

Keywords

Spatial-based Innovative Technologies, Mobility, Platform, Planning Standards for Architectural Design, Legal System, Smart+Building