ABSTRAK

Pesatnya perkembangan industri digital dan tingginya antusiasme generasi muda terhadap *E-Sport* mendorong kebutuhan akan fasilitas kompetisi yang modern, adaptif, dan berbasis teknologi tinggi. Penelitian ini bertujuan mengkaji penerapan konsep *Smart Building* dalam perancangan *E-Sport* Arena di Kota Makassar guna menciptakan ruang yang efisien, imersif, dan mendukung ekosistem digital. Metode yang digunakan adalah pendekatan kualitatif-deskriptif, dengan tahapan meliputi: (1) studi literatur tentang prinsip dan teknologi *Smart Building*, termasuk sistem otomasi dan manajemen energi; (2) analisis kebutuhan pengguna berdasarkan observasi aktivitas *E-Sport* dan studi tipologi ruang pendukung seperti area pertandingan, lounge, dan zona komunitas; (3) survei tapak untuk memahami potensi aksesibilitas, orientasi matahari, dan jaringan infrastruktur kota. Penerapan prinsip-prinsip *Smart Building* dapat dilihat pada bagian fasad, sistem penghawaan, dan area outdoor bangunan arena *E-Sport* tersebut. Hasil perancangan menunjukkan bahwa integrasi elemen smart seperti pencahayaan adaptif, pendingin otomatis, dan sistem jaringan terpusat mampu menciptakan arena yang futuristik dan efisien. Studi ini memberikan kontribusi terhadap perancangan fasilitas *E-Sport* yang tidak hanya berorientasi teknologi, tetapi juga kontekstual dan berkelanjutan.

KATA KUNCI: Arena, *E-Sports*, *Smart Building*

ABSTRACT

The rapid development of the digital industry and the high enthusiasm of the younger generation for E-Sports encourage the need for modern, adaptive, and high-tech-based competition facilities. This research aims to examine the application of the Smart Building concept in the design of the E-Sport Arena in Makassar City to create an efficient, immersive space and support the digital ecosystem. The method used is a qualitative-descriptive approach, with stages including: (1) literature study on Smart Building principles and technologies, including automation systems and energy management; (2) analysis of user needs based on observations of E-Sport activities and typology studies of supporting spaces such as competition areas, lounges, and community zones; (3) site surveys to understand potential accessibility, solar orientation, and city infrastructure networks. The application of Smart Building principles can be seen in the facade, ventilation system, and outdoor area of the E-Sport arena building. The design results show that the integration of smart elements such as adaptive lighting, automatic cooling, and centralized network systems can create a futuristic and efficient arena. This study contributes to the design of E-Sport facilities that are not only technology-oriented, but also contextual and sustainable.

Keywords: Arena, E-Sports, Smart Building

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