

Integration of Internet of Things (IoT) in Smart Cities A Systemic Approach in Urban Management

Genius Umar^{1*}, Adria¹

¹. Sekolah Tinggi Ilmu Administrasi Pelita Nusantara

Article Info

Article history:

Received 30 May 2024

Revised 2 June 2024

Accepted 5 June 2024

Keywords:

Internet of Things (IoT),
Smart Cities, Urban
Management, Systemic
Integration, IoT
Infrastructure, Community
Participation.

ABSTRACT

The use of the Internet of Things (IoT) has become an integral part of efforts to develop efficient and sustainable smart cities. This research aims to investigate IoT integration in the context of systemic urban management. The research methods used are in-depth literature studies, comprehensive analysis of policy documents, and field research to understand IoT implementation in several smart cities. The research results show that a systemic approach in integrating IoT in urban management is important to achieve efficiency and sustainability. This integration involves various aspects, including physical infrastructure, information systems, policies, and community participation. In this context, the research results highlight the importance of building an integrated and interoperable IoT infrastructure, developing open data platforms, as well as the need for an adequate regulatory framework. Additionally, community participation in designing and deploying IoT solutions is a key factor for successful implementation. By analyzing case studies in several smart cities, this research also provides insight into the challenges faced and strategies implemented in integrating IoT in urban management. Based on these findings, the research conclusion confirms that a systemic approach that includes cross-sector collaboration, the use of proven technology, and active community participation is needed to achieve success in integrating IoT in urban management. This research contributes to expanding understanding of IoT implementation in a broader urban context and provides practical guidance for policy makers, practitioners and academics involved in smart city development.

This is an open access article under the [CC BY-SA](#) license.



Corresponding Author:

Genius Umar | Sekolah Tinggi Ilmu Administrasi Pelita Nusantara

Email: geniusumar@stiapen.ac.id
