

IMPLEMENTATION OF SMART CITY APPLICATION IN SUSTAINABLE TRANSPORT SYSTEMS: PROSPECTS AND DEVELOPMENT OF SMARTCITY IN INDONESIA

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Abstract

The study aims to discuss the prospects and development of the Smart City concept in sustainable transportation systems in Indonesia. The study assesses the various challenges and opportunities emerging from the integration of information and communication technology into existing transport infrastructure. Through an in-depth literature exploration, the research identifies key factors that influence the implementation of Smart Cities and explores strategies that can accelerate the realization of efficient, inclusive, and sustainable smart transport. Research results show that the implementation of Smart Cities in Indonesia is still in its early stages, but has great potential due to the demands of rapid urbanization and development. The Smart City concept is expected to support reducing congestion, improving energy efficiency, and reducing greenhouse gas emissions. However, the research also reveals a number of major obstacles, including the need for massive investment in infrastructure, cyber security, and the digital gap between regions.

Keywords: Implementation, Smart City, Transportation, Prospects, SmartCity Development, Indonesia.

Introduction

The increase in urban population and activity brings significant challenges especially in terms of efficient and sustainable transport management. (Vuchic, V. 2017). Major cities in Indonesia, such as Jakarta, Bandung, Surabaya, and others, face severe traffic jams, increased air pollution, and limited accessibility and mobility. Big cities are struggling with complex transportation problems due to rapid population growth and urbanization. (Ushakov et al., 2022). Chronic traffic jams have become part of the daily