

Innovations in Urban Traffic Flow Management

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Abstract. This paper explores recent advancements in urban traffic flow management, focusing on intelligent transportation systems and their impact on reducing congestion. By analyzing data from various cities, the study identifies key factors that contribute to efficient traffic flow. The results indicate that implementing smart traffic signals and real-time data analytics significantly improves urban mobility. Furthermore, the integration of these systems with public transportation networks enhances overall efficiency. The findings provide valuable insights for urban planners and policymakers aiming to optimize traffic flow and reduce environmental impact.

Keywords: Traffic Management, Urban Mobility, Intelligent Systems, Data Analytics, Sustainability

Introduction

Urban traffic congestion is a growing concern for cities worldwide, leading to economic losses and environmental challenges. Recent advancements in intelligent transportation systems (ITS) offer promising solutions to these issues. This study examines the role of ITS in urban traffic flow management, focusing on technologies such as smart traffic signals, real-time data analytics, and their integration with public transportation. By analyzing case studies from various cities, the research highlights the effectiveness of these technologies in improving traffic flow and reducing congestion. The study aims to provide urban planners and policymakers with actionable insights to enhance urban mobility and sustainability.

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