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A Survey on-Next-Gen Traffic Flow Management

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Abstract: This survey examines various methodologies and technological solutions aimed at addressing traffic congestion in urban environments. It explores the implementation of Intelligent Smart Traffic Congestion Control Systems utilizing RFID technology and fuzzy logic for strategic decision-making in traffic signal timing. Additionally, advanced algorithms such as biased random-key genetic algorithms are discussed for assessing real-world instances globally. The survey emphasizes the importance of integrating innovative technologies and intelligent decision-making frameworks to optimize traffic management and enhance urban transportation efficiency. Through a synthesis of diverse insights, the survey offers valuable perspectives on congestion mitigation and outlines promising avenues for future research and implementation. Overall, this survey contributes to the discourse on traffic management strategies, providing stakeholders with insights to guide the development of more effective and sustainable urban transportation systems.

Keywords: Traffic flow management, smart traffic control, smart pedestrian crosswalk.

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