

Real-time intelligent traffic light control system design analysis at an intersection

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Abstract: In the context of the increasing demand for efficient traffic flow management, this topic focuses on analyzing and designing a real-time intelligent traffic light control system at intersections. The objective of the research is to build an automated system aimed at improving vehicle throughput and reducing traffic congestion. The approach includes theoretical study of control models and practical application through pilot intersection testing. The expected results will provide useful solutions for the transportation industry and contribute to the development of smart technology in this field.

Keywords: Traffic light control system, Real-time control, Smart technology, Traffic congestion, Experimental research