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Intelligent Traffic Routing System (ITRS)

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Abstract: The concept presents a system designed to manage traffic in cities by automatically adjusting signal timings based on actual traffic conditions on roads. The system uses sensors and cameras to count vehicles at different intersections and changes the signal duration according to the traffic flow. Roads with higher vehicle load are given longer green signals to reduce waiting time and avoid traffic jams. This system is designed to achieve smoother traffic movement and minimize average waiting time as compared to manually fixed-timer signals. Such an approach can help to improve road efficiency and reduce overall traffic problems in urban areas.

Keywords: Intelligent Traffic Routing System, Traffic Management, Vehicle Detection, Signal Timing, Traffic Flow, Route Optimization, Smart City

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