A Review on Smart Movable Divider for Ambulance Path Optimization

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Abstract: *Traffic congestion is a major challenge in cities. The Smart Movable Road Divider offers a dynamic solution using a barrier that shifts positions in real time. Sensors installed in roads gather live traffic data, which is sent to a cloud system via IoT technology. The cloud processes this information and directs the divider to shift positions, optimizing lane space based on current needs. The system's algorithm balances traffic volume on both sides, uses past trends to predict patterns, and prioritizes creating emergency lanes when ambulances are detected. This ensures smoother traffic during peak hours and faster emergency response times, saving lives. Future upgrades could link the system to traffic lights or use machine learning to refine predictions, making traffic management even smarter and more adaptive.*

Keywords: Smart Traffic System,Automatic road Divider ,Iot, Deep learning, Density of Traffic