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ACCEPTED MANUSCRIPT

THE EFFECTIVENESS OF APPLYING DYNAMIC LANE ASSIGNMENT AT ALL APPROACHES OF SIGNALIZED INTERSECTION

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Highlights

- Fixed lane assignments waste time-space resources and lead to longer delays.
- A generalized model that integrates DLG and Signal timing optimization is developed.
- Substantial improvements can be achieved with the optimization of time-space resources.
- Significant reductions in average intersections delay up to 82% are estimated.
- Developed model significantly minimizes the impact of demand variations at intersections.

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