OPTIMAL BUS FLEET MANAGEMENT STRATEGIES IN A CONGESTED ROAD NETWORK

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ABSTRACT

A simulation model of car, bus and bus passengers that takes into account the effects of car-bus interactions, bus stop dwell time and bus fleet size constraints on bus system performance is described. Feedback loops are incorporated within the model to ensure consistency in car driver and bus passenger route choice behaviors and bus stop dwell time assumptions. A hypothetical network is provided to demonstrate the feasibility of using this model to evaluate alternative bus fleet management strategies.