



Transportation Seminar Series

*Friday, April 24th, 2009
4 - 5 p.m. in 240 Bechtel Engineering Center*

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A New Approach to Reducing Bus Bunching

Abstract: The tendency of buses to bunch is a problem that was defined almost 50 years ago. Since then, there has been a significant amount of work done on the problem; however, the tendency of the current literature is either to only focus on the surface causes or to rely on simulation to create results instead of model formulation. With GPS installed on many buses throughout the world, the data is only being used for monitoring and informing the user. This research proposes a new approach to solving the problem that uses the GPS data to directly counteract the cause of the bunching by allowing the buses to cooperate with each other. The methodology analyzes the existing instability of the uncontrolled system and allows a determination of how to reverse it while still allowing a fast commercial speed. The result is a simple, cheap, scalable control method, able to be implemented in the near future.

Bio: Joshua Pilachowski is a PhD Candidate in the Civil and Environmental Engineering, Transportation Engineering Program at the University of California, Berkeley. He completed his Bachelors in Civil Engineering at the University of Maryland, College Park in 2004 and his Masters in Civil Engineering at the University of California, Berkeley in 2005. His research focuses on modeling transportation systems, specifically public transportation.

Please join us for a TRANSOC-sponsored cookie hour in the ITS library at 3:30 p.m.