TU Clausthal

Kolloquium zur Masterarbeit

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„Investigating the Role of Pedestrian Groups in Shared Spaces through Simulation Modeling“

In shared space environments, heterogeneous road users share an urban space, and they frequently interact with each other to negotiate priority and coordinate their trajectories. Instead of traffic rules, interactions among them are conducted by informal rules like speed limitations and by social protocols, e.g., courtesy behavior.

Social groups (socially related road users who walk together) are an essential phenomenon in shared spaces and affect the safety and efficiency of such environments. To replicate group phenomena and systematically study their influence in shared areas; realistic models of social groups and the integration of these models into shared space simulations are required. In this work, we focus on pedestrian groups and adopt an extended version of the social force model in conjunction with a game-theoretic model to simulate their movements. The novelty of this research is modeling the interactions between social groups and vehicles. We validate our model by simulating scenarios involving interaction between social groups and also group-to-vehicle interaction.

Montag, 07.10.2019, 10:00 Uhr,
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