HYBRIST Mobility Model - A Novel Hybrid Mobility Model for VANET Simulations

Abstract

Simulations play a vital role in implementing, testing and validating proposed algorithms and protocols in VANET. Mobility model, defined as the movement pattern of vehicles, is one of the main factors that contribute towards the efficient implementation of VANET algorithms and protocols. Using near reality mobility models ensure that accurate results are obtained from simulations. Mobility models that have been proposed and used to implement and test VANET protocols and algorithms are either the urban mobility model or highway mobility model. Algorithms and protocols implemented using urban or highway mobility models may not produce accurate results in hybrid mobility models without enhancement due to the vast differences in mobility patterns. It is on this score the Hybrist, a novel hybrid mobility model is proposed. The realistic mobility pattern trace file of the proposed Hybrist hybrid mobility model can be imported to VANET simulators such as Veins and network simulators such as ns2 and Qualnet to simulate VANET algorithms and protocols.
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- SUMO
- OpenStreet
- OpenStreet map editor: