

OPTIMIZING STREET MOBILITY THROUGH A NETLOGO SIMULATION ENVIRONMENT

Jesús Silva, Noel Varela, Omar Bonerge Pineda Lezama

Abstract

The routes and streets make it possible to drive and travel through the cities, but unfortunately traffic and particularly congestion leads to drivers losing time while traveling from one place to another, because of the time it takes to transit on the roads, in addition to waiting times by traffic lights. This research introduces the extension of an agent-oriented system aimed at reducing driver waiting times at a street intersection. The simulation environment was implemented in NetLogo, which allowed comparison of the impact of Smart traffic light use versus a fixed-time traffic light.

Keywords

Multi-agent systems, Agent-oriented programming, Traffic, NetLogo