Traffic signal control in urban areas

Bachelor / Master thesis

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Description:
In this work, we will consider distributed traffic signal control policies using the max-weight algorithm. We wish to demonstrate via simulations that the developed algorithm performs better than the standard traffic lights used in urban areas in Cyprus.

Keywords: traffic control, urban areas, back pressure, realistic simulator.

Deliverables:
• A thesis in which the current state-of-the-art is briefly described.
• Some methods are implemented on commercial simulation (Aimsun).
• New traffic control mechanisms are developed.

Work type: 20% literature review, 40% simulations, 40% theoretical analysis

Tools: MATLAB, Aimsun (simulation and AI for intelligent mobility)

References: