

Optimization of driving efficiency for pre-determined routes: proactive vehicle traffic control

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Abstract

With the excessive growth of modern cities, great problems are generated in citizen administration. One of these problems is the control of vehicle flow during peak hours. This paper proposes a solution to the problem of vehicle control through a proactive approach based on Machine Learning. Through this solution, a traffic control system learns about traffic flow in order to prevent future problems of long queues at traffic lights. The architecture of the traffic system is based on the principles of Autonomous Computing with the aim of changing the traffic light timers automatically. A simulation of the roads in an intelligent city and a Weka-based tool were created to validate this approach.

Palabras clave

Machine Learning, Proactive control, Traffic, Smart cities, Autonomous Computing