Title (en)

TRAFFIC SIGNAL CONTROL USING MULTIPLE Q-LEARNING CATEGORIES

Title (de)

VERKEHRSSIGNALSTEUERUNG MITHILFE MEHRERER Q-LEARNING-KATEGORIEN

Title (fr)

COMMANDE DE SIGNAL DE CIRCULATION UTILISANT DE MULTIPLES CATÉGORIES DE Q-LEARNING

Publication

EP 3425608 B1 20200325 (EN)

Application

EP 18179505 A 20180625

Priority

US 201715641168 A 20170703

Abstract (en)

[origin: EP3425608A1] Technologies are described to provide control of traffic signals based at least in part on multiple Q-learning categories. In some examples, a method may include clustering historical traffic data into multiple traffic pattern clusters, and generating multiple Q-learning categories, where each Q-learning category corresponds to a traffic pattern cluster of the multiple traffic pattern clusters. The method may also include determining a first Q-learning category of the multiple Q-learning categories to use in controlling traffic signals at an intersection based at least in part on a first traffic data of the intersection, where the first Q-learning category corresponds to a first traffic pattern cluster, and the first traffic data corresponds to the first traffic pattern cluster. The method may additionally include generating a first control action for the traffic signals at the intersection based at least in part on the first Q-learning category.

IPC 8 full level

G08G 1/08 (2006.01); **G08G 1/01** (2006.01)

CPC (source: EP)

G08G 1/0129 (2013.01); **G08G 1/0145** (2013.01); **G08G 1/08** (2013.01); G08G 1/0133 (2013.01)

Cited by

CN109712413A; CN109215355A; CN110164151A; CN118629232A; CN110428615A; CN110491144A; CN113129614A; EP3866135A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3425608 A1 20190109; **EP 3425608 B1 20200325**

DOCDB simple family (application)

EP 18179505 A 20180625