Claims

1. A traffic monitoring system for monitoring a traffic area having parking areas for respective individual vehicles and/or parking areas for a freely arrangeable row of vehicles, comprising one or more radar sensors which are disposed overhead and trained on the traffic area such that a sequence of digital radar images of the traffic area can be captured, whereby a radar sensor beam scans the parking areas and also zones outside the parking areas, an evaluation unit which is designed to detect vehicles parked in the traffic area from the captured sequence of radar images and to ascertain their locations and dimensions and, by comparing the data of the ascertained locations and dimensions of parked vehicles with configured geodata of the parking areas, to determine the occupancy states thereof, wherein the state of occupancy of a parking area for an individual vehicle is either occupied or vacant, and wherein the state of occupancy of a parking area for a freely arrangeable row of vehicles is either occupied or determined by one or more vacant parking spaces, and an image output unit which is designed to display a map of the traffic area with marked parking areas and the current occupancy states thereof.

2. The traffic monitoring system as claimed in claim 1, comprising a street lighting system consisting of one or more streetlights for illuminating the traffic area, wherein a radar sensor is incorporated in a streetlight.

3. The traffic monitoring system as claimed in claim 2, wherein electrical control gear of the streetlight is disposed in the streetlight’s support system.

4. The traffic monitoring system as claimed in claim 2 or 3, wherein the radar sensor is connected to the streetlight’s power supply lines for its electrical supply.

5. The traffic monitoring system as claimed in claim 4, wherein the radar sensor is designed for data communication with another radar sensor and/or the evaluation unit via the power supply lines.

6. The traffic monitoring system as claimed in one of claims 2 to 5, wherein a streetlight has a controllable switching device for switching on and/or switching off and/or dimming a lamp of the streetlight, and wherein the evaluation unit is designed to detect vehicles and/or cyclists and/or pedestrians moving on the traffic areas from the captured sequence of radar images and to ascertain the current locations thereof and, by comparing the data of the ascertained locations with stored geodata of roadways and/or cycle tracks and/or sidewalks, to identify streetlights assigned to the locations and to control the switching devices thereof.

7. The traffic monitoring system as claimed in one of claims 1 to 6, comprising one or more ground sensors each assigned to a parking area for an individual vehicle which are designed to ascertain the state of occupancy of the assigned parking area in each case.

8. The traffic monitoring system as claimed in one of claims 1 to 7, comprising a configuration unit by means of which geodata of parking areas and/or roadways and/or cycle tracks and/or sidewalks and/or no-parking areas of the traffic area, and parking regulations applicable to the parking areas can be configured in the evaluation unit.