



US006791473B2

(12) **United States Patent**  
**Kibria et al.**

(10) **Patent No.:** **US 6,791,473 B2**  
(45) **Date of Patent:** **Sep. 14, 2004**

(54) **SMART PARKING METER SYSTEM**  
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(\* ) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(21) **Appl. No.:** 10/307,513

(57) **ABSTRACT**

(22) **Filed:** Dec. 2, 2002

A Smart Parking Meter System makes it possible to track whether or not a vehicle occupies parking meter stalls and whether or not the time has expired. The system uses a wireless communication protocol which may be of the type known under the trade mark "Bluetooth" and provides the portability of embedded systems and the convenience of personal digital assistants with the powers of the C and Java programming languages. There are two main components to the Smart Parking Meter System, the handheld device, or the PDA, and the actual parking meters. Each device has the Smart Parking Meter System application installed in it, as well as the wireless modules, such as Bluetooth to use as a communication medium. The parking meters also have a motion sensor to detect any movement within it view range. The handheld device is able to extract all the parking states for each parking meter within a block or street depending on user configuration of system.

(65) **Prior Publication Data**

US 2003/0179107 A1 Sep. 25, 2003

**Related U.S. Application Data**

(60) **Provisional application No.** 60/334,075, filed on Nov. 30, 2001.

(51) **Int. Cl.<sup>7</sup>** ..... **B60Q 1/48**

(52) **U.S. Cl.** ..... **340/932.2; 340/309.16; 340/539.13; 340/933; 340/988; 235/381; 235/384; 705/13; 705/418**

(58) **Field of Search** ..... **340/932.2, 904, 340/933, 988, 870.02, 309.16, 539.13; 235/382, 381, 384; 705/13, 418, 21**

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**15 Claims, 6 Drawing Sheets**

