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Fan et al.

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(54) **WIRELESS SENSING SYSTEM AND METHOD THEREOF**

FOREIGN PATENT DOCUMENTS

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Fan et al., "Efficient and Robust Schemes for Sensor Data Aggregation Using Linear Count Sketches", IEEE International Symposium on Parallel and Distributed Processing, pp. 1-12, Apr. 2008, IEEE.*
English language translation of abstract of TW 200801872 (published Jan. 1, 2008).

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English language translation of abstract of TW I275294.

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Considine, J., et al.; "Approximate Aggregation Techniques for Sensor Databases," pp. 1-12 (published between Mar. 30, 2004 and Apr. 2, 2004).

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Chen, J.Y., et al.; "Robust Computation of Aggregates in Wireless Sensor Networks: Distributed Randomized Algorithms and Analysis," IEEE; 2005; pp. 1-8.

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Fan, Y.C., et al.; "Efficient and Robust Schemes for Sensor Data Aggregation Based on Linear Counting," IEEE Transactions on Journal Name; pp. 1-14.

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(51) **Int. Cl.**

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(57) **ABSTRACT**

(52) **U.S. Cl.** **707/770; 707/796; 707/802**

(58) **Field of Classification Search** None
See application file for complete search history.

A wireless sensing system and a method thereof are provided. The wireless sensing system includes: a data processing center; and a first sensor module for processing a first source data into a first dynamic counting sketch data structure. The first dynamic counting sketch data structure has a bit length determined based on the first source data. The data processing center estimates the first source data based on the first dynamic counting sketch data.

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16 Claims, 5 Drawing Sheets

