

Record 1 of 1

Title: DATA FUSION AND VISUALIZATION BASED ON VORONOI DIAGRAMS FOR WIRELESS SENSOR NETWORKS

Author(s): Stratulat, B (Stratulat, Bogdan); Micea, MV (Micea, Mihai V.); Filote, C (Filote, Constantin)

Book Group Author(s): ASME

Source: 2011 INTERNATIONAL CONFERENCE ON INSTRUMENTATION, MEASUREMENT, CIRCUITS AND SYSTEMS (ICIMCS 2011), VOL 2: FUTURE COMMUNICATION AND NETWORKING **Pages:** 41-44 **Published:** 2011

Times Cited in Web of Science: 0

Total Times Cited: 0

Cited Reference Count: 11

Abstract: The paper presents a framework proposal as a solution to measure, organize and visualize the data from Wireless Sensor Networks, based on the Voronoi diagram. Due to its superior performance, Steven Fortune's algorithm using the plane sweep technique has been employed for generating the Voronoi diagram. Two distinct maps have been developed, one for the visualization of collected data and one for estimating areas with non-existing data. A set of experiments and simulations have been conducted to understand the influence of the size of the network on the framework performance as well as on the number of vertexes and site events.

Accession Number: WOS:000306295600010

Language: English

Document Type: Proceedings Paper

Conference Title: International Conference on Instrumentation, Measurement, Circuits and Systems (ICIMCS 2011)

Conference Date: DEC 12-13, 2011

Conference Location: Hong Kong, PEOPLES R CHINA

Author Keywords: Data visualization; Voronoi diagram; Estimation map; Wireless sensor networks

Addresses: [Stratulat, Bogdan; Micea, Mihai V.] Politehn Univ Timisoara, Comp & Software Engr Dept, Timisoara 300223, Romania

Reprint Address: Stratulat, B (reprint author), Politehn Univ Timisoara, Comp & Software Engr Dept, 2 Vasile Parvan Blvd, Timisoara 300223, Romania.

E-mail Address: bogdan.stratulat@cs.upt.ro; mihai.micea@cs.upt.ro; filote@eed.usv.ro

Publisher: AMER SOC MECHANICAL ENGINEERS

Publisher Address: THREE PARK AVENUE, NEW YORK, NY 10016-5990 USA

Web of Science Categories: Instruments & Instrumentation; Telecommunications

Research Areas: Instruments & Instrumentation; Telecommunications

IDS Number: BBA55

ISBN: 978-0-7918-5990-2

Source Item Page Count: 4