Title (en)

SYSTEMS AND METHODS FOR DETERMINING LOCATIONS OF WIRELESS SENSOR NODES IN A NETWORK ARCHITECTURE HAVING MESH-BASED FEATURES FOR LOCALIZATION

Title (de)

SYSTEME UND VERFAHREN ZUR BESTIMMUNG VON ORTEN DRAHTLOSER SENSORKNOTEN IN EINER NETZWERKARCHITEKTUR MIT MESH-BASIERTEN MERKMALEN ZUR LOKALISIERUNG

Title (fr)

SYSTÈMES ET PROCÉDÉS DE DÉTERMINATION DE POSITIONS DE NOEUDS CAPTEURS SANS FIL DANS UNE ARCHITECTURE RÉSEAU DOTÉE DE CARACTÉRISTIQUES DE LOCALISATION BASÉES SUR UN MAILLAGE

Publication

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Application

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Abstract (en)

[origin: WO2017031248A1] Systems and methods for determining locations of wireless sensor nodes in a network architecture having mesh-based features are disclosed herein. In one example, a computer-implemented method for localization of nodes in a wireless network includes causing, with processing logic of a hub, the wireless network having nodes to be configured as a first network architecture for a first time period for localization. The method further includes determining, with the processing logic of the hub, localization of at least two nodes using at least one of frequency channel overlapping communications, frequency channel stepping communications, multi-channel wide band communications, and ultra-wide band communications for at least one of time of flight and signal strength techniques. The method further includes causing the wireless network to be configured in a second network architecture having narrow-band communications upon completion of localization.

IPC 8 full level

H04W 64/00 (2009.01); **G01S 5/14** (2006.01); **H04B 17/27** (2015.01); **H04B 17/318** (2015.01); **H04W 84/18** (2009.01)

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Citation (search report)

- [A] US 2011110242 A1 20110512 - NIXON MARK [US], et al
- [A] GADEKE T ET AL: "A bi-modal ad-hoc localization scheme for wireless networks based on RSS and ToF fusion", POSITIONING NAVIGATION AND COMMUNICATION (WPNC), 2013 10TH WORKSHOP ON, IEEE, 20 March 2013 (2013-03-20), pages 1 - 6, XP032678755, ISBN: 978-1-4673-6031-9, [retrieved on 20130614], DOI: 10.1109/WPNC.2013.6533294
- [A] ZHENG SUN ET AL: "Cortina: Collaborative context-aware indoor positioning employing RSS and RToF techniques", PERVASIVE COMPUTING AND COMMUNICATIONS WORKSHOPS (PERCOM WORKSHOPS), 2011 IEEE INTERNATIONAL CONFERENCE ON, IEEE, 21 March 2011 (2011-03-21), pages 340 - 343, XP031865684, ISBN: 978-1-61284-938-6, DOI: 10.1109/PERCOMW.2011.5766901
- See references of WO 2017031248A1

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