

Title (en)
SYSTEMS AND METHODS FOR COARSE AND FINE TIME OF FLIGHT ESTIMATES FOR PRECISE RADIO FREQUENCY LOCALIZATION IN THE PRESENCE OF MULTIPLE COMMUNICATION PATHS

Title (de)
SYSTEME UND VERFAHREN FÜR GROBE UND FEINE FLUGZEITSCHÄTZUNGEN ZUR PRÄZISEN FUNKFREQUENZLOKALISIERUNG IN GEGENWART MEHRERER KOMMUNIKATIONSWEGE

Title (fr)
SYSTÈMES ET PROCÉDÉS POUR DES ESTIMATIONS DE TEMPS DE VOL GROSSIÈRES ET FINES POUR UNE LOCALISATION PAR RADIOFRÉQUENCE PRÉCISE EN PRÉSENCE DE PLUSIEURS VOIES DE COMMUNICATION

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Application
EP 18853876 A 20180906

Priority
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Abstract (en)
[origin: WO2019051040A2] Systems and methods for determining locations of wireless nodes in a network architecture are disclosed herein. In one example, an asynchronous system includes a first wireless node having a wireless device with one or more processing units and RF circuitry for transmitting and receiving communications in the wireless network architecture including a first RF signal having a first packet. The system also includes a second wireless node having a wireless device with a transmitter and a receiver to enable bi-directional communications with the first wireless node in the wireless network architecture including a second RF signal with a second packet. The one or more processing units of the first wireless node are configured to execute instructions to determine a coarse time of flight estimate of the first and second packets and a fine time estimate of the time of flight using channel information of the first and second wireless nodes.

IPC 8 full level
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Citation (search report)
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• [XI] US 2007200759 A1 20070830 - HEIDARI-BATENI GHOBAD [US], et al
• [I] US 2014136093 A1 20140515 - BANIN LEOR [IL], et al
• [A] BIALER ODED ET AL: "Location estimation in multipath environments with unsynchronized base stations", 2016 IEEE SENSOR ARRAY AND MULTICHANNEL SIGNAL PROCESSING WORKSHOP (SAM), IEEE, 10 July 2016 (2016-07-10), pages 1 - 5, XP032962652, DOI: 10.1109/SAM.2016.7569638
• See references of WO 2019051040A2

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