عنوان مقاله:

Mobile Actor Localization Based on Fuzzy-ARTMAP Neural Network in Wireless sensor/Actor Network

محل انتشار:

چهاردهمین کنفرانس سیستم های فازی ایران (سال: 1394)

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خلاصه مقاله:

Localization is one of the basic services of middleware layer in wireless sensor/actor network. This service has great influence on results of many applications such as target tracking, intrusion detection, environmental monitoring. A new localization method based on Fuzzy-ARTMAP neural network is presented in this paper. Mobile actor sends a beacon signal on its motion. Fuzzy-ARTMAP uses received signal strength from sensor nodes in the environment for localization. Simulation results show that Fuzzy-ARTMAP neural network yields good results can be considered as alternate method for actor localization. This method has minimum hardware requirement and accuracy of actor localization is good. Accuracy of results has direct relationship with sensing coverage of sensor nodes. Effect of sensing coverage degree on actor localization results are studied too.

کلمات کلیدی:

Localization, wireless sensor/actor network, Fuzzy ART-MAP neural network, beacon signal, received signal strength, sensing coverage degree

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