Abstract

In Adaptive Target Tracking Protocol (ATTP), at first, the total area that the target would appear there is estimated, after that some candidate wakening up areas and volunteer sampling time intervals are defined. Then by using an extended Kalman filter (EKF)-based estimation technique and energy consumption model, the best candidate wakening up area and sampling time intervals are determined. In this paper, we focus more on the definition of candidate wakening up areas. In other words, we improve the ATTP protocol in a way that the candidate wakening up areas are defined according to target’s mobility model. The simulations illustrate that the improved protocol makes much progress in the accuracy of tracking.

References


Index Terms
Computer Science
Wireless

Keywords
Target tracking; mobility model; tracking error; energy consumption; wireless sensor networks