

عنوان مقاله:

A new sensor scheduling method for distributed sensor network

محل انتشار:

بیست و یکمین کنفرانس مهندسی برق ایران (سال: 1392)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Behrooz Safarinejadian - Faculty of Electrical and Electronics Engineering, Shiraz University of Technology, Shiraz, Iran

Abdollah Rahimi

Mohiyeddin Mozaffari

خلاصه مقاله:

In this paper, a sensor network is used to estimate the dynamic state of a system. At each time step, only one of the sensors is available. This means that at each time step only one sensor can send its measured data to a central node, in which all of processing is done. We want to provide an optimal algorithm for scheduling of sensor selection at every time step. Our goal is to select the appropriate sensor to reduce computations, optimize the energy consumption and enhance the network lifetime. To achieve this goal, we must reduce the error covariance. Two tree algorithms are used in this work: sliding window algorithm (motivated by the Viterbi algorithm) and thresholding algorithm. Moreover we study a technique that employs choosing the sensors randomly from a probability distribution which can be optimized. Finally we will offer a new algorithm based on circular selection. Performance of the proposed algorithms is illustrated with numerical examples

کلمات کلیدی:

sensor scheduling, algorithm, sub-optimal, offline optimization, error covariance

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/208071>

