

ScholarWorks

[IUPUIScholarWorks Repository](#) → [Theses, Dissertations, and Doctoral Papers](#) → [Electrical & Computer Engineering Department Theses and Dissertations](#) → [View Item](#)

Average Consensus in Wireless Sensor Networks with Probabilistic Network Links

[Saed, Steve](#)

Advisor: [Li, Lingxi](#)
[Kim, Dongsoo S.](#)
[King, Brian](#)

Degree: M.S.E.C.E.

Degree Year: 2010

Department: Electrical & Computer Engineering

Grantor: Purdue University

Permanent Link: <http://hdl.handle.net/1805/2220>

Keywords: [Networks](#) ; [Sensor](#) ; [Wireless](#) ; [Consensus](#) ; [Average](#)

LC Subjects: [Wireless sensor networks](#) ; [Mathematical models](#)

Date: 2010-07-27

Abstract:

This study proposes and evaluates an average consensus scheme for wireless sensor networks. For this purpose, two communication error models, the fading signal error model and approximated fading signal error model, are introduced and incorporated into the proposed decentralized average consensus scheme. Also, a mathematical analysis is introduced to derive the approximated fading signal model from the fading signal model. Finally, different simulation scenarios are introduced and their results analyzed to evaluate the performance of the proposed scheme and its effectiveness in meeting the needs of wireless sensor networks.

Description:

Indiana University-Purdue University Indianapolis (IUPUI)

Files in this item

My Account

[Login](#)
[Register](#)

Statistics

[View Usage](#)



Name: thesis_ssaed.pdf

[View/Open](#)

Size: 1.091Mb

Format: PDF

Description: Steve Saed - Thesis

This item appears in the following Collection(s)

- [Electrical & Computer Engineering Department Theses and Dissertations](#)

[About Us](#) | [Contact Us](#) | [Send Feedback](#)

Fulfilling the Promise

[Privacy Notice](#)

 [Copyright](#) ©2015 The Trustees of [Indiana University](#), [Copyright Complaints](#)