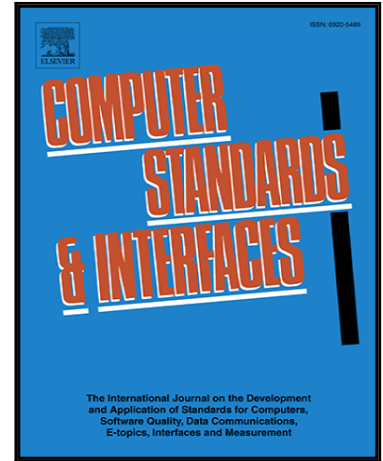


## Accepted Manuscript

Optimal Sub-tree Scheduling for Wireless Sensor Networks with Partial Coverage

Pablo Adasme

PII: S0920-5489(17)30435-X  
DOI: [10.1016/j.csi.2018.04.002](https://doi.org/10.1016/j.csi.2018.04.002)  
Reference: CSI 3276



To appear in: *Computer Standards & Interfaces*

Received date: 19 December 2017  
Revised date: 27 March 2018  
Accepted date: 15 April 2018

Please cite this article as: Pablo Adasme, Optimal Sub-tree Scheduling for Wireless Sensor Networks with Partial Coverage, *Computer Standards & Interfaces* (2018), doi: [10.1016/j.csi.2018.04.002](https://doi.org/10.1016/j.csi.2018.04.002)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## Highlights

- We consider the problem of scheduling optimal sub-trees at different time intervals for wireless sensor network communications.
- We minimize the total power consumption of the network considering time dimension and multichannel diversity leading to important power savings.
- We propose novel mixed integer quadratic and linear programming models and give formal proofs, thus computing optimal solutions for the problem.
- We propose highly efficient Kruskal-based variable neighborhood search and simulated annealing meta-heuristic procedures.
- We obtain better feasible solutions than CPLEX for large instances and in significantly less computational cost.

Download English Version:

<https://daneshyari.com/en/article/9951446>

Download Persian Version:

<https://daneshyari.com/article/9951446>

[Daneshyari.com](https://daneshyari.com)