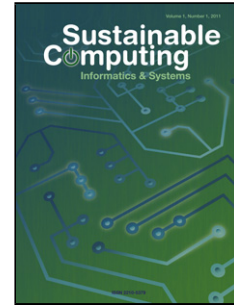


## Accepted Manuscript

Title: Cooperative In-network Computation in Energy Harvesting Device Clouds

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PII: S2210-5379(17)30239-1  
DOI: <https://doi.org/doi:10.1016/j.suscom.2017.10.006>  
Reference: SUSCOM 197

To appear in:

Received date: 10-7-2017  
Accepted date: 9-10-2017

Please cite this article as: Chamil Kulatunga, Kriti Bhargava, Dixon Vimalajeewa, Stepan Ivanov, Cooperative In-network Computation in Energy Harvesting Device Clouds, *Sustainable Computing: Informatics and Systems* (2017), <https://doi.org/10.1016/j.suscom.2017.10.006>

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## Highlights

- \* Computation offloading is useful to minimize energy consumption of latency sensitive applications and can be used for in-network computation of WSN.
- \* This approach can be used well with heterogeneous energy harvesting nodes in a WSN to minimize energy conversion losses and waste due to energy storage capacity overflows.
- \* We have derived a new optimal data partitioning algorithm by considering the energy harvesting status of two sensor nodes.
- \* Performance have been evaluated including an algorithm to find the best cooperative node in a WSN and our results shows an improved energy performance compared to an energy-harvesting status unaware algorithm (COFF).

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