4th International Workshop on

Measurement and Metrics for Green and Sustainable Software Systems (MeGSuS'18)

October 9th, 2018 - Collocated at ESEM 2018

Oulu, Finland

http://eseiw2018.wixsite.com/megsus18

Call for Contributions

With the recent proliferation of wearable devices and mobile applications, Information and Communication Technology (ICT) is increasing its impact on the environment due to its resource and power consumption. However, ICTs can make also a significant contribution to saving energy, by autonomous optimization efforts and by inducing changes of user behaviour attitudes and values.

In the last years, there has been an increasing interest in having clear metrics for measuring the carbon footprint of software, the amount of resources used by software, and how it affects the environmental impact of ICT. However, measuring software sustainability is a challenging task, due to the complexity of its direct and indirect effects on the environment and dependencies among sustainability aspects. More empirical evidence on the performance, reliability and usefulness of the proposed metrics is required.

The workshop MeGSuS'18 aims to provide a forum for researchers and practitioners i) to discuss their current work on measurement practices for greening and making more sustainable software systems ii) to present empirical studies on metrics used to design sustainable software systems from different domains (e.g. smart transportation, healthcare, education) and assess/predict the greenness in the ICT industry (e.g. data centers, embedded system software) iii) to identify the main challenges and define a research agenda on the topic of Measurement and Metrics for Green and Sustainable Software.

Topics

MeGSuS'18 seeks contributions addressing, but not limited to, the following topics:

- Reusing existing measures to extract software "greenness" information
- Relationships between traditional software metrics and sustainability metrics
- Sustainable behaviour change measurement
- Measurement to support green decision making
- Tools for automatic collection/analysis of measures for green and sustainability of software systems
- Using indicators to visualize software sustainability levels
- Theoretical and empirical validation of green metrics and measurement methods
- Design of empirical studies on the effectiveness and usefulness of sustainability metrics
- Design of empirical studies on the trade-offs between sustainability and traditional software qualities
- Measurement practices in Green and Sustainability IT

Important Dates

Submissions: 07-07-2018
Notification: 20-07-2018
Camera-ready: 25-11-2018

Paper Submission and Publication

Submitted articles should be in IEEE format. 2 pages for extended abstracts, tool demos, and vision papers.

All contributions will be evaluated based on (i) their ability to generate discussion, and (ii) relevance to the workshop. The submission and review process will be performed through EasyChair: https://easychair.org/conferences/?conf=megsus18

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