# 3rd International Workshop on
# Measurement and Metrics for Green and Sustainable Software Systems (MeGSuS'16)

**September 7th, 2016 - Collocated at ESEM 2016**

**Ciudad Real, Spain**

http://alarcos.esi.uclm.es/eselw2016/megsus/index.html

## Call for Papers

With the recent proliferation of devices and 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.

A variety of research work on Green ICT has focused on measuring the level of greenness of hardware components from an environmental perspective. 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. More empirical evidence on the performance and reliability of the proposed metrics is required.

The workshop MeGSuS'16 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 commonly used to 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'16 seeks contributions addressing, but not limited to, the following topics:

- Definition of metrics for assessing/predicting greenness and sustainability levels
- Reusing existing measures to extract software "greenness" information
- Relationships between traditional software metrics and green metrics
- Measurement to support green decision making
- Cost estimation model for making greener IT
- Tools for automatic collection of green measures
- Using indicators to visualize software sustainability levels
- Theoretical and empirical validation of green metrics and measurement methods
- Empirical studies on the effectiveness of sustainability metrics
- Empirical studies on the trade-offs between sustainability and traditional software qualities
- Reports on measurement practices in green IT

### Organizing Committee

*Nelly Condori-Fernandez*   *VU University Amsterdam*
*Giuseppe Procaccianti*   *VU University Amsterdam*
*Coral Calero*   *Universidad Castilla La Mancha*
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Ankita Raturi, University of California (USA)
Jerome Rocheteau, ICAM (France)

### Important Dates

Paper Submission:   **10-05-2016**
Acceptance Notification:   30-05-2016
Camera-Ready :   15-06-2016
Workshop:   07-09-2016

### Paper Submission and Publication

Submitted articles should be in PDF format. 8 pages for full papers, 4 pages for short and position papers. The author can find some example templates and additional writing guidelines at http://www.ieee.org/conferences_events/conferences/publishing/templates.html

All contributions will be reviewed and 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=megsus16