



Call for Papers

Engineering green software-intensive systems is critical in our drive towards a sustainable, smarter planet. The goal of green software engineering is to apply green principles to the design and operation of software-intensive systems. Green and self-greening software systems have tremendous potential to decrease energy consumption. Moreover, enterprise software can and should be re-thought to address sustainability issues using innovative business models, processes, and incentives. Monitoring and measuring the greenness of software is critical towards the notion of sustainable and green software. Demonstrating improvement is paramount for users to achieve and affect change. The GREENS 2016 theme is *The Software Sustainability Challenge*. Analysis of the sustainability of a specific software system requires software developers weigh four major dimensions of sustainability—economic, social, environmental, and technical—affecting their related trade-offs. The software engineering community must assume leadership in this important challenge. The GREENS workshop series brings together researchers and practitioners to discuss both the state-of-the-art and state-of-the-practice in green software, including novel ideas, research challenges, methods, experiences, and tools to support the engineering of sustainable and energy efficient software systems.

Topics

GREENS 2016 encourages contributions from industry, government, and academia on all topics related to greener software engineering. Topics include, but are not limited to:

- Requirements and design methods for green software
- Best practices to increase energy efficiency and sustainability (including software and process improvement)
- Instrument and monitor software systems to key green indicators (KGIs) and green improvement
- Energy-aware adaptation of software-intensive systems
- Energy challenges and solutions in cyber physical systems
- Energy efficient IoT and sensor networks
- Self-adaptive and self-managing systems for green computing
- Green architectural knowledge, green design patterns
- Sustainable data management
- Monitoring, verification and validation of green software
- Creating user awareness about energy consumption
- Analytics tools for green decision making
- Green key performance indicators
- Quality & risk assessments, tradeoff analyses between energy efficiency, sustainability and traditional quality requirements
- Business models for green software (e.g., SaaS, IaaS, PaaS, and cloud computing)
- Formulating challenges for a green software industry
- Return on investments and economic aspects of green software development
- Case studies and industry experience reports
- Incentives to invest in greener software

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Important Dates

Paper Submission: January 22, 2016
Acceptance Notification: February 19, 2016
Camera-Ready Copy: February 26, 2016
Workshop date: May 16, 2016

Paper Submission and Publication

Submissions must follow the IEEE formatting guidelines. Accepted papers will be published as an ICSE 2016 Workshop Proceedings in both the ACM and IEEE Digital Libraries.

All contributions will be reviewed and evaluated based on originality, technical quality and relevance to the workshop theme. Submissions page limit is 8 pages.

The official publication date of the workshop proceedings is the date the proceedings are made available in the ACM Digital Library. This date may be up to two weeks prior to the first day of ICSE 2016. The official publication date affects the deadline for any patent filings related to published work.

The submission and review process will be done using EasyChair: <https://easychair.org/conferences/?conf=greens2016>