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 IT and self-greening software systems have tremendous potential to decrease energy consumption (e.g., Google’s green computing strategy). 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 desire and affect change. Thus, the theme of GREENS 2014 is Demonstrating Software Energy Efficiency to Software Users. 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 2014 is interested in contributions from industry, government, and academia on all topics related to greener software engineering. Topics include, but are not limited to:

- Requirements engineering, architecting 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
- Green adaptation of software-intensive systems
- Self-greening software-intensive systems
- Self-adaptive and self-managing systems for green computing
- Green architectural knowledge, green design patterns
- Greening data management
- Monitoring, verification and validation of green software
- Creating user awareness about energy consumption of software applications and services
- Tools to support 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

Important Dates

Paper Submission: January 14, 2014
Acceptance Notification: February 28, 2014
Camera-Ready Copy: March 7, 2014
Workshop date: TBD (one day)

Paper Submission and Publication

Submissions must follow the IEEE formatting guidelines. All accepted papers will be published in the conference proceedings and in both ACM Digital Library and IEEE Digital Library.

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 submission and review process will be done using EasyChair https://www.easychair.org