Fostering Smart Energy Applications

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Abstract. There is an increasing need for smart applications with interactive visual interfaces that allow users to better manage and monitor their energy generation and consumption. This workshop will bring together researchers and practitioners from interaction design, human-computer interaction, visualization, computer games, and media technology to foster research, design, development, and deployment of energy-related applications, tools, services, games, and persuasive technologies.

1 Introduction

As our reliance on energy is increasing rapidly, and worldwide non-renewable energy resources are depleting, it has become necessary to develop more advanced technologies to better manage and reduce our energy consumption. Many such technologies now exist for both domestic and commercial use. These include tools and services for public displays, dashboards, mobile apps, web-portals, simulation tools, computer games, etc. There is, however, a lack of coordinated effort in terms of research, design, development, and deployment of smart energy-related applications. It is therefore becoming important to foster and coordinate these activities through more targeted gatherings and publications focusing on smart applications for energy systems. This workshop aims to fill this existing gap by bringing together researchers and practitioners from energy-related do- mains, as a follow up to a very successful workshop held last year (FSEA 2014, \url{http://it4se.informatik.fh-augsburg.de/FSEA14/}).

2 Theme and Topics of Interest

The theme of this workshop is interaction techniques, interfaces, and visualizations for energy-related applications, tools, games, and services. The topics of interest include design and evaluation of visual interfaces for: monitoring and managing energy generation and consumption, analysis of energy generation and consumption data,
identifying consumption patterns and behavior, relating energy consumption to other
information, sharing and comparing energy-use data with others, influencing choices
and stimulating sustainable behavior changes.

3 Target Audience

The target audience of this workshop are researchers and practitioners from a range of
backgrounds, including interaction design, human-computer interaction, visualization,
computer games, media technology, and domain experts from energy-related applica-
tion areas.

4 Workshop Plan

This one-day workshop will include short presentations of accepted position papers,
discussion sessions, and a hands-on design exercise session, during which the work-
shop participants will be divided into small groups and invited to design an interactive
application for energy usage management and visualization.

5 Expected Outcome and Dissemination

The accepted workshop position papers will be included in the official adjunct con-
ference proceedings published by the University of Bamberg Press. The position papers
will also be made available through the workshop website (FSEA 2015, http://it4se.
informatik.fh-augsburg.de/FSEA15/). The workshop participants will be invited to submit
an extended version of their position papers for a special issue of a journal
(currently being organized).

6 Key Organizers

Masood Masoodian is an associate professor in Computer Science at the University of
Waikato. His research interests include visualization of temporal data and interaction
design. He has participated in numerous projects on design, development, and evalua-
tion of energy-related interactive visualizations.

Elisabeth André is a professor in Computer Science, and the Chair of Human-
Centered Multimedia at Augsburg University. She has been involved in organization of
numerous conferences. She is an Associate Editor of IEEE Transactions on Affective
Computing, and ACM Transactions on Intelligent Interactive Systems. She is also on
the editorial board of several international journals.

Thomas Rist is a professor in Computer Science at the University of Applied Sciences
Augsburg. He has a long track-record in the field of intelligent user interfaces, and
interactive media systems. His current research activities comprise work at the inter-
section of HCI and energy-related applications. He has served as a PC or OC member
of various workshops, symposia, and conferences. He has also coordinated a number of
EU and German funded projects, including the IT4SE network for energy-related ICT
research (http://www.it4se.net).