The 2nd International Workshop on Data-driven Self-regulating Systems

at the 10th IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO), part of FAS* - Foundations and Applications of Self* Systems Conferences

Augsburg, Germany, September 12, 2016

CALL FOR PAPERS

The emergence of pervasive and ubiquitous technologies together with social media has resulted in unprecedented opportunities to reason about the complexity of our society based on magnitudes of data. Embedded ICT technologies mandate the functionality and operations of several techno-socio-economic systems such as traffic systems, transportation systems, Smart Grids, power/gas/water networks, etc. It is estimated that over 50 billion connected smart devices will be online by the year 2020. Moreover, social media provide invaluable insights about the complexity of social interactions and how these interactions influence the sustainability of several ICT-enabled techno-socio-economic systems. These observations show that regulating online the complex systems of our nowadays digital society is a grand challenge. Regulation concerns trade-offs such as the alignment of technical requirements, e.g. robustness, fault-tolerance, safety and security, with social or environmental requirements, for instance, fairness in the utilization of energy resources. The scale of nowadays data cannot tackle the challenge by itself as data may convey ungrounded correlations and biased predictions. Smart, autonomic and self-regulating mechanisms are required for filtering data streams in real-time and transform them to valuable information based on which intelligent adaptive decisions can be made in a decentralized fashion under a plethora of operational scenarios.

TOPICS

self-regulation	privacy & security
autonomic computing	multi-agent systems
pervasive/ubiquitous computing	peer-to-peer systems
Internet of Things	self-organization
big data analytics	adaptive mechanisms
cloud computing	complex systems & (social) networks
online policy-making	mechanism design & game theory
distributed systems	quality of experience

KEYNOTE SPEAKERS

We will have 2 or 3 three keynote speakers, tentatively, one of them is:

Prof. Dirk Helbing: Professor of Computational Social Science at ETH Zurich and affiliate professor at the Department of Computer Science at ETH Zurich as well as the Department of Technology, Policy and Management at TU Delft. Director of the PhD school in "Engineering Social Technologies for a Responsible Digital Future" at TU Delft.

IMPORTANT DATES

Submission deadline: **July 4, 2016**

Authors notification: **July 17, 2016**

Final manuscript: **July 22, 2016**

Workshop date: **Sept. 12, 2016**

ORGANIZERS

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SUBMISSION INSTRUCTIONS

You are invited to submit original and unpublished research works on above and other topics related to self-regulating systems. Submitted papers must not have been published or simultaneously submitted elsewhere. Please, indicate clearly the corresponding author and include up to 6 keywords and an abstract of no more than 400 words. Submissions have to be formatted according to the IEEE Computer Society Press proceedings style guide. Papers are submitted as PDF files via

https://easychair.org/conferences/?conf=dss2016

Authors of distinguished workshop papers may be invited to extend their workshop papers for their possible publication in a special issue of an international journal.

For more information please visit: http://dss2016.inn.ac