

## BIG DATA, SMART DATA AND SEMANTIC TECHNOLOGIES - BDS DST 2017

Workshop at INFORMATIK 2017, Chemnitz, September 25-29, 2017

### ABSTRACT

The focus of the workshop BDS DST 2017 will be on the potential of Big Data, Smart Data and semantic technologies in different application areas. The workshop aims to bring together researchers and practitioners using Big and Smart Data in combination with semantic technologies or planning to enrich existing data processing infrastructures with semantic information.

### IMPORTANT DATES

- Paper submission deadline: April 30, 2017
- Author notification: May 15, 2017
- Camera ready version: June 30, 2017
- Workshop: September 25-29, 2017 (one day only)

### OBJECTIVE

The growing technical possibilities to gather and aggregate multi-modal data from sensors, mobile devices, social media, log files, cameras, microphones etc. have resulted in large and complex data sets, which today are known as Big Data, are characterized by high data volume, high variety of the data types and data sources, high velocity of the incoming data and the expected information output (real time requirement) as well as the uncertainty about the veracity of the data, which makes it difficult to process the data using existing data management applications and traditional information technologies. On the other hand, when processed properly, Big Data might carry huge amounts of useful information, which was not accessible before and allow for better-founded, more robust predictions and better decision-making amongst others regarding environmental and energy aspects. That is why new predictive and prescriptive analytic approaches are gaining increasing importance.

Besides new analytic approaches, novel information technologies such as semantic technologies are necessary in order to exploit the maximum potential of the gathered data. Unlike traditional information technology where the meaning of data and their relationships are predefined and "hard-wired" into data formats and applications, semantic technologies encode meanings explicitly and independent from concrete formats and application logic. This enables machines and people likewise to understand, share, and reason over semantically represented data. Semantic technologies provide an abstraction layer on top of existing ICT infrastructures and facilitate the interrelation and integration of data, content, and processes in meaningful ways, which is very important when dealing with high amounts of heterogeneous data.

We believe that using Big/Smart Data as well as methods and tools based on semantic technologies will provide more transparency, enable precise and well-founded decisions, which will result in more sustainable and efficient processes and systems in different application areas such as production, logistics, supply chain management, geo-information systems, smart services and others.

The workshop covers diverse application areas of Big Data, Smart Data and semantic technologies, such as transport logistics, Supply Chain Management, Smart Factory, traffic flow, emission and energy consumption modelling, analytics, simulation and visualization, public transportation, complex event processing, machine learning, mobile information systems, geo-information systems, smart services and many more.

The event is envisaged as a full-day workshop with one keynote speech and about eight contributed talks. After the talks an additional slot is reserved for an interactive session to creatively explore advantages and challenges of Big Data, Smart Data and semantic technologies. We believe that this will spark discussions among participants and initiate future collaborations and exploitation areas.

## INTENDED AUDIENCE

As participants of the workshop, we expect researchers and practitioners from various fields in research and industry who use Big/Smart Data and/or semantic technologies.

## SUBMISSION

Submissions must be in PDF format and follow the style guidelines of the Lecture Notes in Informatics (LNI). Full papers must not exceed 15 pages. Short papers, work in progress and industrial papers must not exceed 8 pages. Contributions must be submitted via EasyChair online submission at:

<https://easychair.org/conferences/?conf=bdstdst2017>

Submissions will be reviewed by at least two programme committee members. Accepted papers will appear in the (electronic) Lecture Notes in Informatics (LNI), and have to be presented at the workshop by at least one author.

## PROGRAMM COMITTEE

- Bernhard Halshofer, AIT Austrian Institute of Technology, Vienna, Austria
- Daniel Seebacher, Universität Konstanz, Konstanz, Germany
- Gerald Ristow, Software AG, Darmstadt, Germany
- Jens Nimis, Karlsruhe University of Applied Sciences, Karlsruhe, Germany
- Ljiljana Stojanovic, Fraunhofer IOSB, Karlsruhe, Germany
- Manuel Stein, Universität Konstanz, Konstanz, Germany
- Maria Maleshkova, Karlsruhe Institute of Technology, Karlsruhe, Germany
- Patrick Wiener, Karlsruhe University of Applied Sciences, Karlsruhe, Germany
- Peter Haase, metaphacts GmbH, Walldorf, Germany
- Roland Stühmer, IBM Deutschland GmbH, Frankfurt am Main, Germany
- Simone Braun, Uniserv GmbH, Pforzheim, Germany
- Valentin Zacharias, Daimler TSS GmbH, Stuttgart, Germany
- Verónica Rivera Pelayo, IBM Deutschland GmbH, Stuttgart, Germany

## ORGANIZERS

- Matthias Frank, FZI Research Center for Information Technology, Karlsruhe, Germany
- Natalja Kleiner, FZI Research Center for Information Technology, Karlsruhe, Germany
- Stefan Zander, FZI Research Center for Information Technology, Karlsruhe, Germany
- Thomas Setzer, Karlsruhe Institute of Technology, Karlsruhe, Germany
- York Sure-Vetter, Karlsruhe Institute of Technology, Karlsruhe, Germany
- Rudi Studer, Karlsruhe Institute of Technology, Karlsruhe, Germany

Contact: [BDSDST-2017@fzi.de](mailto:BDSDST-2017@fzi.de) Twitter: @bdstdst2017 (<https://twitter.com/bdstdst2017>)

Please find further information at: <http://url.fzi.de/bdstdst2017>

