

Call for Papers and Participation

Data Science & Blockchain (DSBC2018) Workshop

Autonomous (and semi-autonomous) systems such as drones and driverless cars start to play more and more important roles in military and our daily lives. How to develop high quality software for (semi-) autonomous systems and prevent cyber-attacks has become a major concern of both the research community and industries. It is a consensus that high quality software and cyber defense will greatly enhance the survivability of the autonomous systems and the human operators/passengers. Many experts also claim: using decision science/AI/machine learning techniques will result in better (semi-) autonomous systems. In the same time, there is significant interest in exploring a relatively new technique -- blockchain, which may play an increasingly important role in many areas. We believe the recent R&D efforts of data science, blockchain, and DevOps techniques will significantly change the way of (semi-) autonomous system design, operation, and management.

The DSBC (Data Science & Blockchain) workshop will be held on October 22 - 25, 2018 in Xi'an, China (co-located with ER2018 Conference). The focus of this workshop is to identify promising research directions for applying data science, blockchain, and DevOps techniques in the design and development of the preferred but not limited to (semi-) autonomous systems. The relationship between these techniques and conceptual modeling will also be explored.

Topics of interest include, but are not limited to:

- Data Science:
 - New algorithms for extracting embedded conceptual models (entities and relationships) from bigdata
 - Data science techniques for (Semi-) Autonomous System Design
- Blockchain:
 - Theories, protocols, and algorithms of blockchain
 - Conceptual Models of Blockchain
 - Security and privacy of Blockchain
 - Performance evaluation/optimization of Blockchain
 - Real-life applications of blockchain
- DevOps
 - Frameworks and conceptual models of DevOps
 - Sec DevOps

- DevOps for (Semi-) Autonomous Systems

Workshop Chairs & Program Committee

- Peter Chen, Carnegie Mellon University, USA, PeterChen@cmu.edu
- Heinrich C. Mayr, AAAU, Austria, Heinrich.Mayr@aau.at

Program Committee Members:

- Arne Solvberg, NTNU, Norway
- Rong Chang, IBM Research
- Oscar Paster, Universitat Politècnica de València, Spain
- Hasan Yasar, Software Engineering Institute, CMU, USA

Important Dates

(A) **First round of paper submissions** (for possible inclusion in the Springer LNCS together with other ER2018 Conference workshops accepted papers)

- Submission of abstracts: ASAP
- Submission of full papers: July 20, 2018
- Notification of acceptance: July 25, 2018
- Camera-ready copies due: July 31, 2018

(B) **Second round of paper submissions** (after July 20, 2018) for the opportunity to present your work at the workshop. Since there is a possibility some selected submitted papers and invited papers may be published in another separate proceedings (by Springer or another publisher) after the workshop is over, please also follow the Springer LNCS style as specified in the formatting guidelines below.

- Submission of abstracts: ASAP
- Submission of full papers: August 20, 2018
- Notification of acceptance: August 30, 2018
- Camera-ready copies due: (to be determined)

(C) **Special Journal Issue:** Selected papers and invited talks in the DSBC workshop may be chosen for submitting an extended version for publishing in a special issue of *Data & Knowledge Engineering* (an Elsevier Journal).

Submissions Formatting Guidelines

Papers must be in English and submitted as PDF-files. Submitted papers must be original and not submitted or accepted for publication in any other workshop, conference, or journal.

Some selected papers of the DSBC 2018 proceedings may be part of the ER 2018 Workshop volume published by Springer in the LNCS series. The page limit for workshop papers is 10 pages. Papers should be formatted according to Springer LNCS style. Information about the Springer LNCS format can be found at <http://www.springer.de/comp/lncs/authors.html>

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Submission Guidelines

Submission to DSBC 2018 will be electronically only. Submission must be done via EasyChair at <http://www.easychair.org/conferences/?conf=er2018> .