Call for Papers

ManComp 2017

2nd Workshop on Managed Complexity

https://wwwswt.informatik.uni-rostock.de/ManComp2017/

August 28, 2017 · Copenhagen, Denmark

In conjunction with BIR 2017 conference http://www.bir2017.aau.dk/

Managing complexity has a long tradition for algorithms and general problems. However, it is an important issue also in Business Informatics domain. Here the complexity of different systems and systems of systems has to be managed. While complexity usually associates with large or very large scale systems still managing complexity is important even for systems with small sizes operating in complex environments. Nowadays informatics requires handling complexity at different levels and configurations of social, physical, enterprise, software, and hardware systems. The workshop is planned *to focus on approaches and methods for managing complexity in the domain of applied informatics* that may address an interplay of systems and ecosystems of various sizes and substances. Its purpose is to share and transfer knowledge on complexity identification, representation, controlling and reduction as well as to exploit possible synergies in development of innovative complexity handling strategies, approaches, and methods.

The ultimate goal of the workshop is bringing together researchers and practitioners to discuss theoretical approaches and real-life case studies featuring success and/or failure stories in managing complexity. It welcomes seeking and discussing answers to such complexity management questions as:

- How is complexity divided?
- What kinds of models are to be specified?
- What is the role of system architecture in complexity handling?
- How is the human recognized in the loop?
- What kind of rules are to be applied?
- In which way do patterns help?
- Which notation or ontologies are useful in complexity handling?
- How is knowledge reused?
- How is knowledge propagated?
- and many others.

Based on these discussions, we expect to deepen the understanding of strategies, approaches, and methods in managing complexity in enterprise, software, and hardware engineering. A cross-pollination of experiences in those domains is assumed.

Three types of submissions are welcomed: position papers, research papers, and reports. All types should treat a topic complying to the workshop themes.

- **Position papers** (2-6 pages): Such papers should state the position of the authors regarding any topic of the workshop.
- Reports (4-8 pages) Experience reports and case studies are expected to be submitted in this category.
- **Research papers** (8-15 pages full research papers, 8-10 pages research in progress papers): Research papers should describe innovative approaches.

Publication

Workshop papers should be formatted following the Springer's LNCS or LNBIP formatting guidelines (see http://www.springer.de/comp/lncs/authors.html). Workshop papers will be published either in CEUR proceedings of BIR Workshops or in the journal Complex Systems Informatics and Modeling (CSIMQ). In case of CEUR proceedings, the extended versions of the papers will be considered for publication in CSIMQ https://csimq.mozello.lv/. Papers should be submitted to the EasyChair conference management system https://easychair.org/conferences/?conf=mancomp2017.

Important Dates

• June 1 July 1, 2017: Paper submission deadline (extended)

• June 30 July 25, 2017: Author notification (extended)

• Fuly 15 August 7, 2017: Camera-ready submission (extended)

• August 28, 2017: Workshop date

Workshop topics include, but are not limited to:

- Measures of complexity
- Agility in complexity
- Models for handling complexity
- Tools for managing complexity
- Enterprise architectures and complexity
- Ontologies for managing complexity
- Patterns for managing complexity
- Capability impact on complexity management

Organizers

Peter Forbrig, University of Rostock, Germany Marite Kirikova, Riga Technical University, Latvia Charles, Moller, Aalborg University, Denmark

Program Committee (can be extended)

Clara Bassano, "Panthenope" University of Naples, Italy Albertas Caplinskas, Instute of Mathematics and Informatics, Lithuania Bertrand, David, Ecole Centrale de Lyon, France Peter Forbrig, University of Rostock, Germany Janis Grundspenkis, Riga technical University, Latvia Markus Helfert, Dublin City University, Ireland Ebba Póra Hvannberg, Iceland University, Iceland Marite Kirikova, Riga Technical University, Latvia Christophe Kolski, University of Valenciennes, France Paula Kotze, CSIR Meraka Institute Pretoria, South Africa Henry Linger, MONASH University, Australia Oscar Pastor Lopez, Politechnical University of Valencia, Spain Charles, Moller, Aalborg University, Denmark Malgorzata Pankovska, University of Economics in Katowice, Poland Jose Perez Rios, University of Valladolid, Spain Khuram Shahzad, University of the Punjab, Pakistan Chris Stary, University of Linz, Austria Bengt Wangler, Stockholm University, Sweden Marco Winckler, Paul Sabatier University Toulouse, France Jelena Zdravkovic, Stockholm University, Sweden Iryna Zolotaryova, Kharkiv National University of Economics, Ukrain

Website

https://wwwswt.informatik.uni-rostock.de/ManComp2017/

Contact

If further information is needed, please contact

Marite Kirikova <u>marite.kirikova@cs.rtu.lv</u>

Peter Forbrig <u>peter.forbrig@uni-rostock.de</u>

• Charles Moller charles@business.aau.dk

References

- Cardoso, J., Mendling, J., Neumann, G., and Reijers, H. A.: A Discourse on Complexity of Process Models, Proc. Of Business Process Management Workshops, Vienna, Austria, September 4-7, Springer, LNCS, Volume 4103, pp. 117-128, 2006.
- Heitmeyer, C.: Managing complexity in software development with formally based tools Electronic Notes in Theoretical Computer Science, Elsevier, 2004.
- Lindemann, U., Maurer, M., and Brau, T.: Structural Complexity Management: An Approach for the Field of Product Design, Springer, ISBN 978-3-540-87889-6, 2009.
- Little, T.: Context-Adaptive Agility: Managing Complexity and Uncertainty, IEEE Software, Vol. 22, Issue 3, pp. 28 35, 2005.
- Lloyd, S.: Measures of Complexity: A Nonexhaustive List, IEEE Control Systems Magazine, 21 (4), pp. 7-8, 2001.
- Saha, p. (Ed.): A Systemic Perspective to Managing Complexity with Enterprise Architecture (Advances in Business Information Systems and Analytics (Abis) IGI Global, 2013.
- Baeten J.C.M., van de Mortel-Fronczak J. M., Rooda J.E.: Integration of Supervisory Control Synthesis in Model-Based Systems Engineering, Complex Systems, Vol. 55 of the series Studies in Systems, Decision and Control, pp. 39-58, 2016.