

**TITLE: Methods for Interpretation of Industrial Event Logs (MIEL 2018)**

**ORGANIZERS/CHAIRS:** Grzegorz J. Nalepa, David Camacho, Edyta Brzychczy, Robert Confalonieri, Martin Atzmueller

**DESCRIPTION:** The objective of the workshop is to discuss novel intelligent data analysis methods suitable for the analysis and interpretation of industrial event logs. We aim to include and possibly combine two distinct perspectives. The first uses methods from data mining and computational intelligence. The second uses background domain knowledge for conceptual analysis. We would like to focus on (but not limit to) the applications of the mentioned methods according to those two perspectives to Industry 4.0. In this setting, the source of the event logs would be industrial machinery, but also possibly personnel or activity monitoring devices.

**TOPICS OF INTEREST of the workshop include:**

- activity recognition in the industrial setting
- anomaly detection on event log data
- conceptual modeling of industrial processes
- conformance checking of industrial process models
- event logs abstraction methods
- intelligent analysis of multi-sensor data
- industrial case studies with real-life complex event logs
- industrial process modeling
- knowledge graphs on event log data
- network analysis on event log data
- ontologies for industrial domains
- ontology-based methods for event-log generation
- supervised and unsupervised methods of log analysis

**SUBMISSION & PUBLICATION**

The submission guidelines, deadlines and publication topics will adhere to the standard IDEAL 2018 rules for workshops.

**PROGRAM COMMITTEE (tentative)**

Andrea Burattin, Technical University of Denmark, Denmark  
Szymon Bobek, AGH University of Science and Technology, Poland  
Josep Carmona, Universitat Politècnica de Catalunya, Spain  
Diego Calvanese, Free University of Bozen-Bolzano, Italy  
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Javier Del Ser, University of the Basque Country, Spain

Workshop Proposal for the IDEAL 2018 conference 21-23.11.2018 Madrid  
<https://aida.ii.uam.es/ideal2018/>

## **INTRODUCTORY TALK**

Martin Atzmueller: Computational Sensemaking in Industry 4.0: From Analysis to Interpretation