<table>
<thead>
<tr>
<th>TIME</th>
<th>Thursday</th>
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<th>Friday</th>
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<tbody>
<tr>
<td>8:30-9:00</td>
<td>Registration</td>
<td>9:30-10:30</td>
<td>Keynote 2: &quot;One Kubernetes to rule them all&quot;</td>
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<tr>
<td>9:00-9:15</td>
<td>Welcome</td>
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| 9:15-10:15 | **Session 1: Business Processes - Design & Process Mining**  
Evaluating Methodologies for Business Process Architecture Design – A Pilot Study  
Towards a Comprehensive Methodology for Process Mining  
Validation of Smart Contracts Using Process Mining | 10:30-10:45 | Break                                       |
| 10:30-10:45| **Session 2: Business Processes - Runtime**   | 10:45-11:45| **Session 4: Software Design**              |
| 11:00-12:30| **Session 2: Business Processes - Runtime**   |            | **Session 4: Software Design**              |
| 11:00-12:30| Towards Dynamic Resource Management in Business Processes  
Towards Dynamic Resource Management in Business Processes  
Estimating the Duration of Blockchain-Based Business Processes Using Simulation  
PANIC — Plugging Data Leak Detection into the Camunda Modeler | 12:45-12:45 | Lunch                                       |
| 12:45-12:45| **Session 5: IoT and Cloud Manufacturing**    |            |                                             |
| 12:30-1:30 | Lunch                                         | 1:30-3:00  | Closing Session                             |
| 1:30-3:00  | **Session 3: Serverless Computing & FaaS**    | 3:00-3:15  |                                             |
|            | Model-driven software migration towards fine-grained cloud architectures  
Towards coverage criteria for serverless applications  
Towards Performance and Cost Simulation in Function as a Service |            |                                             |
| 3:00-3:15  | Break                                         |            |                                             |
| 3:15-4:15  | Keynote 1: "IoT-based Process Management"    |            |                                             |
| 5:30-6:30  | Event: Bayreuther Katakomben                  |            |                                             |
| 7:00-10:00 | Event: ZEUS Dinner                            |            |                                             |
Keynote 1: “IoT-based Process Management”

Stefan Schönig, University of Bayreuth

The connection between production and information technology leads to a ubiquity of digitally supported information processing systems. Such a production system represents a typical Internet of Things (IoT) system where electronic hardware, e.g., sensors and actuators are tightly integrated with human operators. To support processes at an operational level, a Business Process Management system (BPMS) can be used. We introduce an approach for an IoT-aware BPMS that exploits IoT data for production process support by providing IoT data in a process-aware way, considering IoT data for interaction in a pre-defined process model, and providing wearable user interfaces with context specific IoT data provision. The approach has been evaluated extensively in production industry.

Keynote 2: “One Kubernetes to rule them all”

Simon Harrer and Tammo van Lessen, innoQ Deutschland GmbH

In 2015, Google open sourced the core of their internal container clustering system under the name Kubernetes. Teams that previously relied upon IaaS and PaaS to run their applications quickly adopted Kubernetes instead. Today, only a few years later, Kubernetes is key to many companies and runs applications with literally billions of users. Kubernetes has become the de facto standard for deploying and running cloud native applications. We’ll give an overview of what Kubernetes is today and share our experiences from using Kubernetes in an ecommerce and an IoT application. The future of Kubernetes could not look better. The Kubernetes ecosystem is growing, allowing to provision professionally managed databases directly within the cluster, running functions in a serverless-fashion, and even allowing us to host the code, the build pipeline and the application itself on Kubernetes. In the future, there might be only one Kubernetes to rule them all.

Keynote 3: “Software architecture of an e-Commerce system on the foundation of MS Azure”

Michael Bauer, dynamic commerce GmbH
Sessions

Session 1: Business Processes - Design & Process Mining

“Evaluating Methodologies for Business Process Architecture Design – A Pilot Study”
Fernanda Gonzalez-Lopez and Guillermo Bustos
Pontificia Universidad Católica de Valparaíso, Chile

“Towards a Comprehensive Methodology for Process Mining”
Kiarash Diba
Hasso Plattner Institute, University of Potsdam

“Validation of Smart Contracts Using Process Mining”
Frank Duchmann and Agnes Koschmider
Karlsruhe Institute of Technology

Session 2: Business Processes – Runtime

“Towards Dynamic Resource Management in Business Processes”
Sven Ihde, Luise Pufahl, Asvin Goel and Mathias Weske
Hasso Plattner Institute, University of Potsdam

“Estimating the Duration of Blockchain-Based Business Processes Using Simulation”
Stephan Haarmann
Hasso Plattner Institute, University of Potsdam

“PANIC — Plugging Data Leak Detection into the Camunda Modeler”
Jasmin Türker and Thomas Heinze
Friedrich Schiller University Jena
Session 3: Serverless Computing & FaaS

“Model-driven software migration towards fine-grained cloud architectures”
Robin Lichtenthäler
University of Bamberg

“Towards coverage criteria for serverless applications”
Stefan Winzinger
University of Bamberg

“Towards Performance and Cost Simulation in Function as a Service”
Johannes Manner
University of Bamberg

Session 4: Software Design

“Analyzing the Importance of JabRef Features from the User Perspective”
Martin K. Simon, Linus W. Dietz, Tobias Diez and Oliver Kopp
Technical University of Munich, Max Planck Institute for Mathematics in the Sciences Leipzig, University of Stuttgart

“Generalized Markdown Architectural Decision Records: Capturing the Essence of Decisions”
Oliver Kopp and Anita Armbruster
University of Stuttgart
**Session 5: IoT and Cloud Manufacturing**

“Security Challenges of Cloud Manufacturing: A Case Study in the Aerospace Domain”

Diana Peters and Thomas Heinze

*German Aerospace Center (DLR)*

“Using Digital Smart Assistants as HMI for Robots in Smart Production Systems”

Javad Ghofrani and Dirk Reichelt

*HTW Dresden*

**Closing Session**

Best presentation award ceremony. Planning the future towards ZEUS 2020.
Events

Bayreuther Katakomben
Venue: Andreas-Maisel-Weg 1, 95445 Bayreuth
Info: https://bayreuther-bier.de/brauerei-erleben/katakomben

ZEUS Dinner
Liebesbier – Restaurant & Craft Beer
Venue: Kulmbacher Straße 60, 95445 Bayreuth
Info: https://www.liebesbier.de
Campus Map of Universität Bayreuth

Key:
- Campus Grounds
- University Buildings
- Student Dormitories
- Parking Zone
- Bus Stop
- Info and Meeting Points

Legend:
- Audimax: Auditorium Maximum
- B-Geb: Auxiliary building
- B 4: Glashaus
- BGI: Bavarian Research Institute of Experimental Geochemistry & Geophysics
- FAN: Faculty of Engineering Science
- FhP: Fraunhofer Project Group
- GEO: Earth Sciences
- GW: Humanities
- INF / AI: Applied Computer Science
- IT-S: IT Service Centre
- Mensa: Cafeteria
- NMR: NMR Spectroscopy
- NW: Natural and Physical Sciences
- ÖBG: Botanical Garden
- PBS: Palaeobotanical Collection
- PNS: Polymer Nanostructures
- RW: Business, Economics and Law
- Sport: University Sport
- StuPa: Student Parliament
- SWO: Association for Student Affairs
- Zapf: Zapf Building, Houses 1 and 4
- ZB: Main Library
- ZT: Buildings & Grounds Maintenance
- ZUV: Central University Administration

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