

ZEUS 2019

14.-15. February 2019

University of Bayreuth

*Rechts- und Wirtschaftswissenschaften I (RW I), S58
Universitätsstraße 30, 95447 Bayreuth*

Program Schedule

	14.02.2019		15.02.2019
TIME	Thursday	TIME2	Friday
8:30-9:00	Registration	9:30-10:30	Keynote 2: "One Kubernetes to rule them all"
9:00-9:15	Welcome	10:30-10:45	Break
9:15-10:45	Session 1: Business Processes - Design & Process Mining	10:45-11:45	Session 4: Software Design
	Evaluating Methodologies for Business Process Architecture Design – A Pilot Study		Analyzing the Importance of JabRef Features from the User Perspective
	Towards a Comprehensive Methodology for Process Mining		Generalized Markdown Architectural Decision Records: Capturing the Essence of Decisions
	Validation of Smart Contracts Using Process Mining	11:45-12:45	Lunch
10:45-11:00	Break	12:45-1:45	Session 5: IoT and Cloud Manufacturing
11:00-12:30	Session 2: Business Processes - Runtime		Security Challenges of Cloud Manufacturing: A Case Study in the Aerospace Domain
	Towards Dynamic Resource Management in Business Processes		Using Digital Smart Assistants as HMI for Robots in Smart Production Systems
	Estimating the Duration of Blockchain-Based Business Processes Using Simulation	1:45-2:00	Break
	PANIC — Plugging Data Leak Detection into the Camunda Modeler	2:00-3:00	Keynote 3: "Software architecture of an e-Commerce system on the foundation of MS Azure"
12:30-1:30	Lunch	3:00-3:15	Closing Session
1:30-3:00	Session 3: Serverless Computing & FaaS		
	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		

Keynotes

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>

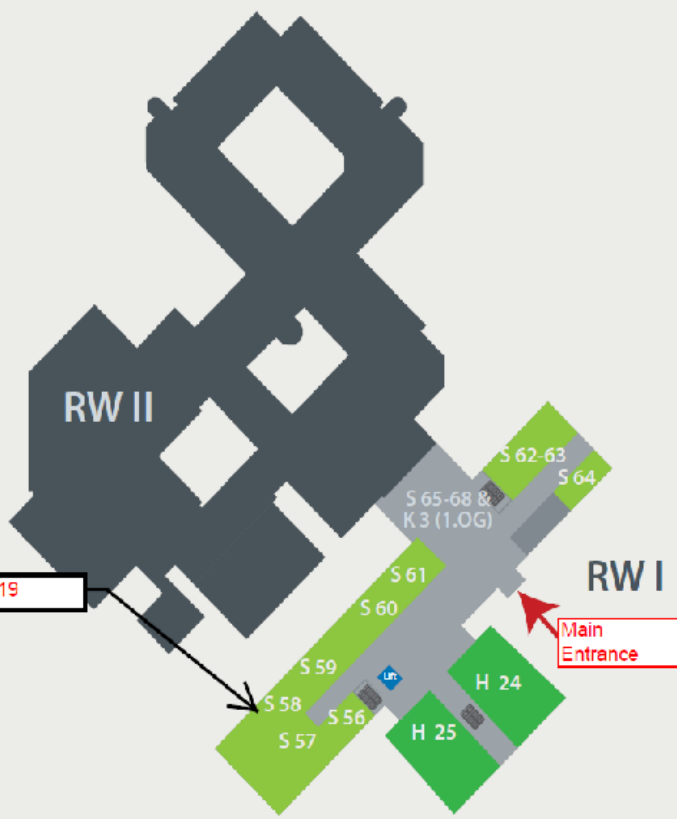
ZEUS Dinner

Liebesbier – Restaurant & Craft Beer

Venue: Kulmbacher Straße 60, 95445 Bayreuth

Info: <https://www.liebesbier.de>

ZEUS 2019



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
ITS	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