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#### **EDITORIAL**



Prof. Dr.-Ing. Norbert Gronau

Dear Sir or Madam,

while cars and machine equipments "Made in Germany" are recognized worldwide and sought after, Germany lies in the realm of digital transformation on position 12 to 19 worldwide. I am actually angry that this does not see to bother our federal government. The main objective in the next years must be to achieve at least the 5th position worldwide in the application areas research, business, society, infrastructure and education. With pleasantly filled tax coffers this can't be an actual problem. When do we start – we are ready to help!

**Best Regards** 

## **CONGRESS IN MARCH**

On 17 and 18 March 2020, the third Factory Software Congress will take place in Frankfurt/Main.

On the first day, the finalists of the competition "Factory Software of the Year" will present their solutions to the public. The presentations on the second day will address topics such as requirements for MES solutions in industry 4.0, opportunities through intelligent process networking, requirements and benefits of the administration shell as well as innovative robotics and platform concepts.

events.gito.de



Further information and registration for the Gito events

## **CONFERENCE WI2020 IN POTSDAM IN MARCH**

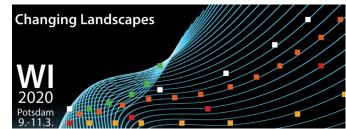
What will impact digitization in the future? How will analytics, blockchain, the Internet of Things and social media impact the economy and society?

The "International Conference on Business Informatics" will strive for answers in Potsdam between 09.-11.03.2020. Researchers and practitioners will intensively discuss changes from digitization and their impact in various formats. While internationally renown keynote speakers will ignite new ideas, leading researchers from the german-

speaking community are presenting their current research. A CIO-Symposium will connect practitioners to the recent advancements. Graduate students can network and enhance their skills in workshops and in the doctoral consortium.

Further information and registration

www.wi2020.de



#### **USER CONFERENCES IN 2019**

Our user conferences in 2019 "Artificial Intelligence for the Smart Factory" and "Manufacturing Analytics" were a big success. Experts and users welcome the event to exchange experiences about the applicability of AI mechanisms and analytics for manufacturing. Visitors listened to expert presentations, application experience and took part in a virtual tour of our Research and Application Center Industry 4.0.

events.gito.de



Participants at the user conference "Artificial Intelligence for the Smart Factory"

#### **ERP CONGRESS WITH TRADE FAIR 2019**

We hosted the ERP congress for the 12th time. The congress offered a variety of speeches from renowned speakers who talked about trends in the enterprise systems industry.

In addition, enterprise system companies had the opportunity to represent their systems at a specialised and exclusive fair.

www.erp-kongress.de



Components of the system Smart Robot

### **UPCOMING PROJECT COMPLETION SME - SMART ROBOT**

In cooperation with API DE GmbH, the Chair of Processes and Systems and the Botos engineering office in Potsdam, the Smart Robot R11, which has been established on the market for 25 years, has been adapted to the changing requirements.

At the same time, the need for change was identified and long-term development opportunities were made visible. The aim is to develop a system that ensures the autonomous loading of a wheelchair into and out of the vehicle trunk under current user, supplier and technical requirements.

Specifically, the motor control has been rebuilt by a fault data memory, overload protection and soft start-stop function via CAN bus. In addition, the new control program offers monitoring and analytical functions via wireless connection regardless of location and time on the laptop.

www.apide.de | www.ib-botos.de

### **NEW DFG PROJECT - QUALITY OF KNOWLEDGE TRANSFER**

A DFG-funded research project of the Chair Processes and Systems and the Karlsruher Institute for Technology (KIT) will start in January 2020.

The focus lays on the experimental examination of factors ("complexity", "competence" and "stickiness") that influence the process of knowledge transfer. 400 experiments shall validate hypotheses with respect to quality. Insights are used to extend the implementation model constructed in the preceding project which focused on time to transfer knowledge. The project serves as a foundation for process optimization in the domain of product development.

Results can be found in the book "Knowledge Transfer Speed Optimizations in Product Development Context" available at GITO.

www.lswi.de | ISBN 978-3-95545-294-0



#### AIF PROJECT WITH TU MUNICH

Since June 2019, the AIF project "Agile project-based crowdsourcing" has been researching together with the Chair of Strategy and Organization at the TU Munich how crowdsourcing activities and platforms can be systematically integrated into the innovation process and existing corporate structures.

The aim is to provide companies with a structured decision-making process for outsourcing activities to the crowd and a web-based tool that can be used to manage crowdsourcing activities. We are looking forward to the research activities on this exciting topic and the joint cooperation!

www.lswi.de

#### **CONTINUATION OF DFG SPP1921**

The German Research Foundation DFG decided to fund the second project phase of SPP1921 "Intentional Forgetting in Organizations" after its successful first three years. The second phase will investigate forgetting in the manufacturing and administration and provide cuttingedge technologies that ease information processing.

www.spp1921.de

#### GEOFAB - MORE THAN SEARCH AND FIND!

Since the end of 2018 the ZIM cooperation network GeoFab unites interested partners from economy and science to carry out joint innovation projects.

The network currently consists of eight small and medium-sized enterprises, six associated partners (large enterprises, associations, foreign SME) and the LSWI as research lead. The accession of the Finnish company Quuppa, lays the foundations for internationalisation. The vision of the network is the improved exploitation of the already extensive digitalisation of production processes through the integration of static and dynamic internal geoinformation (indoor and outdoor) with further sensor data as well as data from operational application systems. Interested companies are invited to participate in the network..



www.geofab.de





Development of scenaios in the project DiReBio

## PROJECT DIREBIO – HAPTIC MODELLING

Haptic thinking comprises practical methods in which knowledge and skills are brought into 3D space by modelling with the hands. The resulting models can be shared with other people and can be developed further in a participatory way.

They enable new perspectives and deepening questions of understanding. In the project DiReBio such an approach is used to develop bioeconomic development scenarios of communities and districts and to communicate them to a larger group of people in an understandable way. For the modelling, easily available materials and self-made 3D print objects for special technologies will be used.

Corresponding workshops for the development of regional future strategies are available to interested communities and companies in the federal state of Brandenburg in Germany.

www.direbio.de

# Business Informatics and Digital Society University of Potsdam









#### STELLENBOSCH AND POTSDAM - INTENSIFIED EXCHANGE

After the first Potsdam students have returned enthusiastically from their semester abroad in Stellenbosch, we expected the first students from Stellenbosch in October.

They will live and study in Potsdam for six months. In addition, two scientists from Stellenbosch visited Potsdam in November to present their research results in various courses of the business informatics chairs. Lectures by Potsdam scientists in Stellenbosch are also planned.

The exchange between the universities in Stellenbosch and Potsdam is promoted by the International Study and Training Partnerships Program of the German Academic Exchange Service (DAAD).

austausch.lswi.de | www.sun.ac.za

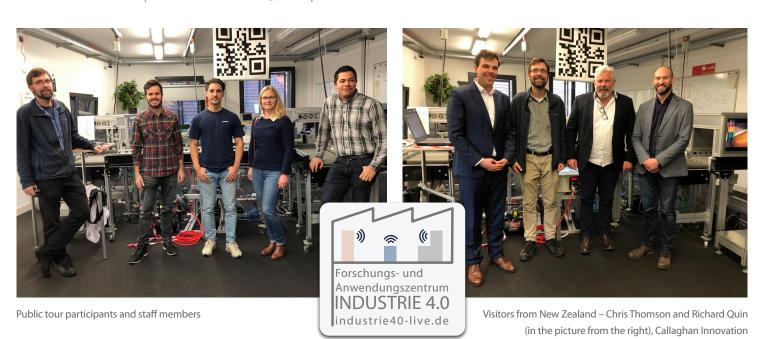
#### NEWS FROM THE RESEARCH AND APPLICATION CENTER INDUSTRY 4.0

As part of its application as a research and training tool, the hybrid simulation environment of the Research and Application Center Industry 4.0 Potsdam (RACI4.0) is constantly being extended by new components, which are available as building blocks for modeling manufacturing processes and scenarios.

Highlights include a new manual workstation combining virtual workpieces and real interaction between worker and workpiece carrier, mobile assistance systems for operative production organization and machine maintenance, as well as the indoor localization of tools. Within the "OptiLens" showcase, these I4.0 modules not only show the potential of their application, but also demonstrate the feasibility of implementing cyber-physical production systems using currently available technologies.

And we are very pleased that there is still a high level of interest in visiting the Research and Application Center. In recent months, several groups of interested parties have taken part in events – from the basic thematic introduction to the intensive one-day training. In addition to international experts and delegations, guests from educational institutions and works councils were also guests. The main topics include the fundamentals of the fourth industrial revolution, changes in education and training, and the interaction between industry 4.0 and operational application systems.

www.industrie40-live.de | Contact: hanna.theuer@wi.uni-potsdam.de



# Business Informatics and Digital Society University of Potsdam



#### **WEIZENBAUM CONFERENCE 2019**

Around 200 participants came together in May 2019 in Berlin to discuss the challenges, drivers and effects of inequality in the digital age from different disciplinary perspectives and to find solutions for overcoming the digital divide in society in research presentations, panel discussions and a poster exhibition.





The third Weizenbaum Conference "Democracy in Flux. Order, Dynamics, and Voices in Digital Public Spheres" will be held in Berlin in early June 2020.

Further information at

www. weizenbaum-conference.org

Opening and Introduction, Ceremony Best Paper Award

### PANEL DISCUSSION AT THE AMCIS 2019 IN CANCUN, MEXICO

At the American Conference of Information Systems (AMCIS 2019) held in Cancun-Mexico, our research associate Safa'a AbuJarour (Chair Social Media and Data Science, Prof. anna Krasnova) moderated a panel discussion on the topic "Turning the Dark Side of Social Media Bright! The Case of Immigration in the USA and Germany". The panel discussion was joined by Antonia Köster, the Digital Integration group lead from the Weizenbaum Institute for the Networked Society, together with Jane Fedorowicz from Bentley University, and Haya Ajjan from Elon University.

The panel discussion tackled the challenges of integration and social inclusion that have been on top of the agenda for many political leaders in Europe and the USA. The Information Systems community has invested significant effort in researching immigrants and especially refugees, seeking to better understand how to facilitate social inclusion processes. This panel discussion looked at multiple

viewpoints on the topic of immigration, specifically showing how technology can both support and prevent immigrants from succeeding in their quest. It further aimed to stimulate a thoughtful and dynamic discussion on best practices and recommendations to enhance the discipline's impact on alleviating the challenges that occur for immigrants in their host countries.

www.uni-potsdam.de/social-media-krasnova



Safa'a AbuJarour, Prof. Fedorowicz, Prof. Ajjan and Dr. Köster

#### INNOVATIVE IDEAS FOR THE DIGITAL HEALTH ECONOMY

As part of the "digital solutions made in Brandenburg | digisolBB" project, the start of the ideahuBB ideas competition was initiated on 09.09.2019.

More than 80 participants from the regional healthcare industry joined at the kick-off event at the HPI School of Design Thinking to learn about the new ideas competition and to exchange ideas with like-minded people. A welcoming speech by consortium leader Prof. Pousttchi (Chair of Digitization, University of Potsdam) as well as a keynote speech by Prof. Lippert (HPI Digital Health) on the possibilities of machine learning in healthcare completed the program.

Creating digital solutions from the federal state of Brandenburg for the healthcare industry in Brandenburg and beyond – that is the goal of digisolBB. The project aims to strengthen the health industry with digital and innovative approaches. To this end, small and medium-sized companies, start-ups and research institutions with good ideas are to be brought together and supported in finding sustainable business models and ideas and bringing them to market maturity. The idea competition ideahuBB was launched to reach innovative players. The ideahuBB is no ordinary ideas competition – applicants with the best ideas can look forward to a unique mentoring program for the further development and implementation of sustainable digital business models in the healthcare industry.

www.ideahuBB.de

27|02|20 (Stellenbosch, South Africa) Teaching by Prof. Gronau in the Master of Information and Knowledge Management.

**04**|**03**|**20** (*Bremen*) *Editors' meeting Industry 4.0 Management* with participation of Prof. Gronau.

09-11|03|20 (Potsdam) International Conference Business Informatics WI2020. Conference Chair.

11|03|20 (Munich, TUM) 27th Munich Management Colloquium (MMK) "New Business Models – Artificial Intelligence – Machine Learning". Moderation by Prof. Gronau.

17–18|03|20 (Frankfurt/Main) Congress Factory Software. Speech by Prof. Gronau on trends in the Al-based factory.

20|04|20 (Amsterdam, Netherlands) INTERTRAFFIC. Keynote and moderation by Prof. Gronau.

#### **IMPRINT**

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Our running teams 2019

### **OUR RUNNING YEAR 2019**

The running team of the Chair Processes and Systems was also active last season and represented its sporting team performances at the Potsdamer Firmenlauf in May and the Berlin B2Run in August. While in Potsdam the Neues Palais in the Park Sanssouci was the finish line, the last meters in Berlin were run on the famous blue track in Berlin's Olympic Stadium.

#### SCHOOL PROJECT WEEK ON SUSTAINABILITY

With 24 pupils of the Evangelische Grundschule Babelsberg (Protestant primary school Babelsberg) the topic "Avoidance and handling of packaging" has been worked on.

For this there was first of all of the Potsdamer store "fair verpackt" (a local store for sale of unpackaged goods) a clearing-up work, which packing materials appear in the retail trade and how these are to be disposed correctly. In the next learning stations the pupils in the FabLab and BioLab of the science shop Potsdam e. V. produced their own insect lollies and packaging solutions according to bioeconomic principles. In a LEGO® Serious Play workshop, further ideas for general waste avoidance and recycling processes were developed. Finally, Freies Radio Potsdam (Free Radio Potsdam) recorded a radio programme in which the students reported on their project experiences and ideas.

www.direbio.de/media/ www.fairverpackt-babelsberg.de



Enthusiastic young guests in the laboratory working on sustainability issues