

## 9<sup>th</sup> International Workshop on Optimization for Logistics and Industrial Applications 2018

### 1<sup>st</sup> German-French Joint Research Workshop on Industrie 4.0 and Industrie du Futur

Fraunhofer IOSB, Karlsruhe, and the University of Technology of Troyes (UTT) are jointly organising the **International Workshop on Optimisation for Logistics and Industrial Applications IWOLIA 2018** on 3<sup>rd</sup> and 4<sup>th</sup> of May at Karlsruhe, Germany. This will be the first event of this kind, featuring solutions from both the German **Industrie 4.0** and the French **Industrie du Futur (IdF)** initiatives.

In Europe and world-wide, Industrie 4.0 and smart manufacturing are well-known concepts meaning optimized engineering and production and smart products by means of digitalization. However, since often many heterogeneous systems are working together, new challenges for handling these systems are coming up.

- How can we better connect factories and assets, even on an inter-factory level?
- How does connecting systems improve performance and improve energy efficiency?
- How can we protect digitalized production from cyber threats?
- How can we best integrate human workers in these new production environments?

#### Target Group

This joint **German/ French workshop** is open to all stakeholders (from academia, industry, small and medium sized enterprises, etc.) interested in the Factory of the Future (FoF), networked cyber-physical systems and smart factories. This is an opportunity to deepen **networking on regional and European scale** and to foster relationships between academia and industrial decision makers.

#### Program

General topic of the conference is The Factory of the Future as conceived by Industrie 4.0 and Industrie du Futur (IdF). The following topics will be covered during the sessions of the workshop:

- Industrie 4.0 vs. Industrie du Futur approaches
- robotics in production, especially human-robot collaboration
- energy efficiency in manufacturing
- camera-based applications in production, especially in quality control
- IT Security threats and how to counteract them; trustworthy plug-and-work
- Internet of Things (IoT) solutions in industrial production
- new materials in manufacturing
- Augmented Reality (AR) applications
- material handling (intra- /inter-factories)
- system and service architecture
- education and training
- role of humans in future production environments
- predictive maintenance

#### Are you involved with one of the topics mentioned and would like to present?

Please contact Katja Kornetzky: [katja.kornetzky@iosb.fraunhofer.de](mailto:katja.kornetzky@iosb.fraunhofer.de)

## Sessions

The topics will be organized into the following sessions:

- robotics and production
- human aspects in production
- industrial analytics
- Industrial Internet of Things (IIoT) infrastructure
- smart sensors
- cybersecurity

## Keynote Speakers

- **Prof. Dr.-Ing. Jürgen Beyerer**  
Managing director of Fraunhofer IOSB, Professor at the KIT department of computer science
  - Data science, ML and AI for autonomous systems and Industrie 4.0
- **Dr. Pierre Koch**  
President of the UTT
- **Jean-Daniel Weisz**  
KOHLENER Consulting & Coaching
  - Industry 4.0: differences and convergencies between France and Germany

Each keynote will be followed by a round-table discussion with the keynote speaker.

## Demonstration Showroom

Several German and French companies and research institutes will be present with a demonstrator concerned with the Factory of the Future and Industrie 4.0.

Selected topics:

- IT Security Lab for industrial production
- IIC Testbed Smart Factory Web
- Human-machine interaction
- Collaborative robots

**Are you interested to present your solution at this event?**

**Are you interested to sponsor this event?**

Please contact Katja Kornetzky: [katja.kornetzky@iosb.fraunhofer.de](mailto:katja.kornetzky@iosb.fraunhofer.de)

## Organizational Committee

- Conference chairs: Prof. Farouk Yalaoui (UTT) and Dr. Thomas Usländer (Fraunhofer IOSB)
- Organisational chairs: Dr. Taha Arbaoui (UTT) and Katja Kornetzky (Fraunhofer IOSB)
- Conference secretary: Mrs. Marion Hutzler (Fraunhofer IOSB)

Please register at <https://iwolia2018.sciencesconf.org/registration> . Registration is free of charge!