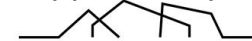# Unveiling Innovations in Industry 4.0 & Reasoning for Intelligence in Productions: Perspectives and Recent Research at IAT (RWTH Aachen/Germany) and SANKEN (Osaka University)

Address:
Osaka University, SANKEN, Main Hall (1st floor of Admin. Building) and CReA (2nd floor).
8-1 Mihogaoka, Ibaraki, Osaka. 567-0047 JAPAN

Date: March 6, 2024

09:00 - 09:15	Gathering (at Main Hall, 1st floor of Admin. Bldg.)		
09:15 - 09:30	Presentation of research fields (SANKEN)	-	**Prof. Takashi Washio**
09:30 - 09:55	Presentation of research fields (IAT)	-	**Prof. Dr.-Ing. Tobias Kleinert**
09:55 - 10:20	Introduction: KOBELCO Future Pioneering Co-Creation Research Center	-	**Dr. Nobuyuki Tomochika**
	-- Short break --		
10:30 - 11:10	Research introductions (SANKEN): - Multiplicity and stability of knowledge in data science - Robustness and transparency in machine learning - Extract causality from spatio-temporal point process data using Granger Causality	Speakers: - **Dr. Satoshi Hara** - **Dr. Matthew J. Holland** - **Nat Pavasant**	
11:10 - 11:50	Research introductions (IAT): - Automated Application of Semantic Matching - Metadata-based data provision and pre-processing - Identification of plant configurations	Speakers: - **Sebastian Heppner** - **Wan Li** - **Michael Winter**	
11:50 - 12:15	- **E-Poster Presentations**	-	**RWTH Aachen PHD-students**
	Free discussion (with coffee and snacks) at SANKEN CReA (2nd floor of Admin. Building) (12:15 - 13:30)		

Date: March 7, 2024

09:00 - 10:00	Debriefing and further steps to explore joint research projects

E-Poster Presentations by RWTH Aachen
1. A Python-to-Structured Text Compiler with IEC 61131-3 Compliance (**Yuanchen Zhao**)
2. Automatic simulation coupling with a data management platform (**Tamas Farkas**)
3. Data-based assessment and configuration for field devices of a process plants (**Ramy Hana**)
4. Dynamic component and module integration in process automation (**Shagufta**)
5. General discovery approach with general-purpose query language in the domain of semantic descriptors in industrial automation (**Igor Garmaev**)
6. Standard concept for the data collection of products throughout their life cycle (**Wei Guo**)